
**In The
Supreme Court of the United States**

STATE OF NEW JERSEY,
Plaintiff,

v.

STATE OF DELAWARE,
Defendant.

**Before the Special Master
the Hon. Ralph I. Lancaster, Jr.**

**APPENDIX OF THE STATE OF NEW JERSEY
ON MOTION FOR SUMMARY JUDGMENT**

**VOLUME 8
(Pages 1322a - 1527a)**

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Number 134, Original

**In The
SUPREME COURT of the UNITED STATES**

STATE OF NEW JERSEY,

Plaintiff,

v.

STATE OF DELAWARE,

Defendant.

AFFIDAVIT OF CRAIG A. REINER

State of New Jersey:

SS

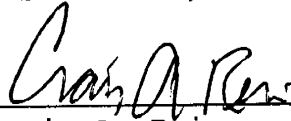
County of Mercer

Craig A. Reiner, being duly sworn, deposes and says:

1. I am Director of the Office of Emergency Telecommunications Services (OETS) for the State of New Jersey. I have held this post since the year 2000. Previously, I served as OETS Acting Director for two years. I have been employed by the State in emergency communications since 1990. I have been certified as an Emergency Number Professional by the National Emergency Number Association (NENA), have been employed as a New Jersey Certified Paramedic for twenty years with the responsibility of overseeing communications for a large Mobile Intensive Care Unit in South Jersey. I have acquired thirty-five years in the fire service, ten of which were in rank Captain and three as Deputy Fire Chief. I am also the Municipal 9-1-1 Coordinator for the Borough of Laurel Springs, Camden County.

2. As required by Section 3(b) of the Federal Wireless Communications and Safety Act of 1999, Pub.L. 106-81, § 3(b), Oct. 26, 1999, 113 Stat. 1287, codified at 47 U.S.C. § 615, I have been designated by the Governor as the Federal Communication Commission's (FCC) Point of Contact with the wireless industry for emergency communications issues.
3. The duties of my office are set forth in N.J.S.A. 52:17C-3. In particular, I and staff under my supervision plan, design, implement and coordinate the New Jersey Statewide emergency enhanced 9-1-1 telephone system and any changes to that system needed to provide wireless enhanced 9-1-1 service, in consultation with the telephone companies, the Board of Public Utilities and the wireless telephone companies, and with the assistance of the Office of Information Technology in but not of the Department of the Treasury, subject to review by the State's 9-1-1 Commission and the Chief Technology Officer:
4. The State Plan for Emergency 9-1-1 Systems, adopted in 1990, includes determining the configuration of and requirements for enhanced 9-1-1 service; determining the role and responsibilities of counties and municipalities in implementing the system; the technical and operations standards for the establishment of Public Safety Answering Points (PSAPs); and planning, implementing and coordinating a statewide public education plan for enhanced 9-1-1 services.
5. Pursuant to New Jersey's Current State 9-1-1 Plan, each county in New Jersey has filed a County 9-1-1 Plan.
6. I am familiar with the policies and practices associated with routing and handling of 9-1-1 calls for emergency assistance under the current Statewide Plan for Emergency 9-1-1 Systems.
7. Any 9-1-1 telephone call for emergency assistance that is placed from a land-based telephone located within any New Jersey County (including a portable telephone) is routed to the PSAP for that municipality in which the call was placed.

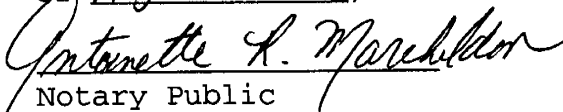
8. The call taker at the PSAP listens to the call, determines the location and nature of the emergency, and dispatches the appropriate service provider to assist the caller or victim, or, transfers the caller to the appropriate agency for dispatch.
9. Emergency 9-1-1 calls made on a cell phone located within or near the State of New Jersey that are received by cell towers located within New Jersey are routed to the appropriate New Jersey PSAP (Public Safety Answering Point). In general, each PSAP captures 9-1-1 cell calls within reach of a specific group of cell towers. The PSAP captures all 9-1-1 calls in that area, without regard to the cell network service provider.
10. The Salem County Emergency Response Center is the designated PSAP for an area which includes cell towers located in and near Oldman's Township, Penns Grove Borough, Carney's Point Township, Pennsville Township and Elsinboro Township, all in Salem County.
11. The Gloucester County Emergency Response Center is the designated PSAP for an area which includes cell towers located in and near Logan Township.
12. 9-1-1 calls placed from docks or piers along New Jersey's waterfronts are subject to the protocols described in Paragraphs 7 and 9, above.



Craig A. Reiner
Director, Office of Emergency
Telecommunications Services
Office of Information Technology
PO BOX 212
Trenton, New Jersey 08625
(609) 777-3698

ANTHONY R. MARCHILDON
NOTARY PUBLIC OF NEW JERSEY
Commission Expires 10/20/2008

Subscribed and sworn to
before me this 29th day
of AUGUST, 2006



Notary Public
State of New Jersey

My Commission Expires on 10/20/08 date.

Number 134, Original

In The
SUPREME COURT of the UNITED STATES

STATE OF NEW JERSEY,

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v.

STATE OF DELAWARE,

Defendant.

AFFIDAVIT OF CARL W. WENTZELL

State of New Jersey:

SS

County of Salem

Carl W. Wentzell, being duly sworn, deposes and says:

1. I am the Emergency Management Coordinator for Salem County, New Jersey. I have held this position since July 1986. Prior to that time I was employed by Mobil Oil Company as a security supervisor.
2. I and my thirty (30) staff members, including computer and communications specialists, coordinate the plans and operations of the various components of Salem County's emergency operations plan: first responders (police, fire, public health and emergency medical service) as well as public works, public information, emergency warning system, the Community Emergency Response Team and other groups who assist the first responders during emergencies.

3. I and personnel under my supervision respond to emergencies, support community events, investigate complaints and provide technical assistance and support to citizens and agencies. We host C.P.R., Basic First Aid, and Response to Terrorism and Incident Management classes for public workers and community volunteers.
4. Each county in New Jersey has an Emergency Management Program headed by a Coordinator. All County emergency management coordinators are supervised by the State Director of the Office of Emergency Management (OEM). Since 1980, the OEM has been located in the Division of State Police, Department of Law and Public Safety.
5. As County Coordinator, I am familiar with the policies and practices associated with routing and handling calls for emergency assistance.
6. Any 9-1-1 telephone call for emergency assistance that is placed from a land-based telephone located within Salem County (including a portable telephone) is routed to the Salem County 9-1-1 Center, which operates under my supervision.
7. The 9-1-1 Center listens to the call, determines the nature of the emergency, and dispatches the appropriate in-county service provider to assist the caller or victim. For example, fire department personnel are dispatched for fires, an ambulance for medical emergencies, etc.
8. It is our standard procedure to dispatch emergency service providers located in the township in which the emergency is located. If that service provider is occupied with another emergency when the call is received, it is our procedure to dispatch the nearest in-county emergency service provider capable of responding to the emergency.
9. Emergency 9-1-1 calls made on a cell phone located within the State of New Jersey are routed to the nearest PSAP (Public Safety Answering Point). In general, each PSAP captures 9-1-1 cell calls within reach of a specific group of cell towers. The PSAP captures all 9-1-1 calls in that area, without regard to the cell network service provider.

10. The Salem County 9-1-1 Center, which operates under my supervision, is the designated PSAP for an area which includes cell towers located in and near Oldman's Township, Penns Grove Borough, Carney's Point Township, Pennsville Township and Elsinboro Township, all in Salem County.
11. For purposes of assigning an emergency response provider, the Salem County 9-1-1 Center treats emergencies on a dock or pier adjoining property in Salem County no differently than emergencies in a building: the Center dispatches the emergency service provider located in the same town as the emergency.
12. Oldman's Township, Penns Grove Borough, Carney's Point Township, Pennsville Township and Elsinboro Township all front along a portion of the Delaware River within an area called the "Twelve-Mile Circle." I am aware that the State of Delaware is claiming that it, and not New Jersey, has regulatory authority over and emergency response obligations concerning any dock or pier that extends beyond the mean low water line on the New Jersey side of the Delaware River in these Salem County towns.
13. For purposes of responding to emergencies on a dock or pier in Salem County, it is the policy and procedure of the Salem County 9-1-1 Center to notify and dispatch emergency service providers from the Salem County municipality which has direct, land access to the dock or pier. For example, the Carney's Point Fire Department would be dispatched to a fire on a dock or pier adjoining land in Carney's Point.
14. Oldman's Township, Penns Grove Borough, Carney's Point Township, Pennsville Township and Elsinboro Township all have their own fire departments and emergency medical service providers.
15. Penns Grove Borough, Carney's Point Township, Pennsville Township and Lower Alloways Creek Township all have their own police departments, and Lower Alloways Creek serves Elsinboro Township. Oldman's Township is policed by the New Jersey State Police.

Carl W. Wentzell

Carl W. Wentzell
Coordinator, Salem County
Emergency Management
135 Cemetery Road
Woodstown, New Jersey 08098
(856) 769-2900

Subscribed and sworn to
before me this 30~~th~~ day
of August, 2006

Marianna D. Bacon
(name)

Notary Public
State of New Jersey
My Commission Expires on _____ date.

MARIANNA D. BACON
Notary Public of New Jersey
My Commission Expires November 4, 2006
ID# 2195288

Number 134, Original

In The
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STATE OF NEW JERSEY,

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v.

STATE OF DELAWARE,

Defendant.

AFFIDAVIT OF J. THOMAS BUTTS

State of New Jersey:

SS

County of Gloucester

J. Thomas Butts, being duly sworn, deposes and says:

1. I am Emergency Response Coordinator for Gloucester County, New Jersey. I have held this position since May, 1998. Prior to that time I was employed by West Deptford Township Police Department for 27 years; serving as Chief of Police for my last six years. During those twenty-seven years, attended numerous training courses. I have a Bachelor's Degree in Criminal Justice from Glassboro State College. I also graduated from the 148th session, FBI National Academy in Quantico.
2. I and my 140 staff members, including computer and communications specialists, coordinate the plans and operations of the various components of Gloucester County's emergency operations plan: first responders (police, fire, public health and emergency medical service) as well as public works, public information, emergency warning system, the Community Emergency

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AFFIDAVIT OF J. THOMAS BUTTS

State of New Jersey:

SS

County of Gloucester

J. Thomas Butts, being duly sworn, deposes and says:

1. I am Emergency Response Coordinator for Gloucester County, New Jersey. I have held this position since May, 1998. Prior to that time I was employed by West Deptford Township Police Department for 27 years; serving as Chief of Police for my last six years. During those twenty-seven years, attended numerous training courses. I have a Bachelor's Degree in Criminal Justice from Glassboro State College. I also graduated from the 148th session, FBI National Academy in Quantico.
2. I and my 140 staff members, including computer and communications specialists, coordinate the plans and operations of the various components of Gloucester County's emergency operations plan: first responders (police, fire, public health and emergency medical service) as well as public works, public information, emergency warning system, the Community Emergency

Response Team and other groups who assist the first responders during emergencies.

3. I, and personnel under my supervision, respond to emergencies, support community events, investigate complaints and provide technical assistance and support to citizens and agencies. We host C.P.R., Basic First Aid, and Response to Terrorism and Incident Management classes for public workers and community volunteers.
4. Each county in New Jersey has an Emergency Management Program headed by a Coordinator. All County Emergency Management Coordinators are supervised by the State Director of the Office of Emergency Management (OEM). Since 1980, the OEM has been located in the Division of State Police, Department of Law and Public Safety.
5. As County Coordinator, I am familiar with the policies and practices associated with routing and handling calls for emergency assistance.
6. Any 9-1-1 telephone call for emergency assistance that is placed from a land-based telephone located within Gloucester County (including a portable telephone) is routed to the Gloucester County Emergency Response Center, which operates under my supervision.
7. The Emergency Response Center listens to the call, determines the nature of the emergency, and dispatches the appropriate in-county service provider to assist the caller or victim. For example, fire department personnel are dispatched for fires, an ambulance for medical emergencies, etc.
8. It is our standard procedure to dispatch emergency service providers located in the township in which the emergency is located. If that service provider is occupied with another emergency when the call is received, it is our procedure to dispatch the nearest in-county emergency service provider capable of responding to the emergency.
9. Emergency 9-1-1 calls made on a cell phone located within the State of New Jersey are routed to the nearest PSAP (Public Safety Answering Point). In general, each PSAP captures 9-1-1 cell calls within

reach of a specific group of cell towers. The PSAP captures all 9-1-1 calls in that area, without regard to the cell network service provider.

10. The Gloucester County Emergency Response Center, which operates under my supervision, is the designated PSAP for an area which includes cell towers located in and near Logan Township.
11. For purposes of assigning an emergency response provider, the Gloucester County Emergency Response Center treats emergencies on a dock or pier adjoining property in Gloucester County no differently than emergencies in a building: the Center dispatches the emergency service provider located in the same township as the emergency.
12. I am aware that the portions of Logan Township front along a portion of the Delaware River identified as the "Twelve-Mile Circle" and that the State of Delaware is claiming that it, and not New Jersey, has regulatory authority over and emergency response obligations concerning any dock or pier that extends beyond the mean low water line on the New Jersey side of the Delaware River within the Twelve Mile Circle.
13. For purposes of responding to emergencies on a dock or pier in Gloucester County, it is the policy and procedure of the Gloucester County Emergency Response Center to notify and dispatch emergency service providers from the municipality which has direct, land access to the dock or pier. For example, the Logan Township Fire Department would be dispatched to a fire on a dock or pier adjoining land in Logan Township.
14. Gloucester County Police Departments, fire departments and EMS squads have had occasions to respond to a dock or pier within Gloucester County. To name a few, in my former capacity as a Police Officer in West Deptford Twp, I had the occasion to go to the Texaco Wharf (currently Sunoco) to assist Immigrations and Naturalization agents and, at various times, to assist in criminal investigations and EMS emergencies. There are many instances where local Emergency Medicals Services (EMS) are called for medical emergencies on and off ships. Logan Twp PD

and EMS were called to respond to an industrial death on a drilling rig off the Ferro Wharf.

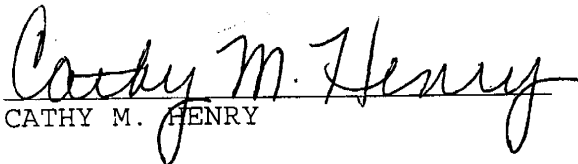
15. There have been a number of on-board fires. Most recently two fires at Coastal (now Sunoco); one a galley fire and one an engine room fire that required a multi-alarm response from Gloucester County Fire Departments.

16. Greenwich Township Police has an agreement with Valero to provide armed security for ships coming into their port as needed. In the past they've been called upon to guard a ship whose crew has been quarantined and/or the ship hails from a home port which causes concern from a security stand point. The Captain of the Port (Philadelphia Coast Guard) would order security measures and the Greenwich Police Department would be paid directly by the ship's agent.



J. Thomas Butts
Coordinator, Gloucester County
Emergency Response
1200 N. Delsea Drive
Clayton, New Jersey 08312
(856) 307-7130

Subscribed and sworn to
before me this 5th day
of September, 2006



CATHY M. HENRY

Notary Public
State of New Jersey

My Commission Expires on

4/29/2008

Number 134, Original

**In The
SUPREME COURT of the UNITED STATES**

STATE OF NEW JERSEY,

Plaintiff,

v.

STATE OF DELAWARE,

Defendant.

DECLARATION OF BETH S. REDDY

I, Beth S. Reddy, declare that the following facts are true to the best of my knowledge, information and belief:

1. I am the Section Chief of the Engineering Review Section within the New Jersey Department of Environmental Protection's (NJDEP) Bureau of Release Prevention. I have held this position for fifteen years. Prior to that time I was employed for five years by the NJDEP Division of Environmental Quality as an Environmental Specialist. I obtained my Public Manager Certification through Rutgers University and DEP in 1991, and in 2002 I became a Certified Hazardous Materials Manager by the Academy of Certified Hazardous Material Managers and the Institute of Hazardous Materials Management.
2. In 1991, the New Jersey legislature enacted a number of amendments to the New Jersey Spill Compensation and Control Act, N.J.S.A. 58:10-23.11 et seq. The stated goal for these amendments was to reduce the possibility of discharges of hazardous substances to the environment and minimize the consequences if they did occur. N.J.S.A. 58:10-23.11a.

3. Pursuant to the Act, NJDEP adopted rules providing standards for discharge prevention by facilities and establishing requirements for emergency response to releases of hazardous substances, N.J.A.C. 7:1E et seq. The rules require all major facilities in New Jersey to prepare and submit Discharge Prevention, Containment and Countermeasure (DPCC) and Discharge Cleanup and Removal (DCR) plans to NJDEP for approval. A "major facility" is defined as a facility with a total storage capacity of 20,000 gallons or more of hazardous substances other than petroleum products (as listed in Appendix A of N.J.A.C. 7:1E); 200,000 gallons or more of all hazardous substances including petroleum products; or an equivalent measure for substances not commonly measured by volume.
4. The purpose of a Discharge Prevention, Containment and Countermeasure (DPCC) plan is to prevent discharges from occurring, and if they do occur, to reduce any effects on the environment. NJDEP requires the following information in DPCC plans: general information about the facility, a site plan of the facility, a drainage and land use map and a topographical map as well as information on storage areas, loading/ unloading areas, process areas, secondary containment systems, marine transfer areas, flood hazard areas, leak detection procedures, housekeeping and maintenance, personnel training, physical security measures, standard operating procedures, record keeping, and a schedule for upgrades.
5. The Discharge Cleanup and Removal (DCR) plan describes what the facility will do if a discharge does occur despite precautions. The DCR plan must therefore contain information on the facility's response coordinator, chain of command for an emergency response action, notification procedures, provisions for annual emergency response drills, a list of available equipment and personnel, a deployment plan for personnel and equipment that includes on-site and off-site response measures, procedures for determining recycling or disposal options, an agreement with the local emergency planning committee, and proof of financial responsibility.

6. Both DPCC and DCR plans must be renewed at least once every three (3) years by submitting them to NJDEP for approval.
7. I am aware that the portions of Logan Township, Oldman's Township, Penns Grove Borough, Carney's Point Township, Pennsville Township and Elsinboro Township all front along a portion of the Delaware River within an area called the "Twelve-Mile Circle." I am aware that the State of Delaware is claiming that it, and not New Jersey, has regulatory authority over and emergency response obligations concerning any improvements that extend from the New Jersey shoreline and terminate beyond the mean low water line on the New Jersey side of the Delaware River within the Twelve Mile Circle.
8. I have reviewed the records of the Bureau of Release Prevention and found that three (3) facilities with property on the New Jersey shoreline within the Twelve-Mile Circle that store hazardous substance(s) in high quantities and, therefore, have filed DPCC/DCR plans with NJDEP: E.I. DuPont de Nemours & Co., Inc. Chambers Works in Deepwater, New Jersey (DuPont), Logan Generating Company, L.P., which runs the Logan Generating Plant in Logan Township, Gloucester County, New Jersey (Logan), and Conectiv, which runs the Deepwater Generating Station in Pennsville, New Jersey (Conectiv).
9. None of these major facilities' DPCC/DCR plans identify any person or organization within the State of Delaware as an emergency responder in the event of a discharge.

DuPont's DCR Plan

10. DuPont's DCR plan encompasses property that includes a marine terminal that extends from the shoreline at its property in Deepwater beyond the mean low water line on the New Jersey side of the Delaware River within the Twelve Mile Circle.
11. The "Community Emergency Communication Procedure" in DuPont's DCR plan requires that DuPont contact the Salem County New Jersey Office of Emergency Management by telephone if a fire, fume release or spill poses a

significant impact on the local community. Further, should a fire, spill, fume or gas release pose a potentially significant impact upon the Delaware Memorial Bridge, DuPont must notify the Delaware River and Bay Authority. DuPont's Community Emergency Communication Procedure does not provide for notification to the State of Delaware, or to any Delaware counties or municipalities.

12. The "Environmental Notification Procedure" in DuPont's DCR plan requires that DuPont telephone the New Jersey NJDEP Hotline within 15 minutes of the discovery of a release of chemicals above reportable quantities under the Federal CERCLA or Federal EHS, as well as the release of a New Jersey hazardous substance without a reportable quantity, that cannot be cleaned up within 24 hours or that enters a body of water. Failure to meet this timeframe could result in fines being imposed by NJDEP. DuPont must also make follow up calls to NJDEP to provide additional information in an ongoing situation, and a final call when the incident is over.
13. In the case of any air or fume release, DuPont's DCR plan requires DuPont to call NJDEP and the Salem County New Jersey Office of Emergency Management within fifteen minutes of discovery of the release. In addition, if the amount of release is above the Superfund Reportable Quantity, DuPont's DCR plan also requires DuPont to contact the National Response Center and Delaware Natural Resource Environmental Control during its weekday and weekend hours of 7:30 AM to 4:30 PM.
14. In the case of any spill in the Delaware River of a chemical listed on the New Jersey hazardous substance list, DuPont's DCR plan requires DuPont to notify NJDEP and the Salem County New Jersey Office of Emergency Management within fifteen minutes of discovery of the release. If the amount of the spill is above the Superfund Reportable Quantity or the material is a petroleum product that will leave a sheen on the Delaware River, however, DuPont is also required to contact the National Response Center Hotline and Delaware Natural Resource Environmental Control during its weekday and weekend hours of 7:30 AM to 4:30 PM.

15. For other releases or spills where either the chemical is unknown but believed to be on the reportable list or unknown but believed not to be on the reportable and in an amount of greater than 5,000 pounds, DuPont's DCR plan requires that DuPont notify NJDEP and the Salem County New Jersey Office of Emergency Management within fifteen minutes of discovery of the release.

Logan's DCR Plan

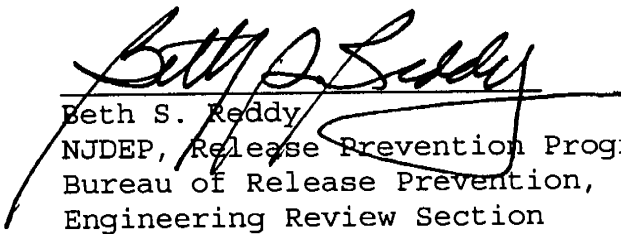
16. Logan's DCR plan encompasses property that includes a barge unloading pier that extends from the shoreline at its property in Logan Township beyond the mean low water line on the New Jersey side of the Delaware River within the Twelve Mile Circle.
17. Logan's DCR plan requires Logan to contact and provide information about a chemical release or spill to local emergency response personnel and NJDEP within 15 minutes of its discovery. If NJDEP's Hotline number is inoperable, Logan is required to notify the New Jersey State Police. Then, within thirty (30) days of the incident, Logan is required to submit a written report to NJDEP that details, among other things, the name and amount of the chemical released, location of discharge, and clean up measures.
18. Logan is also required to report malfunctions in its discharge detection systems to NJDEP within fifteen (15) minutes after the time that the malfunction was discovered or should have been discovered. Then, within two (2) hours of the initial report, Logan must provide NJDEP with a follow-up report indicating that the malfunction has been repaired, an alternate system has been activated, or the equipment protected by the malfunctioning detection equipment has been taken out of service.
19. Logan's DPCC/DCR plans do not require notification to the State of Delaware or to any of its counties or municipalities. If Logan releases oil that reaches a water course or it releases a hazardous substance, Logan's DCR plan requires it to report the incident to both NJDEP and the Federal National Response Center.

Conectiv's DCR Plan

20. Conectiv's DCR plan encompasses property that includes an approximately 550 foot long water intake and discharge structure that extends from its property in Pennsville, New Jersey beyond the mean low water line on the New Jersey side of the Delaware River within the Twelve Mile Circle.
21. Conectiv's DCR plan requires that it contact and provide information about a chemical release or spill to NJDEP within 15 minutes of its discovery. If NJDEP's Hotline number is inoperable, Conectiv is required to notify the New Jersey State Police. In some circumstances, Conectiv must notify the National Response Center of a release or spill. Conectiv's DCR plan does not require any notification to the State of Delaware or to any of its counties or municipalities.

I declare under penalty of perjury of the laws of the United States that the foregoing facts are true and correct.

Executed on: 10/02/2006


Beth S. Reddy
NJDEP, Release Prevention Programs
Bureau of Release Prevention,
Engineering Review Section
Station Plaza 4
22 S. Clinton Ave. - 3rd Fl.
Trenton, New Jersey 08625
(609) 292-1690



STATE OF NEW JERSEY
DEPARTMENT OF LAW AND PUBLIC SAFETY
OFFICE OF THE ATTORNEY GENERAL
LEGAL AFFAIRS

ROBERT J. DEL TUFO
ATTORNEY GENERAL

FREDERICK P. DE VESA
FIRST ASSISTANT ATTORNEY GENERAL


ALEXANDER P. WAUGH, JR.
COUNSEL TO THE ATTORNEY GENERAL
LEGAL AFFAIRS DIRECTOR
ASSISTANT ATTORNEY GENERAL

M E M O R A N D U M

TO: Colonel Justin J. Dintino
Superintendent of State Police

Steven J. Madonna
State Environmental Prosecutor

THRU: Alexander P. Waugh, Jr.
Counsel To The Attorney General
Legal Affairs Director

FROM: Philip H. Hopkins, Jr. 
Deputy Attorney General
Legal Affairs

DATE: April 30, 1993

SUBJECT: Jurisdiction on the Delaware River Between New Jersey
and Delaware

Assistant State Environmental Prosecutor O'Reilly requested an opinion for the benefit of the Marine Police on the jurisdiction of New Jersey on the waters of the Delaware River within the twelve-mile circle around New Castle, Delaware.

Based upon a review of the statutes and case law, it is my opinion that the Marine Police may enforce the criminal laws of the State of New Jersey on the Delaware River east of the main channel, but not laws providing only a penalty for violation.

The above conclusion is based on N.J.S.A. 52:28-36, which give New Jersey and Delaware concurrent jurisdiction, notwithstanding that the boundary line is the low water mark on the New Jersey side of the river.

If you have any questions, please let me know.

PH
c Asst. Pros. O'Reilly

1340a

NJ04636

STATE OF DELAWARE
OFFICE OF THE ATTORNEY GENERAL
WILMINGTON, DELAWARE

MAY
31st
1955

Mr. Hugh R. Sharp, Chairman
State Highway Department
Dover, Delaware

Dear Sir:

Your letter of May 5 has been received in which you advise that the State Highway Department has entered into a contract with Tidewater Associated Oil Company for the sale to Tidewater of certain submerged lands in the Delaware River bordering on the tract of land recently acquired by Tidewater. You have requested our opinion as to whether the Highway Department has authority to sell submerged lands in the Delaware River and to deliver a good deed for the same. It is our opinion you do not have such authority.

It is assumed that title to the submerged land below the high-water mark of the Delaware River is in the State of Delaware and that in some instances the State might have the right to sell and convey such submerged lands. The narrow question presented is whether the legislature has granted the power to the State Highway Department to sell and convey title to such submerged lands.

The rights and duties of the State Highway Department with regard to public lands are found in Title 7, Del. C. of 1953, Chapter 45. Section 4508 provides as follows:

"The State Highway Department may supervise the sale of any material, product or thing which grows or may be grown upon any public lands; divide the public lands into tracts of fifty acres, or less; and sell such tracts, or any part thereof, as deemed advisable to sell."

MAY
31st
1955

Mr. Hugh R. Sharp, Chairman
State Highway Department

The power to sell is given the Highway Department by the phrase:

"divide the public lands into tracts of fifty acres, or less; and sell such tracts, or any part thereof, as deemed advisable to sell."

What is the meaning to be given to the words "the public lands" as used in Section 4508, Chapter 45?

The phrase "public lands" was first used in Chapter 5, 27 Del. L., app. April 2, 1913, which created a Public Lands Commission. Said Act read in part as follows:

"WHEREAS there is a great amount of public land within the State of Delaware the boundaries of which have not been ascertained, and

WHEREAS it is impossible for the State under present conditions to dispose of said lands when an opportunity shall offer, and

WHEREAS there is at present no supervision of said public lands, therefore,

* * * * *

Section 1. That Dr. Hiram R. Burton, Richard R. Kenney, Harry J. Anderson and Edward G. Walls be and they are hereby created and constituted a Commission to ascertain the location of the public lands of the State of Delaware and to have the same surveyed and plotted and to have general supervision over said public lands. Said Commission shall, after having the said lands plotted, have said plots recorded in the office of the Recorder of Deeds in the County in which any such land may lie.

Section 4. Said Commission shall have authority by and with the approval of the Governor to divide said lands into tracts of fifty acres or less, and such Commissioners together with the Governor are hereby authorized and empowered to execute and deliver good and sufficient Deed for any part of said public lands, being fifty acres or less, in extent whenever said Commission and Governor shall deem it advisable to sell such tract or any part of any such

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Mr. Hugh R. Sharp, Chairman
State Highway Department

fifty acre tract. The said Commission is authorized, if they shall deem it expedient, to require the expenditure of a certain amount of money upon any such tract of land by any person or persons purchasing or of placing on such sale any other conditions which they may deem advisable for the public good.

Section 5. The said Commission is hereby authorized and directed to care for the public land of the State of Delaware and supervise the sale of any material product such as hay, which may be grown or may grow upon any such land, and make return of their proceeds, showing the amount of receipts and expenditures to the next General Assembly of the State of Delaware.

Section 6. The said Commission is hereby authorized to survey and lay off such public highways through any such lands as they may deem advisable and for the public good.

The construction to be given of the words "public lands" in 27 Del. L. must be ascertained from the entire Act. Considering the directions to the Commission to locate the public lands; to have them surveyed and plotted; to record the plots in the Recorder of Deeds office; to divide the "said lands" into tracts of fifty acres or less with authority to sell such tracts "or any part of such fifty acre tract", to require the expenditures of monies upon any tract sold; to care for the public lands; to supervise the sale of any material product such as hay, which may be grown or may grow upon such land; and to survey and lay off public highways "through any such lands", it is our opinion the proper construction of the Act requires that only firm land usually sold by acreage was included in the definition of public lands and the legislature did not intend to include submerged lands particularly those beneath a body of water as the Delaware River.

The authorities appear to confirm this construction of the statute. Farnham, on Waters and Water Rights, Vol. I, Section 45, 45A is to the effect that a power to sell or a grant of submerged lands must be given in clear and specific language.

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1955

Mr. Hugh R. Sharp, Chairman
State Highway Department

In the case of Money et al., v. Wood, 118 So. 357, Miss. (1928) the Court construed the statute giving the Land Commissioner authority to sell "land" owned by the State as not including lands lying under the waters of the Mississippi Sound. In its opinion the Court said:

"We think that the word 'land' used in the statute means lands as distinguished from water. One of the definitions given by Webster is the 'solid part of the surface of the earth as distinguished from water, constituting a part of such surface, especially from oceans and seas'."

The Court cited the earlier case of Huber v. Freret where the Court was called upon to construe the phrase "public lands" as to whether it was broad enough to cover urban business property. The Court there held it was not and in its opinion said:

"...we are of opinion that it was not the purpose of the legislature to deal with urban business property surveyed and divided into blocks and lots; that it was the purpose of the legislature to deal alone with those public lands which are usually bought and sold by acreage, in other words, property commonly known as rural lands, lands valuable for their timber or pasturage or for agriculture. It is true in order to so hold we must go beyond the strict letter of the statute. But that is justified in a proper case and we think this is a case of that character." This case is cited in 65 C.J.S., Page 218, Sec. 99(2).

In the case of Northern Pac. Ry. Co. v. Hirzel, et al., 161 Pac. 854, Idaho (1916) at Page 859 the Court said:

"Some question is raised as to whether the beds of the navigable streams of the State come within the terms 'public lands' or 'public domain'. These terms are used in the United States Statutes and decisions to designate such lands as are subject to sale or other disposal under the general laws of the United States or States, and are not held back or reserved for any special or governmental purpose..."

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1955

Mr. Hugh R. Sharp, Chairman
State Highway Department

"Public Lands", such as are referred to in Article 9 of the State Constitution and which are subject to disposal by the State Land Board under the laws enacted or to be enacted by the legislature, do not include the beds of navigable waters or lands thereunder below high-water mark."

In DeMeritt v. Robison Land Commissioner, 102 Tex., 358, 116 S. W. 796 (1909) the statute permitted the sale of "public lands". The Court put this question "does this land come within the terms 'public land' as used in Article 3498(a), copied above, and is it subject to purchase, under Article 3498(j)?" p. 797. The Court then said:

"There is nothing in Articles 3498(a) and 3498(j) which indicates that the Legislature used the words 'public lands' in a sense other than that which the law attaches to them. It follows that the relator had no right to purchase, nor had the Commissioner power to sell the soil lying below the line of ordinary high tide. In contemplation of law, it was not land, but water." Page 797.

There are other similar authorities which could be cited to show the approach and conclusions reached by various Courts to this construction problem.

By Act of April 18, 1929, being Chapter 2, 36 Del. L., supervision and control over Public Lands was transferred to the State Highway Department. While Section 1 of Chapter 2 limited the transfer of supervision and control to "Public Lands of the State of Delaware, as ascertained in regard to location, surveyed and plotted under the supervision and direction of the Public Lands Commission," yet Section 2 appears to have given the State Highway Department essentially the same authority to survey unsurveyed Public Lands as was given the original Public Lands Commission under Section 4 of the 1913 Act.

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Mr. Hugh R. Sharp, Chairman
State Highway Department

The Act of 1929 was in substance similar to the 1913 Act and did not contain any language which could be considered as specifically broadening the definition of "Public Lands" as derived from the 1913 Act.

The various Acts were included in the Revised Code of 1935 in Article 3, Chapter 166.

The next amendment was by Act of April 9, 1945, Chapter 272, 45 Del. L., which empowered the State Highway Department, together with the Governor

"to execute and deliver, in proper form, a lease of any part of the public lands of the State of Delaware, which public lands are under the supervision and control of the State Highway Department by virtue of the provisions of Article 3 of this Chapter." 5746A, Sec. 27A.

It is our opinion that the above language did not expand or enlarge the previous definition of "Public Lands" so as to include submerged lands under the Delaware River. The amendment by its very terms merely gave the State Highway Department the right to lease those public lands which were under its control by virtue of previous Acts.

The only paragraph which has offered any difficulty is the third paragraph in the 1945 Amendment. The first clause of this paragraph reads as follows:

"Nothing in this Act contained shall be construed as authorizing or empowering the Department to lease any land which is used as an oyster plantation, oyster bed, or oyster bottom."

Just what the Legislature had in mind by the above clause is difficult to say. It does not necessarily follow from the limitation of the power to lease as to any land which is used as an oyster plantation, bed or bottom, that the State Highway Department theretofore had been given by clear and specific language supervision of submerged lands in the Delaware River as "Public Lands" within the meaning of the prior Acts.

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1955

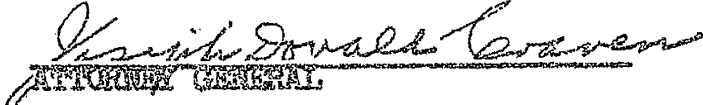
Mr. Hugh R. Sharp, Chairman
State Highway Department

The incongruity in denying the right to lease any land used as an oyster plantation, bed or bottom yet leave the right to sell the same lands is apparent.

Further, paragraph two in suggesting the right to authorize telegraph and telephone lines, building parks, power stations, gasoline plants, ponds and roadways on lands demised, together with paragraph four which authorizes the department to expend money for the "protection, improvement or restoration of lands demised or of lands adjacent to any public lands demised", indicates that something other than submerged lands in the Delaware River was intended.

We do not by this opinion pass upon the question as to when the State may be restricted as to selling or leasing lands which may affect navigation or the rights of the public.

Yours very truly


ATTORNEY GENERAL

HLC.kth

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Volume Page

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BURT POTTER & ANDERSON

ATTORNEYS AT LAW

WILMINGTON, DELAWARE, U.S.A.

September 26, 1966

Re: Atlantic Cable Crossing the Delaware River

Mr. William B. Ryan,
Atlantic Cable Corporation,
Delaware Water and Air Resources Control Board,
River, Delaware.

Dear Mr. Ryan:

We represent the American Telephone and Telegraph Company, a public utility (hereinafter referred to as AT&T), which stock has not been in the very recent past formally apply to the U.S. Federal Communications Commission to build a 1,400 foot submarine cable across the Delaware River from a point south of Philadelphia in Delaware to New Jersey by the city of Newark, New Jersey. The cable, crossing the Delaware River at this location, will be an integral part of a submarine cable system between Massachusetts and Southern Florida. The cable route will by pass hurricanes and major weather areas and will provide communication wire and amplifier stations will be buried and constructed completely underground. The purpose of the new cable route is to insure continuity of communications in the event of natural or man-made disasters and is designed to withstand hurricanes, cyclones, tsunamis and nuclear attack - short of direct hit. When completed, the cable will provide excellent telephone service, private line service, teletype and exchange service and government communications having a capacity of about 10,000 voice channels. The laying of these cables is a matter of some urgency in the interest of the continuity of national telecommunications and the national defense.

September 25, 1966

The Board of Governors of the Delaware River Port Authority was informed by letter that it should have some form of approval from the State of Delaware before it could issue any bonds for the Delaware River Port Authority. The State has already given the Port Authority the right to issue bonds and the State has also given the Port Authority the right to issue bonds for the Delaware River Port Authority.

The Board of Governors of the Delaware River Port Authority is advised that the State of Delaware has given the Port Authority the right to issue bonds for the Delaware River Port Authority. The State has also given the Port Authority the right to issue bonds for the Delaware River Port Authority.

The Attorney General of Delaware in two opinions, one dated August 20, 1962 and the other dated December 18, 1964, given to Honorable Morris J. Thelen, then Chairman of the Governor's Commission on Submerged Lands, contains our opinion. In the August 20, 1962 opinion it is stated that Delaware River Port Authority bonds are public utility bonds and that the Delaware River Port Authority had been granted a franchise to locate its pipes upon, over or under or across any land, water, stream, river, etc., of this State. The Attorney General further stated that Title 7, Del. Code, § 422 (City and County Code § 623) did not apply to public utility bonds because it would violate the Federal Constitution by impairing or violating granted legislative franchise to public utility.

The Attorney General's Opinion of December 18, 1964 also confirmed this and ruled that Title 7, Del. Code, § 422

but Title 7, section 7-219(b) did not apply to the franchising of telephone company who desire to lay out franchises under the Chesapeake Bay.

Application to the telephone company is excluded, however, from the jurisdiction of the Submarine Lands Commission in accordance with the Attorney General's Opinion of August 10, 1966 written by Deputy Attorney General Keith M. McDevitt in connection with application by the Delaware Power & Light Company to place cables in the water under the Delaware Bay. The provisions of the Submarine Lands Commission Act of 1961 do not apply to such cables and the Attorney General's Opinion of August 10, 1966 is a precedent for the Delaware Power & Light Company and is a precedent for the Chesapeake Bay. The provisions of the Submarine Lands Commission Act of 1961 are not applicable to cables under the Delaware Bay. The provisions of the Submarine Lands Commission Act of 1961 are not applicable to cables under the Delaware Bay. The provisions of the Submarine Lands Commission Act of 1961 are not applicable to cables under the Delaware Bay.

For your information and files, I am enclosing copies of both of the Attorney General's opinions referenced above.

Also, as you are aware, the jurisdiction created by Title 7, Del. Code, section 7-219(b) is a special jurisdiction, limited to a 10-year period. This chapter shall not change the law of this State with respect to extending property, jurisdiction of other rights of this State or other persons in submerged, tide lands or filled lands. Therefore, the last-mentioned franchise given to public utility for laying submarine cables in tide or submerged lands of this State, as explained in the foregoing Attorney General's opinion, is not affected by anything contained in Title 7, Del. Code, section 7-219(b).

Mr. [Name]

Dear Sir:

I have the pleasure to inform you that your application for membership in the [Organization] has been approved. You are hereby invited to attend the initiation ceremony on [Date] at [Location]. Please bring with you [Requirements].

James H. [Name]

Very truly yours,
[Name]
[Title]
[Address]

0001 0050

1352a



~~CONFIDENTIAL~~

APR 19 1967

Dear Mr. Karand:

Thank you very much for the recommendation of the Water and Air Resources Commission about the application of the American Telephone and Telegraph Company (AT&T) for the Delaware River in Delaware in your territory be approved.

After having given due consideration to the nature of the application, and the recommendation of the Water and Air Resources Commission, I am pleased to give my approval to the application subject to the conditions mentioned in your letter of April 12, 1967.

Accordingly, you should prepare the necessary steps regarding the above conditions for my subsequent signature and approval.

Very truly yours,
Charles L. Terry
Governor

Mr. John M. Karand, Acting Director
Water Resources Division
Water and Air Resources Commission
Dover, Delaware

NEW CASTLE COUNTY
DELAWARE

LATITUDE
NEW CASTLE

PROPOSED SUBMARINE CABLE
ACROSS THE DELAWARE RIVER

PROPOSED SUBMARINE CABLE TO
BE USED FOR TELEPHONE
CIRCUITS

NEW JERSEY

SCALE
IN FEET

0 1000 2000 3000 4000 5000



SECTION
SCALE OF FEET
HORIZONTAL

0 100 200 300 400

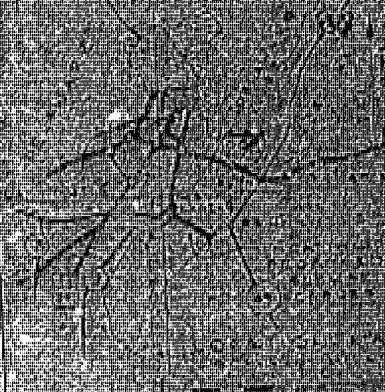
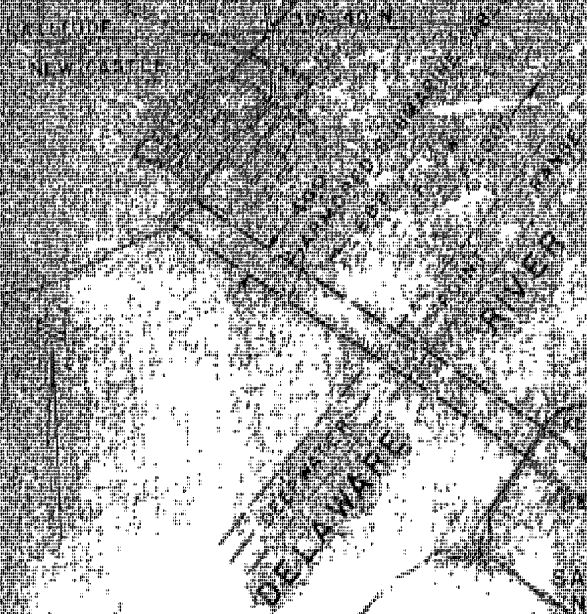
PROPOSED SUBMARINE CABLES
ACROSS THE DELAWARE RIVER
AT NEW CASTLE, DELAWARE
COUNTY OF NEW CASTLE,
STATE OF DELAWARE

APPLICATION BY A. I. R. COMPANY

PREPARED BY
LOGAN ENGINEERS & ARCHT. CO.
JACKSONVILLE, FLA.

AT&T

NEW CASTLE COUNTY
DELAWARE



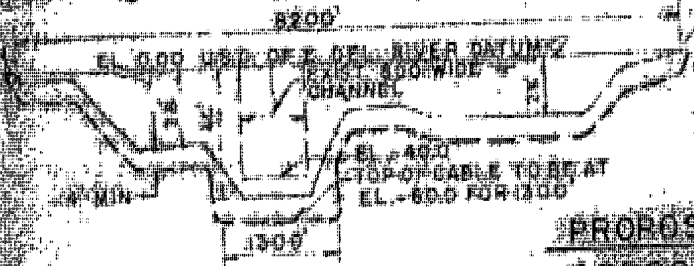
FROM PHOTOGRAPHIC COPY
WAVE DIFFRACTION STUDY
DELAWARE RIVER VICTORY

SUBMARINE CABLE TO
BE USED FOR TIE
PHONE CIRCUITS

PLAN

SCALE IN YARDS

0 1000 2000 3000 4000 5000



WEST SHORE
1700
1300

SECTION

SCALE OF FEET

HORIZONTAL

0 100 200 300 400

VERTICAL

0 50 100

PROPOSED SUBMARINE CABLES
ACROSS THE DELAWARE RIVER
AT NEW CASTLE, DELAWARE
COUNTY OF NEW CASTLE
STATE OF DELAWARE

APPLICATION BY A.T.&T. COMPANY

PREPARED BY
LOGAN ENGINEERING & CON'T. CO.
JACKSONVILLE, FLA.

July 21, 1962

Mr. R. E. Sheahan
Chief of the Department
Maryland Telephone & Telegraph Company
Long Lines Department
412 Pine Avenue
Yardley, Maryland 21791

Dear Mr. Sheahan:

It is my pleasure to inform you that Governor Charles D. Taylor has accepted the recommendation of the Delaware Water and Air Resources Commission that your applications for crossing the Delaware River and several smaller bodies of water in the State of Delaware be accepted. A letter is presently being prepared for the Governor's signature.

You will be doubly pleased to learn that no annual charges will be associated with these leases. As I explained in the Permit Notice, however, at the time the applications were submitted, application fees would be requested but they had, at that time, not yet been established. We have since established these fees and have set them at \$250 per application. For the seven applications received by you the charge is \$1,750. Upon receipt of a check for this amount made out in the name of this Commission, and upon obtaining the Governor's signature, the leases will be forwarded to you.

Very sincerely yours,

Robert Karolik, Director
Water Resources Division

Sincerely,

cc: Mr. Donald Weston

PERMIT OR LICENSE GRANTED

TO

AMERICAN TELEPHONE &
TELEGRAPH COMPANY OF DELAWARE,
A CORPORATION OF THE STATE
OF DELAWARE

TO

CONSTRUCT TWO SUBMARINE
CABLES IN OR ACROSS THE
DELAWARE RIVER

UPON

RECOMMENDATION OF THE WATER
AND AIR RESOURCES COMMISSION

AND NOW, to-wit, this 11th DAY of August, A.D. 1967.

The State of Delaware does hereby accept the report and recommendation of the Water and Air Resources Commission upon the application of American Telephone & Telegraph Company of Delaware, a corporation of the State of Delaware, for authority to construct two submarine cables in or across the Delaware River between Battery Park in the City of New Castle, Delaware, to Kelly Point, Four's Beach, Pennsville Township, Salem County, New Jersey for the purpose of placing submarine telephone cables as part of the Boston-Miami "A" cable route, as represented upon its application to the Water and Air Resources Commission dated March 21, 1967 with maps attached, all of which are attached hereto and made a part hereof.

AND, THE STATE OF DELAWARE, pursuant to the authority contained in Subsection II, Chapter 64, Title 7, Part VII, Delaware Code of 1953 as amended does hereby grant a permit or license to construct two Submarine Cables at the location and of the dimensions proposed in the aforesaid application and the aforesaid maps attached hereto and made a part hereof, without charge of fee; said permit or license will be continued for a

period of ten (10) years or so long as the conditions attached to this lease are adhered to, whichever is the shorter. In case the permit or license terminates by the passage of time, then it shall automatically be renewed for ten (10) year periods thereafter so long as the conditions attached to this lease are adhered to, and unless the State determines that the two submarine cables are not in the public interest and so nullify the license at least 30 days prior to the termination of any ten-year period that the permit shall cease to be in existence at the end of the ten-year term.

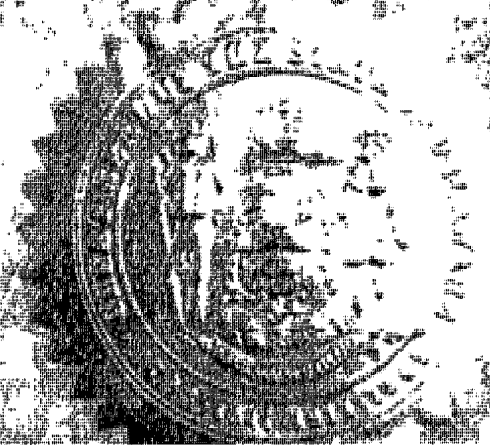
This license or permit to construct two submarine cables shall be subject to the following conditions:

1. Copies of plans of the cables shall be submitted to Water and Air Resources Commission before construction begins.

2. Trenching to be done with a minimum of disturbance to bottom and route.

3. Any changes in the plans as submitted be brought immediately to the attention of Water and Air Resources Commission.

IN WITNESS WHEREOF, I, CHARLES L. TERRY, JR., Governor of the State of Delaware have hereunto set my hand and the Great Seal of the State of Delaware has been hereunto affixed by the Secretary of State, at Dover, on this 11th day of August in the year of our Lord one thousand nine hundred and sixty seven.



Charles L. Terry, Jr.
By the Governor

William B. Taylor
Secretary of State

Wanamaker Building, 100 Penn Square East
Philadelphia, Pennsylvania 19107-3390

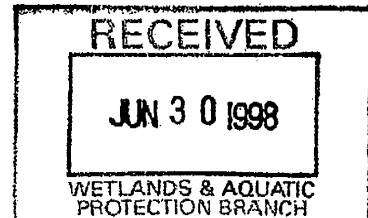
SL-010471

JUN 24 1998

Regulatory Branch
Application Section II

SUBJECT: CENAP-OP-R-199702535-39

Mr. Juan S. Crofton
Crofton Diving Corporation
16 Harper Avenue
P.O. Box 7756
Portsmouth, Virginia 23707



Dear Mr. Crofton:

Enclosed is a Department of the Army Permit (Enclosure 1) authorizing Delmarva Power and Light Company to install a fiber optic cable approximately 1.4 miles north of the Delaware Memorial Bridge, between Pigeon Point, New Castle County, Delaware and Carneys Point Township, Salem County, New Jersey; and a notice of authorization (ENG Form 4336-Enclosure 2) to be conspicuously displayed at the site of work.

Carefully review all the terms and conditions of the Department of the Army permit and understand them fully. Performing any work not specifically authorized by the permit or failing to comply with its conditions may subject you and/or your contractor to the enforcement provisions of our regulations. If a contractor performs the work for you, both you and the contractor are responsible for assuring the work is done in conformance with the conditions and limitations of this permit. Please be sure the person who will do the work has read and understands the conditions of, the permit.

This office shall be notified of the commencement and completion of the permitted work. To assist you in meeting this requirement, enclosed with the Department of the Army Permit is a Notification/Certification of Work Commencement Form and a Notification/Certification of Work Completion/Compliance Form which must be signed and returned to this office. Additional information concerning this permit may be obtained by writing to Lawrence M. Slavitter of my office at the above address or calling between the hours of 1:00 and 3:30 p.m. at (215) 656-6734.

If any material changes in the location or plans of the permitted work are found necessary on account of unforeseen or altered conditions or otherwise, revised plans should be submitted promptly to this office in order that the revised plans, if found unobjectionable, may receive the approval required by law before operations on the permitted work are commenced.

Sincerely,

Frank J. Cianfrani
Chief, Regulatory Branch

Enclosures

1359a

DE06162

SUBJECT: CENAP-OP-R-199702535-39

Copies Furnished:

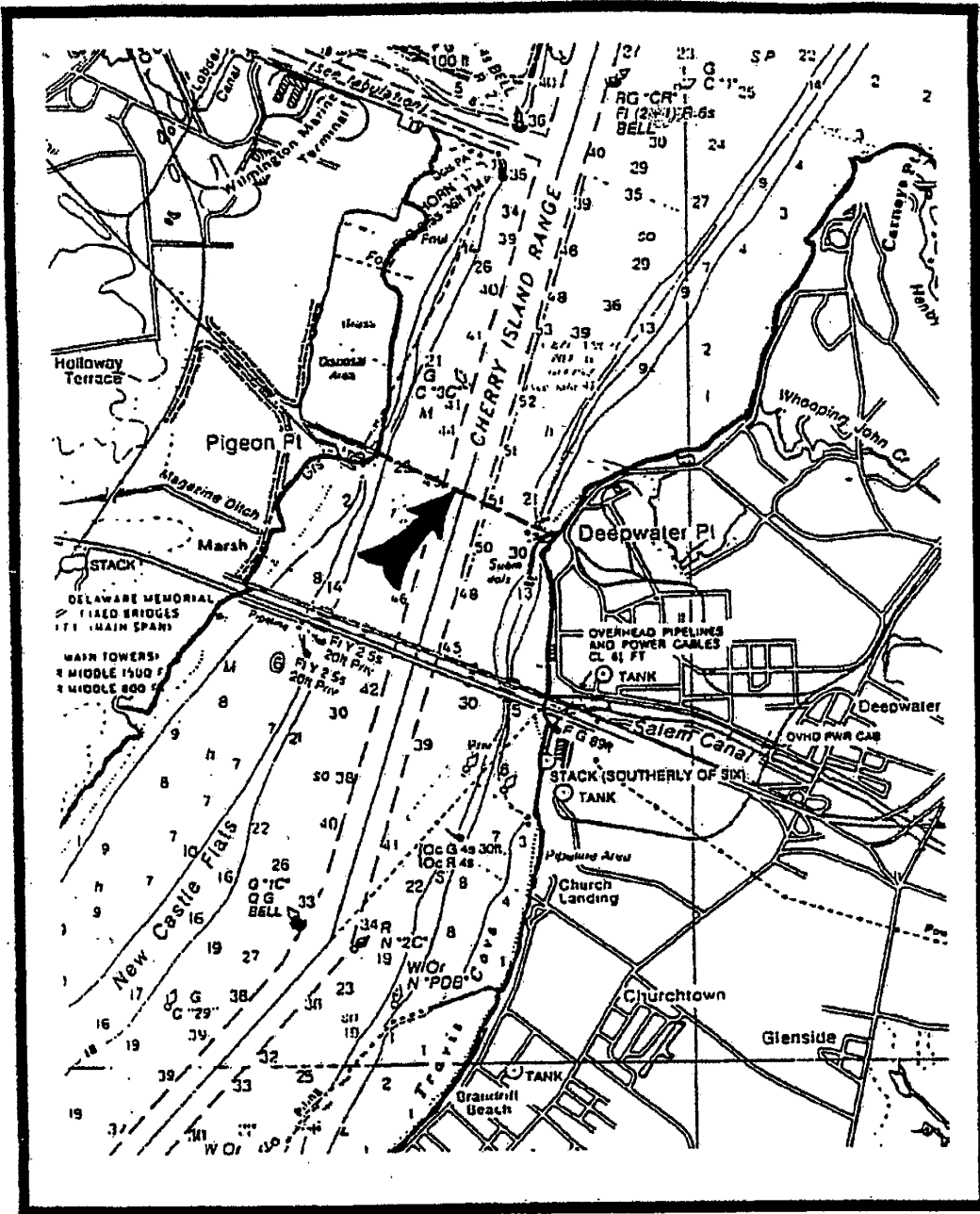
NJDEP, Bureau of Coastal Regulation
USFWS, Pleasantville
NMFS, Highlands
USEPA, Region II
DDNREC (William Moyer)
DDNREC (Sarah Cooksey)
USFWS, Annapolis
USEPA, Region III
NMFS, Oxford
CENAB-RE-C (M. Hewitt)
CENAP-OP-RD (Kevin Faust)
USCG, Fifth District
NOS, Mapping and Charting
Surveillance and Enforcement Section
Single Copy File

Agent:

Juan S. Crofton
16 Harper Avenue
P.O. Box 7756
Portsmouth, VA 23707

CENAP-IM-S (Strucko)
CENAP-OP-C (Peffer)
CENAP-OP-R (Cianfrani)

LOCATION MAP



E-1

CROFTON TECHNOLOGIES PORTSMOUTH, VIRGINIA		
DELMARVA POWER & LIGHT 96 FIBER OPTIC		
ARMORED SUBMARINE CABLE CROSSING DELAWARE RIVER PIGEON POINT TO DEEPWATER POINT WILMINGTON, DELAWARE		
DATE	5/97	DRAWN MTJ REV



Roy F. Weston, Inc.
 1400 Weston Way
 P.O. Box 2653
 West Chester, Pennsylvania 19380
 610-701-3000 • Fax 610-701-3186
 www.rfweston.com

21 February 2001

Sarah W. Cooksey
 Administrator
 Delaware Coastal Management Program
 89 Kings Highway
 Dover, DE 199101

FEB 21 2001

Dear Ms. Cooksey:

Sunoco, Inc. (R&M) (Sunoco) and their consultant Roy F. Weston, Inc. (WESTON®) request a Coastal Zone Consistency Determination for the proposed maintenance dredging project at the Sunoco Marcus Hook Refinery located in Marcus Hook, PA. A project description, review of applicable Delaware Coastal Management Program (DCMP) policy requirements, and consistency statement are provided below.

Necessary Data and Information

1. Project Description

As previously discussed, the proposed project will occur in three states: New Jersey, Pennsylvania, and Delaware. The majority of project will occur on the lands of Pennsylvania and New Jersey; however, two parts of the proposed project will occur within the State of Delaware.

The first part to occur in Delaware is the maintenance dredging of approximately 3,200 cubic yards of sediment material from a portion of Dock 3C at Marcus Hook Refinery, as well as the maintenance dredging of an associated intake structure. Sediments to be dredged are located in New Castle County just south of the PA/DE state border on the Delaware River. See attached figures in the U.S. Army Corps of Engineers (USACE) Permit application for the location of sediments for the maintenance dredging project. The subaqueous lands to be dredged are owned by Sunoco Marcus Hook Refinery. The dock and intake structure have been dredged previously, as recently as 1997. Approximately 25,800 square feet of area will be dredged in Delaware. Using a hydraulic dredge, Dock 3C will be dredged to its design depth of -40 feet MLW + 2 ft overdredge, and the outfall structure will be dredged to a depth of -20 feet MLW + 2 ft overdredge. Note that the majority of this maintenance dredging project will occur in the waters of the Commonwealth of Pennsylvania, with the exception of the 3,200 cubic yards to be removed from the State of Delaware. Disposal of dredged material will occur entirely within the State of New Jersey at the USACE Oldmans Confined Disposal Facility (CDF).

The second portion of the proposed project to occur in Delaware is the temporary placement of approximately 11,000 feet of hydraulic dredging pipeline in the Delaware River. The pipeline will be placed from the docks of Marcus Hook Refinery, located in





Sarah W. Cooksey
Delaware Coastal Management Program

2

21 February 2001

Marcus Hook Borough, PA, to the U.S. Army Corps of Engineers (USACE) Oldmans Confined Disposal Facility (CDF), located in Oldmans Township, NJ. See attached figure for pipeline placement. Note that the pipeline configuration in this map has been modified from the original configuration provided to USACE. Note that placement of the pipeline will be on the submerged lands of the State of Delaware in the Delaware River; however, the pipeline will cross the Delaware River navigation channel in the Commonwealth of Pennsylvania. Temporary pipeline placement on Delaware submerged lands would last no longer than 4-6 weeks, and would occur from early March 2001 to no later than April 15, 2001.

As part of this project the following permits/determinations have been applied for:

- 401 Water Quality Certificate from NJDEP
- Real Estate License for use of USACE CDF from USACE
- Department of the Army Permit for Hydraulic Dredging from USACE
- Subaqueous Lands Permit for pipeline placement and dredging from DNREC
- Coast Guard Safety Zone Permit
- PA Coastal Zone Consistency Determination
- NJ Coastal Zone Consistency Determination

The dredging contractor and contact for the proposed project is Norfolk Dredging Company:

Graham Payne, Vice President
Norfolk Dredging Company
P.O. Box 1706
Chesapeake, VA 23327-1706
(757)547-9391

2. Purpose of the Proposed Project

The purpose of the proposed maintenance dredging project is to return the docking areas associated with Marcus Hook Refinery to permitted depths. Currently, shipments to Marcus Hook Refinery must be lightered in the Delaware River. Maintenance dredging of the docks will enable Sunoco to cease lightering operations and resume normal dock operations.

3. Assessment of Project & Affected Areas

This section provides a brief assessment relating to the probable effects of the proposed maintenance dredging project and its associated facilities on land or water use or natural resource of the coastal zone to the relevant enforceable policies of the DCMP. This

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review is conducted in tabular format, by listing DCMP policies and then indicating potential areas of impact from the proposed project. The table also indicates why the remaining policies are not applicable.

Review of DCMP Policies with the Proposed Project

Section	Applicability/Consistency
5.A.1 Wetlands Management	N/A The project does not occur in or adjacent to wetlands.
5.A.2 Beach Management	N/A The project does not occur in or adjacent to public or private beaches.
5.A.3 Coastal Waters Management	Consistent The proposed project is consistent with all applicable policies listed in this section. The potential surface water temporary pollution caused by dredging operations has been permitted by DNRDC under a Subaqueous Lands Permit.
5.A.4 Subaqueous Lands and Coastal Strip Management	Consistent The proposed project does not involve the generation of any new industrial facilities, nor does it involve the dredging on any new land. Items 25 and 26 - Maintenance dredging activities will be restricted to permitted depths in those areas previously dredged. These areas are not biologically productive areas (i.e., no SAV, shellfish present). Dredging will not continue after April 15, 2001 to protect anadromous fish migration. Water quality impacts will be limited through the use of hydraulic, rather than clamshell, dredging. Transport of materials to the CDI via pipeline in NJ will be consistent with DCMP requirements. The pipeline will be maintained in good order.
5.A.5 Borrow Pits	N/A Borrow pits are not a part of the proposed project.
5.B.1 "Public Lands" Management	N/A Public lands will not be encroached upon during this project.
5.B.2 Natural Areas Management	N/A The project does not occur in or adjacent to State-protected natural areas.
5.B.3 Flood Hazard Areas	N/A The project does not occur in the floodplain (the project is subaqueous).
5.B.4 Port of Wilmington Management	N/A The project does not occur in or near the Port of Wilmington.
5.C.1 Woodlands and Agricultural Lands	N/A The project does not occur in or adjacent to agricultural lands.
5.C.2 CMP Historic and Cultural Areas Policies	N/A The project does not occur in or adjacent to historic or cultural areas.
5.C.3 Policies for Living Resources	Consistent Dredging will not occur after April 15, 2001 in order to protect anadromous fish migration.

N:\wct\user1\1645\whared\un_dc_cz\consistency.doc



Sarah W. Cooksey
 Delaware Coastal Management Program

21 February 2001

Review of DCMP Policies with the Proposed Project (continued)

Section		Applicability/Consistency	
5.C.4	Mineral Resource Policy	N/A	Minerals will not be extracted as part of this project.
5.C.5	Coastal & Recreation Conservation Lands	N/A	The project is not on or adjacent to conservation lands.
5.C.6	Public Trust Doctrine Policy	Consistent	Navigation rights will not be impeded by the proposed project. The pipeline will cross the navigation channel at 40', as indicated on the USACE permit application.
5.D.2	CMP Development Policies	N/A	No development will occur as part of this project.
5.D.3	CMP Energy Facilities Policies	N/A	The project does not include construction or heavy industrial uses of DE land.
5.D.4	CMP Public Investment Policies	N/A	The project does not involve public investment.
5.D.5	CMP Policies for Recreation and Tourism	N/A	The project does not occur in or adjacent to lands used for recreation.
5.D.6	CMP Nat'l Defense and Aerospace Facilities	N/A	The project will not interfere with any national defense activities in the CZ.
5.D.7	CMP Policies for Transportation Facilities	Consistent	The construction and removal of the proposed pipeline will be consistent with CMP resource protection policies. <i>More importantly, the proposed maintenance dredging project will end the ongoing lightering activity in the Delaware River (as encouraged in item 10).</i>
5.D.8	CMP Policies for Air Quality	Consistent	The proposed project will include the burning of fuel for operation of the dredge. The emission source will be temporary.
5.D.9	CMP Policies for Water Supply Management	N/A	The proposed project will not interfere with or draw from surface or groundwater public water supply.
5.D.11	CMP Policies for Waste Disposal	N/A	No waste disposal associated with the project will occur within the State of Delaware. Management of dredged materials will occur entirely within NJ.
5.E	Costal Zone Management and Coordination Policies	Consistent	Agency contacts for all regulatory bodies in PA, USACE, and NJ will be provided to DE. The proposed project had a 15-day public review for DE Subaqueous Lands Permit and a 15-day public comment period for the USACE permit.

4. Consistency with policies of Delaware Coastal Management Program.

This proposed maintenance dredging project has been reviewed with the with the enforceable policies of the Delaware Coastal Management Program (DCMP). The statement of consistency is provided on the next page.



Sarah W. Cooksey
Delaware Coastal Management Program

5

21 February 2001

Statement of Consistency

Sunoco Inc. (R&M) has determined that the proposed maintenance dredging project complies with Delaware's approved coastal management program and will be conducted in a manner consistent with such program.

Sunoco and WESTON sincerely appreciate the expedited review of the proposed project. If you have any additional questions or concerns regarding this application for Sunoco Marcus Hook Refinery, please contact me (610-701-5093) or Cecelia Youngblood of Weston (610-701-3486).

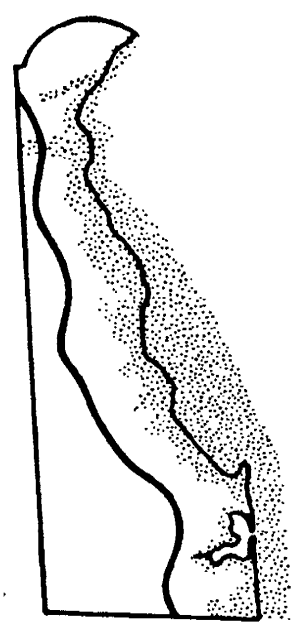
Sincerely,

ROY F. WESTON, INC.

Thomas McVeigh
Principal Project Manager

cc: Judy Brackin (Sunoco)
George Murphy (Sunoco)
Cecelia Youngblood (WESTON)

COASTAL ZONE MANAGEMENT FOR DELAWARE



FEBURARY 18, 1971

GOVERNOR'S TASK FORCE ON MARINE AND COASTAL AFFAIRS

COASTAL ZONE MANAGEMENT FOR DELAWARE

February 18, 1971

GOVERNOR'S TASK FORCE ON MARINE AND COASTAL AFFAIRS

GOVERNOR'S TASK FORCE ON
MARINE AND COASTAL AFFAIRS

18 February 1971

The Honorable Russell W. Peterson
Governor of Delaware
Dover, Delaware

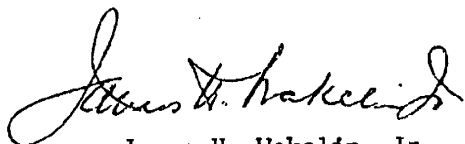
Dear Governor Peterson:

I have the honor to submit to you the Preliminary Report on the Coastal Zone of Delaware prepared by your Task Force on Marine and Coastal Affairs. This report contains key recommendations concerning the future use of Delaware's Coastal Zone.

The Task Force is now in the process of preparing a Final Report on the Coastal Zone of Delaware which will be completed in four to six months. This report will contain detailed information on the present status, trends and problems relating to the resources of the Coastal Zone and will include recommendations additional to those in the Preliminary Report.

The Task Force wishes to express its sincere appreciation to you for your interest and encouragement to us throughout the past year of our work. We also wish to thank the members of your staff and the Executive Departments of the State, the faculty of the University of Delaware and the many citizens and organizations who have contributed background information on which our recommendations are based.

Sincerely,



James H. Wakelin, Jr.
Chairman

MEMBERS OF THE TASK FORCE

Special Assistant to
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Chairman, Task Force
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* Resigned from Task Force January 18, 1971

ACKNOWLEDGEMENT

In addition to the Task Force, the following members of State agencies and the University of Delaware contributed significantly to the preparation of this Preliminary Report:

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and Environmental Control:

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Department of Community Affairs and
Economic Development:

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State Planning Office:

David Kelfer, David Hugg

University of Delaware:

Joel M. Goodman, Donald Outlaw,
Dennis F. Polls, and Gerald F.
Vaughn

Many others have contributed in a major way in the preparation of written material which will appear in the Final Report.

FORWARD

This document is a Preliminary Report of Governor Russell W. Peterson's Task Force on Marine and Coastal Affairs and provides certain key recommendations concerning the future of Delaware's Coastal Zone. A more extensive and complete report will be issued in the next four to six months which will contain information on the present status, trends, and problem areas of the Delaware Coastal Zone together with additional recommendations not covered in this report. The more detailed report will address the major resources of Delaware including water management, fisheries and wildlife; additional aspects of recreation including parks, boating, and sportfishing; and a more extensive treatment of environmental quality including, but not limited to waste disposal, pesticides, protection of the beaches and shoreline; and the problems created by mosquitoes and other biting flies. In essence, the Final Report will be the first compilation of available information and data on Delaware's Coastal Zone.

In preparing this document, the Task Force has made use of most of the available information that will appear in the Final Report, even though that has not yet been finalized, assembled, arranged, and edited in a sufficiently well-organized form to issue at this time. In view of the urgency of certain decisions facing the State concerning the use of its Coastal Zone, the Task Force has decided to issue a Preliminary Report.

The recommendations of the Task Force are based necessarily on information found in currently available reports and through interviews, hearings, and conferences. However, many factors bearing on the use and

quality of Delaware's land and water resources in Delaware's Coastal Zone will not be well known for a number of years. Principal features and trends, however, are quite clear.

While this document, as well as the subsequent Final Report, addresses itself to assignments given the Task Force by Governor Peterson, it is a report, in a larger sense, to the members of the Legislature, and to the citizens of Delaware. The Task Force is well aware of the impact that some of its recommendations will have on the State and the well being of its citizens. In the conflicts and competition for the use of the Coastal Zone, the issues made plain to the Task Force here in Delaware are essentially the same as those now faced by the twenty-nine other Coastal Zone states of our country.

The State of Delaware is an integral part of a highly developed and still developing industrial complex. In this context, Delaware has responsibilities to fulfill as part of the Delaware Valley region. However, Delaware also has responsibilities concerning its contributions to the quality of the environment and for the conditions of living for its own citizens. Recognizing the pressures for the many diverse and often conflicting uses of Delaware's Coastal Zone, the Task Force has recommended a course of action that will enhance the quality of life and conserve and improve the natural resources of this area. This may well be the last time that such an opportunity is available to the citizens, to the Legislature, and to the Executive branch of government of Delaware.

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Map Showing Boundaries of the Coastal Zone

I. INTRODUCTION

A. Goals for a Coastal Zone Plan

Early in 1970, Governor Russell W. Peterson appointed a Task Force on Marine and Coastal Affairs "to develop a master plan for our coastal and bay areas". Since its first meeting on April 28, 1970, the Task Force has been analyzing the diverse facets of Delaware's problems in the Coastal Zone. It was early recognized that many of the factors essential to a sensible master plan were either unavailable or were incompletely understood. Accordingly, the approach the Task Force took was to define as its major objective the preparation of policy guidelines and certain key recommendations for the management and conduct of marine and coastal affairs for the State of Delaware. Such guidelines must include the wise use of the water and land resources of the State's Coastal Zone for the economic and social benefits of its citizens. This plan should guide such future actions by the State as may be required to achieve a balance among the following desirable goals:

1. Preserve and improve the quality of life and the quality of the marine and coastal environment for recreation, conservation of natural resources, wildlife areas, aesthetics, and the health and social well being of the people.
2. Promote the orderly growth of commerce, industry and employment in the Coastal Zone of Delaware compatible with goal #1.
3. Increase the opportunities and facilities in Delaware for education, training, science and research in marine and coastal affairs.

B. Definition of the Coastal Zone

THE TASK FORCE RECOMMENDS THAT, FOR GOVERNMENTAL REGULATIVE PURPOSES, THE COASTAL ZONE IN DELAWARE BE DEFINED TO INCLUDE A PRIMARY AND SECONDARY COASTAL ZONE. IT FURTHER RECOMMENDS THAT THE PRIMARY COASTAL ZONE INCLUDE THAT AREA WHICH EXTENDS SEAWARD TO THE BOUNDARY OF THE STATE'S JURISDICTION; SOUTH OF REEDY POINT ON THE C AND D CANAL THE LANDWARD EXTENT SHOULD INCLUDE THE AREA BELOW AN ELEVATION OF 10 FEET ABOVE MEAN SEA LEVEL OR ONE MILE FROM THE MEAN SEA LEVEL MARK ON THE DELAWARE RIVER AND BAY OR OCEAN SHORE WHICHEVER IS THE GREATEST DISTANCE INLAND; NORTH OF REEDY POINT THE LANDWARD EXTENT SHOULD INCLUDE THE AREA BELOW AN ELEVATION OF 10 FEET ABOVE MEAN SEA LEVEL. THE ENTIRE C AND D CANAL WITHIN DELAWARE AND THE ADJACENT SHORE FOR A DISTANCE OF ONE MILE ON EACH SIDE SHOULD ALSO BE INCLUDED WITHIN THE PRIMARY COASTAL ZONE. THE SECONDARY COASTAL ZONE SHALL BE DEFINED TO EXTEND FROM THE BOUNDARY OF THE PRIMARY COASTAL ZONE LANDWARD SO AS TO INCLUDE ALL OF THAT AREA WITHIN THE ATLANTIC COAST - DELAWARE BAY COASTAL DRAINAGE SYSTEM.

Throughout the balance of this Report, unless specific reference is made to the contrary, the term Coastal Zone will refer to the "Primary" Coastal Zone. Land use activities within this Primary Zone are described and evaluated by the Task Force in much greater detail because most of the major decisions influencing land and water use occur in this portion of the Coastal Zone. The ten feet above mean sea level contour, generally the landward extent of this zone, is also an important index to major tidal floods which are projected to this elevation at a frequency of one year in a hundred.

Important environmental changes, however, also occur in the Primary Zone due to events which originate in areas further to the interior. Accordingly, the Task Force recommends that a "Secondary" Coastal Zone be included in the definition of the total Coastal Zone. This Secondary Zone extends landward to the watershed division line for all drainage to the Delaware, Rehoboth, Indian River and Little Assawoman Bays. For the purposes of this report, the Secondary Coastal Zone is sufficient to permit evaluations of the effects of all agricultural, industrial and domestic discharges from this zone into the bays and ocean.

It is recommended that when these definitions are incorporated into a legal description, the land boundary of the Primary Coastal Zone be surveyed on the ground as a series of straight lines connecting permanent monuments which approximate the landward boundary described above.

It is recognized that the Mean Sea Level mark on the shore changes from year to year, and that for the purposes of a legal description reference be made to the date of survey and the 1929 Sea Level Datum. It is recommended that boundaries be resurveyed at approximately 50 year intervals.

The Coastal Zone of a state is generally defined to include the bays, estuaries and waters within the territorial sea or the seaward boundary, whichever is the further offshore and extending inland to the "landward extent of maritime influences".

The specific definition of a Coastal Zone has been left to each of the states to determine. On the landward side there are many accepted ways to define the zone. Some states include all of that land area which provides

natural drainage to the land-sea interface to be the landward extent of their Coastal Zone. Other states have more precisely limited the landward area to that determined by the highest high tide of record in a 100-year period or by some specified distance landward from the line of the highest normal spring tide.

In considering the definition of the Coastal Zone, the Task Force recommended that the extent of the Primary Zone approximate this once in a century highest high tide of record, and that the extent of the Secondary Zone encompass such additional landward areas which lie within the Atlantic Coast - Delaware Bay coastal drainage system.

A map has been enclosed in this report showing the approximate location of the Coastal Zone in Delaware. It should be noted that the landward boundary of the Primary Coastal Zone approximates certain highways in the State which are also shown on the map. As indicated, the Coastal Zone embraces the lands along the Atlantic Coast, Delaware River and Bay, the Little Bays, portions along the Chesapeake and Delaware Canal, the wetlands, and subaqueous lands.

C. Importance of the Coastal Zone

The Coastal Zone of Delaware is an invaluable and in many respects irreplaceable resource to the State, Region and Nation. Because of the State's size and location, there is a continuous interaction of land and sea influencing nearly all of the State. Delaware has a total saltwater shoreline of approximately 160 miles in length and a total land area of 1,983 square miles. No part of the State is more than about 8 miles from tidewater.

When considered together with the general absence of other significant topographic features and the lack of traditional mineral resources, Delaware River and Bay and other coastal bays represent not just a factor in the State's geography, but a determining factor in its history, economy and way of life.

The Delaware River and Bay is the water gateway to a great industrial and commercial complex of the Delaware Valley. The coastal bays of Delaware are part of a system of shallow water estuaries which are the nursery and rearing grounds for most fin fishes important to both commercial and sport fishermen along the East Coast of the United States. In fact, about two-thirds of the fish landed by U.S. fishermen spend part of their lives in an estuary. The tidal wetlands in Delaware, encompassing about 120,000 acres, are an important link in these grounds and provide breeding areas for birds, mammals and shellfish, produce food for all of these and are part of the aesthetic quality of the shore region.

The Atlantic Ocean, Delaware Bay and the other coastal bays and their surroundings are prime attractions for persons seeking water based recreation adjacent to the East Coast megalopolis.

Many early residences, industries and other places of historical and cultural significance are closely associated with the Coastal Zone because the tidal streams and bays provided the principal transportation routes for early settlers. To this day, the prosperity of municipalities such as Wilmington, New Castle, Delaware City, Odessa, Smyrna, Dover, Milford, Milton, Lewes, Rehoboth Beach, Bethany and Fenwick Island is closely linked to one or more coastal assets such as water transportation, water-based recreation and water based industry.

Most of the Coastal Zone contains extensive open spaces consisting essentially of salt marshes and adjoining farms and woodlands bordering the Delaware River and Bay and Rehoboth, Indian River and Assawoman Bays. The marshes not only provide habitats for fish and wildlife and provide aesthetically pleasing surroundings, as indicated above. They are also important because such areas provide resources for recreational activities which relieve man's tensions, aid in reducing air pollution, and act as buffers against flood damage.

II. ENVIRONMENTAL QUALITY

A. General

THE TASK FORCE RECOMMENDS THAT THE STATE REQUIRE AN ENVIRONMENTAL IMPACT STATEMENT WITH ASSOCIATED PUBLIC HEARINGS OF ALL MAJOR DEVELOPMENT PROJECTS WITHIN DELAWARE'S COASTAL ZONE WHICH ARE EITHER BEING PROPOSED OR ARE ALREADY UNDERWAY BUT NOT YET COMPLETED. THESE STATEMENTS SHOULD BE FURNISHED BY THOSE PROPOSING OR PERFORMING THE PROJECTS.

On January 1, 1970, a very significant Federal law was enacted, the National Environmental Policy Act of 1969 (Public Law 91-190). Section 101 (b) of the Act stated that it is the "continuing responsibility of the Federal Government to use all practicable means, consistent with other essential considerations of national policy, to improve and coordinate Federal plans, functions, programs, and resources to the end that the Nation may --

- (1) fulfill the responsibilities of each generation as trustee of the environment for succeeding generations;
- (2) assure for all Americans safe, healthful, productive, aesthetically and culturally pleasing surroundings;
- (3) attain the widest range of beneficial uses of the environment without degradation, risk to health or safety, or other undesirable and unintended consequences;
- (4) preserve important historic, cultural, and natural aspects of our national heritage, and maintain, wherever possible, an environment which supports diversity, and variety of individual choice;

- (5) achieve a balance between population and resource use which will permit high standards of living and a wide sharing of life's amenities; and
- (6) enhance the quality of renewable resources and approach the maximum attainable recycling of depletable resources."

Section 102 of the Act calls for detailed statements by pertinent Federal officials concerning the environmental impact of any proposed actions which might significantly affect the environment.

On April 30, 1970 Interim Guidelines were issued by the newly created Federal Council on Environmental Quality. These guidelines were aimed at clarifying the points to be covered in the environmental statements. The first two of these points are reproduced below:

- "(i) The probably impact of the proposed action on the environment, including impact on ecological systems such as wildlife, fish and marine life. Both primary and secondary significant consequences for the environment should be included in the analysis. For example, the implications, if any, of the action for population distribution or concentration should be estimated and an assessment made of the effect of any possible change in population patterns upon the resource base, including land use, water, and public services, of the area in question.
- (ii) Any probably adverse environmental effects which cannot be avoided (such as water or air pollution, damage to life systems, urban congestion, threats to health or other

consequences adverse to the environmental goals set out in section 101 (b) of Public Law 91 - 190)." .

The Task Force believes that the contents of the proposed State required environmental impact statements should be similar to the Interim Guidelines Issued by the Federal Council on Environmental Quality. It is anticipated that these State required environmental Impact statements will be of major value to Delaware in assessing the threats to the quality of the environment, accompanying any new commercial or recreational developments, early enough to take appropriate action.

In addition, the Task Force recommends that Delaware insist on the implementation at the National level of the procedures required by the National Environmental Policy Act of 1969 with respect to all significant activities in the interstate waterways, such as the Delaware River and Bay, the C and D Canal, and the Atlantic Ocean adjacent to Delaware.

The Task Force has considered several major issues in environmental quality. These include oil spills, industrial and municipal wastes, heavy metals in particular, thermal pollution, pesticides, and the problems associated with mosquitoes and other biting flies. Specific recommendations on these subjects will be provided in the Final Report of the Task Force.

B. Accidental Oil Spills: A Contingency Plan

THE TASK FORCE RECOMMENDS THAT THE STATE DEVELOP A CONTINGENCY PLAN FOR THE PREVENTION AND CLEANUP OF MAJOR SPILLS. THE PLAN SHOULD BE COORDINATED WITH THE COAST GUARD, THE FEDERAL ENVIRONMENTAL PROTECTION AGENCY, WITH NEW JERSEY AND PENNSYLVANIA THROUGH THE DELAWARE RIVER BASIN COMMISSION, AND WITH MARYLAND.

This plan should examine all aspects of oil spills including prevention, surveillance, and cleanup where the latter refers to source control, containment, protection of the environment during the spill, pollutant recovery, restoration of the damaged resources, and disposal of the recovered pollutants. The plan should also deal with the costs of cleanup, and a clarification of liability.

In developing the plan, the State should consider such guidelines as the following:

- The State, in conjunction with the Coast Guard, should develop monitoring and control procedures over existing lightering operations in the lower bay, and the transport of oil and other hazardous material in Delaware waters.
- A "strike force" should be established consisting of personnel who shall be trained, prepared, equipped, and available to carry out the plan.
- A substantial emergency fund should be created by the State to finance cleaning up oil spills. Procedures for the recovery of costs and damage should be established. The party responsible for the spill should be liable for all costs plus the damage caused to aquatic life and property.
- A lightering inspection fee should be imposed on transferred products to create an environmental protection fund. This fund should be used to finance protective procedures against oil spills and other toxic discharges including ballast and bilge discharges.

III. INDUSTRY AND COMMERCE

A. Deep Water Port

THE TASK FORCE RECOMMENDS AGAINST APPROVAL AT THE PRESENT TIME OF ANY DEEP WATER PORT FACILITY OR OFFSHORE ISLAND IN THE LOWER DELAWARE BAY BECAUSE:

- ANY EXPECTED ECONOMIC BENEFITS TO DELAWARE OF THE PROPOSED LOCATION IN THE BAY APPEAR TO BE MORE THAN OFFSET BY THE CONSIDERABLE ADDITIONAL RISK TO THE ENVIRONMENT.
- SUCH A FACILITY WOULD ENCOURAGE THE DEVELOPMENT OF INCOMPATIBLE HEAVY INDUSTRY AND ACCOMPANYING URBANIZATION ALONG THE SHORELINE.
- SUCH A FACILITY REQUIRES MAJOR OFFSHORE STRUCTURES, DREDGING, AND FILLING OF THE BAY WHICH CONSTITUTES A FORM OF HEAVY INDUSTRY IN ITSELF.
- SUCH A FACILITY WOULD CONTRIBUTE A MAJOR RISK OF ADDITIONAL POLLUTION IN THE BAY AND ALONG THE SHORELINE WITH ACCOMPANYING DELETERIOUS EFFECT ON ESTUARINE LIFE.

MOREOVER, THE TASK FORCE BELIEVES THAT OTHER REASONABLE ALTERNATIVES HAVE NOT YET BEEN SUFFICIENTLY INVESTIGATED. THE TASK FORCE RECOMMENDS THAT BECAUSE OF THE IMPORTANCE OF SUCH A PORT TO THE ECONOMY OF THE MID ATLANTIC REGION, THE TECHNICAL AND ECONOMIC FEASIBILITY OF AN OFFSHORE FACILITY ON THE CONTINENTAL SHELF SHOULD BE EXPLORED ON A REGIONAL BASIS WITH THE FEDERAL GOVERNMENT. THE CONCEPT OF A FACILITY FOR DEEP DRAFT VESSELS, PERHAPS 25-50 MILES OFFSHORE, HAS BEEN SUBMITTED TO THE TASK FORCE. SUCH A FACILITY FOR THE TRANSFER OF OIL AND BULK CARGOES WOULD ACCOMMODATE VESSELS ABOVE 250,000 TONS, WELL BEYOND THE PRESENT LIMITS OF CAPABILITY OF ANY DEEP WATER PORT WITHIN THE DELAWARE BAY.

One of the major national issues in this country concerns the need for a deep water port to serve the East Coast of the United States. Federal agencies are now conducting studies concerning its economic and engineering feasibility. Major industries, such as petroleum, coal, and iron ore, have been examining the Lower Delaware Bay as a prime location on the East Coast for providing a naturally deep and sheltered harbor. This is also considered a desirable location due to its proximity to raw materials and markets.

The Delaware River and Bay is the largest import region in the United States. It contains, north of the Chesapeake and Delaware Canal, the largest concentration of oil refineries on the East Coast, and it is the second largest port area (taken as a region) in tonnage of commerce.

The supply of crude oil to the present seven refineries of the Delaware estuary has grown to almost 1,000,000 barrels a day. However, the continuation of growth essential to the economy will result in increased reliance on lightering operations which will be increasingly difficult to monitor and control under present procedures, thereby raising pollution risks substantially. Those supporting a deep water facility for off loading to a pipeline state that such a facility could conceivably reduce this risk and thereby enable a substantial growth in tonnage transported.

Advocates of a Lower Bay deep water port location also point out that it is impossible, ecologically and economically, to dredge a sufficiently deep channel (i.e. in the order of 80 feet) from the Lower Bay to Philadelphia to handle the anticipated large ships of the late 1970's and 1980's. They also emphasize that an offshore deep water facility for the off loading of oil in

the Lower Bay would reduce the traffic to the Philadelphia area. In addition, it would minimize the need to conduct lightering operations in the Bay. These advantages would, according to the advocates, improve the situation that already exists, and could reduce chances for an accidental spill of oil or other hazardous substances.

Two public meetings conducted by the Army Corps of Engineers in early 1970, however, produced strong protests from the public who warned of the potential for ecological disaster from accidental oil spills and of the inevitable development of incompatible heavy industry and its effect on the way of life in the region. While possible economic advantages of such a terminal were acknowledged, opponents pointed out that one major spill from a supertanker inside the Bay could be catastrophic to tidal marshes and coastal resorts in southern Delaware and New Jersey. Moreover, the additional dredging required to construct a port of this magnitude and to provide and maintain a channel with a depth of eighty feet or more extending to the mouth of the Bay could result in incalculable environmental harm.

Opponents of the deep water port in Delaware Bay have suggested that industry consider locating an offshore terminal on the Continental Shelf, at a distance of 25-50 miles from the mainland. If this concept were proven feasible, several such terminals could be located along the East Coast, with a consequent reduction of the concentration of shipping at one point and a corresponding risk of environmental damage to that portion of the coastline nearest to the terminal. Single buoy mooring systems for off-loading oil from tankers to pipelines which transfer the oil to the coastline have been

installed in over 50 locations around the world. Other concepts, such as floating terminals, have been suggested and should be considered in any feasibility study of Continental shelf bulk transfer terminals.

B. Introduction of New Industry into Delaware's Coastal Zone

THE TASK FORCE RECOMMENDS THE ENCOURAGEMENT OF NEW INDUSTRIES WHICH ARE COMPATIBLE WITH HIGH ENVIRONMENTAL STANDARDS AND WHICH WOULD EMPLOY A RELATIVELY HIGH RATIO OF EMPLOYEES IN RELATION TO THE SPACE OCCUPIED AND PUBLIC SERVICES REQUIRED.

THE TASK FORCE ALSO RECOMMENDS THAT THERE BE NO FURTHER INTRUSION OF INCOMPATIBLE HEAVY INDUSTRY INTO THE COASTAL ZONE SINCE POLLUTION AND OTHER ADVERSE ENVIRONMENTAL AND SOCIAL EFFECTS, NORMALLY ATTENDANT UPON SUCH DEVELOPMENTS, PRESENT SERIOUS THREATS TO THE COASTAL ENVIRONMENT, THE NATURAL RESOURCES OF THE BAYS, AND THE QUALITY OF LIFE IN DELAWARE.

The Task Force specifically includes as incompatible heavy industries such installations as steel mills, paper mills and oil refineries, and any other industry that traditionally introduces unacceptable quantities and types of pollutants into the air, land or water and, by its very size and nature, causes massive adverse environmental changes over a wide area.

IV. RECREATION

A. General

Outdoor recreation is recognized as an already existing major desirable activity in Delaware because of its favorable impact on the quality of life and the economy of its citizens. It is also recognized that the success of this activity is strongly contingent upon the maintenance of a satisfactory level of environmental quality.

IN VIEW OF THE CLOSE RELATIONSHIP BETWEEN RECREATION AND THE ENVIRONMENT AND BECAUSE OF THE IMPORTANCE OF RECREATION TO THE WELL-BEING OF THE PEOPLE OF DELAWARE, THE TASK FORCE RECOMMENDS THAT THE STATE DO THE FOLLOWING:

- MAKE A FULL ASSESSMENT OF THE TOTAL OUTDOOR RECREATIONAL ACTIVITIES IN THE STATE'S COASTAL ZONE, INCLUDING SWIMMING, BOATING, SPORT FISHING, TOURISM, CAMPING, AND SIGHTSEEING.

- INSURE THAT SUFFICIENT RECOGNITION IS ACCORDED TO THE NEED FOR, AND ACCESS TO, ADEQUATE RECREATIONAL FACILITIES.

- INSURE THAT CAREFUL CONSIDERATION OF THE COASTAL ZONE ENVIRONMENT BE MADE AN INTEGRAL PART IN THE PLANNING FOR SUCH ACTIVITIES AS HOUSING, INDUSTRY, TRANSPORTATION, AND WATER MANAGEMENT INCLUDING IMPOUNDING, DRAINING, DREDGING AND MOSQUITO CONTROL.

- ENCOURAGE THE PARTICIPATION OF PRIVATE ENTERPRISE IN EXPANDING THE STATE'S RECREATIONAL ACTIVITIES.

Certain aspects of recreation, such as sportfishing, were evaluated in 1956 and 1968. A major step in the appraisal of Delaware's recreation potential was the issuance of the October 1970 Comprehensive Outdoor Recreation Report. However, these studies require further extension in a number of ways particularly in terms of economic analysis. An adequate

measurement of the total recreation potential is essential for managing the Coastal Zone to the optimum extent. Knowledge of the economic aspects of outdoor recreation is essential in weighing priorities for land and water uses in future planning and regulatory decisions. However, since the degree of satisfaction of recreation to the user is frequently beyond economic measure, decisions involving such factors as the physical and mental health and well-being of the user must also rely heavily on value judgments. Knowledge of the physical facility limitations on outdoor recreation is also essential in determining the carrying capacity for recreational use of the coastal zone.

B. Resorts - Tourism

THE TASK FORCE RECOMMENDS THAT THE STATE HELP LOCAL COMMUNITIES TO DEVELOP ADDITIONAL RECREATIONAL AREAS AND TO PROVIDE ADEQUATE PUBLIC FACILITIES FOR TOURIST SERVICES.

The carrying capacity of Delaware's tourist attraction areas should be determined by detailed studies and planning to consider such factors as amount of usable water front, parking facilities, sewage, water supply, transportation, and other public facilities and their relationship to quality recreation.

Tourism should be encouraged in areas of high carrying capacity. The carrying capacity will vary with the state of development. Certain areas encompassing the Delaware Bay, Atlantic Coast, Small Bays, and several State recreational facilities currently have a level of usage which exceeds the capacity of existing facilities. Temporarily, these locations should not be

heavily promoted, but rather, the State's efforts should be concentrated on expansion of the services and facilities necessary to permit the optimum use of these areas. Efforts should also be directed toward expanding the tourist season, especially where carrying capacity is exceeded during the prime season.

V. COASTAL ZONE REGULATION AND ACQUISITION

A. Coastal Zone Legislation

THE TASK FORCE RECOMMENDS THAT, BEFORE THE MORATORIUM ON COASTAL ZONE DEVELOPMENTS IS ALLOWED TO EXPIRE, LEGISLATION FOR ADEQUATE LAND AND WATER USE CONTROLS SHOULD BE ENACTED FOR THE ENTIRE DELAWARE COASTAL ZONE.

Adequate land and water use controls should include zoning, a system of permits, strengthened subaqueous land laws, cease and desist authority, and required environmental impact statements on all major public and private construction projects.

The legislation should enunciate a strong commitment of legislative intent which reflects awareness of Coastal Zone problems and values, states a general policy of estuarine management, and a specific policy of wetlands preservation.

The planned Open Space concept for the Coastal Zone from Reedy Point to Cape Henlopen and a portion of the lands surrounding Rehoboth, Indian River and Little Assawoman Bays was advanced in the Delaware Comprehensive Outdoor Recreation Plan (October 1970). This concept proposed to conserve these areas for quality outdoor recreation in such a way as to make them highly attractive to a variety of pursuits including swimming, boating, fishing, picnicking, hunting, and sightseeing; and to preserve the role of the wetlands as a suitable habitat for wildlife and as a source of nutrients and nursery grounds for oysters and other commercial fisheries. Since these activities have not been compatible with most kinds of heavy

Industry or with over-commercialization of recreational pursuits, land-use controls will be necessary to encourage high quality recreation and fisheries and to discourage the industries and commerce that adversely affect the environment.

Legislation will be necessary as indicated by the following:

1. Land and Water Use Controls Throughout the Primary Coastal Zone.

- Establish the right of the State, in consultation with the Federal Government, neighboring states, and local governments, to plan for and to determine overall development patterns, through State zoning, within the seaward (subaqueous) portion of the Primary Coastal Zone, such as the Delaware and Little Bays and Atlantic Ocean.

- Establish the right of the State, in consultation with the counties and municipalities, to set enforceable minimum standards for land use controls within the landward portion of the Primary Coastal Zone. Such action would not do away with county and municipal planning and zoning within this area. Rather, the standards would be used as a framework for county and municipal planning and zoning. The advantage of enacting this legislation is that it would permit the local governments to retain some flexibility in determining future uses in their areas, and it would give the State the power of review and approval in case of conflict between local practice and State land and water use policy.

These recommended land and water use responsibilities of the State, in the Primary Coastal Zone, should be considered as the major key to the implementation of the State's planned Open Space concept and should be strengthened as quickly as possible by wetland protection legislation and State acquisition of key areas.

2. Wetlands portion of the Primary Coastal Zone. Provide for the preservation of wetlands and establish controls over those types of alterations which would cause environmental degradation.

B. Acquisition

THE TASK FORCE RECOMMENDS THAT THE STATE FUNDING SCHEDULE PROJECTED BY THE 1970 DELAWARE COMPREHENSIVE OUTDOOR RECREATION PLAN FOR THE ACQUISITION OF PUBLIC LANDS IN THE COASTAL ZONE BE SUBSTANTIALLY ACCELERATED.

The State should stand ready to protect the character, natural potential and features of open spaces within the Coastal Zone. In order to supplement the zoning or permit tools, sufficient funds should be made available for acquisition in certain key areas to prevent environmental damage, to maintain the desired development pattern, and to protect the options for Coastal Zone use for future generations.

The Task Force also recommends the acquisition of certain key areas where it has been found essential for efficient public management and for adequate public access. The Delaware Comprehensive Outdoor Recreation Plan (page 143) has identified such areas for public acquisition.

The pressures for land development in the Delaware Coastal Zone are evident. It must also be noted that the opportunity to preserve open spaces is rapidly being lost by continued developments, by constantly rising real estate prices, and by continued commitment to long range planning and study by industrial and commercial interests and developers. The State should act quickly to acquire areas deemed essential.

Work undertaken as part of the October 1970 Delaware Comprehensive Outdoor Recreation Plan determined that public land purchases of about \$10 million will be necessary during the two year period FY 1971 and FY 1972. The Recreation Plan also recommended that an additional \$12 million be spent in the FY 1973-76 period (See pages 201-206 of the Plan).

The Task Force believes, however, that considerable savings will result to the State by a larger initial appropriation for land purchases to forestall further escalation of land prices which are inherent in protracted land acquisition programs.

It is important to note that this recommended level of funding for land acquisition is based on the assumption that the State will have adequate land and water use controls as recommended in this Report.

VI. RESEARCH AND EDUCATION

A. State Supported Research Program

THE TASK FORCE RECOMMENDS A SUBSTANTIAL INCREASE IN FUNDING FOR A COASTAL ZONE RESEARCH PROGRAM TO FURNISH THE SCIENTIFIC AND TECHNICAL INFORMATION ON WHICH THE STATE WILL MAKE ITS COASTAL ZONE MANAGEMENT DECISIONS. THE STATE, IN CONSULTATION WITH THE COASTAL ZONE ADVISORY COUNCIL (See Page 7-4) AND THE COLLEGE OF MARINE STUDIES, SHOULD DETERMINE THE PRIORITIES AND RECOMMEND THE FUNDING LEVEL OF COASTAL ZONE RESEARCH NEEDED FOR EFFECTIVE COASTAL ZONE MANAGEMENT IN DELAWARE. IT IS FURTHER RECOMMENDED THAT THE COLLEGE OF MARINE STUDIES OF THE UNIVERSITY OF DELAWARE BE ASSIGNED A MAJOR ROLE IN THE CONDUCT OF THIS RESEARCH PROGRAM AND THAT IT CREATE A COASTAL ZONE TECHNICAL SERVICES DIVISION WITH BASE FUNDING FROM THE STATE TO MEET THESE NEEDS.

The Coastal Zone Research Program should include economic, social, and legal aspects, in addition to natural and physical sciences and engineering. The State should make maximum use of the existing capabilities of Delaware industry and recognize the special competence of academic institutions in the State. The State should work closely with neighboring States on problems overlapping their jurisdiction, such as the proposed baseline study of the Delaware estuary. The State

should also have an in-house research management capability to facilitate the solution of short term problems; to enhance the State's monitoring and analysis functions concerning the conditions of Delaware's marine resources for more effective regulation, enforcement, and management; and for administrative fact-finding. It is anticipated that the skilled technical services needed to accomplish these purposes can frequently be accompanied by contracting with industry and academic institutions, under the direction of the State's research management.

The State should recognize the recent efforts of the University of Delaware in expanding its capabilities in marine and coastal research. In recognition of this increasing capability, the State, in the conduct of its Coastal Zone Research Programs, should maintain close professional association with the University's College of Marine Studies. Moreover, the University should be sufficiently equipped with the necessary facilities and assured of adequate institutional funding for continuity and maintenance of both programs and facilities. The funding should be allocated for education as well as the research appropriate to the University's function. It is further expected that the College of Marine Studies will be called upon by the State for special projects, such as research elements of the Delaware Baseline Study. The creation of a Coastal Zone Technical Services Division by the College of Marine Studies will facilitate services to the State over and above those already provided by the University in its Coastal Zone student training program.

B. Marine Science Center

THE TASK FORCE AGREES THAT A MARINE SCIENCE CENTER SHOULD BE ESTABLISHED UNDER THE MANAGEMENT DIRECTION OF THE COLLEGE OF MARINE STUDIES OF THE UNIVERSITY OF DELAWARE. THE MARINE SCIENCE CENTER WOULD INCLUDE FACILITIES FOR THE COLLEGE OF MARINE STUDIES, A COASTAL ZONE RESEARCH LABORATORY, ADJACENT SPACE FOR RESEARCH ORIENTED MARINE INDUSTRIES, A PUBLIC INFORMATION CENTER, AND A SCIENTIFIC INFORMATION CENTER FOR DELAWARE BAY AND THE MID-ATLANTIC REGION.

The State of Delaware has long been dependent on many facets of the marine environment for its well being. Historically, it has had a significant role in shipbuilding, marine transportation, fisheries and, more recently, an extensive marine oriented recreational industry. In addition, the value of marine research was recognized officially by the State in the early 1950's when it established the Marine Laboratory of the University of Delaware and stated that one of its functions should be to furnish scientific and technical assistance to the State Executive Branch. Since that time an increasing emphasis has been placed on marine science by the University of Delaware. In the summer of 1970, the Board of Trustees approved the establishment of a College of Marine Studies. This unit has the potential to encourage the growth of a marine research and educational organization which could achieve a position of national and international stature by the end of the present decade. Of particular value to the State of Delaware is the

scientific strength of the College of Marine Studies and its concern for the problems of the State of Delaware and the mid-Atlantic region. Research at the University, sponsored through the Federal Sea Grant Program, is building a strong scientific base for the study of estuarine and coastal processes appropriate for the function of a Coastal Zone Research Laboratory and its attendant advisory role to the State. The establishment of a Marine Science Center would do much to assure the growth of this capability.

Components of the proposed Marine Science Center are described in greater detail in the Final Report to be submitted in four to six months.

C. Baseline Study

THE TASK FORCE RECOMMENDS THAT A COMPREHENSIVE BASELINE STUDY OF THE PRINCIPAL WATER BODIES OF DELAWARE'S COASTAL ZONE BE PERFORMED WITH THE UNIVERSITY OF DELAWARE HAVING THE MAJOR ROLE IN THE PLANNING OF THE STUDY AND THE SUBSEQUENT SCIENTIFIC RESEARCH. MOREOVER, THE BASELINE STUDY SHOULD BE PERFORMED IN COOPERATION WITH NEW JERSEY, MARYLAND, THE DELAWARE RIVER BASIN COMMISSION, AND THE FEDERAL GOVERNMENT.

IN CONJUNCTION WITH THE STUDY, A CONTINUOUS MONITORING SHOULD BE INITIATED AND MAINTAINED BY THE STATE OF SELECTED PHYSICAL PARAMETERS AND BIOLOGICAL PHENOMENA WHICH ARE PERTINENT TO THE STATE'S REGULATORY FUNCTIONS.

This program should include studies in biology, chemistry, physical oceanography, climatology, hydrology and geology. The program should be supported by appropriate studies in the surrounding tidal marshes and streams, the Atlantic Shelf Area, the Chesapeake and Delaware Canal, and the Delaware River. This study is expected to involve about five years of scientific work, with preliminary results published on the basis of the first one and two years of work. It should include among its objectives the description of the Bay's physical and biological resources, and the establishment of practical predictive models.

There is a need for information on the natural state of the Delaware Bay and its surroundings to form the basis for rational decisions on utilization. This need is recognized by most of those concerned with the conservation, regulation, or development of Delaware's Coastal Zone. It is made more acute by present and proposed projects destined to affect the system. Among these are: an ensemble of off-shore developments associated with deep-draft vessels, the Tocks Island Reservoir, the enlargement of the Chesapeake and Delaware Canal, the installation of waste treatment plants at Philadelphia and in Kent and lower Sussex Counties, and the Salem Nuclear Generating Station.

All of these projects have supporting engineering studies associated with them and some have ecological surveys as well. The difficulty is that these studies have restricted themselves in the

past to the immediate vicinity of a project and have not related to the Bay as an interdependent system. In addition, a comprehensive, integrated study of the Bay has been too costly and time consuming to charge to any one project - especially when many separately funded projects would utilize the information; nevertheless, there is a necessity to establish a scientific baseline defining the present condition of the Bay and River as an interrelated system. The study establishing this baseline should be of such a nature as to shed substantial light on the dynamics of the system and to form the basis for practical predictive models of the Delaware River-Bay complex.

The Baseline Study will provide the basis for a systematic review of all projects involving the principal water bodies of Delaware's Coastal Zone. It will not relieve individual development projects of the need for intensive local studies but will provide a context in which these local evaluations can be seen in relation to the Coastal Zone as a whole.

VII. COASTAL ZONE MANAGEMENT STRUCTURE

A. Need for a Coastal Zone Management Structure

THE TASK FORCE RECOMMENDS THAT A FOCAL POINT FOR COASTAL ZONE MANAGEMENT BE ESTABLISHED IN THE EXECUTIVE BRANCH OF THE STATE GOVERNMENT.

This report has delineated the significance of the Coastal Zone to the people of Delaware. It has also discussed its special vulnerability to rapid degradation unless proper steps are taken. Many of these steps were outlined in previous chapters of this report and include the need to recognize its importance, to define its extent for administrative purposes, to enact suitable legislation, to regulate its use for the optimum benefit of the public, and to acquire areas of special importance.

In addition, there is an urgent need to improve the present structure in the State Government for the management of Delaware's Coastal Zone.

The Federal Government, spurred by the recent Stratton Commission Report, has been increasingly recognizing the importance of the Coastal Zone and the major role which the States should play as a link between the Federal Government and the counties and municipalities. Other States are moving in the direction of strengthened State Coastal Zone management.

While Delaware is a small State, it lies along one of the most important estuaries on the East Coast for industry and contains one of

the most attractive shorelines along the Atlantic Ocean for recreation. These recreational areas are conveniently accessible to the millions of people living in the Eastern Megalopolis. Rapidly building competing pressures for the use of this Coastal Zone strongly suggest that the State must strengthen its organizational capability to resolve multiple user conflicts and to protect and enhance the value of the State's Coastal Zone.

B. Responsibilities of NREC

IN VIEW OF NREC'S EXISTING RESPONSIBILITIES IN THE MANAGEMENT OF NATURAL RESOURCES AND THE PROTECTION OF THE ENVIRONMENT, THE TASK FORCE RECOMMENDS THAT NREC BE DESIGNATED AS THE PRINCIPAL STATE AGENCY RESPONSIBLE FOR COASTAL ZONE MANAGEMENT.

It is recommended that the Coastal Zone management responsibilities of the NREC be as follows:

- Provide for the formulation and periodic updating of a master plan for the utilization of coastal and estuarine waters and lands.
- Encourage the planned development of these areas in the public interest and in accordance with the master plan. This includes the authority to provide either directly, or to encourage through another government agency or the private sector, the development of such public facilities as beaches, marinas and other recreational or waterfront developments; and to lease off-shore areas.

- Resolve Coastal Zone multiple use conflicts through such public processes as regulations, permits, zoning, and land acquisition.
- Insure the necessary expansion of research capability to adequately manage the Coastal Zone. This capability should make maximum use of existing competence in the academic, private, and governmental sectors available for this purpose.
- Represent and reconcile the interests of Delaware with other states, existing interstate organizations, and the Federal Government in the development of a master plan for Delaware's Coastal Zone and in other matters relating to the management of the Coastal Zone.

C. State Management of Transportation in the Delaware River and Bay

THE TASK FORCE RECOMMENDS THAT CONSIDERATION BE GIVEN TO RECONSTITUTING THE WILMINGTON MARINE TERMINAL UNDER STATE MANAGEMENT WITH RESPONSIBILITY AND AUTHORITY FOR ALL PORT FACILITIES IN THE STATE, INCLUDING THE LOWER BAY. THIS RECOMMENDATION IS PROPOSED BECAUSE IT IS THE SENSE OF THE TASK FORCE THAT THE ENTIRE LOWER DELAWARE BAY IS ITSELF A MAJOR PORT IN TERMS OF TRAFFIC, TRANS-SHIPMENT AND LIGHTERING OPERATIONS WITHIN DELAWARE STATE BOUNDARIES.

A revision of the charter of the Wilmington Marine Terminal would allow the revised organization to institute controls and monitoring operations on the current activity in the Delaware portion of the lower and upper part of the Bay as well as any future established activity within State jurisdiction.

D. Coastal Zone Interagency Coordinating Mechanism

IN VIEW OF SEVERAL STATE AGENCIES ALREADY INVOLVED IN COASTAL ZONE ACTIVITIES AND THE NEED TO COORDINATE THE ACTIVITIES OF THESE AGENCIES, THE TASK FORCE RECOMMENDS THAT THE GOVERNOR ESTABLISH AN INTERAGENCY COORDINATING MECHANISM FOR STATE COASTAL ZONE ACTIVITIES AND THAT HE BE RESPONSIBLE FOR DESIGNATING ITS CHAIRMAN.

E. Coastal Zone Advisory Council

THE TASK FORCE RECOMMENDS THAT THE GOVERNOR ESTABLISH A COASTAL ZONE ADVISORY COUNCIL TO ADVISE THE GOVERNOR AND ALL PERTINENT STATE ORGANIZATIONS. THIS COUNCIL SHOULD PROVIDE GUIDELINES FOR THE MANAGEMENT OF THE COASTAL ZONE ON SUCH SUBJECTS AS SCIENCE, TECHNOLOGY, LAW, ECONOMICS, ENVIRONMENTAL QUALITY, RECREATION, COMMERCIAL FISHERIES, WATER SUPPLY AND QUALITY, AND MARINE TRANSPORTATION. IT SHOULD PROVIDE A CONTINUOUS MEANS FOR FURNISHING GUIDANCE FROM THE ACADEMIC, COMMERCIAL AND INDUSTRIAL SECTORS, FROM THE COUNTIES AND MUNICIPALITIES, FROM PRIVATE AGENCIES, AND THE PUBLIC.

- THE TASK FORCE RECOMMENDS THAT THE PRESENT GOVERNOR'S COUNCIL ON SCIENCE AND TECHNOLOGY COMPRISE THE NUCLEUS OF THE PROPOSED COASTAL ZONE ADVISORY COUNCIL IN ORDER TO MINIMIZE THE EXISTING NUMBER OF ADVISORY COUNCILS AND DUPLICATION OF EFFORT. THE TASK FORCE FURTHER RECOMMENDS THAT THE MISSION OF THE PRESENT GOVERNOR'S COUNCIL ON SCIENCE AND TECHNOLOGY BE REVISED TO INCLUDE THE COASTAL ZONE OBJECTIVES CITED ABOVE, THAT THE MEMBERSHIP OF THE PRESENT COUNCIL BE BROADENED TO MEET THESE NEW RESPONSIBILITIES, AND THAT THE NAME BE CHANGED TO REFLECT THIS EXPANDED SCOPE.

1. Function of the Advisory Council

The functions of the Coastal Zone Advisory Council would include the following:

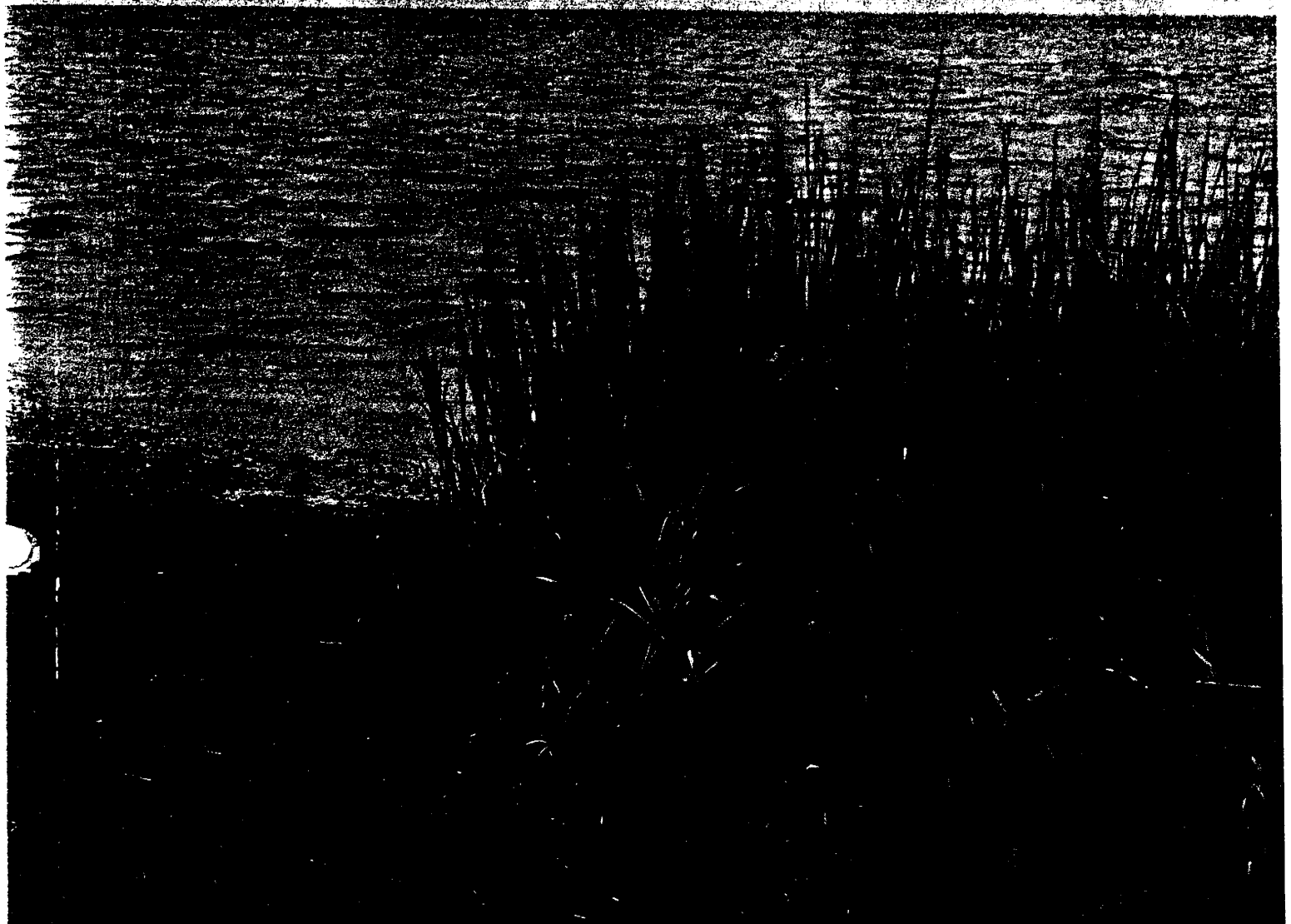
- Review and advise on updating the long range (i.e. in the order of 10 years or more) objectives of Coastal Zone programs.
- Assess current levels of activity in terms of accomplishing the long range objectives.
- Offer guidance and recommend important new Coastal Zone programs and facilities, making effective use of the competence of both private and government organizations.

2. Membership of the Advisory Council

It is recommended that this Advisory Council consist of official members representing private enterprise, the counties and municipalities, the academic community, private agencies, and the public. The chairman should be selected from outside the Government. In addition to the official members, representatives of the State and Federal Government should be designated liaison members. This would assure that the committee was aware of the programs and problems of the Government agencies. All members should be appointed by the Governor and should serve staggered terms. This committee should be supported by an appropriate staff.

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DELAWARE BAY REPORT SERIES

Volume 8

ECONOMIC AND SOCIAL ASPECTS OF DELAWARE'S COASTAL ZONE

by

Joel M. Goodman

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ECONOMIC AND SOCIAL ASPECTS OF DELAWARE'S COASTAL ZONE

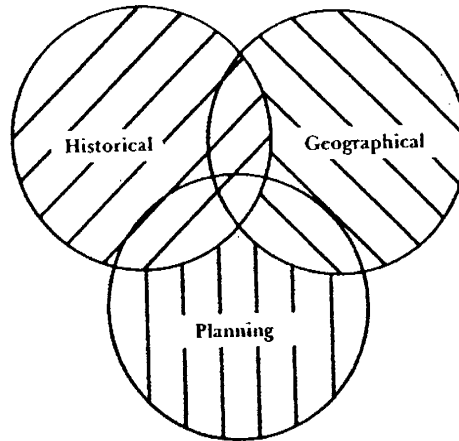
by

Joel M. Goodman

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PREFACE

The purpose of this volume will be to explore some of the social and economic aspects of Delaware's Coastal Zone that help distinguish it from other parts of the state and thus contribute to its comparative uniqueness in the Mid-Atlantic Region. The economic and social aspects of the Coastal Zone of Delaware will be considered from three perspectives. First the historical, then the geographical, and finally, a planning perspective. As indicated in the figure below, these are interrelated to some extent, but in order to minimize duplication of information, matter will only be discussed in the context with



which it is first introduced. Thus, if information is best introduced in a historical context, it will generally not be repeated in another context unless essential to understanding. Although hardly any of the data are first hand, the author's interpretation is, for the most part, original.

For the purposes of this document, the Coastal Zone is considered

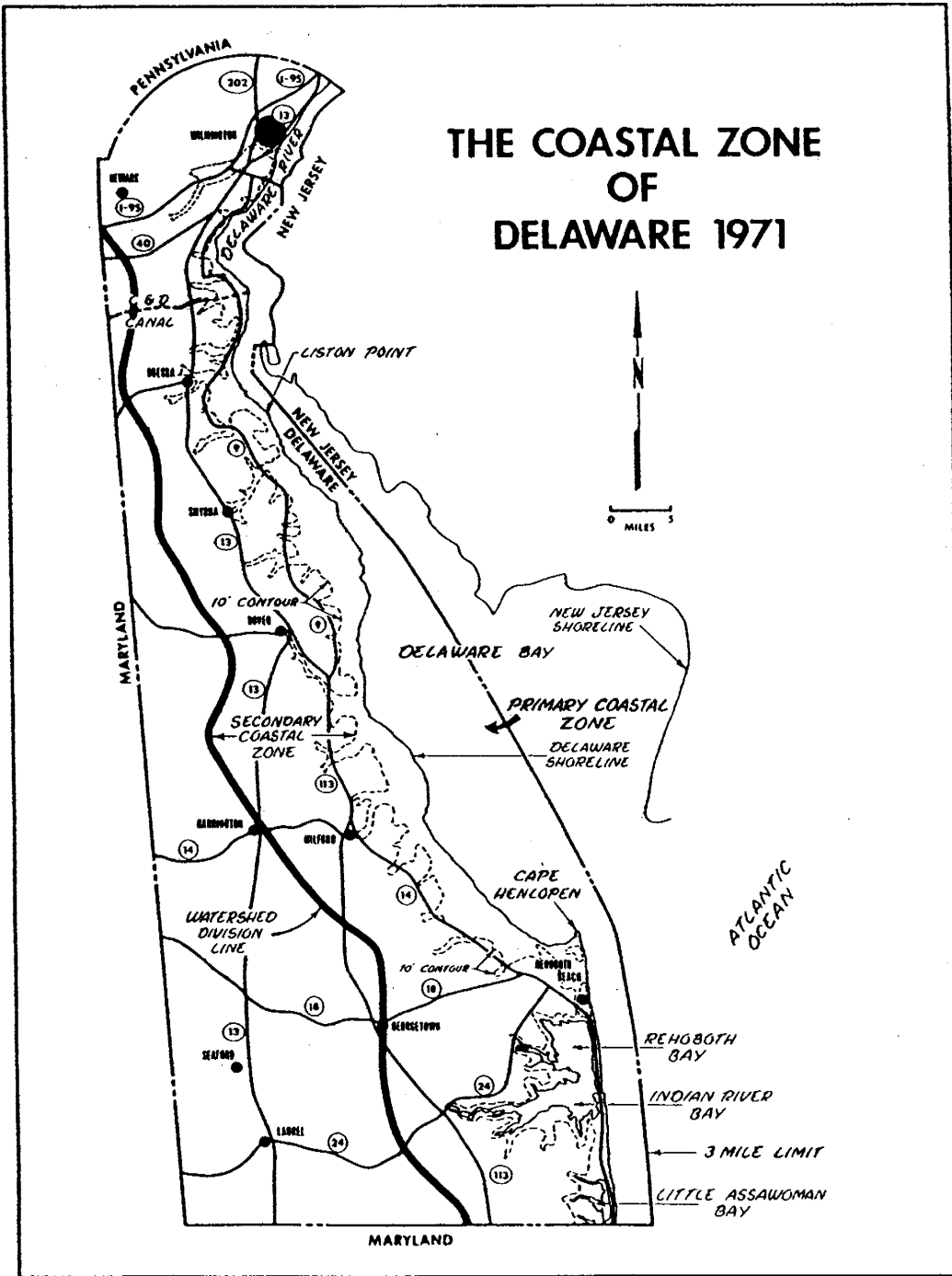


Figure 1

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to be comprised of two components -- a primary zone and a secondary zone as depicted in Figure 1. Our principal concern, however, will be with the primary component as defined in House Bill 300 of the Delaware Legislature as amended (Coastal Zone Act, chapter 70).

Social and economic attributes frequently do not respect natural or man-made boundaries such as those just described. Thus, although most of our efforts will be devoted to the primary zone, at least a part of our discussion will extend far beyond its borders: in some instances, to the very borders of the Middle Atlantic Region and the Northeast Metropolitan Area.

The author wishes to express his appreciation to Mr. David Hugg II, of the State Planning Office, for having reviewed this volume. His comments contributed much to the completeness of this study of the Coastal Zone of Delaware.

I. INTRODUCTION

The sea has long played a significant role in the development of the United States; consequently interest in this resource and its shoreline boundary has always been high. Today, however, there is a new sense of concern for this resource, a concern which extends to the contiguous wetlands and estuarine areas, which together with the shoreline comprise what is now frequently called the Coastal Zone. The driving force and urgency of this new concern stem from traditional interests such as the pressures of mounting economic needs and population congestion, and also from an increased recognition of the physical and biological deterioration of these resources. The concern culminated in Congressional action in the form of the Marine Resources and Engineering Development Act of 1966.

Among other things, the Act established a Commission on Marine Science, Engineering, and Resources which after examining, reviewing, and studying the nation's posture relative to marine interests and activities, prepared a report and recommended plan of national action for furthering national marine needs and objectives. The report is commonly referred to as "The Stratton Commission Report," and is titled "Our Nation and the Sea."

In this report it was noted that the potential for expanded marine-related economic activities must be tempered by the growing recognition of the fact that in many cases man was adversely affecting the environment which so lavishly offered these opportunities. It

was argued that if adequately protected, this coastal zone could also provide unique and valuable opportunities for recreation. If not protected, then contamination or destruction of beach, marsh, waterway, and shoreline could only result in denying the use of the sea to our growing population: nationally in 1966, as shown in Figure 2, that amounted to 45% of the population. In the Northeast, much closer to home, that number is roughly 66% of the population.

The two most visible parts of the Coastal Zone, as defined by environmental and geographic features, are the shoreline and estuary. They were singled out by the Commission as presenting some of the most urgent environmental problems and also the most immediate and tangible opportunities for improvement. The Commission noted that in many respects, the shoreline and estuaries are the nation's most valuable geographic features: traditionally, the greater part of the nation's trade and industry takes place there; they are among the most biologically productive regions of the nation; they are traditionally also the site of numerous other activities such as shellfishing, pleasure boating, and other forms of recreational activity. They are also the site where urban development and polluted streams join the sea. In short, they are unique biological regimes of the Coastal Zone that experience the greatest impact of man.

Theoretically, the nation's shoreline could be increased almost without limit by building artificial islands and peninsulas at the expense of contiguous water bodies. But its natural limit is 88,633 linear miles of tidal shoreline (including Alaska and the Arctic)

Growth Patterns in the Nation's Coastal Population

(Counties bordering oceans and Great Lakes)

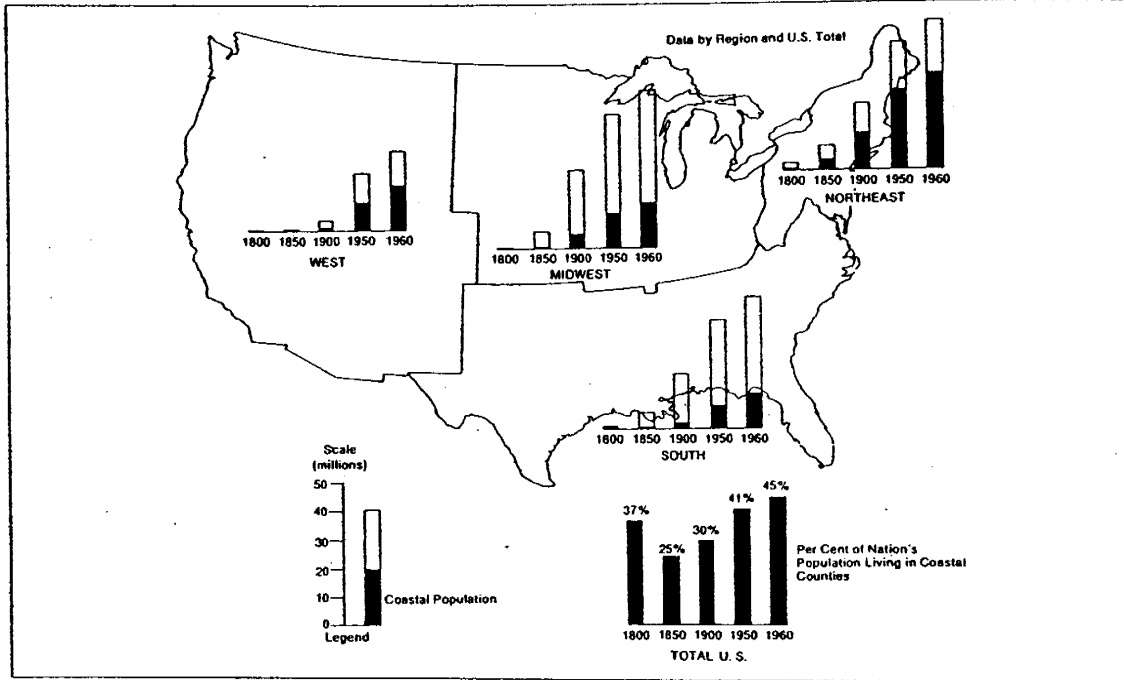


Figure 2. (From "Our Nation and the Sea")

and 49,532 square miles of saline estuary (including salt marshes, bays, intertidal areas, and lagoons) and man has not yet learned how to duplicate its unique biological role.

With this limited type of resource, it is evident that although a single action may have relatively little impact, cumulative effects can be devastating; filling of tidelands and other estuarine habitats, incremental increases in pollution, and interference with natural coastal processes can seriously interfere with access to beaches and with other potential uses, at conceivably great economic and social cost in the long run.

This introduction to socio-economic aspects of the Coastal Zone would hardly be complete without specifically delineating those activities essential (which cannot be done elsewhere without large social or economic penalty) and traditional (those influenced by custom or economic precedent) to the area.

One of the principal essential activities is transportation of either raw materials or finished products, including the operations of ports or other transfer facilities. The most recent impetus for coastal zone change resulting from marine transportation has been the advent of the very large bulk carrier. Size projections to the year 2000 show drafts increasing from 48 to 71 feet for dry bulk carriers, and from 72 to 104 feet for liquid bulk carriers. During the same time interval, freighter drafts are not expected to exceed 40 feet. Total trade during the period is expected to more than triple. The direct economic significance of these activities can be readily

calculated at 15 billion dollars per year, exclusive of related land development. The costs of these activities in terms of shoreline lost to terminals, dredge spoils disposal sites, the risk of pollution, and the risk of water intrusion due to dredging, are not so easily quantified.

A second essential activity of the Coastal Zone is Commercial Fishing, a basic industry. In 1967, some 70% of the value of U. S. commercial fishing came from the Coastal Zone catch, with an estimated \$1 billion (including multipliers) to the national economy. It is also estimated that coastal and estuarine waters and marshlands are vital to the life support of about 2/3 of the harvest. According to the Stratton Commission Report, seven of the ten most valuable commercial species spend all or a portion of their life cycle in estuarine waters; at least 80 other commercially important species are dependent on estuarine areas.

Water-based recreation is a third essential Coastal Zone activity, particularly recreational bathing and boating. In 1965, bathing was next to the most popular summertime activity and is predicted to be the most popular by the year 2000, with a projected 17 billion visits to seashores and beaches. Projections indicate a doubling in the number of boat owners in coastal states from the approximately 6.5 million now to more than 13 million by the year 2000.

Among the most important traditional uses of the Coastal Zone are sport fishing and hunting, housing development (the leading cause for landfill) and industrial location for access to process water and waste disposal. In 1966, sport fishing and hunting enthusiasts

were estimated to have spent almost \$900 million in pursuit of this activity, and the number of anglers is expected to triple by the year 2000.

As can be seen from the numbers quoted, on a national basis the economic value of the unique and limited coastal zone resource is high. According to the Bureau of Census, the average personal income of all the coastal counties is \$500 per capita greater than the average for the remainder of the country, or an estimated \$1100 per person economic benefit, based upon multiplier data developed for Narragansett Bay in Rhode Island. This is an estimated value added to the total economic activity by the presence of the estuarine zone. Its value should probably be measured by much more than economics; however, no one knows for certain what the measures should be. Thus, there are a number of programs being pursued at various levels of government, aimed at helping those responsible for decision making to determine answers to these questions.

As just described, the Marine Resources and Engineering Development Act of 1966 (PL 89-454) was instrumental in focusing attention upon many of the aspects of the Coastal Zone. A concurrent effort, made by the National Council on Marine Resources and Engineering Development looked into the problems of public agency activities and intergovernmental relations affecting use. The Clean Water Restoration Act of 1966 (PL 89-753) led to a study of the nationwide problem of estuarine pollution. In August 1968, another study concerned with the development of means to protect, conserve and restore estuaries was authorized

as a result of the passage of the Estuary Protection Act (PL 90-454). This was followed by passage of the River and Harbor Act of 1968 (PL 90-483), in response to Congressional concern with shoreline erosion which stemmed from "...a growing demand for shoreline, increasing erosion, and shore-front damages, lack of progress under existing beach erosion control law, and national sensitivity to environmental problems."

The National Estuarine Pollution Study, building on the information developed for the Stratton Commission Report, noted that the mixture of manufacturing types in the coastal counties showed regional differences related to historical development, as well as raw material and market availability. The study also noted that over half of all plants in the coastal counties and one-fifth of all manufacturing plants in the United States were located in the Middle-Atlantic biophysical region, including of course the Delaware estuary. The report states:

While much of the industrial development located in coastal counties affects the estuarine zone indirectly through use of adjacent land, some of the water-using industries such as paper, chemical petroleum, and primary metals industries which are distributed universally throughout the estuarine zone, have an impact far beyond their numbers.

The use or development of estuarine water, therefore, both governs and depends on land or shoreline use. The National Estuary Study concluded that pollution and land occupation for port cities and industry had moderately to severely modified the Delaware Coastal Zone and Bay. These classifications and the areas so designated are illustrated in Figure 3.

The most recent manifestation of national concern has been the

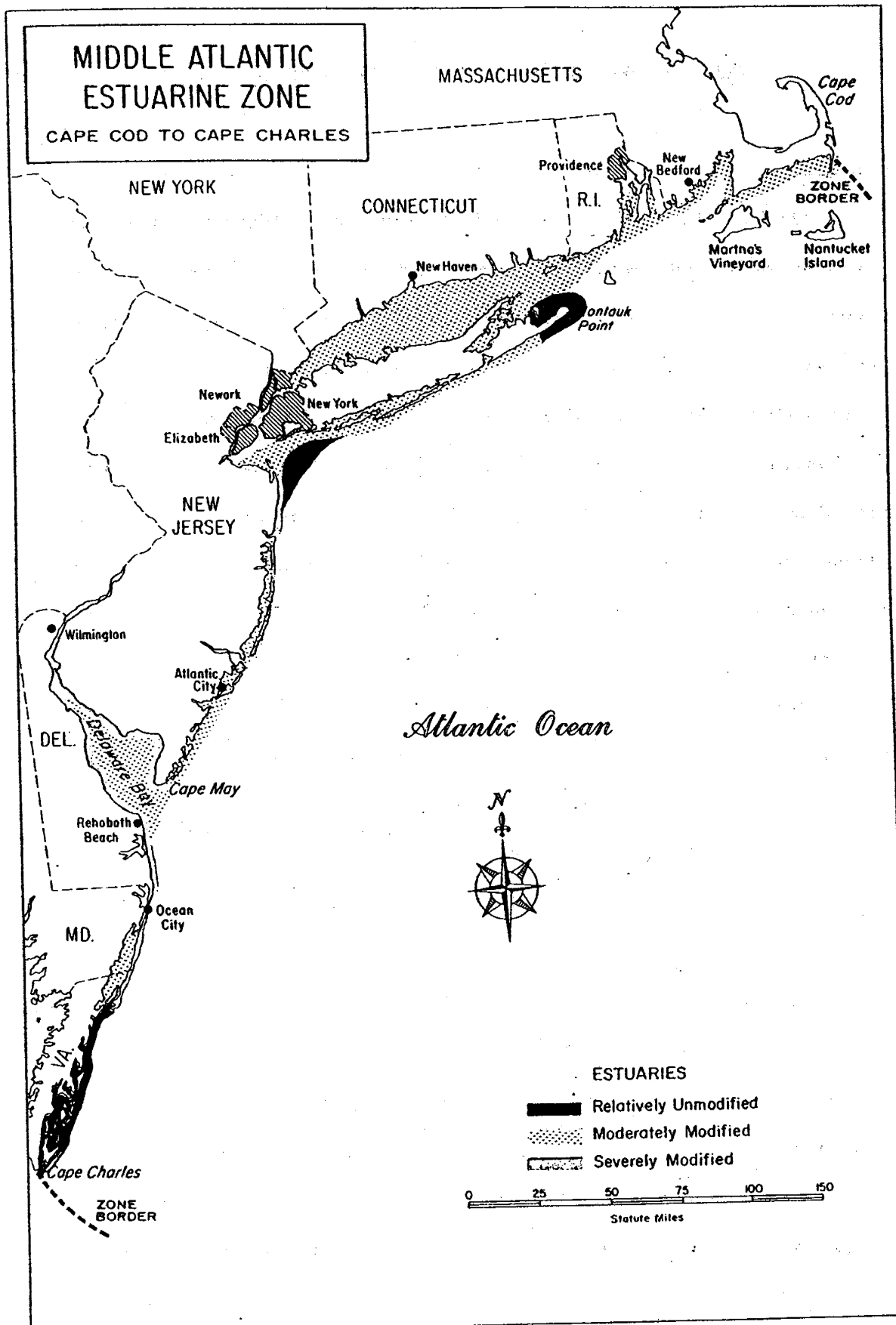


Fig 1428a

passage of the Coastal Zone Management Act, signed into law by the President on October 28, 1972 (PL 92-583) for the purpose of promoting the orderly planning and control of uses of the Coastal Zone by the various coastal states. Responsibility for the program has been assigned to the National Oceanic and Atmospheric Administration, the product of a 1971 governmental reorganization, also aimed at emphasizing the importance of the nation's marine resources.

Having briefly described efforts at the federal level, in the following sections the significance of this resource to Delaware will be examined in much greater detail because there can be no doubt that, in the short run, the local constituencies will be much more susceptible to the direct conflicts of the Coastal Zone. A better understanding of its economic and social structure, and of its contribution to lifestyle, offer the prospect for better management of the resource for economic and social good.

A historical perspective will then be offered, followed by current trends in economic development. In closing, some options will be explored and issues raised which at this time remain unanswered, but which provide some food for thought when considering the Coastal Zone of Delaware from a longer range perspective.

II. THE IMPORTANCE OF THE COASTAL ZONE TO DELAWARE

The Coastal Zone is important to Delaware because it is such a prominent geographical feature of the state. Indicative of its importance is the often heard cliché which claims that Delaware has so much wetland that it has three counties at low tide and only two at high tide. This attribute was reported more factually in the Preliminary Report of the Governor's Task Force on Marine and Coastal Affairs, which stated that Delaware, with 160 miles of shoreline encircling a land area of only 1983 square miles, is dominated by its relationship to the sea -- with no part of the state more than about eight miles from tidewater. The influence of the state's bays and rivers is particularly compelling in light of its lack of other significant topographic features. Delaware's contiguous estuary area contains 396,000 acres of which 152,000 acres was considered important habitat. By 1964 it was estimated in the National Estuarine Survey that almost 6% of the habitat had already been lost by dredging and filling.

In Delaware's case, there are additional complexities to be faced in considering the economic and social aspects of this relatively extensive zone, complexities inherent in the frequently mentioned difference between Delaware north and south of the Chesapeake and Delaware Canal. The northern part of the state is likened to the industrialized and urbanized Northeast, while the southern portion is likened to the more rural and agricultural Southeast.

Taking all of these factors into consideration, Delaware may

be considered as typifying most of the potential and problems associated with the economic and social exploitation of the coastal zone anywhere in the nation.

After decades during which time the bayshore of the state has remained relatively untouched by man, the coastal area has become the target of extraordinary pressures from developers, industries, and transportation interests. Petroleum, steel, and chemical companies, for example, own extensive river-front acreage (more than 7,000 acres) in southern New Castle County, and numerous studies have been conducted by federal agencies and private interests wanting to build an offshore bulk transfer terminal in lower Delaware Bay or close in offshore. The pressures exerted by recreational development are illustrated in a report prepared by the Delaware State Planning Department in 1969, which compared shoreline development around the small bays in 1938 and 1969. The comparison of existing development in those two periods is drastic, as seen in Figure 4 and enumerated in the associated table. No less dramatic is the increase of recreational fishing activity as illustrated in Table 1. Note that the increase occurred in spite of a decreased per capita and total catch.

With a full recognition that socio-economic characteristics of the Coastal Zone are a reflection not only of tradition and essentiality, but also of responsiveness to (1) the legal and institutional frameworks established throughout the various levels of governmental hierarchy (national, regional, and state), and (2) governmental policy (Ocean Dumping policy, Shoreline Protection policy, Water Quality

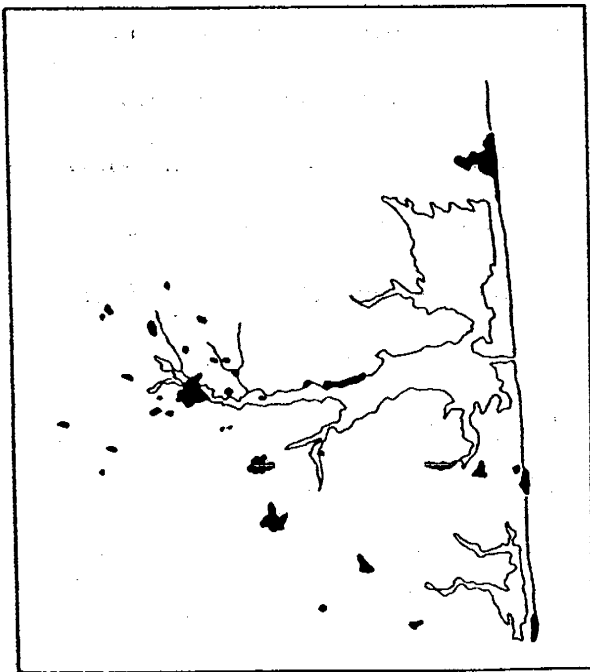
Figure 4

Rehoboth, Indian River, and Assawoman Bay

Existing Development

1938

1969



Source: State Planning Dept.,
Nov. 1969

Shoreline Statistics

<u>Location</u>	<u>Miles of Shoreline</u>	<u>% Shoreline Developed</u>	
		1938	1969
Rehoboth Bay	48	0	25
Indian River Bay	45	9	44
Assawoman Bay	27	0	10

Table 1

Sportfishing Activity

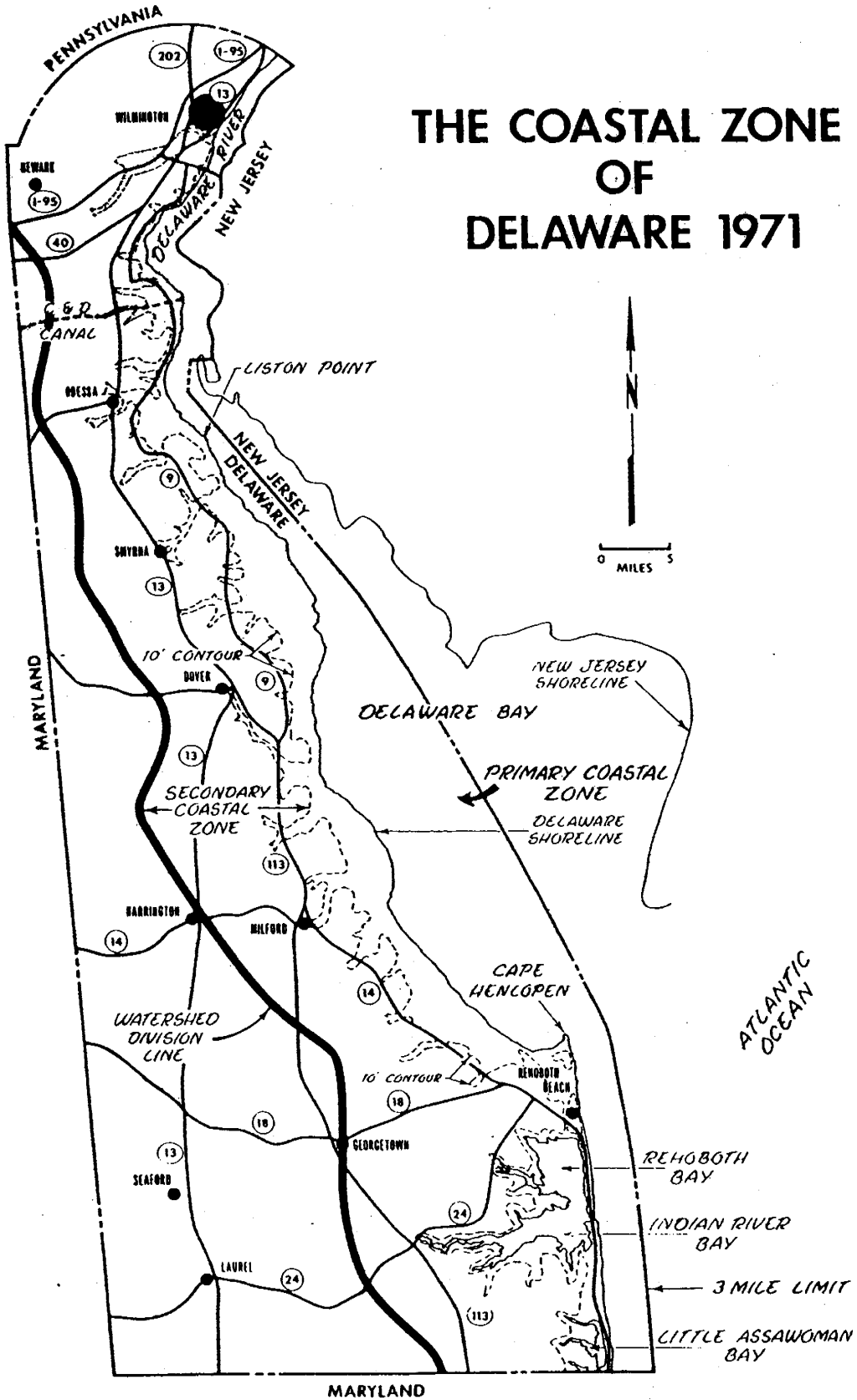
	<u>Man Hours</u>		<u>Fish Caught</u>	
	<u>1955</u>	<u>1969</u>	<u>1955</u>	<u>1969</u>
Net	148,400	16,080	76,300	25,097
Party Boat	458,600	727,656	1,291,700	447,656
Private Boat	379,000	1,614,096	423,000	546,882
Shore and Jetty	412,500	1,118,592	159,600	23,380
TOTAL	1,398,500	3,476,424	1,950,600	1,043,015

policy, and Land Use policy, to name just a few), where and how the Coastal Zone will adapt to the pressures of population and the demands for goods and services becomes a critical issue.

The response of the Delaware State government to these pressures has been relatively swift. In June 1970, the General Assembly enacted a one-year moratorium on development such as diking, filling, bulkheading, dumping, and construction of piers along the state's coast line, in order to allow time for a more thorough study of this valuable resource by a Task Force appointed by Governor Peterson. On July 5, 1971, the Governor approved an amendment extending the moratorium to February 28, 1972. The Task Force issued a preliminary report in February of 1971 with recommendations for the establishment of a Coastal Zone which would include all of the state's estuaries, bays, and contiguous wetlands. Primary and Secondary zones were recommended, with limits indicated in Figure 5 (also Figure 1 in Preface). In June 28, 1971 the General Assembly of Delaware enacted the Coastal Zone Act, a law whose purpose is repeated in the following quotation from the legislation:

It is hereby determined that the coastal areas of Delaware are the most critical areas for the future of the State in terms of the quality of life in the State. It is, therefore, the declared public policy of the State of Delaware to control the location, extent and type of industrial development in Delaware's coastal areas. In so doing, the State can better protect the natural environment of its bay and coastal areas and safeguard their use primarily for recreation and tourism. Specifically, this chapter seeks to prohibit entirely the construction of new heavy industry in its coastal areas, which industry is determined to be incompatible with the protection of that natural environment in those areas. While it is the declared public policy of the State, to encourage the introduction of new industry into Delaware, the protection of the environment, natural beauty and rec-

THE COASTAL ZONE OF DELAWARE 1971



reaction potential of the State is also of great concern. In order to strike the correct balance between these two policies, careful planning based on a thorough understanding of Delaware's potential and her needs is required. Therefore, control of industrial development other than that of heavy industry in the Coastal Zone of Delaware through a permit system at the State level is called for. It is further determined that offshore bulk product transfer facilities represent a significant danger of pollution to the Coastal Zone and generate pressure for the construction of industrial plants in the Coastal Zone, which construction is declared to be against public policy. For these reasons, prohibition against bulk product transfer facilities in the Coastal Zone is deemed imperative.

In the bill, the coastal zone was defined by using state highways and maintenance roads as boundaries on the landward side, while using the state's territorial limits on the seaward side. The width of this area varies from about a mile at the Delaware-Pennsylvania line on the Delaware River at the north to ten miles at the widest portion of Delaware Bay, with its western border covering wetlands that extend up to five miles inland. Figure 6 depicts the Coastal Zone boundary so defined, and its relationship to the zone recommended by the Task Force.

In this coastal zone area, the Act bans all heavy industries and port or dock facilities not in existence at the time of passage of the Act and requires a permit for all other manufacturing uses or expansion of existing heavy industrial uses. Heavy industries were defined as those:

...involving more than twenty acres, and characteristically employing some but not necessarily all of such equipment such as, but not limited to, smoke stacks, tanks, distillation or reaction columns, chemical processing equipment, scrubbing towers, pickling equipment, and waste treatment lagoons; which industry, although conceivably operable without polluting the environment, has the potential to pollute when equipment

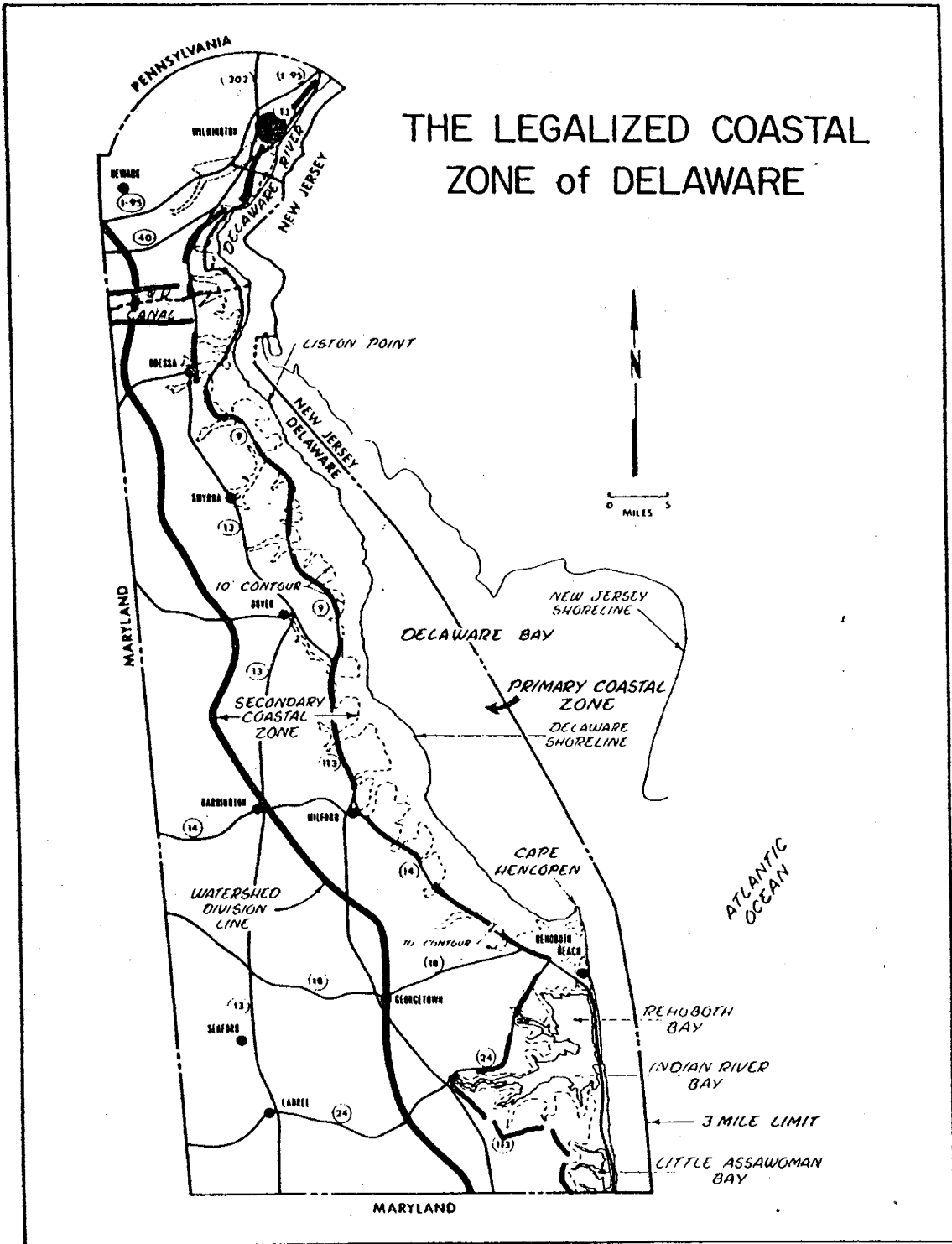


Figure 6

malfunctions or human error occurs. Examples of heavy industry are oil refineries, basic steel manufacturing plants, basic cellulosic pulp paper mills, and chemical plants, such as petrochemical complexes. Generic examples of uses not included in the definition of "heavy industry" are garment factories, automobile assembly plants and jewelry and leather goods manufacturing establishments.

Manufacturing uses were defined as those involving:

...the mechanical or chemical transformation of organic or inorganic substances into new products, characteristically using power-driven machines and materials handling equipment, and including establishments engaged in assembling component parts of manufactured products, provided the new product is not a structure or other fixed improvements.

The administration of the permit system for manufacturing uses is to be undertaken by the State Planning Office with appeals of decisions by the State Planner being considered by a State Coastal Zone Industrial Control Board created by the Act.

The review of permit applications is required to consider the following factors:

(1) Environmental impact, including but not limited to, probable air and water pollution likely to be generated by the proposed use under normal operating conditions as well as during mechanical malfunction and human error; likely destruction of wetlands and flora and fauna; impact of site preparation on drainage of the area in question, especially as it relates to flood control; impact of site preparation and facility operations on land erosion; effect of site preparation and facility operations on the quality and quantity of surface ground and subsurface water resources, such as the use of water for processing, cooling, effluent removal, and other purposes; in addition, but not limited to, likelihood of generation of glare, heat, noise, vibration, radiation, electromagnetic interference and obnoxious odors.

(2) Economic effect, including number of jobs created and the income which will be generated by the wages and salaries of these jobs in relation to the amount of land required, and amount of tax revenues potentially accruing to state and local government.

(3) Aesthetic effect, such as impact on scenic beauty of the surrounding area.

(4) Number and type of supporting facilities required and the impact of such facilities on all factors listed in this subsection.

(5) Effect on neighboring land uses including, but not limited to, effect on public access to tidal waters, effect on recreational areas, and effect on adjacent residential and agricultural areas.

(6) County and municipal comprehensive plans for the development and/or conservation of their areas of jurisdiction.

A Delaware Bay Oil Transport Committee had also been appointed by the Governor, charged with the task of studying the logistics of transport of oil to and from Delaware River and Bay port facilities and preparing within one year a recommendation for developing and operating oil terminal facilities that would provide for much increased protection from spills, and thereby safeguard our Coastal Zone and its recreational potential. The Committee prepared a statement of work which defined those steps necessary to satisfy the charge of HJR 18. This statement of work was sent to nationally recognized firms with a request for proposals. The statement of work required a study to evaluate alternative oil transport systems to define the safest way to move petroleum up the Delaware River and Bay to existing refineries. From this study came a final report and recommendations that, if a port were forced onto this area by Federal action, that it would best be located in Delaware Bay from a safety viewpoint. The Governor has more recently appointed a Wetlands Action Committee charged with the task of formulating and recommending ways for

protecting the valuable wetlands.

The most recent activity within the state aimed at the intelligent management of our coastal zone resources has been what is commonly referred to as the "Quality of Life Package" proposed by Governor Tribbitt in early 1973: the Governor's proposals (1) would extend regulation of activity to residential and commercial development in the Coastal Zone; (2) would levy a charge on each barrel of oil lightered or delivered in Delaware waters to create a fund for paying damages that might arise from an oil spill; (3) would define the state's wetlands and give the state permit control over any activities in the wetlands; (4) would require licensing and regulation of all interstate and intrastate pipelines. Two additional components of the "Quality of Life Package" dealt with matters not so specifically related to the Coastal Zone and are therefore not mentioned here. There can be no question that these proposed actions will have their influence upon the future economic and social development of Delaware's Coastal Zone.

III. HISTORICAL PERSPECTIVE

The socio-economic forces which have contributed to the Delaware of today have their roots in the 17th century. At that time, the bay as a navigable waterway saw explorers wend their way from the mouth at the capes upstream toward what is now Wilmington and points north. Transportation and recreation in particular have always played an important role in Delaware's development. With respect to the former, history shows that marine transport was a key factor in the state's early overall development, a later factor in the polarization of activity at the northern and southern extremities, and the lack of it, a major factor in the insular quality of the state's bayshore lifestyle. Industrialization has been a major factor in the development of the state, north of the C & D Canal, while recreation has been the principal motivating force in lower state development. In this section we will look closely at these aspects of Delaware's past, while recognizing the importance of transportation as a unifying thread in both areas. The economic significance of transportation will be considered in the context of serving these two activities. The absence of reference to commercial fishing as a key factor in Delaware's development is intentional. Though common to every period of Delaware's history, its overall contribution economically speaking has been small. Its socio-economic implications, on the other hand, are significant because of the freedom of lifestyle offered the Coastal Zone dweller who engages in commercial fishing,

sometimes as a second vocation.

Looking first at the early period of Delaware's development, maps and charts published in 1779 and 1799-1801 indicated extensive shoaling along the bayshore south of "Deep Water Point" (Port Mahon), some eight miles south of Bombay Hook. Depths of from three to six feet extending as much as one mile offshore were common, except at the mouths of some of the larger navigable creeks and rivers which drained into the bay. An 1807 description of Delaware Bay by Scott noted that these streams were generally bordered with large marshes; hence, banks were soft and bottoms muddy. The generally marshy nature of the coastline south of Little Creek and the consequent hazards to travel recorded by Conrad, coupled with the navigability of some of the rivers gave impetus to the development of marine transportation rather than land transportation for serving the early coastal communities. Overland communication in the form of post roads was established sufficiently far inland to avoid the bayshore inconveniences and dangers.

Although the economy of the lower counties was built upon an agricultural base, it was characterized by activities other than transportation which were dependent upon the bay. As a case in point, Little Creek, a fishing community and general port was also an important shipping point for marsh hay, which was harvested and used for making rope and excelsior. In general, many of the swamps on the rivers and bay were made valuable by raising dikes which prevented their being overflowed by tides. Early history is also replete

with efforts to reclaim marshlands as pasture by the use of drainage canals, and mill dams interfered with fisheries. Even at this time, man through his relatively primitive technology was interacting unfavorably with his environment for economic reasons, although history also records that natural phenomena, such as storms, frequently reduced the land to its original condition, caused extensive erosion, and even changed the location of stream mouths and bay inlets.

To the south, the ocean shore was virtually undeveloped and isolated. Communities on the streams and around the periphery of the small bays used these bodies of water almost exclusively for transportation and fisheries.

Recreation

There is no mention of "recreational" use of the waters either along the bay or ocean, although individuals undoubtedly fished, and probably as early as 1794, sea bathing was a diversion at the shore. During the latter part of the 18th Century it was noted that "Kitts Hummock" was used as a tenting ground and for basket picnics, so one may assume that the site was aesthetically pleasing, at least to the local inhabitants.

The information available concerning the early period leads one to conclude that the coastal zone environment, while useful for transportation, was otherwise considered inhospitable, and that man's interaction with that coastal zone environment through his institutions was only slightly harmful, because technology just was not up to the

task of large-scale or lasting modification. During this period, the absence of commentary on recreation probably reflects a preoccupation with work, long travel times, and a society not yet conditioned to mass play, rather than a conscious avoidance of the subject.

Historians state that progress follows transportation, a comment which is clearly substantiated in the period from the 1820's to the 1880's, which saw major changes in Delaware's transportation systems. In 1836 a charter was granted the Delaware Railroad to build a southern line to the state boundary in the direction of Cape Charles, with full power to construct laterals, but the charter was forfeited. When the line was finally built in the fifties, some of the major marine shipping centers located at the head of navigation of tributary rivers were not on the route, while others, including Odessa and Smyrna, did not permit the railroad to enter. The resulting economies of rail transport caused a shift in development emphasis away from the shoreline, since the railroad right-of-way was further inland than the post roads which connected the ports.

During the latter part of this period, the small bays to the south also lost their trade route value. The combined effects of natural migration of the inlet mouth, alternative opening and closing of the mouth, and the limitations in the natural flow of tides induced by man-made canals, significantly reduced the allowable draft for trading vessels. Meanwhile, the railroad was extended to Seaford, Rehoboth and Chincoteague Sound to the south. Thus, in spite of the advent of the steamboat during this same period, the overall decline

in the influence of marine transport upon Delaware's development was complete.

The advent of improved transportation, particularly the railroad, also made its mark on the nature of recreation. Long working hours, the growth of urban centers, and changing social mores influenced the demand for easily accessible recreational opportunities; thus, with the steamboat and the railroad came the beginning of pleasure travel and the growth of the "summer resort." A booklet called "The Fashionable Tour" published in 1825 signaled the new trend. Sea bathing became popularized and "watering places" began advertising their pleasures as a new industry was born.

The impact of these changing conditions in Delaware was reflected in recreation both north and south. Although the 1855 legislature incorporated the Rehoboth Hotel Company and granted use of 5 acres near Indian River Inlet on condition that a hotel be raised in five years, the development was not accomplished until 1875, and in 1876 it was noted in Philadelphia that

South of Cape Henlopen and about 6 miles from the town of Lewes, there is a newly established watering place called Rehoboth City on account of its proximity to Rehoboth Bay.

By 1877 a second hotel and a few cottages had been built at Rehoboth City. Meanwhile, one mile up the strand at Rehoboth Beach, a 100-acre tract had been purchased on which to build a resort. A large number of lots were sold for \$50 each and by 1873 two summer hotels and several cottages were built for the many guests attracted to the area. Thus, after ten years of access only by stage or private

conveyance from Lewes, the development of Rehoboth Beach, originally projected as a church-sponsored summer resort and camp meeting place, began in earnest in the early 1880's. By 1881 increasing numbers of rooms were available in boarding houses, cottages and hotels to accommodate the growing numbers of permanent guests. In 1884 the railroad was extended down the main street to the beach, where an 8-foot wide 1-1/2-mile long boardwalk was built along the 200-foot wide beach. A new seashore summer resort was born.

To the north, on the bayshore, there were a number of recreational sites which evidenced development during this period. Bombay Island, a great part of which was reclaimed marsh, was a pleasure resort for campers in tents and day excursions. Regular steamer trips were run between the "Hook" and Philadelphia; hotels, tents, a dance hall, and a pier were among the facilities available.

To the south at Kitts Hummock, where tenting and picnicking had been popular, a hotel was built and oysters planted at a reported expense of \$105.00 per oyster, with the thought that there would be a benefit to the hotel business. Although the hotel failed, the oysters proliferated and were to be found in great abundance. By the end of the period, "Kitts" boasted one hotel and 30 cottages. There is substantial evidence that the shoreline from "Kitts" south to Slaughter and Primehook creeks was subject to erosion averaging six feet per year during this period, and that the 6-foot water depth contour also moved landward during this period. In view of the nature of the mud flats and silt overburden that existed along much of the

shoreline, it is possible that a single storm could erode 1/2 foot of silt and in so doing cause an apparent landward movement of the shoreline of 500 feet.

Some 12 miles south at Bowers Beach, participating recreationists were the more local inhabitants of the area. Although records indicate that this area too was subject to severe erosion and suffered substantial changes in the location of the mouth of the Murderkill, bathing was good at Bowers Beach. Bath houses and bathing suits were available, and both trout fishing and oystering were excellent. Big Thursday, a local holiday celebrated to commemorate the reopening of the oyster season after its legislated annual closure, was observed in August every year at Bowers and also at Slaughter Beach. Thousands, mostly local farmers and working-class people, attended for a day of fun and frolic and returned to their homes at nightfall.

In summarizing the information available for this period, the bayshore form of recreational usage appeared to depend primarily upon setting. One must therefore conclude that the perceived quality of the environment was aesthetically pleasing even though the bayshore and waters were very likely turbid.

Ocean shore activities, on the other hand, appeared to be evolving in a manner responsive to the mass recreation demands of the new shore resort concept, supported by vastly improved mass transportation systems. The relative extent of participation was still low, however, because of long working hours and what was still a relatively long trip for only a brief recreational interlude. Man's

interaction with the marine environment appeared to be no more severe during this period than the one preceding it.

The 1890's began to see the United States flex its technical muscles, and large scale engineering projects were undertaken to improve the navigability and safety of Delaware Bay. Breakwaters and jetties were built for harbor improvement, tributary river and main channels were dredged, and canals were modified to accept deeper draft vessels. Beach protection projects were also undertaken to preserve what was fast becoming an increasingly valuable recreational resource, the ocean shore of Delaware. Although summer residents commented on having had to move houses inland a number of times during this period, the net rates of shoreline erosion on both bay and ocean appeared to have decreased over that of the earlier period, due at least in part to some of the protective measures which had been taken.

By way of improved roads, southern Delaware was made much less insular, although much of Kent and Sussex Counties continued to lie off the beaten track. This situation prevailed because the farmer inhabitants there were opposed to spending much money on the construction of roads, with the net result that the old State Road and its accessory branches were in almost the same condition in 1900 as when they were originally laid out. Thanks to the duPont family, however, a fundamental north-south track, which followed the same course as the railroad, was completed in 1919. By 1936, one could go by road from north to south, the length of the state, in four

hours. Coastal waterborne transportation was all but gone, because by this time most of the tributary rivers in Delaware had shrunk much in depth and width, and deforestation of watersheds had caused waterways to silt.

The economic development of the bay and ocean coastal zones started to diverge rapidly during the middle of this period, not only because of accessibility but also because of changes in the economic and social fabric of the nation. By 1890 seashore summer resorts were legion, and prejudices against mixed bathing were totally gone. The packed beaches of the 1920's and 30's first demonstrated the universal acceptance of this form of recreation. Almost anyone could swim at public beaches if they were accessible to the working man with the limited time he had available. The demand was for close recreation: the day trip. The more remote the site, the less likely to attract the mass user. In the north during the early 1900's, in New Castle County, was old Augustine Beach; at these "pleasuring grounds," the locals mingled with crowds brought by excursion steamers from Philadelphia while splashing, crabbing, picnicking, and battling mosquitoes. By 1936 the Wilson Line between Philadelphia and Wilmington was the last remnant of recreational river travel, with at least five scheduled 2-1/2-hour trips per day. As the marshes were gradually drained, and in some cases used as dumps, the fish and game were disappearing from this part of the river, and the river was becoming increasingly polluted by oil from upstream refineries and passing ships. Progress and pollution were beginning to take their toll.

In Kent County, close recreation was available at Woodland Beach and at Bowers Beach, which had become a thriving village and popular summer resort by 1908. The inhabitants engaged in fishing and oyster dredging during the winter, while a "large" (in relative terms, since the instant carrying capacity was limited to a few small hotels and less than a hundred cottages) tourist population filled hotels and cottages from June to October and anglers converged on the area for sport fishing. By 1930, as the scale of recreation changed, the descriptive terms for Bowers also changed; they referred to it as a picturesque, quaint, hamlet with a permanent population of 246, which more than doubled (although probably still the same order of magnitude as twenty years earlier) in the summer. There were numerous boats for hire by fishermen, as well as facilities for handling personal boats, although treacherous channels and shifting sand bars were deterrents to yachting. It is safe to say that fishing had become the principal tourist attraction.

In Sussex County in the early 1900's, Slaughter Beach grew into a summer settlement for residents of Milford and adjoining towns, while Rehoboth Beach and Bethany Beach, which was four miles south of Indian River Inlet, were patronized by visitors from more than just the immediate area, because well developed road and rail transportation was available. Bethany Beach was a newly dedicated, quiet settlement sponsored by Maryland, Delaware, and Washington, D. C. congregations of Christian Church Disciples of Scranton, and it was originally accessible only by a torturous trip by boat and horse-drawn carryall.

At Rehoboth, local recreationists shared the beach with one-day excursionists from Wilmington and other stops along the way. Between Rehoboth and Bethany Beaches in 1920, the instability of Indian River Inlet was aggravated by a dry spell, resulting in total closure of the inlet for several years. In 1937 the inlet was reopened by the Corps of Engineers.

In the past two periods, the principal characteristics which warranted comment were the forms of recreational usage, the perceived quality of the environment, and the nature of man's interaction with the environment through his institutions. These same characteristics during this period continued to undergo change. Perceptions of quality found the bay falling into disfavor, possibly because the new forms of shore recreation brought participants into more intimate contact with the bay environment; thus, silt was no longer something that made it difficult to see through the water; it made you dirty if you got into it to swim. At the same time, improved transportation fed the swing of recreational activity toward the ocean shore.

The post-war period has seen significant changes in the environment, recreation, and socio-economic development. It has been recognized that further improved transportation, more leisure time, and increased affluence have resulted in making the ocean beaches and the waters and shores of the landlocked salty bays available to a larger population over an extended geographic area; the average work week over the period has been close to forty hours, while the road network and automotive vehicles have combined to raise the average speed of

automotive travel from 45 to 58 mph, about a 30% increase. A 1950 estimate of the fair market value of ocean beach community property was roughly 20 million dollars. By 1960 Rehoboth Beach was known as the nation's summer capital because of the large number of Washingtonians that came there and Bethany Beach, which had a permanent population of only 59 in 1910 had in excess of 400 in the later 1960's.

The summer cottage community of the past was augmented by the seasonal or vacation home belonging to an owner who had traveled an average 155 miles and/or 2 hours and 55 minutes to reach this water-oriented recreational opportunity. By 1969 development of the shoreline had proceeded to the point that 25% of Rehoboth Beach and 44% of Indian River Bay shorelines had been developed. This development included miles of dredged lagoons, hundreds of acres of marsh fill, and numerous vacation homes (a fivefold increase over the number in 1938). The ocean and small bay shores are increasingly under intensive recreational development pressure, pressure which may accelerate an already noticeable environmental degradation resulting not only from human wastes but also from the continually growing numbers of water sport enthusiasts who depend upon internal combustion devices as a power source.

Except for accretions at Cape Henlopen, the recession of the Atlantic Coast shoreline was a continuing problem of this period. Jetties help in some areas at the expense of others. Beach nourishment was and is a continuing need, particularly at Bethany Beach, which is a nodal point in the littoral drift system (gives all - gets nothing).

Maintenance of the beaches appears to be a continuing requirement, one to be accommodated on a planning basis, since it seems unlikely that man through his institutions can substantially modify the process.

The bayshore had shown little change in development during this period; as a matter of fact, during the early part of the 50's, there was evidence of a decline in population at Bowers, although this was offset by a comparable increase in Slaughter Beach to the south. Although the total bay frontage from Kitts Hummock south exceeds ocean shore frontage by 30%, bay property values are only a fraction of those along the ocean. Bay pollution has increased, and extensive marsh drainage programs have been undertaken. Evidence indicates that during this period there has been an increase in the presence of biting flies which further detracts from the desirability of the area. Recreation along the bay is almost exclusively sport fishing.

Severe erosion of the bay shoreline is associated with storms or abnormal tide conditions; the storm of '62, with tides as much as five to six feet higher than normal, very badly damaged the bay communities between Kitts and Slaughter Beach. The low economic benefits attributable to the use of these beach areas has resulted in the Corps of Engineers' recommending against federally-sponsored beach nourishment programs, a factor which has additionally curtailed recreational development. Changes are taking place now, though, as typified by a 440-plus vacation home-lot development starting at Broadkill Beach.

As a result of the brief look at this post-war period, it appears

evident that the bay shores, whether by design or by accident, have maintained a substantial degree of isolation. Beaches are comparatively unattractive (vis-à-vis the ocean shore), and the water of the bay is as muddy as ever and probably more polluted. The ocean shore has been developing rapidly, with the result that there are massive influxes of people, extensive vacation home building, and a rapid growth in motorized water sports.

Commercial Fishing

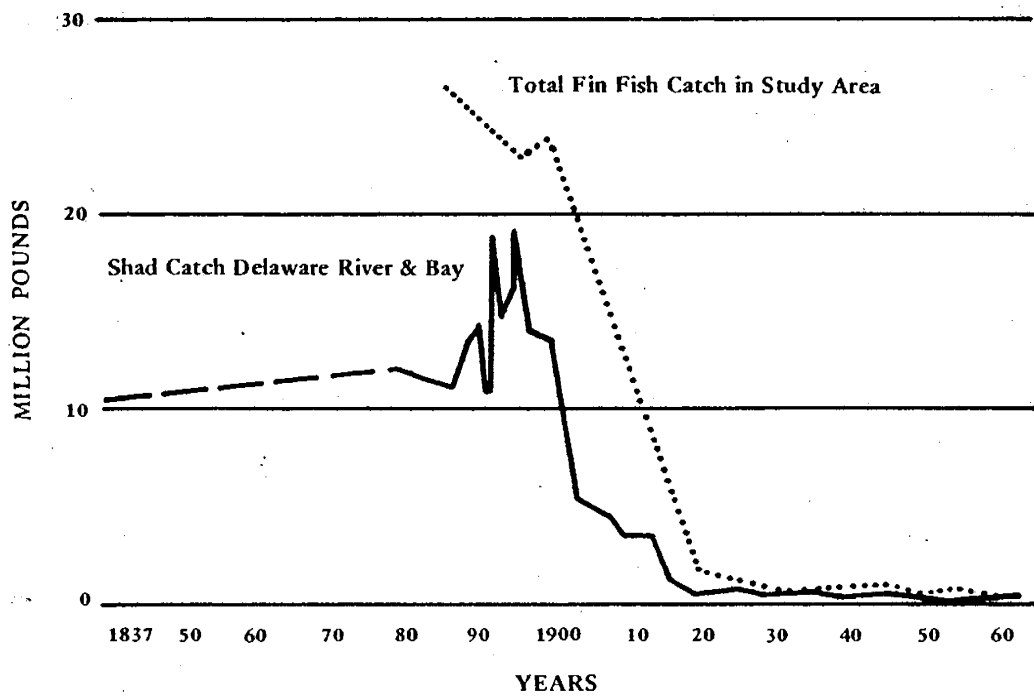
In "The History of the Commercial Fishing Industry in Delaware," J. G. Horn (1957) noted that the importance of commercial fishing in Delaware which predates the arrival of the white man is principally associated with oysters, sturgeon, shad, clams, and menhaden, the latter being a species fished almost exclusively for non-food values. As noted in the introduction to this section, the importance of commercial fisheries when measured in relation to other forms of economic development can hardly be considered significant. But the environmental implications connected with the precipitous nature of the decline of these wild creatures and the effect of the change upon the marginal and seasonal wage earner continues to cause attention to be focused on this resource.

Among the food species, the two most frequently harvested were the shad and the sturgeon, although the latter, as late of 1875, was considered to be a nuisance because it damaged shad nets when inadvertently captured in them. In the late 1880's Delaware was famous for its shad and sturgeon, the latter supplying much of the

world's caviar market. New Castle and Delaware City were important ports for the sale of the annual 14 million pounds of shad caught in this period, although Wilmington and Bay Shore beach communities also shared in this fishery. Shad fishing was used as a source of supplementary income by those employed in shipbuilding and other vocations.

By 1918 industrialization of the Delaware River Basin appeared to have seriously hurt the fishery (Figure 7), and by 1933 few commercial fishing operations were still functioning. Hopes for revival were high in 1934 due to a large return of shad, but this did not reoccur. By 1936, the demise of the sturgeon fishery was also an accomplished fact. Horn reports that the same 100- to 400-pound fish which sold for as little as 50¢ to \$1.00 then (in 1918), in 1936 brought \$300; the same 160-pound keg of roe that sold for \$6 to \$8.00 then sold for \$300 per keg wholesale, and \$1000 per keg by the time it reached the table.

The commercial oyster industry as we know it, started around Mahon and Little Creek. Little Creek oysters provided one of the most important industries of the commonwealth in the later 1760's. Even then it is recorded that oysters were overfished, with yields being reduced from 30 to 5 bushels per day, due in part to fishing by ships that came from as far away as New York and Philadelphia. Oysters and cockles of Assawoman Bay were destroyed when it was claimed that an inlet was closed as a result of a canal construction between the bay and Assateague Sound. Originally, an imaginary line from Mahon



HISTORICAL VARIATION IN FINFISH AND SHAD HARVESTS.

Figure 7

east, called the "Old East Line," separated state beds of seed oyster from private beds, the latter being rented from the state for 50¢ to \$1.00 per acre. Oysters were generally bagged or packed in baskets and driven to Wilmington. Between the time of the Civil War and 1885, oyster fleets increased in size to as many as 200 boats. By 1933 however, decreased numbers of oyster beds and restrictive legislation led to a decrease in the bivalve industry. The oysters in the little bays were wiped out in the early 1930's as a result of a drastic change in salinity induced by a natural closing of Indian River Inlet. Navigation was impaired, marine vegetation and the seafood industry were destroyed, and excellent breeding grounds for mosquitoes developed. The salt water returned in 1938-39 and the industry was reestablished. The industry was valued at \$4.5 million in 1954 and employed more than 3,000 men. The Allen Kirkpatrick Company outside of Rehoboth was probably the world's largest frozen oyster plant, employing 200 to 210 men, of whom 74 to 80 were shuckers. The value of oyster landings in Delaware in that same year as shown in Table 2 was in excess of \$2.7 million. This table and Figure 8 both serve to indicate the manner in which oyster landings from Delaware Bay have declined. The sharp drop in 1959 was attributed to the incidence of MSX, a protozoan parasite which caused mortalities of up to 95% on the oyster beds.

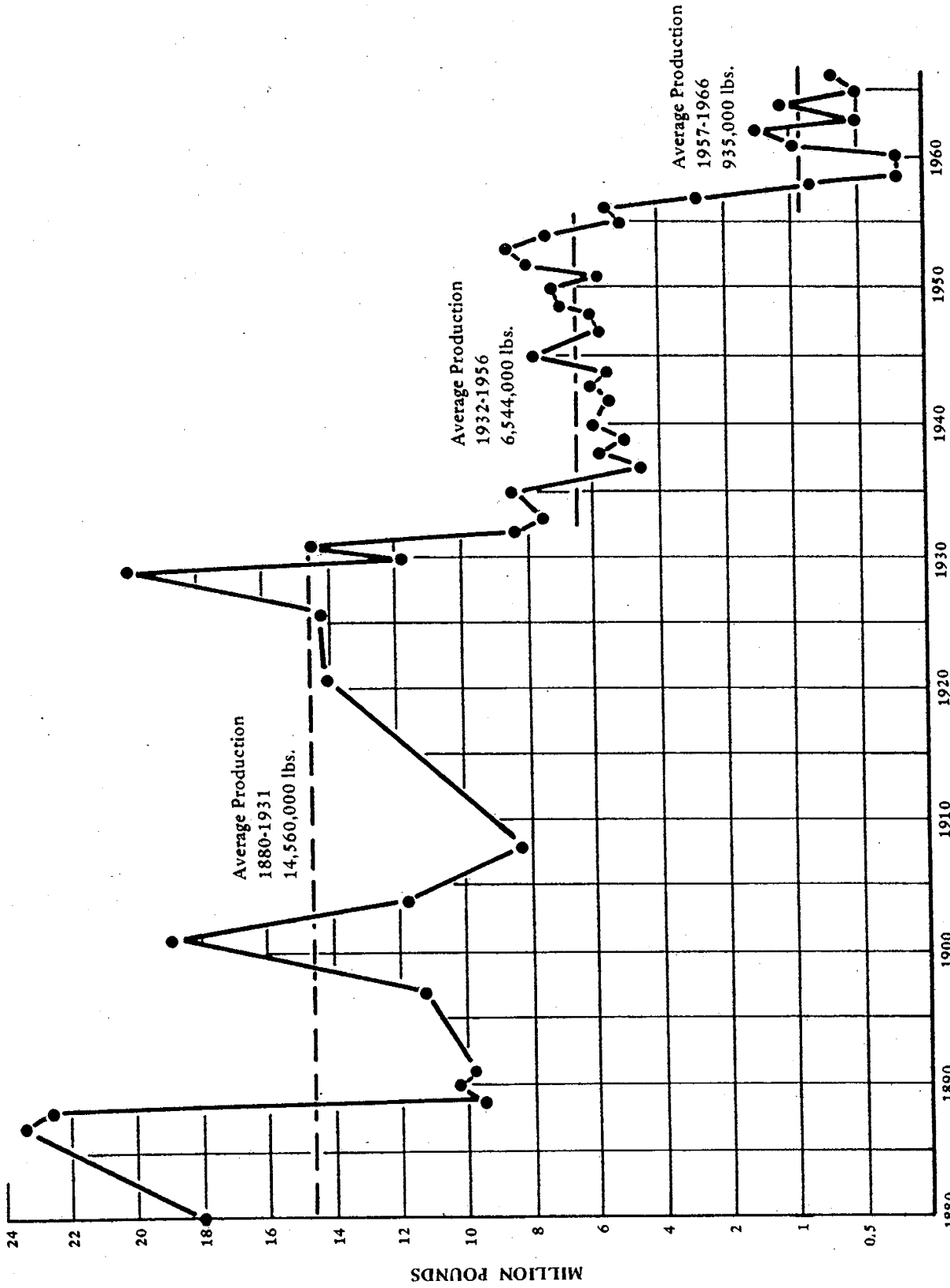
A number of other aquatic species have at one time or another had commercial value as a fishery in Delaware. The diamond back terrapin, which was at one time so abundant that slaveowners are reported to have agreed not to feed their Negroes on them oftener

Table 2

Oyster Landings in Delaware
(1954-1968)

Year	Pounds of oyster meat	Value
1954	4,340,000	\$2,725,520
1955	3,290,400	1,603,700
1956	1,893,600	782,850
1957	4,194,200	2,226,720
1958	2,410,100	1,717,262
1959	295,000	158,785
1960	176,200	119,683
1961	32,900	18,791
1962	80,600	60,488
1963	40,400	25,086
1964	44,700	26,984
1965	34,100	28,000
1966	45,100	35,518
1967	61,300	40,000
1968	43,000	41,000

Source: Fishery statistics for year of record from the U.S. Bureau of Commercial Fisheries, Department of Interior, Washington, D.C.



YEARS
Figure 8

than once a week, became a gastronomic fixture in Washington D. C. when President Jackson was in office. By the mid-1930's the animals were almost extinct except as artificially cultured. According to the Governor's Task Force Report, croakers, weakfish and porgies were fished by a trawling fleet in lower Delaware Bay from 1946-66, with generally unprofitable results.

Lobsters, blue crabs, and clams have also been fished as available for more than a century, contributing largely to the earnings of the "watermen." Table 3 shows the yield and value for the latter two during the period 1954-68.

As noted earlier, the most important nonfood species in Delaware was the menhaden, a species found in large numbers between North Carolina and Maine. In 1883, for biological and environmental reasons not fully understood, the fish deserted the more northerly climes, appearing in much greater abundance off Delaware Bay. Lewes was the center of the Delaware menhaden processing industry. There the fish were processed for oil, and the residue dried for fertilizer or chicken feed. Two companies in 1935 processed 434,000 bbls of menhaden. The larger of the two, the Consolidated Fisheries Company, operated nine fishing vessels and took 65% of the catch. This company, originally known as the Coast Oil Company, built a plant in 1912 which later was used as a minesweeper base by the Navy. According to Mr. Ham, the company was run by the Hayes brothers between 1923 and 1954 and employed over 600 men. Bureau of Commercial Fisheries statistics, reported in the Governor's Task Force on Marine and Coastal Affairs,

Table 3

Year	<u>Total Clam Meats</u>		<u>Blue Crab</u>	
	Quantity Millions of Pounds	Value Thousands of Dollars	Quantity Millions of Pounds	Value Thousands of Dollars
1954	.481	240.0	2.912	253.3
1955	.444	154.0	2.749	240.8
1956	.806	255.5	3.580	424.0
1957	.697	174.0	4.922	411.6
1958	1.102	197.0	2.455	186.0
1959	2.048	296.0	1.650	125.1
1960	.962	240.0	2.109	230.0
1961	.582	232.0	.813	67.0
1962	.477	155.0	1.910	128.0
1963	.262	106.0	.522	34.8
1964	.418	185.0	.313	33.3
1965	.363	185.0	.558	47.2
1966	.264	140.0	.571	49.5
1967	.299	155.0	.288	34.3
1968	.242	122.0	.223	40.0

indicated that during the mid-1950's, the menhaden catch landed in Delaware was half of the total regional catch and had a dollar value in excess of four million.

In a review of Delaware's economy in 1958, it was observed that the menhaden fishery representing about 95% of the sales resulted in an astronomical growth of Delaware's commercial fishing industry between 1938 and 1957. However shellfish, which represented only 3% of the take by weight, contributed more than 43% of the value. As can be seen in Table 4, the total dollar value of these fisheries exceeded six million. In 1964, for lack of fish, the menhaden plant closed and fishing operations moved far to the south. The recent dramatic decline of the fishery is evidenced by the statistics presented in Table 4.

The other principle nonfood commercial fisheries of Delaware served the purely local fertilizer markets. Herring which passed through the C & D Canal were subject to fish kills which resulted in immense numbers being hauled away by farmers for use as fertilizer.

The horseshoe crab of Delaware Bay was similarly harvested for fertilizer. Huge mounds of the animals were air dried along the bay beaches before being ground for fertilizer at Laurel and Smyrna.

Industrial Development

In describing the industrial development of Delaware's Coastal Zone, it becomes necessary to refer to the earlier noted differentiation between those activities for which it is essential to locate in the coastal zone and those that traditionally locate there.

Table 4

	Landings (Millions of Pounds)		Value (Millions of Dollars)	
	All	Ind.	All	Ind.
51	175.6	166.5 - 95.0	3.78	1.91 - 50.5%
52	212.6	207.6 - 97.5	3.53	2.02 - 57.3%
53	367.5	360.8 - 98.2%	6.17	3.97 - 64.4%
54	315.2	306.5 - 97.3%	7.83	4.48 - 57.3%
55	317.0	307.5 - 97.0%	6.36	4.09 - 64.1%
56	360.8	352.9 - 97.8%	6.21	4.62 - 74.5%
57	298.0	286.3 - 96.3%	6.17	3.67 - 59.5%
58	276.5	269.7 - 97.3%	5.97	3.78 - 63.3%
59	285.8	281.1 - 98.5%	3.80	3.15 - 82.9%
60	284.2	280.7 - 98.7%	3.37	2.75 - 81.5%
61	304.7	302.8 - 99.1%	3.74	3.36 - 89.9%
62	271.7	268.7 - 99.0%	3.18	2.78 - 87.4%
63	104.2	102.8 - 98.5%	1.29	1.06 - 82.2%
64	33.8	32.6 - 96.5%	.68	.38 - 56.0%
65	48.0	46.5 - 97.0%	.91	.58 - 63.8%
66	5.5	4.2 - 76.5%	.34	.05 - 14.7%
67	.9	- 0	.26	- -
68	.7	- 0	.23	- -

One would have every reason to expect this to change as technology changes. Thus, it was essential that the early location of mills be on streams because they provided a necessary source of power. After the development of steam power, however, location on streams became more a matter of choice or tradition.

Determination of essentiality on the basis of both technology and cost factors, such as proximity to transportation and availability of process water, is more difficult. Thus, before the advent of reliable low-cost pipe-line transport, proximity to process water was more of a necessity than a tradition, although the pressure of competition was fierce and always worked to minimize costs--at least until the late 1960's. The subsequent discussion of industries, particularly those north of the C & D Canal will be developed in light of these considerations.

In the Delaware of the late 18th and early 19th century, industry grew slowly. In this period, localism resulted from transportation costs which inhibited the distribution of manufactured goods unless connections by water were available. Whitham (1964) in a study of business and government in 19th century Delaware noted:

We have, then, for the America of about 1800, a picture of a nation that was a congregation of localities, ill-connected by poor transportation media. On a smaller scale, Delaware may be seen as much the same: essentially a rural, agricultural state, with such manufacturing as there was beyond a strictly village level concentrated mostly in New Castle County. Much of the transportation was by water, for the multitude of creeks and rivers criss-crossing the state offered ready access to the Delaware River and Bay, and thence to whichever other river or creek served the community sought. Some of these waterways provided power for manufacturing plants, but such facilities, though numerous, were small.

Brandywine Creek, a source of power in the northern part of Delaware, was the scene of most of the industrial activity; principally mills -- grist, powder, snuff, cotton, and paper. As many as 80 mills were operating there in the early 1800's. Grain was brought from as far as Lancaster, Pennsylvania, and northern Maryland since it could be shipped to the mills via the Christina River faster than overland to Philadelphia. Mills also existed in large numbers on the tidal creeks of Kent and Sussex counties; they handled the grown crops which were the staple products then produced in the area. Some of the principal streams used were Little Duck Creek, Mispillion Creek, Cedar Creek, and Broad Creek.

In the north, the introduction of steam power changed the focus of development from the Brandywine to the Christina, exchanging water power for navigable waterways. This convenient and efficient means for the movement of goods, persons, and ideas was fundamental to the economic development of the various communities; thus the geographic position of Wilmington on three navigable bodies of water supported the further development of the area. Post-revolution foreign commerce was encouraged, thus building West Indies trade, particularly with Cuba, and trade with Ireland. By 1810, population growth nationally and regionally created unprecedented demand for flour, grain, variety foodstuffs and manufactured goods, distributed mainly by ships in coasting trade with eastern states and Nova Scotia; 22 vessels traded out of the port of Wilmington at this time. Shipbuilding became an important industry in response to the local demand. Steamboats

were built from 1787 on, many being used in passenger trade between Wilmington and Philadelphia. A slitting and rolling mill using imported ore was built in the same year and shortly thereafter the soon-to-be-famous leather industry of Wilmington was started. In spite of the apparent growth of industry in Wilmington, an overall perspective of the state's development led to the conclusion that commercial enterprises rather than industry flourished. Sites of downstate activity were typically located at the limit of navigation on the tidal creeks, and supported the operation of terminals, shipbuilding, milling, and frequently some form of commercial fishery. General availability of marine transportation was the criterion of essentiality during this period, although some heavy process water use also made its appearance.

The advent of the railroad, replacing turnpikes, had a major impact upon the pattern of industrial development of Delaware, further focusing industrial activity in Wilmington as a marine transfer terminus. Essentiality became synonymous with large-scale cargo movement, continuing the emphasis on transportation. Increasing amounts of marine transportation and the size of vessels led to Wilmington channel improvement by the federal government in 1836 and again in 1870, and to further expansion of shipbuilding as an industry. The coming of the railroad also changed the nature of agriculture by fostering crops such as fruit and produce, thereby decreasing the value of water transport from mill sites along the tidal creeks. Frederica, which until 1857 was a commercial center of importance, saw much of its commerce

diverted to rail, resulting in a general decline. Smyrna, once a great shipping center, did not want the railroad for fear of its detrimental effects on trade and the "breeding of fine horses." The outcome was a significant decline in the economy of the community and its role in the economy of the area. Chief among the coastal zone communities adversely affected by the railroad was New Castle which, with deep water at its wharves, seemed destined to rival Philadelphia. The combination of industrial growth along Wilmington's creeks, the C & D Canal, the all-rail route to Baltimore and Washington via Wilmington, and the transfer of seats of government, all contributed to its decline.

The Civil War brought further expansion of shipbuilding capability which continued through the turn of the century, lagging somewhat until World War I, which produced greatly increased activity. A modern harbor was constructed between 1921 and 1923 to accommodate the increased commerce coming to the port of Wilmington. However, the advent of the steamship and increasing ship size saw the major port trade shift to Philadelphia. With the passing of the waterborne traffic, many of the service firms catering to the trade also disappeared. Without question, the turn of the 20th century saw the start of a steady decline in the fortunes of Wilmington and Northern New Castle County as centers of essential coastal zone-oriented activity.

In the southern portion of the state, during this same interval, very little industrial growth took place that had its roots in coastal zone activity. In Lewes in 1912, the giant sand dunes on Cape Henlopen became sources of engine sand to be used on slippery railroad

tracks. Two companies used drift sand and paid a royalty to the town for sand shipped. Many of the state's concrete roads used sand from these hills. The Lewes Sand Company which supplied only raw sand because of freight rates, could not compete with river sand companies, so it served only a local state market. The Henlopen Sand Company, organized in 1921, specialized in graded sands and shipped almost all of its products out of state. Pilots continuously offered their services over this period, operating from pilot boats based at Lewes. In 1896, in order to reduce cutthroat competition, reduce operating costs, and assure themselves more free time for a family life, the pilots formed an association which guaranteed schedule and opportunity. Three of eight pilot boats were kept on duty; earnings were pooled and divided evenly after expenses, and assignments were rotated. In 1926, the major industrial activities of Kent and Sussex counties included users of process water such as canneries, but proximity to materials and rail transport were probably more dominant factors in siting than were characteristics of the coastal zone.

The Federal Writers Project reports that between the middle 20's and early 30's shipbuilding and traffic to Wilmington declined dramatically. The closing of the Harlan Plant of Bethlehem Steel in the late 20's resulted in a major dislocation of skilled manpower. Pusey and Jones, and Jackson and Sharp, the two other big names in Delaware shipbuilding only produced yachts and pleasure craft. By 1936 only one of five shipyards originally attracted by the availability of Delaware white oak remained working in Milford, although

shipbuilding was still classed among the first three industries of the city.

The 1930's saw the beginnings of other major changes in the structure of Delaware's industries and in the role of marine transportation. On the Christina, near its mouth, a marine terminal was built, making Wilmington a sea port, as it had been formerly when a deeper and broader river had accommodated sailing ships. In the time between 1924-25 and 1934-35, cargo handled was reported to have increased from 122,000 to 360,000 tons. The growth of refineries along the banks of the river north of Wilmington resulted in the tanker-ship movement of almost 90 million barrels of crude oil in 1935. Seventy-seven steamship lines served river and bay ports and almost 54 million tons of cargo was carried by approximately 1400 steam and sailing craft. In 1937 Wilmington was reported as being third in the United States in number of documented vessels. As economies of production scale caused increased dependence upon large supplies of raw materials, the essentiality for locating industry in the coastal zone became associated with bulk transport and larger ships. The latter necessitated investment in the millions for dredging and maintaining a deeper channel, until finally the main channel of the Delaware River and Bay reached a depth of 40 feet.

In the period between the late 30's and the late 50's, the strategic site location of Northern Delaware, in terms of access to low cost transportation and proximity to market, was a contributory factor to renewed industrial growth. It is important to note at

this point in the discussion that transportation in Delaware has two aspects -- one which places the state in the role of a service bridge, performing only a transfer function, i.e., material only moves between the port and some out-of-state point of origin or destination. The other role is the movement of material to and from conversion plants within the state, which adds value through some manufacturing process.

Both aspects rely heavily upon marine transportation. The latter is more intimately tied to commerce and the economic health of the state.

The port of Wilmington component of growth during the period of the late 30's to the late 50's did not increase as rapidly as the remainder of Delaware's economy; however reported activities did not include statistics on private water carriers, particularly bulk carriers.

No. 134, Original

In the
Supreme Court of the United States

STATE OF NEW JERSEY,

Plaintiff,

v.

STATE OF DELAWARE,

Defendant.

**DELAWARE'S RESPONSES TO NEW JERSEY'S FIRST
SET OF INTERROGATORIES**

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The State of Delaware (“Delaware”), pursuant to the Case Management Plan and Case Management Order No. 5, provides the following responses to the First Set of Interrogatories propounded by the State of New Jersey (“New Jersey”):

General Objections Applicable to All Requests:

The following General Objections apply to each and every interrogatory and form an integral part of Delaware’s response to each interrogatory:

1. Delaware objects to the interrogatories to the extent that they seek information protected by the attorney-client privilege, work-product privilege, or any other applicable privilege that would make the information or documents immune from discovery in whole or in part.

2. Delaware objects to the interrogatories to the extent that they seek information already in the possession, custody, or control of New Jersey.

3. Delaware objects to the interrogatories to the extent that they call for information not in the possession, custody, or control of Delaware.

4. In responding to the interrogatories, Delaware answers only to the extent that each interrogatory is not objectionable.

5. Delaware has not yet completed its investigation relating to this lawsuit, and anticipates that further information will be discovered. Therefore, Delaware reserves the right to modify or supplement its responses. Specific responses to each interrogatory based upon information currently available are set forth below.

Interrogatory No. 1:

Describe in detail each and every fact that supports Delaware’s First Affirmative Defense, that “New Jersey’s claims are barred because this Court either lacks or should decline to exercise jurisdiction.” In answering this Interrogatory, state the date on which Delaware contends New Jersey’s claims became barred, and explain the facts supporting that contention. Identify all documents upon which Delaware bases its First Affirmative Defense.

Response:

By Order and Case Management Order No. 7, both dated June 13, 2006, the Special Master precluded discovery on this issue. Delaware reserves all rights it has with respect to this affirmative defense.

Interrogatory No. 2:

Identify (by name, title, employer, work address and work telephone number), all persons whom Delaware expects to provide testimony (whether by affidavit, declaration, deposition or live testimony) in support of Delaware's First Affirmative Defense, and describe the subject matter of their expected testimony.

Response:

By Order and Case Management Order No. 7, both dated June 13, 2006, the Special Master precluded discovery on this issue. Delaware reserves all rights it has with respect to this affirmative defense.

Interrogatory No. 3:

Describe in detail each and every fact that supports Delaware's Second Affirmative Defense, that "New Jersey's claims are barred by New Jersey's and/or BP's failure to exhaust all state and federal administrative or judicial remedies." In answering this Interrogatory, state the date on which Delaware contends New Jersey's claims became barred, and explain the facts supporting that contention. Identify all documents upon which Delaware bases its Second Affirmative Defense.

Response:

By Order and Case Management Order No. 7, both dated June 13, 2006, the Special Master precluded discovery on this issue. Delaware reserves all rights it has with respect to this affirmative defense.

Interrogatory No. 4:

Identify (by name, title, employer, work address and work telephone number), all persons whom Delaware expects to provide testimony (whether by affidavit, declaration, deposition or live testimony) in support of Delaware's Second Affirmative Defense, and describe the subject matter of their expected testimony.

Response:

By Order and Case Management Order No. 7, both dated June 13, 2006, the Special Master precluded discovery on this issue. Delaware reserves all rights it has with respect to this affirmative defense.

Interrogatory No. 5:

Describe in detail each and every fact that supports Delaware's Third Affirmative Defense that "New Jersey's allegations fail to state a claim upon which relief may be granted." Identify all documents upon which Delaware bases its Third Affirmative Defense.

Response:

The facts that support Delaware's Third Affirmative Defense are set forth in the Compact itself, the Court's 1934 decision finally determining the boundary between the two states, the pleadings in *New Jersey v. Delaware I* and *New Jersey v. Delaware II*, Delaware's previous pleadings in this case, and Delaware's Initial Disclosures at section I.A, which is incorporated herein by reference. To the extent Delaware has non-privileged documents that are responsive to this request that have not already been produced to or are not already in the possession of New Jersey, documents will be produced by Delaware consistent with the discovery agreement between the parties.

Interrogatory No. 6:

Identify (by name, title, employer, work address and work telephone number), all persons whom Delaware expects to provide testimony (whether by affidavit, declaration, deposition or live testimony) in support of Delaware's Third Affirmative Defense, and describe the subject matter of their expected testimony.

Response:

Delaware has not yet determined whether it will call any fact witnesses. To the extent that an answer is required, if Delaware decides to call fact witnesses, Delaware could decide to call any of the persons and entities identified in Delaware's April 28, 2006 Initial Disclosures. Delaware also identifies:

- A. David S. Small
Deputy Secretary
DNREC
89 Kings Highway
Dover, DE 19901
Tel: 302-739-9000
Expected Testimony – DNREC regulatory programs and activities in the twelve-mile circle

- B. Sarah Cooksey
Administrator of Delaware Coastal Programs
Division of Soil and Water Conservation
DNREC

89 Kings Highway
Dover, DE 19901
Tel: 302-739-9283
Expected Testimony – DNREC regulatory programs and Delaware’s Coastal
Zone Management Program

- C. Laura M. Herr
Head, Wetlands and Subaqueous Lands Section
DNREC
89 Kings Highway
Dover, DE 19901
Tel: 302-739-9000
Expected Testimony – Delaware subaqueous lands program and dredging in the
Delaware River

- D. William Moyer
Former Head, Wetlands and Subaqueous Lands Section, DNREC
Duffield Associates, Inc.
5400 Limestone Road
Wilmington, DE 19808
Tel: 302-239-8485
Expected Testimony – Delaware subaqueous lands program and dredging in the
Delaware River

- E. Philip J. Cherry
Director of Policy and Planning
DNREC
89 Kings Highway
Dover, DE 19901
Tel: 302-739-9000
Expected Testimony – DNREC regulatory programs and Coastal Zone Act
administration

- F. R. Peder Hansen
Environmental Program Manager II
Surface Water Discharges Section
Division of Water Resources
DNREC
89 Kings Highway
Dover, DE 19901
Tel: 302-739-9000
Expected Testimony – DNREC discharge program

- G. Ali Mirzakhali
Air Quality Management Section Program Administrator
Division of Air and Waste Management
DNREC
89 Kings Highway
Dover, DE 19901
Tel: 302-739-9000
Expected Testimony – DNREC air management programs and activities in the twelve-mile circle
- H. Kevin Donnelly
Director, Division of Water Resources
DNREC
89 Kings Highway
Dover, DE 19901
Tel: 302-739-9000
Expected Testimony – Delaware water resources regulatory programs
- I. Dawn M. Mitchell
Delaware Public Archives
121 Duke of York Street
Dover, DE 19901
Tel: 302-744-5000
Expected Testimony – Authentication of archived documents
- J. Joanne M. Mattern
Delaware Public Archives
121 Duke of York Street
Dover, DE 19901
Tel: 302-744-5000
Expected Testimony – Authentication of archived documents
- K. Representative - Delaware Department of Safety & Homeland Security
303 Transportation Circle
P.O. Box 818
Dover, DE 19903
Tel: 302-744-2680
Expected Testimony – Security for the Delaware River and LNG facilities
- L. Representative - The Historical Society of Delaware
505 Market Street
Wilmington, DE 19801
Tel: 302-655-7161
Expected Testimony – Authentication of archived documents

- M. Representative - New Jersey State Archives
225 West State Street – Level 2
P.O. Box 307
Trenton, NJ 08625
Tel: 609-292-6260
Expected Testimony – Authentication of archived documents
- N. Representative - New Jersey Historical Society
52 Park Place
Newark, NJ 07102
Tel: 973-596-8500
Expected Testimony – Authentication of archived documents
- O. Representative - Newark Public Library
5 Washington Street
Newark, NJ 07101
Tel: 973-733-7784
Expected Testimony – Authentication of archived documents
- P. Representative - Trenton Public Library
120 Academy Street
Trenton, NJ 08608
Tel: 609-392-7188
Expected Testimony – Authentication of archived documents
- Q. Representative - The Library of Congress
101 Independence Avenue, SE
Washington, D.C. 20540
Tel: 202-707-8000
Expected testimony – Authentication of archived documents
- R. Lauren Segal
Vice President
Crown Landing LLC
c/o Corporation Trust Center
1209 Orange Street
Wilmington, DE 19801
Tel: 302-658-7581
Expected testimony – Scope of proposed BP facility

- S. Tom A. Mueller
LNG External Affairs Director
Crown Landing LLC
c/o Corporation Trust Center
1209 Orange Street
Wilmington, DE 19801
Tel: 302-658-7581
Expected testimony – Scope of proposed BP facility
- T. Gary A. Shute
BP America, Inc.
1 West Pennsylvania Avenue
Suite 440
Towson, MD 21204-5000
Expected testimony – Scope of proposed BP facility
- U. Laurie Beppler
Crown Landing LLC
c/o Corporation Trust Center
1209 Orange Street
Wilmington, DE 19801
Tel: 302-658-7581
Expected testimony – Scope of proposed BP facility
- V. Representative - Delaware State Police
P.O. Box 430
Dover, DE 19903-0430
302-739-5901
Expected testimony – Delaware’s policing authority over the Delaware River within the twelve-mile circle
- W. Representative - Emergency Services, New Castle County
87 Reads Way
New Castle, DE 19720
Expected testimony – Fire and rescue calls in the Delaware River within the twelve-mile circle
- X. Representative - Delaware Fish & Wildlife
89 Kings Highway
Dover, DE 19901
Tel: 302-739-9000
Expected testimony – Delaware’s fish and game enforcement within the twelve-mile circle

- Y. Ruth Ehinger and Ann Marie Hoagland
New Jersey Coastal Zone Management Program
P.O. Box 418
401 E. State Street
Trenton, NJ 08625
Phone: (609) 633-2201
Expected testimony -- New Jersey Coastal Zone Management Programs
- Z. Representative - United States Coast Guard
1 Washington Avenue
Philadelphia, PA 19147
Expected testimony -- Fire protection rules for the Delaware River
- AA. Keith A. Trostle, Esquire
Formerly Employed by the Delaware Department of Justice
Carvel State Office Building, 6th Floor
820 North French Street
Wilmington, DE 19801
Expected testimony -- (1) Delaware regulatory programs; (2) Delaware subaqueous lands program; and (3) Delaware Coastal Zone Act enforcement
- BB. Kevin P. Maloney, Esquire
Delaware Department of Justice
Carvel State Office Building, 6th Floor
820 North French Street
Wilmington, DE 19801
Expected testimony -- (1) Delaware regulatory programs; (2) Delaware subaqueous lands program; and (3) Delaware Coastal Zone Act enforcement

Interrogatory No. 7:

Describe in detail each and every fact that supports Delaware's Fourth Affirmative Defense, that "New Jersey's claims are barred by estoppel." In answering this Interrogatory, state the date on which Delaware contends New Jersey's claims became barred, and explain the facts supporting that contention. Identify all documents upon which Delaware bases its Fourth Affirmative Defense.

Response:

Since the adoption of Delaware's first subaqueous lands laws in 1961, every significant project extending into Delaware sovereign lands in the Delaware River has been permitted and/or regulated by Delaware without objection by New Jersey. New Jersey has made no presently known objection to Delaware's regulatory authority in the twelve-mile circle until the filing of this lawsuit. New Jersey itself applied to Delaware for permits to refurbish a pier within

the twelve-mile circle at Fort Mott State Park and represented to FERC that Delaware has coastal zone jurisdiction over BP's proposed project. A list of relevant projects is contained within the affidavit of Philip J. Cherry and the affidavit of Kevin P. Maloney, Esquire, appendices 1 and 3 respectively, to the Brief of the State of Delaware in Opposition to the State of New Jersey's Motion to Reopen and for a Supplemental Decree, dated October 27, 2005. The files for these projects have been produced to the State of New Jersey pursuant to a FOIA request dated May 17, 2005. New Jersey is in the possession, custody, and control of all representations it has previously made regarding Delaware's coastal zone, and documents relating to BP's FERC application are publicly available. See FERC Dkt. No. CP04-411-000 (application of Crown Landing LLC). To the extent Delaware has non-privileged documents that are responsive to this request that have not already been produced to or are not already in the possession of New Jersey, documents will be produced by Delaware consistent with the discovery agreement between the parties.

Interrogatory No. 8:

Identify (by name, title, employer, work address and work telephone number), all persons whom Delaware expects to provide testimony (whether by affidavit, declaration, deposition or live testimony) in support of Delaware's Fourth Affirmative Defense, and describe the subject matter of their expected testimony.

Response:

Delaware incorporates by reference all persons and entities identified in its Response to Interrogatory No. 6 above.

Interrogatory No. 9:

Describe in detail each and every fact that supports Delaware's Fifth Affirmative Defense, that "New Jersey's claims are barred by waiver." In answering this Interrogatory, state the date on which Delaware contends New Jersey's claims became barred, and explain the facts supporting that contention. Identify all documents upon which Delaware bases its Fifth Affirmative Defense.

Response:

See Response to Interrogatory No. 7, which is incorporated herein by reference.

Interrogatory No. 10:

Identify (by name, title, employer, work address and work telephone number), all persons whom Delaware expects to provide testimony (whether by affidavit, declaration, deposition or live testimony) in support of Delaware's Fifth Affirmative Defense, and describe the subject matter of their expected testimony.

Response:

Delaware incorporates by reference all persons and entities identified in its Response to Interrogatory No. 6 above.

Interrogatory No. 11:

Describe in detail each and every fact that supports Delaware's Sixth Affirmative Defense, that "New Jersey's claims are barred by consent." In answering this Interrogatory, state the date on which Delaware contends New Jersey's claims became barred, and explain the facts supporting that contention. Identify all documents upon which Delaware bases its Sixth Affirmative Defense.

Response:

See Response to Interrogatory No. 7, which is incorporated herein by reference.

Interrogatory No. 12:

Identify (by name, title, employer, work address and work telephone number) all persons whom Delaware expects to provide testimony (whether by affidavit, declaration, deposition or live testimony) in support of Delaware's Sixth Affirmative Defense, and describe the subject matter of their expected testimony.

Response:

Delaware incorporates herein by reference all persons and entities identified in its Response to Interrogatory No. 6 above.

Interrogatory No. 13:

Describe in detail each and every fact that supports Delaware's Seventh Affirmative Defense, that "New Jersey's claims are barred by laches." In answering this Interrogatory, state the date on which Delaware contends New Jersey's claims became barred, and explain the facts supporting that contention. Identify all documents upon which Delaware bases its Seventh Affirmative Defense.

Response:

See Response to Interrogatory No. 7, which is incorporated herein by reference.

Interrogatory No. 14:

Identify (by name, title, employer, work address and work telephone number), all persons whom Delaware expects to provide testimony (whether by affidavit, declaration, deposition or live testimony) in support of Delaware's Seventh Affirmative Defense, and describe the subject matter of their expected testimony.

Response:

Delaware incorporates herein by reference all persons and entities identified in its Response to Interrogatory No. 6 above.

Interrogatory No. 15:

Describe in detail each and every fact that supports Delaware's Eighth Affirmative Defense, that "New Jersey's claims are barred by the doctrines of severability and unenforceability." In answering this Interrogatory, state the date on which Delaware contends New Jersey's claims became barred, and explain the facts supporting that contention. Identify all documents upon which Delaware bases its Eighth Affirmative Defense.

Response:

Delaware objects to Interrogatory No. 15 as overly broad and because the interrogatory calls for a legal conclusion. By way of further answer and without waiver of any objection, the parties never enacted uniform fishing laws required under the 1905 Compact, negating the validity of the 1905 Compact. To the extent Delaware has non-privileged documents that are responsive to this request that have not already been produced to or are not already in the possession of New Jersey, documents will be produced by Delaware consistent with the discovery agreement between the parties.

Interrogatory No. 16:

Identify (by name, title, employer, work address and work telephone number), all persons whom Delaware expects to provide testimony (whether by affidavit, declaration, deposition or live testimony) in support of Delaware's Eighth Affirmative Defense, and describe the subject matter of their expected testimony.

Response:

Delaware incorporates herein by reference all persons and entities identified in its Response to Interrogatory No. 6 above.

Interrogatory No. 17:

Did Delaware ever contend, prior to filing its Answer in December 2005, that Article VII or any other Article of the Compact of 1905 was unenforceable or was waived? If so, describe in detail each such statement or contention that was made. In answering this Interrogatory, state the date on which Delaware expressed that contention for the first time, the date of all subsequent statements expressing that contention, identify all documents reflecting or evidencing such contention, and identity all persons (by name, title, employer, work address and work telephone number) making such contention.

Response:

Delaware objects to Interrogatory No. 17 as overly broad. By way of further answer and without waiver of any objection, Delaware is continuing to research whether this question arose between the two States prior to the initiation of this action by New Jersey.

Interrogatory No. 18:

Identify (by name, title, employer, work address and work telephone number) any person whom Delaware expects to present expert testimony in this case, and, for each such expert, provide: a complete statement of all opinions to be expressed and the basis and reasons therefore; the data or other information considered by the witness in forming the opinions; any exhibits to be used as a summary of or support for the opinions; the qualifications of the witness, including a list of all publications authored by the witness within the preceding ten years; the compensation to be paid for the study and testimony; and a listing of any other cases in which the witness has testified as an expert at trial or by deposition within the preceding four years.

Response:

Delaware objects to Interrogatory No. 18 as premature. By way of further answer and without waiver of any objection, Delaware has not determined whether or not it intends to provide testimony through experts. Delaware will supplement this discovery response if and when it determines whether it will provide expert testimony.

Interrogatory No. 19:

Describe in detail each and every fact supporting Delaware's contention that the scope of Article VII of the Compact of 1905 is limited to the scope of projects contemplated when the Compact was adopted.

Response:

Delaware objects to Interrogatory No. 19 because it calls for a legal conclusion and is overly broad. By way of further answer and without waiver of any objection, Delaware has set

out the material facts in support of this claim in its previous pleadings. Delaware is aware of no evidence that the drafters of the Compact intended the phrase “continue to exercise riparian jurisdiction” to permit New Jersey to authorize a 2,000 foot pier that extends into Delaware’s sovereign territory, requires the dredging of 1.24 million cubic yards of Delaware subaqueous soil for the bulk product transfer of highly dangerous cargo from ships that are in excess of 1,000 feet in length, all for a use prohibited under Delaware’s environmental laws (laws that were not enacted or contemplated until after the Compact was signed). To the extent facts are necessary to support Delaware’s contention, they will be developed in discovery and this response will be supplemented as necessary. To the extent Delaware has non-privileged documents that are responsive to this request that have not already been produced to or are not already in the possession of New Jersey, documents will be produced by Delaware consistent with the discovery agreement between the parties.

Interrogatory No. 20:

Describe in detail the precise scope and nature of projects that Delaware contends were contemplated by the Compact, identifying all documents upon which Delaware’s description is based.

Response:

Delaware objects to Interrogatory No. 20 on the grounds that it calls for a legal conclusion based on an interpretation of the 1905 Compact. By way of further answer and without waiver of any objection, Delaware has set out the material facts in support of its claims in its previous pleadings. The drafters of the Compact were aware of the scope and nature of the projects and the scope of the state laws that existed at the time of the drafting of the Compact. Delaware is aware of no evidence that the drafters of the Compact intended the phrase “continue to exercise riparian jurisdiction” to permit New Jersey to authorize a 2,000 foot pier that extends into Delaware’s sovereign territory, requires the dredging of 1.24 million cubic yards of Delaware subaqueous soil for the bulk product transfer of highly dangerous cargo from ships that are in excess of 1,000 feet in length, all for a use prohibited under Delaware’s environmental laws (laws that were not enacted or contemplated until after the Compact was signed). To the extent Delaware has non-privileged documents that are responsive to this request that have not already been produced to or are not already in the possession of New Jersey, documents will be produced by Delaware consistent with the discovery agreement between the parties.

Interrogatory No. 21:

Identify what rights or privileges may be exercised, and what rights or privileges may not be exercised, by New Jersey pursuant to Article VII of the Compact of 1905, identifying all documents upon which Delaware bases its position.

Response:

Delaware objects to Interrogatory No. 21 on the grounds that it calls for a legal conclusion based on an interpretation of the 1905 Compact. By way of further answer and without waiver of any objection, Delaware has set out the material facts in support of its claims in its previous pleadings. Delaware incorporates by reference its responses to Interrogatories 5, 20, 22, and 23 herein. To the extent Delaware has non-privileged documents that are responsive to this request that have not already been produced to or are not already in the possession of New Jersey, documents will be produced by Delaware consistent with the discovery agreement between the parties.

Interrogatory 22:

Does Delaware contend that it may properly exercise jurisdiction over all portions of a project that extends beyond the low water line of the Twelve Mile Circle, including those portions of a project that lie within the boundary of New Jersey? If so, describe in detail each and every fact upon which this contention is based, identifying all documents upon which Delaware bases its contention.

Response:

Under Article VIII of the Compact and following this Court's 1934 boundary determination, Delaware has exercised and may therefore lawfully exercise jurisdiction over the portions of a project that extend beyond the mean low water line of the New Jersey shore within Delaware lands encompassed by the twelve-mile circle. The facts upon which this contention is based are set forth in: the Compact of 1905, the Court's March 1877 Order in *New Jersey v. Delaware I* and the parties' pleadings in that case, including New Jersey's Bill of Complaint and Delaware's Answer thereto; and the Court's 1934 decision and 1935 Decree in *New Jersey v. Delaware II*. Delaware incorporates herein by reference its responses to Interrogatories 5, 20, 21 and 23 herein. To the extent Delaware has documents that are responsive to this request that have not already been produced to or are not already in the possession of New Jersey, documents will be produced by Delaware consistent with the discovery agreement between the parties.

Interrogatory No. 23:

In Delaware's view, does Article VII of the Compact of 1905 impose any limitations on Delaware's jurisdiction over projects appurtenant to the New Jersey shoreline? If so, describe in detail the nature of any such limitations.

Response:

To the extent such projects are within the twelve-mile circle and extend into Delaware beyond the boundary line between the States, which this Court held in 1934 is at the low-water

on the New Jersey shore, Delaware has jurisdiction to impose regulations over aspects of projects within Delaware's border.

Interrogatory No. 24:

Before New Jersey filed its motion to reopen in July 2005, did Delaware ever object to New Jersey's exercise of riparian jurisdiction over projects in the Twelve Mile Circle? If yes, please describe in detail each and every objection, identifying all documents relating to any such objection.

Response:

Delaware objects to Interrogatory No. 24 as overly broad. By way of further answer and without waiver of any objection, New Jersey is objecting to Delaware's exercise of jurisdiction in this case. Delaware has and may therefore lawfully exercise jurisdiction within the twelve-mile circle as to projects on Delaware lands, and seeks to vindicate that right in defending against this action.

To the extent that a further answer is required, Delaware does not object to New Jersey exercising riparian jurisdiction between the high water mark and the mean low water mark on the New Jersey shore, as those lands are the sovereign lands of the State of New Jersey. Consequently, for a project to extend from the mean low water mark on the New Jersey shore into the twelve-mile circle, permission from New Jersey is required to reach the mean low water mark and Delaware's permission (and adherence to Delaware law) is required for all activities occurring on, in, over, or under Delaware territory. Since the adoption of Delaware's subaqueous lands laws in 1961, every significant construction project extending from the New Jersey shore into Delaware's sovereign lands has required the approval of Delaware regulating authorities. All dredging activities within the twelve-mile circle are required to be permitted by Delaware and all activities must conform to Delaware laws and regulations. All projects triggering application of Delaware's Coastal Zone Act must conform to that statute and its supporting regulations. A list of relevant projects subject to these requirements is contained in the affidavit of Philip J. Cherry and the affidavit of Kevin P. Maloney, Esquire, appendices 1 and 3 respectively, to the Brief of the State of Delaware in Opposition to the State of New Jersey's Motion to Reopen and for a Supplemental Decree, dated October 27, 2005. To the extent Delaware has non-privileged documents that are responsive to this request that have not already been produced to or are not already in the possession of New Jersey, documents will be produced by Delaware consistent with the discovery agreement between the parties.

Interrogatory No. 25:

Describe in detail each and every fact supporting Delaware's denial of New Jersey's Petition, Para. 15 ("The State of New Jersey, since the 1800's, has exercised riparian jurisdiction and regulated its riparian lands on its own side of the Delaware River, including within the Twelve-Mile Circle"), identifying all documents upon which Delaware bases its denial.

Response:

Delaware objects to Interrogatory No. 25 as vague, ambiguous, and overly broad. This interrogatory mischaracterizes Delaware's answer to paragraph 15 of New Jersey's Petition, as Delaware's answer did not deny paragraph 15 in its entirety. By way of further answer and without waiver of any objection, Delaware denies paragraph 15 to the extent that it suggests, or could be construed to suggest, that New Jersey's exercise of riparian jurisdiction and regulation of riparian lands was authorized by, grounded upon, or supported by, any right in law or equity. On the contrary, since the Duke of York's 1682 grant of land to William Penn, Delaware has had and lawfully exercised sovereignty and jurisdiction over the water and the subaqueous lands of the Delaware River within the twelve-mile circle up to the mean low water mark on the New Jersey shore. This Court vindicated Delaware's claim to title to the low water mark on the New Jersey shore within the twelve-mile circle, consistent with earlier decisions discussed by the Court in its 1934 boundary determination. At all times since 1682, Delaware (and its predecessors in interest) have held the water and lands within the twelve-mile circle for the benefit of its citizens; and any exercise of jurisdiction by New Jersey or asserted regulatory authority by New Jersey within the twelve-mile circle was and is without basis in law or equity. The facts upon which this contention is based are set forth in Delaware's Answer in *New Jersey v. Delaware I*, the Compact of 1905, and the Court's 1934 decision and 1935 Decree in *New Jersey v. Delaware II*. To the extent Delaware has non-privileged documents that are responsive to this request that have not already been produced to or are not already in the possession of New Jersey, documents will be produced by Delaware consistent with the discovery agreement between the parties.

Interrogatory No. 26:

Describe in detail each and every fact supporting Delaware's denial of New Jersey's Petition, Para. 18, second sentence ("These grants also authorized the building of riparian structures on lands extending beyond the low-water line"), identifying all documents upon which Delaware bases its denial.

Response:

Delaware objects to Interrogatory No. 26 as vague, ambiguous (in particular with respect to the phrase "riparian grants" used by New Jersey in paragraph No. 18 of the Petition and incorporated herein), and overly broad. By way of further answer and without waiver of any objection, Delaware refers to and incorporates herein its Response to Interrogatory No. 25 above as well as paragraph 18 of Delaware's Answer to the Petition, which set forth the grounds for Delaware's denial of the allegations contained in the second sentence of paragraph No. 18 of the Petition. While Delaware is unclear what New Jersey means by "riparian grants" in paragraph 18 of its Petition, New Jersey has no right in law or equity to authorize the construction of structures on land or water extending below the mean low water mark on the New Jersey shore. To the extent Delaware has non-privileged documents that are responsive to this request that

have not already been produced to or are not already in the possession of New Jersey, documents will be produced by Delaware consistent with the discovery agreement between the parties.

Interrogatory No. 27:

Describe in detail each and every fact supporting Delaware's contention, at Para. 20 in its Answer, that Delaware has exercised its sovereign right to regulate structures within the Twelve Mile Circle on "many" occasions, identifying all documents supporting Delaware's contention.

Response:

Delaware refers to and incorporates herein its Responses to Interrogatory Nos. 25 and 26 above. By way of further answer, since 1961 when the first statute regulating the sale and lease of subaqueous lands in Delaware was adopted, Delaware has exercised its sovereign right to regulate structures within the twelve-mile circle on the many occasions detailed in the affidavit of Philip J. Cherry and the affidavit of Kevin P. Maloney, Esquire, appendices 1 and 3 respectively, to the Brief of the State of Delaware in Opposition to the State of New Jersey's Motion to Reopen and for a Supplemental Decree, dated October 27, 2005. The files for these projects have been produced to the State of New Jersey pursuant to a FOIA request dated May 17, 2005. To the extent Delaware has non-privileged documents that are responsive to this request that have not already been produced to or are not already in the possession of New Jersey, documents will be produced by Delaware consistent with the discovery agreement between the parties. Delaware is continuing its research on this question and will update this response as appropriate in light of its findings.

Interrogatory No. 28:

Describe in detail each and every fact supporting Delaware's denial of New Jersey's Petition, Para. 23, second sentence ("Since 1991, to New Jersey's knowledge the only other applicant for a DCZA permit for the construction of an improvement appurtenant to the New Jersey shore has been Crown Landing, LLC"), identifying all documents supporting Delaware's contention.

Response:

Delaware objects to the breadth of Interrogatory No. 28's request for "each and every fact" responsive to the subject-matter of this interrogatory. By way of further answer and without waiver of any objection, several applications have been made to Delaware for permission to construct an improvement appurtenant to the New Jersey shore, including New Jersey's own application in 1996 for improvements to the pier at Fort Mott State Park, as acknowledged by New Jersey, *inter alia*, in New Jersey's Appendix at 50a-51a (July 28, 2005), and in New Jersey's Motion to Strike at 7-8 (Mar. 20, 2006). Other such projects are set out in Delaware's Opposition brief at 61-63 (October 27, 2005), and include applications filed between 1961 and the present by DuPont (1971 and 1982), Keystone Cogeneration (1991), New Jersey

(1996), and Fenwick Commons (2005). To the extent Delaware has non-privileged documents that are responsive to this request that have not already been produced to or are not already in the possession of New Jersey, documents will be produced by Delaware consistent with the discovery agreement between the parties.

Interrogatory No. 29:

Describe in detail each and every fact supporting Delaware's contention, at Para. 24 of its Answer, that Delaware has "consistently exercised its sovereign right to regulate riparian structures located on its subaqueous soil on many occasions," identifying all documents supporting this contention.

Response:

Delaware objects to the breadth of Interrogatory No. 29's request for "each and every fact" responsive to the subject-matter of this interrogatory. By way of further answer and without waiver of any objection, Delaware refers to and incorporates herein its Responses to Interrogatory Nos. 25 through 27 above. To the extent Delaware has non-privileged documents that are responsive to this request that have not already been produced to or are not already in the possession of New Jersey, documents will be produced by Delaware consistent with the discovery agreement between the parties.

Interrogatory No. 30:

Describe in detail each and every fact supporting Delaware's denial of New Jersey's Petition, Para. 25, first sentence ("To date, the DSLA has been applied to only a limited number of projects on the New Jersey side of the River"), identifying all documents supporting this denial.

Response:

Delaware objects to the breadth of Interrogatory No. 30's request for "each and every fact" responsive to the subject-matter of this interrogatory. By way of further answer and without waiver of any objection, Delaware refers to and incorporates herein its Responses to Interrogatory Nos. 25 through 27 above. Since 1961, Delaware has issued at least eleven subaqueous land leases and/or permits for use of Delaware's subaqueous lands within the twelve-mile circle for projects entering Delaware territory from the New Jersey shore. These leases are detailed in the affidavit of Kevin P. Maloney, Esquire, at appendix 3 to the Brief of the State of Delaware in Opposition to the State of New Jersey's Motion to Reopen and for a Supplemental Decree, dated October 27, 2005. The files for these projects have been produced to the State of New Jersey pursuant to a FOIA request dated May 17, 2005. To the extent Delaware has non-privileged documents that are responsive to this request that have not already been produced to or are not already in the possession of New Jersey, documents will be produced by Delaware consistent with the discovery agreement between the parties.

Interrogatory No. 31:

Describe in detail each and every fact supporting Delaware's denial of New Jersey's Petition, Para. 29 (referring to Crown Landing's request for a status decision from DNREC), identifying all documents supporting this denial.

Response:

Delaware objects to Interrogatory No. 31 as vague, ambiguous, and overly broad. By way of further answer and without waiver of any objection, in paragraph 29 of New Jersey's Petition, Delaware objected to New Jersey's characterization of the February 3, 2005 decision of the Secretary of DNREC, as explained in Delaware's Opposition to New Jersey's Motion to Strike, at 6 n.7 (May 5, 2006). Delaware also refers to and incorporates herein the Secretary's February 3, 2005 decision. To the extent Delaware has non-privileged documents that are responsive to this request that have not already been produced to or are not already in the possession of New Jersey, documents will be produced by Delaware consistent with the discovery agreement between the parties.

Interrogatory No. 32:

Describe in detail each and every fact supporting Delaware's contention that the 1905 Compact, Article VII, limits New Jersey's riparian jurisdiction to the low water line within the Twelve-Mile Circle, identifying all documents supporting this contention.

Response:

Delaware objects to Interrogatory No. 32 as overly broad and because it impermissibly calls for a legal conclusion. By way of further answer and without waiver of any objection, Delaware refers to the language of the 1905 Compact, both in Article VII and in the entire Compact, read as a whole and incorporates it herein. Delaware also refers to the Supreme Court's decision in *New Jersey v. Delaware*, 295 U.S. 694 (1935). Delaware also refers to and incorporates herein its Response to Interrogatory No. 5. To the extent Delaware has non-privileged documents that are responsive to this request that have not already been produced to or are not already in the possession of New Jersey, documents will be produced by Delaware consistent with the discovery agreement between the parties.

Interrogatory No. 33:

Does Delaware contend that the 1905 Compact, Article VII, limits the scope of New Jersey's riparian jurisdiction to the types of improvements contemplated in 1905, but does not similarly limit Delaware's riparian jurisdiction? If so, describe in detail each and every fact supporting this contention, identifying all documents supporting this contention.

Response:

Delaware objects to Interrogatory No. 33 as overly broad, vague, and requesting legal argument rather than facts. Specifically, it is unclear how New Jersey is using the terms “riparian jurisdiction,” “scope,” and “improvement.” By way of further answer and without waiver of any objection, Delaware refers to and incorporates herein its response to Interrogatory No. 5. To the extent Delaware has non-privileged documents that are responsive to this request that have not already been produced to or are not already in the possession of New Jersey, documents will be produced by Delaware consistent with the discovery agreement between the parties.

Interrogatory No. 34:

Has Delaware or any subdivision of Delaware ever taxed any riparian improvements on the New Jersey (easterly) side of the Delaware River, within the Twelve-Mile Circle? If yes, describe in detail each and every such taxing occurrence, identifying all documents evidencing any such occurrence.

Response:

Delaware objects to Interrogatory No. 35 as overly broad and unduly burdensome. Delaware also objects to this interrogatory as vague, as the “New Jersey (easterly) side of the Delaware River” begins at the mean low-water mark on the New Jersey shore. Delaware answers below on the assumption that New Jersey means by that language the eastern half of the Delaware River.

By way of further answer and without waiver of any objection, Delaware does tax¹ riparian improvements in the Delaware River. New Castle County taxes the dock constructed for the Logan Generating Station. New Castle County also assesses taxes on utilities and pipelines in the Delaware River. The State of Delaware also charges a fee for all dredging and filling of its subaqueous lands within the twelve-mile circle, and charges a fee for subaqueous lands leases for pipelines and utility crossings for private entities.

Delaware and its subdivisions do not, however, charge a fee or impose a tax upon government agencies that conduct activities within the twelve-mile circle. For example, although appearing on New Castle County’s tax maps, New Castle County does not tax governmentally owned properties such as Artificial Island, and the Killahook Refuge. New Castle County also does not tax the pier at Fort Mott State Park because the pier is owned by the State of New Jersey, although New Jersey requested that New Castle County create a tax parcel for this property so that the pier could be placed on the historic registry. In a similar vein, Delaware does not charge a fee to the Army Corps of Engineers or the Delaware Department of Transportation for dredging in the Delaware River, even though Delaware does require these

¹ A “tax” is defined as a “monetary charge imposed by the government on persons, entities, transactions, or property to yield public revenue.” *Black’s Law Dictionary* (8th ed. 2004).

entities to obtain the appropriate permits. To the extent Delaware has non-privileged documents that are responsive to this request that have not already been produced to or are not already in the possession of New Jersey, documents will be produced by Delaware consistent with the discovery agreement between the parties.

Interrogatory No. 35:

Has Delaware or any subdivision of Delaware ever provided police protection on the New Jersey (easterly) side of the Delaware River, within the Twelve-Mile Circle? If yes, describe in detail each and every police protection occurrence, identifying all documents evidencing any such occurrence.

Response:

Delaware objects to Interrogatory No. 35 as overly broad and unduly burdensome. Delaware also objects to this interrogatory as vague, as the "New Jersey (easterly) side of the Delaware River" begins at the mean low-water mark on the New Jersey shore. Delaware answers below on the assumption that New Jersey means by that language the eastern half of the Delaware River.

By way of further answer and without waiver of any objection, the Delaware State Police has jurisdiction and is the primary jurisdictional responder for all police protection within the twelve-mile circle in the Delaware River. In addition, Delaware Fish & Wildlife officers regularly provide police protection up to the mean low-water mark on the New Jersey shore of the Delaware River within the twelve-mile circle. It would be impossible to provide all police records for calls and events that occurred within the twelve-mile circle. To the extent Delaware has non-privileged documents that are responsive to this request that have not already been produced to or are not already in the possession of New Jersey, documents will be produced by Delaware consistent with the discovery agreement between the parties.

Interrogatory No. 36:

Has Delaware or any subdivision of Delaware ever provided fire protection on the New Jersey (easterly) side of the Delaware River, within the Twelve-Mile Circle? If yes, describe in detail each and every fire protection occurrence, identifying all documents evidencing any such occurrence.

Response:

Delaware objects to Interrogatory No. 36 as overly broad and unduly burdensome. Delaware also objects to this interrogatory as vague, as the "New Jersey (easterly) side of the Delaware River" begins at the mean low-water mark on the New Jersey shore. Delaware answers below on the assumption that New Jersey means by that language the eastern half of the Delaware River.

By way of further answer and without waiver of any objection, Delaware provides fire protection within the twelve-mile circle. The marine units for Claymont Fire Company, Brandywine Hundred Fire Company, Holloway Terrace Fire Company, Goodwill Fire Company, Delaware City Fire Company, Wilmington Marine Unit, Port Penn Fire Company, Odessa Fire Company and others have divided the area within the twelve-mile circle into fire districts where they are the primary jurisdictional responder. Crown Landing LLC recognized that “the Claymont Fire District will be the first responder organization, and therefore, would provide fire and other emergency services on the portion of Crown Landing’s pier in the State of Delaware.” Crown Landing Jan. 18, 2005 Response to FERC. It would be impossible, however, to provide all fire company records for calls and events that occurred within the twelve-mile circle. To the extent Delaware has non-privileged documents that are responsive to this request that have not already been produced to or are not already in the possession of New Jersey, documents will be produced by Delaware consistent with the discovery agreement between the parties.

Interrogatory No. 37:

Describe in detail each and every fact supporting Delaware’s denial of New Jersey’s Petition, Para. 37 (“The State of New Jersey owns riparian shoreline within the Twelve Mile Circle. Thus, Delaware’s actions also threaten the construction of projects by the State of New Jersey itself within the Twelve-Mile Circle”), identifying all documents supporting this denial.

Response:

Delaware objects to Interrogatory No. 37 as overly broad. Pursuant to this Court’s decision in 1934, New Jersey does not “own” any territory “within” the twelve-mile-circle. Delaware refers to and incorporates herein its Responses to Interrogatory Nos. 5 and 25 - 27 above.

By way of further answer and without waiver of any objection, the 1905 Compact provides that any riparian jurisdiction possessed by New Jersey is limited to jurisdiction exercised within New Jersey’s territory, which the United States Supreme Court unanimously held in 1934 extends only to the low water mark on the New Jersey shore inside the twelve-mile circle. Even if New Jersey has any riparian jurisdiction over any Delaware territory within the twelve-mile circle (and it does not), the 1905 Compact makes clear that New Jersey has no “exclusive” jurisdiction over Delaware’s sovereign lands. Delaware is not precluded by the 1905 Compact from exercising either riparian or (at a minimum) non-riparian jurisdiction within its sovereign territory, such as jurisdiction over how its coastal zone is used and protected. To the extent Delaware has non-privileged documents that are responsive to this request that have not already been produced to or are not already in the possession of New Jersey, documents will be produced by Delaware consistent with the discovery agreement between the parties.

Interrogatory No. 38:

With reference to Article VII of the Compact of 1905, describe in detail what “riparian jurisdiction of every kind and nature” means, identifying all documents supporting this description.

Response:

Delaware objects to Interrogatory No. 38 as overly broad and as calling for a legal conclusion. By way of further answer and without waiver of any objection, Delaware refers to and incorporates herein its previous pleadings, as well as Responses to Interrogatory Nos. 21, 25-27, and 37 above. To the extent Delaware has non-privileged documents that are responsive to this request that have not already been produced to or are not already in the possession of New Jersey, documents will be produced by Delaware consistent with the discovery agreement between the parties.

Interrogatory No. 39:

With reference to Article VII of the Compact, describe in detail what Delaware contends “its own side of the river” means, identifying all documents supporting this description.

Response:

Delaware objects to Interrogatory No. 39 as overly broad and as calling for a legal conclusion. By way of further answer and without waiver of any objection Delaware contends that “its own side of the river” refers to the portion of the river on each State’s respective side of the boundary line, as it would ultimately be determined upon the resolution of the boundary dispute between the two States. Delaware refers to and incorporates herein its Responses to Interrogatory Nos. 5, 25 - 27 and 37 above. To the extent Delaware has non-privileged documents that are responsive to this request that have not already been produced to or are not already in the possession of New Jersey, documents will be produced by Delaware consistent with the discovery agreement between the parties.

Interrogatory No. 40:

With reference to Article VII of the Compact of 1905, describe in detail what “grants, leases, and conveyances of riparian lands and rights” means, identifying all documents supporting this description.

Response:

Delaware objects to Interrogatory No. 40 as overly broad and as calling for a legal conclusion. By way of further answer and without waiver of any objection, Delaware refers to and incorporates herein its Responses to Interrogatory Nos. 5, 25 – 27, 37, and 39 above. The quoted language, in the context of Article VII as a whole, means that New Jersey may continue to take the actions that it had been taking up to that time, *i.e.*, making “grants, leases, and

conveyances of riparian lands and rights” as set forth in its laws and statutes at the time (which were expressly limited to “lands of the state”), without conceding that New Jersey had any right, in law or equity, to take such actions outside of its own territory, or to preclude Delaware’s exercise of its riparian jurisdiction or its non-riparian regulatory authority within the twelve-mile circle. To the extent Delaware has non-privileged documents that are responsive to this request that have not already been produced to or are not already in the possession of New Jersey, documents will be produced by Delaware consistent with the discovery agreement between the parties.

Interrogatory No. 41:

With reference to Article VII of the Compact of 1905, describe in detail what Delaware contends “under the laws of the respective States” means, identifying all documents supporting this description.

Response:

Delaware objects to Interrogatory No. 41 as overly broad and as calling for a legal conclusion. By way of further answer and without waiver of any objection, Delaware refers to and incorporates herein its Responses to Interrogatory Nos. 25 – 27, 37, 39, and 40 above. To the extent Delaware has non-privileged documents that are responsive to this request that have not already been produced to or are not already in the possession of New Jersey, documents will be produced by Delaware consistent with the discovery agreement between the parties.

Interrogatory No. 42:

Describe in detail every fact supporting Delaware’s contention that “Article VII . . . left open the scope of riparian jurisdiction that could be lawfully exercised by each State.” (Answer ¶11).

Response:

Delaware objects to Interrogatory No. 42 as overly broad and as calling for a legal conclusion. By way of further answer and without waiver of any objection, Delaware refers to and incorporates herein its Responses to Interrogatory Nos. 5, 19 – 21, 25 – 27, 37, 39, and 40 above.

Interrogatory No. 43:

Set forth all facts upon which Delaware will rely to support its position that Mr. Southerland’s statements in oral argument before the Special Master on September 12, 1932 are not statements upon which the Court and New Jersey can rely. (Answer ¶19).

Response:

Delaware objects to Interrogatory No. 43 as overly broad. By way of further answer and without waiver of any objection, Delaware also objects to New Jersey's mischaracterization of paragraph 19 of Delaware's Answer to the Petition, which speaks for itself.

To the extent that a further answer is required, New Jersey misconstrues the meaning and import of those statements. Delaware refers to and incorporates herein by reference its response to New Jersey's analysis of Mr. Southerland's comments set forth at pages 68-72 of Delaware's Brief in Opposition to the State of New Jersey's Motion to Reopen and for a Supplemental Decree, filed on October 27, 2005. As discussed therein, the issue before the Court in *New Jersey v. Delaware II*, which Mr. Southerland addressed in the comments relied upon by New Jersey, was the question of Delaware's boundary within the twelve-mile circle. The Court was not asked to, and did not provide, a definitive interpretation of the Compact of 1905 in *New Jersey v. Delaware II*. Indeed, for that reason, the Court denied New Jersey's Motion to Reopen *New Jersey v. Delaware II* for the purpose of seeking a determination as to the meaning of the Compact of 1905.

In *New Jersey v. Delaware II*, Mr. Southerland did not offer, and the Court did not accept to New Jersey's detriment, any definitive interpretation of Article VII of the Compact. Indeed, Mr. Southerland argued that "[e]ven if the Compact of 1905 be construed as ceding to the State of New Jersey the right to determine to whom riparian rights ... shall be granted, it would still not affect the boundary between the States in any conceivable way." See DE Opp. 68-72. Because Mr. Southerland was not required to take a definitive position on the meaning of the Compact, and did not do so, he also was not required to undertake the analysis and historical research with respect to the Compact that the parties have taken in this case.

To the extent Delaware has non-privileged documents that are responsive to this request that have not already been produced to or are not already in the possession of New Jersey, documents will be produced by Delaware consistent with the discovery agreement between the parties.

Interrogatory No. 44:

Set forth all facts upon which Delaware will rely to support its position that the statements made in its Reply Brief as quoted in the Petition, Paragraph 19 are not statements upon which the Court and New Jersey can rely. (Answer ¶19).

Response:

Delaware objects to Interrogatory No. 44 as overly broad and calling for a legal conclusion. By way of further answer and without waiver of any objection, Delaware also objects to New Jersey's mischaracterization of paragraph 19 of Delaware's Answer to the Petition, which speaks for itself. Delaware refers to and incorporates herein its Response to Interrogatory No. 43 above.

Interrogatory No. 45:

Set forth all facts upon which Delaware will rely to support its position that statements made by S. Samuel Arsht as quoted in the Petition, Paragraph 20 are not statements upon which the Court and New Jersey can rely. (Answer ¶20).

Response:

Delaware objects to Interrogatory No. 45 as overly broad and asking for a legal conclusion. By way of further answer and without waiver of any objection, Delaware refers to and incorporates herein by reference its response to New Jersey's analysis of Mr. Arsht's statements set forth at pages 67-68 of Delaware's Brief in Opposition to the State of New Jersey's Motion to Reopen and for a Supplemental Decree, filed on October 27, 2005.

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Dated: June 30, 2006

VERIFICATION

STATE OF DELAWARE)
) SS.
COUNTY OF KENT)

I, Philip J. Cherry, being duly sworn according to law, deposes and says that he is a representative of Defendant and is authorized to make this verification in its behalf; that he has read Delaware's Responses to New Jersey's First Set of Interrogatories and knows its contents; that the responses were prepared with the assistance and advice of counsel; that the matters stated in the responses are within his personal knowledge except where he has relied on others to gather the information and responses, based upon a review of various documents and interviews with various individuals, subject to inadvertent or undiscovered errors, and necessarily limited by the documents and information still in existence, presently recollected, and thus far discovered in the course of preparation of the responses; and that the facts stated in the responses are true and correct to the best of his knowledge, information, and belief.

/s/ _____

SWORN TO AND SUBSCRIBED BEFORE ME this ____ day of June, 2006.

Notary Public

My Commission Expires: _____

CERTIFICATE OF SERVICE

I certify that on June 30, 2006, a copy of the foregoing Delaware's Responses to New Jersey's First Set of Interrogatories was served by electronic mail and U.S. Mail on each of the following:

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/s/ _____
David C. Frederick
*Special Counsel to the
State of Delaware*

No. 134, Original

In the
Supreme Court of the United States

STATE OF NEW JERSEY,

Plaintiff,

v.

STATE OF DELAWARE,

Defendant.

**DELAWARE'S RESPONSES TO NEW JERSEY'S FIRST REQUEST
FOR PRODUCTION OF DOCUMENTS**

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The State of Delaware (“Delaware”), by and through its attorneys, hereby responds to the State of New Jersey’s (“New Jersey”) First Request for Production of Documents (the “Requests”) as follows:

Delaware expressly reserves the right to supplement or amend these responses as it uncovers new or additional facts in connection with its ongoing investigation.

These responses do not constitute a waiver of Delaware’s right to challenge the relevance, materiality, authenticity, or admissibility of the information provided, or to object to the use of any documents identified in any subsequent proceeding or trial in this litigation. Neither the information contained in these responses nor the documents identified by Delaware shall be interpreted to concede the truth of any factual assertion or implication contained in each response.

GENERAL OBJECTIONS

1. Delaware objects to the Requests to the extent they purport to impose burdens or obligations that exceed the scope of permissible discovery under the Federal Rules of Evidence, or any other applicable court rule.

2. Delaware objects to the Requests to the extent they seek the production of information or documents that disclose any information or communication protected from disclosure by the attorney work-product doctrine, the attorney-client privilege, or any other applicable privilege. In the event that a document that is privileged or otherwise exempt from disclosure is produced by Delaware, it will have been produced through inadvertence and shall not constitute a waiver of privileges or exemptions applicable to that or any other document.

3. Delaware objects to the Requests to the extent they seek the production of information or documents that are not within Delaware’s possession, custody, or control.

4. Delaware objects to the Requests to the extent they seek the production of information or documents: (i) already in the possession, custody, or control of New Jersey, (ii) concerning New Jersey's own conduct or statements, (iii) which are equally accessible to New Jersey as they are to Delaware, or (iv) which can be obtained more readily from a source other than Delaware.

5. Delaware objects to each and every Request insofar as each Request is overly broad, unduly burdensome, and oppressive and seek information that is neither relevant to the subject matter of this litigation, nor reasonably calculated to lead to the discovery of admissible evidence.

6. Delaware objects to each and every Request insofar as each Request seeks documents that are publicly available to New Jersey.

7. The fact that Delaware has responded to a particular request shall not be interpreted as implying that responsive documents exist or that Delaware acknowledges the propriety of the request.

8. Delaware's responses to the Requests are not intended to be, and shall not be construed as, an agreement or concurrence by Delaware with New Jersey's characterization of any facts, circumstances, and/or legal obligations. Delaware also reserves the right to contest any such characterizations as inaccurate. Delaware also objects to the Requests to the extent that they contain express or implied assumptions of fact or law with respect to matters at issue in this case.

9. Delaware objects to the Requests to the extent that the documents sought contain confidential, personal, private, or sensitive information, or documents protected from disclosure by law, court order, or any agreement with respect to confidentiality or nondisclosure.

10. Delaware will produce documents on a rolling basis, and will produce any confidential documents pursuant to section 9 of the Case Management Plan.

11. Delaware's responses to the Requests are submitted without waiving, and while specifically reserving, (i) all objections as to the competency, relevancy, materiality, and admissibility of the documents produced or the subject matter thereof at the trial of this action, and (ii) the right at any time to amend or supplement these responses.

12. Delaware objects to each and every Request insofar as they seek information protected by the legislative, executive, petitioning, or other governmental privilege.

SPECIFIC RESPONSES AND OBJECTIONS

Subject to and without waiving the foregoing General Objections, Delaware responds and objects to the Document Requests as follows:

1. All documents identified in your answers to New Jersey's First Set of Interrogatories.

RESPONSE: To the extent Delaware has non-privileged documents that are responsive to this Request that have not already been produced to or are not already in the possession of New Jersey, documents will be produced by Delaware consistent with the discovery agreement between the parties.

2. If not produced in response to Request No. 1, all documents upon which Delaware bases any of its claims or defenses in this action.

RESPONSE: To the extent Delaware has non-privileged documents that are responsive to this Request that have not already been produced to or are not already in the possession of New Jersey, documents will be produced by Delaware consistent with the discovery agreement between the parties.

3. All other documents contained in the particular file from which each document produced in response to Request Nos. 1 and 2 was retrieved.

RESPONSE: Delaware objects to this Request on the grounds that it is overly broad, unduly burdensome, and not reasonably calculated to lead to the discovery of admissible evidence. Delaware further objects on the basis of the work product doctrine. The decision not to select particular documents in a given file reflects counsel's thought processes and judgment

as to which documents are not significant or important, and is therefore protected by the work product doctrine.

4. All documents that tend to refute, or are inconsistent with, any of Delaware's claims or defenses.

RESPONSE: Delaware objects to this Request on the grounds that it is vague, ambiguous, argumentative, and calls for a subjective response. Delaware further objects because the decision of whether a particular document "refutes" or is "inconsistent with" Delaware's claims or defenses reflects counsel's thought processes and judgment, and is therefore protected by the work product doctrine.

5. All documents containing any statement by any Delaware public official to the effect that New Jersey has waived or relinquished any of the rights secured by Article VII of the Compact of 1905.

RESPONSE: Delaware objects to this Request on the grounds that it is vague, overly broad, unduly burdensome, and seeks production of documents and information that are privileged. Delaware further objects to this Request because it is impossible to obtain every statement of every public official relating to the Compact and because any public statements made by Delaware public officials are in the public domain and are therefore available to New Jersey. Indeed, New Jersey successfully urged the Special Master to require Delaware first to obtain public documents independently and outside the discovery process. *See* Order on New Jersey's Motion to Strike at 8 (June 13, 2006). Without waiving any objection, to the extent Delaware has non-privileged documents that are responsive to this Request that have not already been produced to or are not already in the possession of New Jersey, documents will be produced by Delaware consistent with the discovery agreement between the parties.

6. All documents containing any statement by any Delaware public official to the effect that the Compact of 1905 is no longer enforceable or in effect.

RESPONSE: Delaware objects to this Request on the grounds that it is overly broad, unduly burdensome, and seeks production of documents and information that are privileged. Delaware further objects to this Request because it is impossible to obtain every statement of every public official relating to the Compact and because any public statements made by Delaware public officials are in the public domain and are therefore available to New Jersey. Indeed, New Jersey successfully urged the Special Master to require Delaware first to obtain public documents independently and outside the discovery process. *See* Order on New Jersey's Motion to Strike at 8 (June 13, 2006). Without waiving any objection, to the extent Delaware has non-privileged documents that are responsive to this Request that have not already been produced to or are not already in the possession of New Jersey, documents will be produced by Delaware consistent with the discovery agreement between the parties.

7. All documents containing any statement by any Delaware public official to the effect that New Jersey has waived or relinquished its right to challenge Delaware's assertion of jurisdiction over improvements appurtenant to the New Jersey shoreline within the Twelve Mile Circle.

RESPONSE: Delaware objects to this Request on the grounds that it is overly broad, unduly burdensome, argumentative, and seeks production of documents and information that are privileged. Delaware further objects to this Request because it is impossible to obtain every statement of every public official relating to New Jersey's alleged jurisdiction and because any public statements made by Delaware public officials are in the public domain and are therefore available to New Jersey. Indeed, New Jersey successfully urged the Special Master to require Delaware first to obtain public documents independently and outside the discovery process. *See* Order on New Jersey's Motion to Strike at 8 (June 13, 2006). Without waiving any objection, to the extent Delaware has non-privileged documents that are responsive to this Request that have not already been produced to or are not already in the possession of New Jersey, documents will be produced by Delaware consistent with the discovery agreement between the parties.

8. All documents containing any statement by any Delaware public official to the effect that it is an open question whether Delaware has the legal authority to require that New Jersey and/or its political subdivisions and citizens submit to Delaware's permitting jurisdiction in order to exercise riparian rights or build improvements appurtenant to the New Jersey shoreline within the Twelve Mile Circle.

RESPONSE: Delaware objects to this Request on the grounds that it is overly broad, unduly burdensome, irrelevant, vague, argumentative, and ambiguous. Delaware further objects to this Request because it is impossible to obtain every statement of every public official relating to permitting jurisdiction and because any public statements made by Delaware public officials are in the public domain and therefore available to New Jersey. Indeed, New Jersey successfully urged the Special Master to require Delaware first to obtain public documents independently and outside the discovery process. *See* Order on New Jersey's Motion to Strike at 8 (June 13, 2006). Without waiving any objection, to the extent Delaware has non-privileged documents that are responsive to this Request that have not already been produced to or are not already in the possession of New Jersey, documents will be produced by Delaware consistent with the discovery agreement between the parties.

9. All press releases, statements, correspondence and e-mail given by any Delaware public official or their staff to members of the press that mention this litigation.

RESPONSE: Delaware objects to this Request on the grounds that it is irrelevant and not reasonably calculated to lead to the discovery of admissible evidence.

10. All documents in the Delaware Department of Natural Resources and Environmental Control ("DNREC") that refer or relate to exercises of jurisdiction over improvements appurtenant to the New Jersey shoreline within the Twelve Mile Circle.

RESPONSE: Delaware objects to this Request on the grounds that it is overly broad, unduly burdensome, and vague. Without waiving any objection, Delaware responds that all responsive, non-privileged documents are public documents, which have already been made available to New Jersey pursuant to a FOIA request dated May 17, 2005. To the extent Delaware has non-privileged documents that are responsive to this Request that have not already been produced to or are not already in the possession of New Jersey, documents will be produced

by Delaware or made available to New Jersey consistent with the discovery agreement between the parties.

11. All documents in the Delaware Planning Office, or its successor Office, that refer or relate to Delaware's coastal zone management plan, as it applies in or to the Twelve Mile Circle.

RESPONSE: Delaware objects to this Request on the grounds that it is overly broad, unduly burdensome, and vague. Without waiving any objection, Delaware responds that all responsive, non-privileged documents are public documents that are available from public sources. To the extent Delaware has non-privileged documents that are responsive to this Request that have not already been produced to or are not already in the possession of New Jersey, documents will be produced by Delaware or made available to New Jersey consistent with the discovery agreement between the parties.

12. All DNREC files referring or relating to any proposed improvement appurtenant to the New Jersey shoreline, within the Twelve Mile Circle.

RESPONSE: Delaware objects to this Request on the grounds that it is overly broad, unduly burdensome, and vague. Without waiving any objection, Delaware responds that all responsive, non-privileged documents are public documents, which have already been made available to New Jersey pursuant to a FOIA request dated May 17, 2005. To the extent Delaware has non-privileged documents that are responsive to this Request that have not already been produced to or are not already in the possession of New Jersey, documents will be produced by Delaware or made available to New Jersey consistent with the discovery agreement between the parties.

13. All files of Delaware's Office of Subaqueous Lands referring or relating to lands within the Twelve Mile Circle, on the easterly side of the Delaware River.

RESPONSE: Delaware objects to this Request on the grounds that it is overly broad, unduly burdensome, and vague. Without waiving any objection, Delaware responds that all responsive, non-privileged documents are public documents, which have already been made available to New Jersey pursuant to a FOIA request dated May 17, 2005. To the extent Delaware has non-privileged documents that are responsive to this Request that have not already been produced to or are not already in the possession of New Jersey, documents will be produced by Delaware or made available to New Jersey consistent with the discovery agreement between the parties.

14. All documents, including briefing memoranda, passing between any Department of the State of Delaware and the Governor of Delaware, concerning any proposed improvement appurtenant to the New Jersey shoreline within the Twelve Mile Circle, or this litigation.

RESPONSE: Delaware objects to this Request on the grounds that it is overly broad, unduly burdensome, not reasonably calculated to lead to the discovery of admissible evidence, and seeks production of documents and information that are privileged. Without waiving any objection, to the extent that such documents are archived public documents, they are equally

available to New Jersey for inspection and copying. Indeed, New Jersey successfully urged the Special Master to require Delaware first to obtain public documents independently and outside the discovery process. *See* Order on New Jersey's Motion to Strike at 8 (June 13, 2006). To the extent Delaware has non-privileged documents that are responsive to this Request that have not already been produced to or are not already in the possession of New Jersey, documents will be produced by Delaware or made available to New Jersey consistent with the discovery agreement between the parties.

15. All documents in the Office of the Governor of Delaware that refer or relate to any proposed improvement appurtenant to the New Jersey shoreline within the Twelve Mile Circle, or to this litigation.

RESPONSE: Delaware objects to this Request on the grounds that it is overly broad, unduly burdensome, and seeks production of documents and information that are privileged. Without waiving any objection, to the extent that such documents are archived public documents, they are equally available to New Jersey for inspection and copying. Indeed, New Jersey successfully urged the Special Master to require Delaware first to obtain public documents independently and outside the discovery process. *See* Order on New Jersey's Motion to Strike at 8 (June 13, 2006). To the extent Delaware has non-privileged documents that are responsive to this Request that have not already been produced to or are not already in the possession of New Jersey, documents will be produced by Delaware consistent with the discovery agreement between the parties.

16. All documents in the Office of the Delaware Attorney General that refer or relate to any proposed improvement appurtenant to the New Jersey shoreline within the Twelve Mile Circle, or to this litigation.

RESPONSE: Delaware objects to this Request on the grounds that it is overly broad, unduly burdensome, and seeks production of documents and information that are privileged. Without waiving any objection, to the extent that such documents are archived public documents, they are equally available to New Jersey for inspection and copying. Indeed, New Jersey successfully urged the Special Master to require Delaware first to obtain public documents independently and outside the discovery process. *See* Order on New Jersey's Motion to Strike at 8 (June 13, 2006). To the extent Delaware has non-privileged documents that are responsive to this Request that have not already been produced to or are not already in the possession of New Jersey, documents will be produced by Delaware consistent with the discovery agreement between the parties.

17. All documents (including tax maps and property identification descriptions, cards or printouts), that show, describe or identify any structures or improvements extending from the New Jersey shoreline within the Twelve Mile Circle across the New Jersey/Delaware boundary, that are currently taxed by the State of Delaware or by any of Delaware's municipalities, counties, or other governmental bodies.

RESPONSE: Delaware objects to this Request as overly broad and unduly burdensome. Delaware further objects to this Request to the extent that it seeks documents outside the

possession, custody, or control of Delaware and because it seeks public documents which are readily available to New Jersey. Indeed, New Jersey successfully urged the Special Master to require Delaware first to obtain public documents independently and outside the discovery process. *See* Order on New Jersey's Motion to Strike at 8 (June 13, 2006). Without waiving any objection, to the extent Delaware has non-privileged documents that are responsive to this Request that have not already been produced to or are not already in the possession of New Jersey, documents will be produced or made available by Delaware consistent with the discovery agreement between the parties.

18. All documents (including tax maps and property identification descriptions, cards or printouts), that show, describe, or identify any structures or improvements extending from the New Jersey shoreline within the Twelve Mile Circle across the New Jersey/Delaware boundary, for which Delaware, or any of its governmental subdivisions, provides police protection.

RESPONSE: Delaware objects to this Request as overly broad, unduly burdensome, and not reasonably calculated to lead to the discovery of admissible evidence. Delaware further objects to this Request to the extent that it seeks documents outside the possession, custody, or control of Delaware and because it seeks public documents which are readily available to New Jersey. Indeed, New Jersey successfully urged the Special Master to require Delaware first to obtain public documents independently and outside the discovery process. *See* Order on New Jersey's Motion to Strike at 8 (June 13, 2006). Without waiving any objection, to the extent Delaware has non-privileged documents that are responsive to this Request that have not already been produced to or are not already in the possession of New Jersey, documents will be produced or made available by Delaware consistent with the discovery agreement between the parties.

19. All documents (including tax maps and property identification descriptions, cards or printouts), that show, describe, or identify any structures or improvements extending from the New Jersey shoreline within the Twelve Mile Circle across the New Jersey/Delaware boundary, for which Delaware, or any of its governmental subdivisions, provides fire protection.

RESPONSE: Delaware objects to this Request as overly broad and unduly burdensome. Delaware further objects to this Request to the extent that it seeks documents outside the possession, custody, or control of Delaware and because it seeks public documents which are readily available to New Jersey. Indeed, New Jersey successfully urged the Special Master to require Delaware first to obtain public documents independently and outside the discovery process. *See* Order on New Jersey's Motion to Strike at 8 (June 13, 2006). Without waiving any objection, to the extent Delaware has non-privileged documents that are responsive to this Request that have not already been produced to or are not already in the possession of New Jersey, documents will be produced or made available by Delaware consistent with the discovery agreement between the parties.

20. All documents that show, describe or identify any structures or improvements extending from the New Jersey shoreline within the Twelve Mile Circle, over which Delaware has exercised riparian jurisdiction.

RESPONSE: Delaware objects to this Request as vague, overly broad, and unduly burdensome. Without waiving any objection, Delaware responds that all non-privileged responsive documents are public documents, which have already been made available to New Jersey pursuant to a FOIA request dated May 17, 2005. If New Jersey desires access to other files, Delaware requests that New Jersey identify such files for review.

21. All documents that discuss the authority, customs or practice of Delaware and/or its political subdivisions with respect to taxing structures or improvements extending from the New Jersey shoreline within the Twelve Mile Circle, across the New Jersey/Delaware boundary.

RESPONSE: Delaware objects to this Request as overly broad, unduly burdensome, argumentative, and not reasonably calculated to lead to the discovery of admissible evidence. Delaware further objects to this Request to the extent that it seeks documents outside the possession, custody, or control of Delaware. Without waiving any objection, to the extent Delaware has non-privileged documents that are responsive to this Request that have not already been produced to or are not already in the possession of New Jersey, documents will be produced or made available by Delaware consistent with the discovery agreement between the parties.

22. All documents that discuss the authority, customs or practice of Delaware and/or its political subdivisions with respect to exercising riparian jurisdiction over improvements extending from the New Jersey shoreline within the Twelve Mile Circle, across the New Jersey/Delaware boundary.

RESPONSE: Delaware objects to this Request as overly broad, unduly burdensome, argumentative, vague, and not reasonably calculated to lead to the discovery of admissible evidence. Delaware further objects to this Request to the extent that it seeks documents outside the possession, custody, or control of Delaware. Without waiving any objection, to the extent Delaware has non-privileged documents that are responsive to this Request that have not already been produced to or are not already in the possession of New Jersey, documents will be produced or made available by Delaware consistent with the discovery agreement between the parties.

23. All correspondence with, and documents provided to, any person whom Delaware anticipates calling as a fact witness in this case that refer or relate in any way to the subject matter of this litigation.

RESPONSE: Delaware objects to this Request as premature. Delaware has not yet determined whether it will call any fact witnesses. Delaware will supplement this response as required by the Federal Rules, or any other applicable court rule. Delaware further objects to this Request on the grounds that it seeks production of documents and information that are privileged.

24. For any person whom Delaware anticipates calling as a fact witness in this case who is or was employed by any agency of Delaware state or local government, all documents that were in that person's possession while so employed that refer or relate in any way to:

- (a) the subject matter of their expected testimony;

- (b) Delaware's assertion of jurisdiction over improvements appurtenant to the New Jersey shoreline within the Twelve Mile Circle; or
- (c) New Jersey's rights of riparian jurisdiction within the Twelve Mile Circle.

RESPONSE: Delaware objects to this Request as argumentative and premature. Delaware has not yet determined whether it will call any fact witnesses. Delaware will supplement this response as required by the Federal Rules, or any other applicable court rule. Delaware further objects to this Request on the grounds that it seeks production of documents and information that are privileged.

25. All correspondence with, and documents provided to, any person whom Delaware anticipates calling as an expert witness in this case.

RESPONSE: Delaware objects to this Request as premature. Delaware has not yet determined whether it will present any expert testimony. Delaware will supplement this response as required by the Federal Rules, or any other applicable court rule.

26. All reports prepared by any person whom Delaware anticipates calling as an expert witness in this case.

RESPONSE: Delaware objects to this Request as premature. Delaware has not yet determined whether it will present any expert testimony. Delaware will supplement this response as required by the Federal Rules, or any other applicable court rule.

27. All documents referring or relating to discussions of the Commissioners appointed in 1903 as a result of the proceedings in *New Jersey v. Delaware I*.

RESPONSE: Delaware objects to this Request because it seeks public documents that are readily available to New Jersey. Indeed, New Jersey successfully urged the Special Master to require Delaware first to obtain public documents independently and outside the discovery process. *See Order on New Jersey's Motion to Strike at 8 (June 13, 2006)*. To the extent Delaware has non-privileged documents that are responsive to this Request that have not already been produced to or are not already in the possession of New Jersey, documents will be produced by Delaware consistent with the discovery agreement between the parties.

28. All documents referring or relating to legislative statements or proceedings related to the proceedings in *New Jersey v. Delaware I*.

RESPONSE: Delaware objects to this Request because it seeks public documents that are readily available to New Jersey. Indeed, New Jersey successfully urged the Special Master to require Delaware first to obtain public documents independently and outside the discovery process. *See Order on New Jersey's Motion to Strike at 8 (June 13, 2006)*. To the extent Delaware has non-privileged documents that are responsive to this Request that have not already

been produced to or are not already in the possession of New Jersey, documents will be produced by Delaware consistent with the discovery agreement between the parties.

29. All documents referring or relating to statements by Legislators related to the resolution or settlement of *New Jersey v. Delaware I*.

RESPONSE: Delaware objects to this Request because it seeks public documents that are readily available to New Jersey. Indeed, New Jersey successfully urged the Special Master to require Delaware first to obtain public documents independently and outside the discovery process. *See Order on New Jersey's Motion to Strike at 8 (June 13, 2006)*. To the extent Delaware has non-privileged documents that are responsive to this Request that have not already been produced to or are not already in the possession of New Jersey, documents will be produced by Delaware consistent with the discovery agreement between the parties.

30. All documents referring or relating to what came to be called the Compact of 1905.

RESPONSE: Delaware objects to this Request on the grounds that it is overly broad, unduly burdensome, not reasonably calculated to lead to the discovery of admissible evidence, and seeks production of documents and information that are privileged. Delaware further objects to this Request because it seeks public documents that are readily available to New Jersey. Indeed, New Jersey successfully urged the Special Master to require Delaware first to obtain public documents independently and outside the discovery process. *See Order on New Jersey's Motion to Strike at 8 (June 13, 2006)*. To the extent Delaware has non-privileged documents that are responsive to this Request that have not already been produced to or are not already in the possession of New Jersey, documents will be produced by Delaware consistent with the discovery agreement between the parties.

31. All documents referring or relating to that portion of the Delaware River within the Twelve Mile Circle.

RESPONSE: Delaware objects to this Request on the grounds that it is overly broad, unduly burdensome, not reasonably calculated to lead to the discovery of admissible evidence, and seeks production of documents and information that are privileged. Without waiving any objection, to the extent Delaware has non-privileged documents that are responsive to this Request that have not already been produced to or are not already in the possession of New Jersey, documents will be produced by Delaware consistent with the discovery agreement between the parties.

32. Attach true copies of all writings or documents referring to what came to be called the Compact of 1905 authored by any signatory of the Compact or any official or legislator of either State, dated from 1903 to 1925.

RESPONSE: Delaware objects to this Request because it seeks public documents that are readily available to New Jersey. Indeed, New Jersey successfully urged the Special Master to require Delaware first to obtain public documents independently and outside the discovery

process. *See* Order on New Jersey's Motion to Strike at 8 (June 13, 2006). To the extent Delaware has non-privileged documents that are responsive to this Request that have not already been produced to or are not already in the possession of New Jersey, documents will be produced by Delaware consistent with the discovery agreement between the parties.

33. Attach true copies of all published news reports in New Jersey or Delaware referring to what came to be called the Compact of 1905, the negotiations which preceded it, and its aftermath, dated from 1900 to 1925.

RESPONSE: Delaware objects to this Request because it seeks the production of publicly available information and documents that are equally available to New Jersey. Delaware further objects to this Request because the Request seeks production of documents and information protected by the attorney work product doctrine. The decision to come into possession of the requested news reports reflects counsel's thought processes and judgment as to which reports are significant or important, and is therefore protected by the work product doctrine.

34. Attach true copies of all commentaries, learned journals, or treatises referring to the Compact of 1905, dated from 1905 to 1925.

RESPONSE: Delaware objects to this Request because it seeks production of publicly available information and documents that are equally available to New Jersey. Delaware further objects to this Request because the Request seeks production of documents and information protected by the attorney work product doctrine. The decision to come into possession of the requested legal research reflects counsel's thought processes and judgment as to which sources are significant or important, and is therefore protected by the work product doctrine.

35. Attach true copies of all news articles, editorials, and letters to the editor in any newspapers published in Delaware, concerning whether the Delaware Legislature or Governor should approve or reject what came to be called the Compact of 1905, dated from 1900 to 1906.

RESPONSE: Delaware objects to this Request because it seeks the production of publicly available information and documents that are equally available to New Jersey. Delaware further objects to this Request because the Request seeks production of documents and information protected by the attorney work product doctrine. The decision to come into possession of the requested news materials reflects counsel's thought processes and judgment as to which sources are significant or important, and is therefore protected by the work product doctrine.

36. Attach all writings which support Delaware's contention that New Jersey obtained a preliminary injunction on March 26, 1877 on an incomplete record. (Answer ¶7).

RESPONSE: Delaware respectfully refers New Jersey to the record in *New Jersey v. Delaware I* and *New Jersey v. Delaware II*, including the Special Master's report reviewing the voluminous evidence taken more than 50 years after the Court entered the injunction, which is reported at 55 S. Ct. 934, and the Court's opinion, reported at 295 U.S. 361 (1934). To the

extent Delaware has non-privileged documents that are responsive to this Request that have not already been produced to or are not already in the possession of New Jersey, documents will be produced by Delaware consistent with the discovery agreement between the parties.

37. Attach all writings which support Delaware's contention that "Article VII... left open the scope of riparian jurisdiction that could be lawfully exercised by each State..." (Answer ¶11).

RESPONSE: Delaware respectfully refers New Jersey to the writings relied on in Delaware's previous briefing of this issue. To the extent Delaware has non-privileged documents that are responsive to this Request that have not already been produced to or are not already in the possession of New Jersey, documents will be produced by Delaware consistent with the discovery agreement between the parties.

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Dated: June 30, 2006

CERTIFICATE OF SERVICE

I certify that on June 30, 2006, a copy of the foregoing Response to New Jersey's First Request for Production of Documents was served by email and U.S. Mail to each of the following:

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LAW OF WATERS

AND

WATER RIGHTS

INTERNATIONAL, NATIONAL, STATE, MUNICIPAL, AND INDIVIDUAL
INCLUDING
IRRIGATION, DRAINAGE, AND MUNICIPAL WATER SUPPLY.

By

HENRY PHILIP FARNHAM, M. L. (Yale)

ASSOCIATE EDITOR OF
THE LAWYERS' REPORTS ANNOTATED

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not only departed from the common law on the subject, but it arbitrarily destroyed property rights which had grown up under rulings of the court that the riparian owner had a wharfage right. Such decisions are by no means a credit to jurisprudence, and tend to throw discredit upon the judicial system. A high regard for the wisdom and impartiality of justice cannot be held by one who acquires riparian property with the understanding, based on a decision of the highest court of the state, that he thereby acquires the right to erect a wharf or pier for commercial purposes, and, when he proceeds to act upon such understanding, is told by the same court that he has no right, but that the state may grant the right to a third person without making any compensation to him, and cut him off even from access to the water. In *Austin v. Rutland R. Co.*⁸ it is said that all that can be claimed for riparian owners seeking to recover in ejectment land that had been improved by a third person in front of their lot is the right to pass to and from the water of the lake within the width of the lot as it bordered on and was washed by the water. There was no right to appropriate land beyond the low-water mark. There is no right to wharf out except by provision of a statute. As the absolute owner of the lot he had the exclusive right to use it in passing to and from the lake. If one, in making erections in the lake in front of his land, violated his right he could seek redress in some proper way, but not by action based on his right as the owner of it.

In contrast with the above decision is that in *Paine Lumber Co. v. United States*,⁹ that the constitutional prohibition against obstruction of navigable rivers without authority from the legislature does not extend to the construction of a pier continued through such water only so far as necessary to reach the navigable part of the river. Equity will restrain the placing of a wharf in a public stream contrary to law.¹⁰

114. Correlative rights of individual and public.—The most important use to which the space between the shore line and deep water in a locality where ships resort to load and unload can be devoted is for the erection of wharves and piers for the accommodation of such vessels. If the land under the water belongs to the riparian owner there is no doubt that he has a right to place there any structures

⁸ 45 Vt. 215.

⁹ 55 Fed. 854.

¹⁰ *Frankford v. Lennig*, 2 Phila. 403. But it has also been held that the construction without a license of a wharf which is a purpresture cannot be enjoined, or the wharf abated at the suit of the state, unless it is or will be

a nuisance, or is or will be followed by some form of irreparable damage, or unless it is or will be an appreciable hindrance to the execution of some legislative act relating to fishery or to commerce or navigation. *People ex rel. Teschemacher v. Davidson*, 30 Cal. 379.

which will not interfere with the public right of navigation. The right extends as far as the title extends. The public may regulate the placing of structures there so far as its welfare requires, but, the title to the soil being in the riparian owner, he may build as far as his title goes. If it goes to low-water mark his right to build there so long as he does not materially interfere with the public rights of navigation cannot be questioned;¹ and, if he owns the land under the water to the point of navigability, he may construct a wharf to that point, subject to the proviso that it must not be a nuisance to navigation.² As said in *Ryan v. Brown*,³ it can never be unlawful for a landowner to make such wharves as will accommodate all vessels ordinarily using the stream, unless there is some exceptional circumstance which may, in particular cases, render his structure improper. If the title to the soil is not in the riparian owner, his absolute right as an individual ceases, and, as has already been seen,⁴ his right to place a wharf on the soil comes from his right, because of advantageous location, to make such use of the common property as the public good requires. The supreme court of Illinois, in *Revell v. People*,⁵ held that, although there was a right to wharf out when the title to the soil was in the riparian owner, such right did not exist when the soil belonged to the state. This is true so far as the private right of the riparian owner is concerned; but, so long as it is the policy of the state to permit and protect the erection of wharves, and the riparian owner is the only one who can obtain access to the water for the purpose of erecting wharves, he is the one upon whom devolves the execution of the work, and he, therefore, as one of the public, has the right to construct the wharf. Ownership of the dry land is a necessary incident to the erection of a wharf, because attachment to the land above high-water mark is absolutely necessary, and the only one having a right to make such at-

¹*Chicago v. Laftin*, 49 Ill. 172; *Galveston v. Menard*, 23 Tex. 404; *Deering v. Long Wharf*, 25 Me. 51; *State v. Wilson*, 42 Me. 9; *Harlan & H. Co. v. Paschall*, 5 Del. Ch. 435; *Martin v. Evansville*, 32 Ind. 85; *Delaware & H. Canal Co. v. Lawrence*, 2 Hun, 163; *East Haven v. Hemingway*, 7 Conn. 202; *Ensinger v. People*, 47 Ill. 384, 95 Am. Dec. 495; *Com. v. Pierce*, 2 Dane Abr. 696; *Com. v. Crowninshield*, 2 Dane Abr. 697.

But in New Brunswick it is held that one taking a grant of land extending to low-water mark takes it subject to the

jus publicum, and cannot obstruct the navigation by erecting a pier between high and low water marks. *Brown v. Reed*, 2 Pugsley (N. B.) 206.

So in Massachusetts if the passage of boats will be materially injured. *Kean v. Stetson*, 5 Pick. 492.

²*Maxwell v. Bay City Bridge Co.* 41 Mich. 453, 2 N. W. 639; *Grand Rapids v. Powers*, 89 Mich. 94, 14 L. R. A. 498, 28 Am. St. Rep. 276, 50 N. W. 661.

³18 Mich. 196.

⁴§ 113. *ante*.

⁵177 Ill. 468, 43 L. R. A. 790, 69 Am. St. Rep. 257, 52 N. E. 1052.

tachment is the owner of the land.⁶ In general a wharf constructed in front of another's property will belong to him.⁷ But this is not true with regard to wharves erected by the public or under its authority, and the remedy for such erection must be sought in some other way.⁸ The public right to use the space between the shore and deep water is, however, in the absence of any express devotion of it to some other use, limited to uses connected with, or in furtherance of, navigation. Therefore, whatever structures the riparian owner, in the exercise of his right, places there must be in aid of navigation, and he cannot use the space for structures for other purposes.⁹ This

⁶*Payne v. English*, 79 Cal. 540, 21 Pac. 952; *San Pedro v. Southern P. R. Co.* 101 Cal. 333, 35 Pac. 993; *Smith v. Levinus*, 8 N. Y. 472.

Conversely, ejection will lie in favor of a municipality to recover possession of a wharf and pier which private individuals have erected on city property at the end of a public street, and which they are using mainly for their private business and for the use of which by others they are taking wharfage. *New York v. Law*, 125 N. Y. 380, 26 N. E. 471.

The state may lease public land to an individual for wharf purposes. *United States v. Bain*, 3 Hughes, 593, Fed. Cas. No. 14,496.

And in *Baltimore v. McKim*, 3 Bland Ch. 453, it was held that permission given to an individual by the port wardens, to build a wharf on a certain public street, was a mere nullity.

The right to erect wharves will pass to a town when the owner of land lays it out into lots and blocks which he sells according to a plat which leaves the space along the water open. *Rowan v. Portland*, 8 B. Mon. 256; *Newport v. Taylor*, 16 B. Mon. 699.

So, the original proprietor of a town site upon a navigable river retains the wharfage privileges thereat where he did not divest himself thereof by express grant, and, upon the map of the town according to which lots were sold, such privileges are expressly reserved. *Columbus v. Grey*, 2 Bush, 476.

But it has been held that that portion of a wharf and chute below high-water mark of the ocean, resting upon piles in the bed thereof, is not affixed to the land of the riparian proprietor, although fastened to the land end of the wharf by nails, bolts, and screws, so as to permit a recovery thereof in an action of ejection for the upland and the wharf;

and that it is not incidental or appurtenant to the land of the riparian proprietor within a Code provision that a thing is deemed to be incident or appurtenant to the land when it is by right used with the land for its benefit, so as to entitle him to recover the same in ejection for the upland, where such wharf and chute were constructed by strangers by permission of the lessees of the upland. *Coburn v. Ames*, 52 Cal. 385, 28 Am. Rep. 634.

⁷*Baltimore v. St. Agnes Hospital*, 48 Md. 419; *Steers v. Brooklyn*, 101 N. Y. 51, 4 N. E. 7.

When the state has granted away the fee to land between high and low water lines under navigable waters, it cannot authorize another to erect a wharf thereon, such action not being included in the residuary easement in the public. *DeLancey v. Wellbrock*, 113 Fed. 103.

⁸*Bedlow v. New York Floating Dry Dock Co.* 44 Hun, 378; *Barney v. Keokuk*, 94 U. S. 324, 24 L. ed. 224.

⁹*Folsom v. Freeborn*, 13 R. I. 200; *Atlee v. Northwestern Union Packet Co.* 21 Wall. 389, 22 L. ed. 619; *Leigh v. Holt*, 5 Biss. 338, Fed. Cas. No. 8,220; *Atty. Gen. v. Lonsdale*, L. R. 7 Eq. 377, 38 L. J. Ch. N. S. 335, 20 L. T. N. S. 64, 17 Week. Rep. 219.

The owner of land bordering upon a navigable lake has no right by any device whatever, such as the building of piers, to extend his boundary line beyond the waters edge, and any such erection into the lake for the purpose of making land is an injury to the rights of the state which a court of equity will abate. *Revell v. People*, 177 Ill. 469, 43 L. R. A. 790, 69 Am. St. Rep. 257, 52 N. E. 1052, Affirming 29 Chicago Legal News, 345.

The maintenance of a solid structure formed by driving piles and sinking scows and filling in the space between

precludes one riparian owner from extending his piers for the mere purpose of equaling those of adjoining proprietors.¹⁰ And one maintaining a pier must maintain lights on it so as to prevent collision by passing vessels.¹¹ But the fact that he has erected the pier does not deprive him of the right to use the adjoining water in common with the public.¹²

The primary purpose of the water way being for navigation, it is always within the power of the public to regulate the construction of wharves so as to prevent destruction of, or material interference with, the rights of navigation. This right may extend to the complete prohibition of wharves at places where they cannot be constructed without materially impairing the right of navigation; and it may also extend to requiring the procurement of a license and payment of a fee for the right to construct the wharf; but every riparian owner has a right to the same advantages which are accorded to others, and, if permission is given to some persons, it must be given on equal terms to others. The legislature may, for the purpose of security of navigation, regulate and restrain the building of wharves,¹³ and fix a fee

them to the width of 34 feet and extending 250 feet into a way beyond low-water mark used for the dismantling and repairing of vessels involves an exclusive appropriation of the land under water, and is not justifiable as an exercise of the riparian owner's right of access to navigable water, where the fee of the submerged land is in another. *North Hempstead v. Gregory*, 53 App. Div. 350, 65 N. Y. Supp. 867.

The owner of coal boats and barges moored to the river bank within the city limits has no authority, derivable from the proprietor of riparian property under a lease, to build, for the storage of apparatus and the use of employees, houses resting on piles driven in the batture outside of the levees. *Sweeney v. Shakspeare*, 42 La. Ann. 614, 21 Am. St. Rep. 400, 7 So. 729.

¹⁰*Grand Trunk R. Co. v. A. Backus, Jr., & Sons*, 46 Fed. 211.

¹¹*Northwestern Union Packet Co. v. Altee*, 2 Dill. 479, Fed. Cas. No. 10,341.

¹²*Leigh v. Holt*, 5 Biss. 338, Fed. Cas. No. 8,220.

¹³*Atty. Gen. v. Boston & L. R. Co.* 118 Mass. 345; *Martin v. O'Brien*, 34 Miss. 21; *State v. Sargent & Co.* 45 Conn. 358; *Duryea v. New York*, 26 Hun. 120;

Stockton v. American Lucol Co. (N. J. Eq.) 36 Atl. 572; *Delaware & H. Canal Co. v. Lawrence*, 2 Hun. 163; *People v. New York & S. I. Ferry Co.* 68 N. Y. 71;

Bond v. Wool, 107 N. C. 139, 12 S. E. 281; *Wool v. Edenton*, 115 N. C. 10, 20 S. E. 165; *Moore v. Commissioners of Pilots*, 32 How. Pr. 184.

A condition attached by ordinance to the granting of the right to extend land into water, that the exterior margin shall constitute a public wharf, was a legitimate exercise of the power of the mayor and city of Baltimore, conferred on them by the laws of the state for the protection of the navigation of the port of Baltimore. *Baltimore v. White*, 2 Gill, 444.

The fact that a pier exceeds the width permitted by statute does not deprive it of the character of a lawful pier to the extent of the permitted width, nor justify the erection of another pier within the prohibited distance from it. *People v. New York & S. I. Ferry Co.* 68 N. Y. 71, Affirming 7 Hun, 105.

A license to erect an addition to a pier provided that 80 feet of docks are left on each side must be construed to require 80 feet of actual dock way according to existing lines, and the rights to existing lines for the adjoining docks cannot be adjudicated collaterally. *Neill v. Easby*, 1 W. N. C. 58.

An addition to a pier in New York harbor cannot be made without permission from the proper authorities; and, if authority has been given for certain additions which have been exhausted, no

for the privilege.¹⁴ If the state directs its officers to make regulations, they cannot refuse to do so on the ground that the erection of wharves will be an irremediable injury to navigation;¹⁵ but if the power of regulation is merely conferred on a municipal corporation, it cannot be compelled by mandamus to exercise it.¹⁶ If conditions are imposed for the erection of wharves, the right to erect them will exist upon compliance with the regulations.¹⁷

The authority to regulate the construction of wharves within their limits may be delegated by the legislature to municipal corporations. But the mere delegation of such right to a municipal corporation does not authorize the municipality to forbid the erection of all piers by private individuals, and assume for itself the exclusive right to erect and control them.¹⁸ A municipal corporation may, however, make such reasonable regulations as may be necessary.¹⁹ The state may resume power which it has delegated to a municipal corporation with respect to the control of wharves and piers at any time.²⁰

A wharf which has been erected for the convenience of commerce under the express or tacit permission of the state, by a riparian pro-

further additions can be made without further authority. *Buck v. Post*, 39 Fed. 249.

Where a grant of a right to build a wharf of a certain length was made in 1852, and a structure only a part of that length was built and left for six years without addition, it was held that the power of the grantees had been exhausted, and that they could not afterwards extend it further without a new grant. *Rush v. Jackson*, 24 Cal. 308.

¹⁴*Com. v. Clark*, 6 Phila. 498.

¹⁵*Savannah v. State*, 4 Ga. 26.

¹⁶*Kennedy v. Washington*, 3 Cranch, C. C. 595, Fed. Cas. No. 7,708.

¹⁷*Sullivan Timber Co. v. Mobile*, 110 Fed. 187.

¹⁸*Barre v. Fleming*, 29 W. Va. 315, 1 S. E. 731.

If no title to tide lands has passed from the state to a municipal corporation, it cannot enjoin a railroad company from erecting a wharf over them under permission of the state authorities. *San Pedro v. Southern P. R. Co.* 101 Cal. 333, 35 Pac. 993.

But in *Grant v. Davenport*, 18 Iowa, 179, it was held that wharves erected within the corporate limits of a municipality must yield to the paramount right of the corporation under the law by which the corporation is created.

A municipal corporation is equitably estopped from questioning the legality

of the claim of a riparian proprietor to submerged land for wharf privileges, when for thirty years it has recognized his claim of right by permitting him to make expenditures on such land, regulating the length of the wharf, and subjecting it to taxation, and shows laches in enforcing its title. *Sullivan Timber Co. v. Mobile*, 110 Fed. 187.

If a city has been given the right to control the water front beyond a line drawn on the bay, a person who subsequently acquires land from the state will take in subordination to such right, and cannot erect a wharf against the will of the city. *Weber v. State Harbor*, 18 Wall. 57, 21 L. ed. 798.

¹⁹*Chicago v. Van Ingen*, 152 Ill. 624, 43 Am. St. Rep. 285, 38 N. E. 894; *District of Columbia v. Johnson*, 3 Mackey, 120; *Baltimore v. White*, 2 Gill, 444; *Sheperd v. Third Municipality*, 6 Rob. (La.) 239, 4 Am. Dec. 269. ²⁰*Duffy v. New Orleans*, 49 La. Ann. 114, 21 So. 179.

After the passage of the act of 1857 to reinvest in the people the title to the Hudson river outside of the port lines, the city of New York could not authorize the erection of a pier outside of such lines, but such erection would be a purpresture and nuisance, to be restrained and abated at the suit of the people. *People v. Vanderbilt*, 26 N. Y. 287.

prietor, is private property of which he cannot be deprived without compensation,²¹ and, as such, is subject to taxation;²² and equity will protect him from its removal as an illegal obstruction.²³ As property, wharves are subject to condemnation for other public uses

²¹*Leverich v. Mobile*, 110 Fed. 170; *Lewis v. Portland*, 25 Or. 133, 22 L. R. A. 736, 42 Am. St. Rep. 772, 35 Pac. 256; *Horner v. Pleasants*, 66 Md. 475, 7 Atl. 691; *Baltimore & O. R. Co. v. Chase*, 43 Md. 23; *Sullivan Timber Co. v. Mobile*, 110 Fed. 187; *Langdon v. New York*, 93 N. Y. 129; *Yates v. Milwaukee*, 10 Wall. 497, 19 L. ed. 984.

The power of a municipality to remove obstructions from highways is a ministerial and police power only, and does not extend to or authorize the removal of docks, piers, wharves, etc., at the termini of streets on the water front, in the actual possession and ownership of private parties, when the proceeding is to seize the wharves for the use of the public. *State, Jersey Co., Prosecutor, v. Jersey City*, 34 N. J. L. 31.

A municipal corporation has no right to revoke a permit issued to an owner of land to build a dock on his land on the banks of a navigable stream, where, in consideration of such permit, he executed a quitclaim deed to the city conveying a portion of his land in the bed of the stream for the purpose of navigation, and such dock as proposed to be built would not in any way interfere with or obstruct a free use of the river for purposes of navigation, and public interest does not require the premises upon which the same is to be built to remain unoccupied, especially where such owner has already commenced work under such permit, and has expended money on the strength thereof. *Chicago v. Van Ingen*, 152 Ill. 624, 43 Am. St. Rep. 285, 38 N. E. 894.

But the inclosure of the whole tract of land lying below low-water line included in the license, by piling, cannot be considered as of itself such a sufficient execution of a license to build a wharf that the state is thereby prevented from further limiting the time for the completion of the wharf, which is the sole object of the license. *Stockton v. American Lucol Co.* (N. J. Eq.) 36 Atl. 572.

²²*Smith v. New York*, 68 N. Y. 552; *State, Bentley, Prosecutor, v. Sippel*, 25 N. J. L. 530; *People ex rel. Smith v. New York Tax & A. Comrs.* 10 Hun, 207.

The fact that wharves and docks used by a railroad company in the transaction of its business are also incidentally used by others who pay wharfage to the company does not render them property over and above that required by the company in the transaction of its appropriate business, so as to render them taxable under a statute providing that property of corporations over and above that required in the transaction of its appropriate business shall be taxed. *Osborn v. Hartford & N. H. R. Co.* 40 Conn. 498.

The one-third undivided interest of a city in a wharf extending along the front of the city, the interest being represented by one third of the stock of a wharf company, is public property which is exempt from taxation, under a constitutional provision exempting property of municipal corporations held for public purposes, and devoted exclusively to the use and benefit of the public, although compensation is received for the use of the wharf, where the contract under which the city acquired its interest from individuals provided that the city should hold such interest in trust for the inhabitants of the city, and that it should not be alienable except by a two-thirds vote of the qualified voters; and that the dividends which the city should receive from its stock should be disbursed and expended for the public good and for the benefit of the present and future inhabitants of the city. *Galveston Wharf Co. v. Galveston*, 63 Tex. 14.

One who is granted land under water and the adjacent upland in fee, and the right of wharfage from wharves to be erected on so much of the land under water as was reserved for an exterior street and wharves which are to be public streets or wharves, acquires an incorporeal hereditament in the wharf or bulkhead made by the street, which interest is not taxable as real estate. *Boreel v. New York*, 2 Sandf. 552.

²³*Ryan v. Brown*, 18 Mich. 196, 100 Am. Dec. 154.

Equity may take jurisdiction of a suit to enjoin a municipal corporation from taking possession of a pier constructed into tide water, and removing buildings therefrom, for the purpose of making

under the power of eminent domain,²⁴ upon payment of due compensation;²⁵ and the right of eminent domain may be exercised to acquire land for piers which are needed for a public purpose.²⁶ The damages will include all those occasioned by the taking of the land.²⁷

a public street, to the irreparable injury of the owner of the pier. *Morris Canal & Bkg. Co. v. Jersey City*, 12 N. J. Eq. 252.

²⁴*Page v. Baltimore*, 34 Md. 558; *Hazlehurst v. Baltimore*, 37 Md. 199; *Hannibal v. Winchell*, 54 Mo. 172.

A lease of the wharves of a port is the subject of eminent domain. *Duffy v. New Orleans*, 49 La. Ann. 114, 21 So. 179.

Docks and wharves of a private steamboat company, although used by it in caring for the public, are not devoted to the public use sufficiently to protect them from seizure by a railroad company under right of eminent domain. *Re New York, L. & W. R. Co.* 99 N. Y. 12, 1 N. E. 27, Affirming 35 Hun, 220.

The right conferred upon a city by Ind. Rev. Stat. 1881, § 3106, to establish and construct wharves, docks, and piers does not imply a power to condemn a private wharf already established. *Madison v. Daley*, 58 Fed. 751.

Proceedings to condemn property for the construction of a wharf are void where they are instituted without an effort having been made to agree with the owner as to the amount of damages. *Anderson v. St. Louis*, 47 Mo. 479.

Persons whose property is about to be taken for the construction of a wharf under invalid condemnation proceedings are not entitled to relief by injunction, as they have an adequate remedy at law for the recovery of damages. *Ibid.*

Where land was condemned under an ordinance authorizing the construction of a "public highway for wharf purposes," the requirements of the ordinance are satisfied by the construction of a wharf, and a highway extending along the bank of a stream not necessary as a wharf is a public highway within the meaning of the ordinance. *Belcher Sugar Ref. Co. v. St. Louis Grain Elevator Co.* 10 Mo. App. 401.

²⁵*Austin v. Rutland R. Co.* 21 Blatchf. 358, 17 Fed. 466; *Carli v. Stillwater Street R. & Transfer Co.* 28 Minn. 373, 41 Am. Rep. 290, 10 N. W. 205.

²⁶*Re New York C. & H. R. R. Co.* 135 N. Y. 253, 31 N. E. 1043, Affirming 45 N. Y. S. R. 334.

The action of a city in condemning wharf property of a railroad company

for municipal wharf purposes cannot be questioned by the railroad company on the ground that the city had sufficient property for wharf purposes, in the absence of anything to show that, in making the appropriation, the city authorities acted in bad faith, or that the property is intended to be used for any purpose than that for which appropriated, where, by statute, the municipality is vested with the discretion of determining the quantity of ground required for wharf purposes. *Iron R. Co. v. Ironton*, 19 Ohio St. 299.

²⁷Where a preferential right to use a dock for a certain steamboat line has attached, the damages for condemnation of the property under power of eminent domain cannot be limited to a mere capitalization of the amount received for wharfage and crantage, but must include an allowance for such right. *Langdon v. New York*, 59 Hun, 434, 13 N. Y. Supp. 864.

Damages for the loss of property taken for the construction of a dock may include those sustained by the owner of the land by reason of his being compelled to give up his business until he can obtain suitable premises in which to carry it on. *Reg. v. Hull Dock Co.* 11 Jur. 15, 9 Q. B. 443, 3 Railway Cas. 795, 15 L. J. Q. B. N. S. 403.

But the occupant of a wharf taken by eminent domain cannot recover the expense of moving his property and for the interruption of his business, when such loss would have occurred independently, by reason of the termination of his lease, within a few days. *Emery v. Boston Terminal Co.* 178 Mass. 172, 86 Am. St. Rep. 473, 59 N. E. 763.

Under a statute authorizing the construction of a public wharf and the assessment of compensation for the land taken, as well as for the damages generally to the same, the owner is not entitled to compensation for the loss of income from his private wharf situated on the tract of land taken for a public wharf. *Fuller v. Edings*, 11 Rich. L. 239, Reaffirmed in 12 Rich. L. 504.

The mere fact that the owner of land on a river might at some future time obtain from the state a grant of a wharf franchise if allowed to remain its owner

If the rights of any person are not acquired, he may have partition of the wharf.²⁸ In case the wharf is erected without right, on property belonging to the public, an information in equity will lie to abate it.²⁹ But in case the purpresture is made unlawful by statute, and a special remedy is prescribed, equity will not interfere, although the structure may also prove to be a nuisance, if the remedy provided is adequate for all interests involved.³⁰

115. Permission to construct.— Wharves being absolutely necessary to the existence of commerce by water, even in the states where the primary right of the riparian owner to construct them is denied provision is made by statute for the granting of such permission; and, since a grant to one who is not the owner of riparian land involves the necessity of his acquiring a right to connect the wharf with the riparian land, the provision usually made is for a grant of permission to the shore owner. Although the Pennsylvania courts have always held that the riparian owner had no right to use the soil under public waters for the construction of wharves or piers, even above the low-water mark,¹ it was early held that the acts of the legislature would seem to have recognized the right to construct them at least to that point.² The right to construct wharves was recognized by the colonial ordinance in Massachusetts,³ and by statute in New

is too remote and speculative to be taken into consideration in proceedings to condemn such land for railroad purposes. *Central P. R. Co. v. Pearson*, 35 Cal. 247. But this case is probably overruled by *San Diego Land & T. Co. v. Neale*, 78 Cal. 63, 3 L. R. A. 83, 20 Pac. 372.

²⁸ Heirs whose riparian property with an appurtenant right of wharfage had been taken by a railroad company, which acquired the precedent life estate, but made no compensation to them, may maintain a suit in equity for partition, and are entitled to have the land, as it would be without the improvements placed upon it by the railroad company, divided, or to receive just compensation. *Austin v. Rutland R. Co.* 21 Blatchf. 358, 17 Fed. 466.

²⁹ *Atty. Gen. v. Richards*, 2 Anstr. 603, 3 Revised Rep. 632.

³⁰ *Harlan & H. Co. v. Paschall*, 5 Del. Ch. 435.

¹ *Tinicum Fishing Co. v. Carter*, 61 Pa. 21, 100 Am. Dec. 597.

² *Ball v. Slack*, 2 Whart. 508, 30 Am. Dec. 278; *Pittsburgh & C. R. Co. v. Pennsylvania R. Co.* 22 Pittsb. L. J. N. S. 314; *Frankford v. Lennig*, 2 Phila. 403.

The right of the owner of upland to build his wharf to low-water line is a settled, clear, and unquestionable right, not dependent nor contingent, but an existing, immediate right, which may be exercised at any moment without permission from a board of port wardens. *Tatham v. Philadelphia Wardens*, 2 Phila. 246.

³ *Com. v. Crowninshield*, 2 Dane, Abr. 697; *Com. v. Pierce*, 2 Dane, Abr. 696.

The Massachusetts act of 1806 gave to the owner of lots adjoining the Acushnet river power to erect and maintain wharves extending to the channel of the river. *Hamlin v. Pairpoint Mfg. Co.* 141 Mass. 51, 6 N. E. 531; *Hastings v. Grimshaw*, 153 Mass. 497, 12 L. R. A. 617, 27 N. E. 521.

In Massachusetts a statute authorizing a wharf proprietor to extend it into the channel to the harbor line is a grant, and cannot be revoked by a subsequent grant to a railroad company to lay tracks along the shore between the wharf and the water. *Fitchburg R. Co. v. Boston & M. R. Co.* 3 Cush. 58.



State of New Jersey

Department of Environmental Protection

C. Hon

Bradley M. Campbell
Commissioner

Richard J. Codey
Acting Governor

May 24, 2005

Mr. David Blaha
Environmental Resources Management
200 Harry S. Truman Parkway
Suite 400
Annapolis, Maryland 21401

Re: Deficiency Letter for Waterfront Development Application
File No. 0809-02-0011.1
Applicant: Crown Landing LLC
Project: Crown Landing LNG Import Terminal
Block 101, Lot 2
Location: Logan Township, Gloucester County

Dear Mr. Blaha:

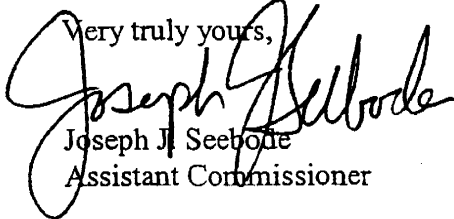
On February 4, 2005, the Office of Dredging and Sediment Technology ("ODST") sent you a deficiency letter regarding this project. This letter will correct an observation made in that letter regarding the project site and New Jersey's jurisdiction, review, and regulatory authority over the project, specifically the observation that activities taking place below the mean low water line are subject to Delaware coastal zone regulations rather than to New Jersey's regulatory authority.

As stated in the ODST letter of February 4, 2005, the project consists of construction and operation of a liquefied natural gas terminal in Logan Township, Gloucester County, New Jersey. The project is proposed to include construction of a berthing pier in the Delaware River and associated dredging.

The proposed liquefied natural gas plant would be located entirely within the State of New Jersey, while the proposed pier needed to service the plant would be attached to the New Jersey shoreline and extend into the Delaware River within the 12 Mile Circle. Thus, the pier would originate in New Jersey and extend into Delaware.

As State officials have made clear, and as recognized in a May 13, 2005 letter from Gregory S. Roden, Esq., Senior Attorney for BP America, Inc. to David Risilia of ODST, although a portion of the pier is proposed to be in Delaware, construction of the entire pier, and any associated dredging, is subject to New Jersey's exclusive review and permitting authority, and not that of Delaware. This is the case because the Compact of 1905 between New Jersey and Delaware, which

was approved by the Legislatures of both States and by the United States Congress, gives New Jersey exclusive riparian jurisdiction of every kind and nature on its side of the Delaware River. Thus, you should disregard any indication in the February 4, 2005 letter that may suggest anything to the contrary.

Very truly yours,

Joseph J. Seebode
Assistant Commissioner

c: Laurie Bepler, BP Crown Landing
William Jenkins, ACOE Philadelphia District Regulatory Branch
Anita Ripotella, National Marine Fisheries Service
Steve Mars, US Fish and Wildlife
Robert Kopka, FERC
Lingard Knutson, USEPA Region II
Daniel Ryan, Special Assistant to the Commissioner
Don Wilkenson, NJDEP Fish and Wildlife
Dave Risilia, NJDEP ODS



State of New Jersey

Department of Environmental Protection

Bradley M. Campbell
Commissioner

Richard J. Codey
Acting Governor

Environmental Regulation
Office of Pollution Prevention and Right To Know
401 E. State St., 3rd floor, Trenton, NJ 08625-0423
Tel.(609) 292-3600
Fax (609) 777-1330

May 25, 2005

Magalie R. Salas, Secretary
Federal Energy Regulatory Commission
888 First Street NE, Room 1A
Washington DC 20426

RECEIVED

MAY 26 2005

**DIVISION OF LAW
STATE OF NEW JERSEY**

Re: Crown Landing LNG and Logan Lateral Projects
DEIS (FERC/EIS-0179D) Comments
Reference Docket No. CP04-411-000 and CP04-416-000

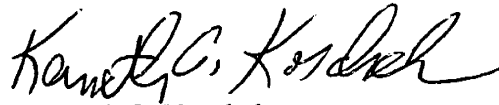
Dear Secretary Salas:

This letter is written as a follow up to our letter of April 19, 2005 commenting on the draft Environmental Impact Statement for the Crown Landing LNG and Logan Lateral Projects, and will confirm that New Jersey, and not Delaware, has exclusive State regulatory authority over the plant, and the associated pier and dredging. This authority is reflected in the 1905 Compact between Delaware and New Jersey, which was approved by Congress in 1907.

The initial application to New Jersey for permits for the LNG plant, and associated pier and dredging, did not clearly address all of the project's impacts and suggested that Delaware might have some permitting authority over that portion of the project located below the mean low water line of the New Jersey shoreline. However, in recognition of New Jersey's exclusive State regulatory authority over the plant, pier and associated dredging, the application recently was supplemented to clarify that New Jersey's approval is being sought for the entire project, including any portion of the project located below the mean low water line of the New Jersey shoreline. Enclosed please find a letter from Assistant Commissioner Joseph Seebode of the New Jersey Department of Environmental Protection to David Blaha of Environmental Resource Management, dated May 24, 2005 confirming New Jersey's regulatory jurisdiction over the entirety of the project.

Thank you for taking this letter into consideration, along with New Jersey's prior comments.

Sincerely,



Kenneth C. Koschek
Supervising Environmental Specialist
Office of Permit Coordination and
Environmental Review

Enclosure

c: Dorothy Guzzo, NJDEP
Martin McHugh, NJDEP
Donald Wilkinson, NJDEP
David Risilia, NJDEP
Angela Skowronek, NJDEP
Susan Rosenwinkel, NJDEP