P U B L I C H E A R I N G

before

ASSEMBLY ENERGY AND NATURAL RESOURCES COMMITTEE

on

ASSEMBLY BILL 2342
(Provides for the systematic review of development activities in and around freshwater wetlands)

ASSEMBLY BILL 2499
("Freshwater Wetlands Preservation Act," establishes a comprehensive system to protect, preserve and regulate the State's freshwater wetlands)

July 30, 1986
Municipal Building
Council Chambers
Lincoln Park, New Jersey

MEMBERS OF COMMITTEE PRESENT:

Assemblywoman Maureen Ogden, Chairwoman
Assemblyman Robert J. Martin, Vice Chairman
Assemblyman Nicholas R. Felice

ALSO PRESENT:

Norman Miller
Office of Legislative Services
Aide, Assembly Energy & Natural Resources Committee

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Public Hearing Recorded and Transcribed by
Office of Legislative Services
Public Information Office
Hearing Unit
State House Annex
CN 068
Trenton, New Jersey

New Jersey State Legislature

ASSEMBLY ENERGY AND
NATURAL RESOURCES COMMITTEE
STATE HOUSE ANNEX, CN-068
TRENTON, NEW JERSEY 08625
TELEPHONE: (609) 292-7676

July 22, 1986

NOTICE OF PUBLIC HEARINGS

The Assembly Energy and Natural Resources Committee will hold two additional hearings on pending legislation regulating the State's freshwater wetlands;

Wednesday, July 30, 1986, 7:30-10:00 P.M. in the Municipal Building, Council Chambers, Lincoln Park, Morris County; and

Friday, August 1, 1986, 10:00 A.M. in the Freeholder's Board Room, Burlington County Office Building, 49 Rancocas Road, Mount Holly, Burlington County.

The purpose of these hearings is to take testimony pertaining to Assembly Bills No. 2342 and 2499.

Anyone wishing to testify at either of these hearings should contact Norman Miller, Committee Aide, at (609) 292-7676.

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ASSEMBLY, No. 2499

STATE OF NEW JERSEY

INTRODUCED MAY 8, 1986

By Assemblymen PENN, KAVANAUGH, Rocco, Foy, Haytaian, Moran, Singer, Rafferty, Assemblywoman Smith, Assemblymen Schuber, Hendrickson, Arango, Muziani, Miller, Dario, Assemblywoman Cooper, Assemblymen Brown, Kelly, Loveys, Zangari, Azzolina, Paterniti, Doyle, Deverin, Naples, Otlowski, Pelly, Assemblywoman Crecco, Assemblymen DiGaetano, Shusted, Kline, Assemblywoman Kalik, Assemblymen Riley, Felice, Assemblywoman Donovan, Assemblymen, Gargiulo, Marsella, Gorman, Bryant, Hudak, Doria, Karcher, Schwartz, Zecker, Palaia, Assemblywoman Randall, Assemblymen Colburn, Shinn, Thompson and Charles

AN ACT concerning the regulation of freshwater wetlands and enacting Chapter 9B of Title 13 of the Revised Statutes.

BE IT ENACTED *by the Senate and General Assembly of the State of New Jersey:*

1. This act shall be known and may be cited as the "Freshwater Wetlands Preservation Act."

2. a. The Legislature finds that large contiguous freshwater wetlands play an integral role in maintaining the quality of life through material contributions to the water quality of the State, its economy, food supply, and fish and wildlife resources by:

(1) Protecting subsurface and potable drinking water supplies by serving to purify surface water and groundwater resources;

(2) Providing a natural means of flood and storm damage protection through the absorption and storage of water during high runoff periods and through the reduction of flood crests, thereby protecting against the loss of life and property;

(3) Serving as a buffer zone between dry land and water courses, thereby retarding soil erosion; and

(4) Providing essential breeding, spawning, nesting, and wintering habitats for a major portion of the State's fish and wildlife, including migrating birds, endangered species, and commercially and recreationally important wildlife.

b. The Legislature further finds that:

(1) While the State has acted for the public benefit to protect coastal wetland areas, it has not, except indirectly, taken concomitant action to protect the State's inland waterways and wetlands: that in this the most densely populated State, located in the Northeast corridor where pressures for commercial and residential development define the pace and pattern of land use, it is consistent with the public interests to establish a program for the systematic review of activities in freshwater wetlands areas to provide predictability in the protection of the finite and valuable resource.

(2) In order to advance the public interest in a just manner the rights of persons who own or possess real property affected by this act must be fairly recognized and balanced with public environmental interests.

(3) In an effort to preserve and protect freshwater wetlands areas it is important that the State secures as expeditiously as possible the delegation of freshwater wetlands permit jurisdiction currently exercised by the United States Army Corps of Engineers pursuant to the "Federal Water Pollution Control Act," (33 U. S. C. § 1344, et seq.).

3. As used in this act:

a. "Commissioner" means the Commissioner of the Department of Environmental Protection;

b. "Department" means the Department of Environmental Protection;

c. "Environmental commission" means a municipal advisory body created pursuant to P. L. 1968, c. 245 (C. 40:56A-1 et seq.);

d. "Freshwater wetland" means an area that is inundated or saturated by fresh surface water or groundwater at a frequency and duration sufficient to support, and that under normal circumstances does support a prevalence of vegetation typically adapted for life in saturated soil conditions, commonly known as hydrophytic vegetation, and where a hydric soil condition simultaneously exists, and where appropriate hydrologic conditions exist consistent with a determination of hydrologic regime as defined below, provided that any one of the following exists:

(1) it is contiguous to an inland lake or pond, or a river or stream, or

(2) it is not contiguous to an inland lake or pond, or a river or stream, and more than five acres in size, or

(3) it is not contiguous to an inland lake or pond, or a river or stream, and five acres or less in size, if the commissioner determines that protection of the area is essential to the preservation of the natural resources of the State from pollution, impairment or destruction.

Cultivated or disturbed hydric soils which do not contain hydrophytic vegetation on the date of enactment of this act shall not be considered a freshwater wetland.

Hydrologic regime shall be determined utilizing five foot piezometer readings, from November to May, corrected for unusual precipitation events. Under this approach, lands where the water table is at or within 12 inches of the surface for a significant portion of the growing season shall be considered an appropriate hydrologic condition for a determination of wetlands.

e. "Freshwater wetlands permit" means a permit to engage in a regulated activity issued pursuant to the provisions of this act;

f. "Hydric soil condition" means soil that is saturated at or near the soil surface with water that virtually is lacking in free oxygen for significant periods during the growing season or soil which is flooded frequently for long periods during the growing season;

g. "Hydric soil" means the hydric soils listed for New Jersey by the Soil Conservation Service of the United States Department of Agriculture;

h. "Hydrophyte" means plant life adapted to growth and reproduction under saturated root zone conditions during a substantial portion of the growing season;

i. "Linear Development" means land uses or utilities such as roads, sewer lines, water lines, stormwater facilities or drainage pipes, gas lines, electric lines, telephone lines and other transmission lines, and the right-of-way therefor, whose basic purpose is to provide a utility service;

j. "Person" includes corporations, companies, associations, societies, firms, partnerships and joint stock companies as well as individuals, unless restricted by the context to an individual as distinguished from a corporate entity or specifically restricted to one or some of the above enumerated synonyms and includes agencies of this State, the United States, any other state or the

United States, and any foreign country or government lawfully owning or possessing property within this State;

k. "Regulated activity" means the discharge of dredged or fill material into a freshwater wetland such that it would alter a freshwater wetland.

4. A person proposing to engage in a regulated activity shall apply to the department for a freshwater wetlands permit, for a fee not to exceed the cost of processing the application, on forms and in the manner prescribed by the commissioner pursuant to the "Administrative Procedure Act," P. L. 1968, c. 410 (C. 52:14B-1 et seq.). An agency of the State proposing to engage in a regulated activity also shall apply to the department for a freshwater wetlands permit on forms and in a manner prescribed by the commissioner, but shall not be required to pay a fee therefor. The application shall include at least the following:

(1) A conceptual site plan depicting the proposed development activities and a written description of the proposed regulated activity, the total area to be modified, and the total area of the freshwater wetlands to be affected;

(2) Verification that a notice has been forwarded to the clerk, environmental commission and planning board of the municipality, and the planning board of the county, and landowners within 200 feet of the proposed regulated activity which notice may be filed concurrently with notices required pursuant to P. L. 1975, c. 291 (C. 40:55D-1 et seq.) where in the regulated activity is to occur, which notice shall describe the activity and advise these instrumentalities of local government of their opportunity to submit comments to the department;

(3) Verification that notice has been published in a newspaper of local circulation;

(4) A statement detailing any potential adverse environmental effects of the regulated activity and proposed measures to mitigate those effects.

5. a. Within 60 days after receipt of the completed application and fee, the department may hold a hearing. If a hearing is held, it shall be held in the county where the wetland on which the permit is to apply is located. Notice of the hearing shall be made in the same manner as for the promulgation of rules under the "Administrative Procedure Act," P. L. 1968, c. 410 (C. 52:14B-1 et seq.). The department may approve or disapprove a permit application without a public hearing unless the department determines that the permit application is of significant impact to warrant a public hearing.

b. If a hearing is not held, the department shall approve or disapprove a permit application within 90 days following the date that the application is deemed complete, or within 180 days of submittal, whichever is sooner. If a hearing is held, the department shall approve or disapprove the permit application within 90 days after the conclusion of the hearing. The department may approve a permit application, request modifications in the application, or deny the permit application. If the department approves the permit application, the department shall prepare and send the permit to the applicant. If the department denies, or requests a modification of the permit application, the department shall send notice of the denial or modification request, and the reasons for the denial or the modifications requested to the applicant. Department approval may include the issuance of a permit containing conditions necessary for compliance with this act. If the department does not approve or disapprove the permit application within the time provided by this subsection, the permit application shall be considered approved, and the department shall be considered to have made the determinations required by section 6. The action taken by the department may be appealed pursuant to the "Administrative Procedure Act," P .L. 1968, c. 410 (C. 52:14B–1 et seq.).

6. a. A permit for a regulated activity shall not be approved unless the department determines that the issuance of a permit is in the public interest, that the permit is necessary to realize the benefits derived from the activity, and that the activity is otherwise lawful.

b. In determining whether the activity is in the public interest, the benefit which reasonably may be expected to accrue from the proposal shall be balanced against the reasonably foreseeable detriments of the activity. The decision shall reflect the national and State concern for the protection of natural resources from pollution and destruction. The following general criteria shall be considered:

(1) The relative extent of the public and private need for the proposed activity.

(2) Where there are unresolved conflicts as to resource use, the practicability of using reasonable alternative locations and methods to accomplish the objective of the proposed activity;

(3) The extent and permanence of the beneficial and or detrimental effects which the proposed activity may have on the public and private uses to which the area is suited; and

(4) The economic value, both public and private, of the proposed activity or land change to the general area.

c. In considering a permit application, the department shall give serious consideration to findings of necessity for the proposed activity which have been made by other State agencies.

d. A permit shall not be issued unless the applicant shows either of the following:

(1) The proposed activity is primarily dependent upon being located in the wetland; or

(2) A practicable alternative does not exist.

e. The department shall develop a general permit process for the issuance of permits for linear development, provided that such linear development would not have a significant adverse effect on five acres or more of wetlands deemed of high quality as defined in section 8 of this act.

7. a. The permit requirements of sections 5 and 6 of this act shall be satisfied by the creation of new freshwater wetlands or the enhancement or expansion of existing wetlands to produce substitute wetlands whose size or ecological value is equivalent to or greater than that of the undeveloped wetlands. Such creation, enhancement or enlargement of substitute freshwater wetlands shall be permitted on or off site. Such proposed mitigation shall be evaluated by the department as part of the application for a freshwater wetlands permit and shall not require a separate permit application.

b. The commissioner shall also develop a program of mitigation, enhancement or replacement opportunities on State owned lands in order to:

(1) Maximize the environmental value of State owned lands;

(2) Provide for mitigation opportunities where a practicable alternative does not exist at or near the location of the regulated activity.

8. The department shall develop a classification system which will rank or prioritize wetlands values so that they are regulated consistent with the benefit they provide. As such, wetlands of a high ranking may exhibit such qualities as: areas inhabited with rare or endangered species listed in accordance with federal statute or regulation; extremely high wildlife species diversity; extremely high water quality characteristics; or extremely high recreational values. Conversely, wetlands of a low ranking will exhibit low or degraded values of those enumerated above.

9. The department shall consolidate other regulatory programs which affect activities in freshwater wetlands including, but not limited to, any permits and approvals required pursuant to P. L. 1977, c. 74 (C. 58:10A–1 et seq.), P. L. 1973, c. 185 (C. 13:19–1 et seq.), P. L. 1977, c. 75 (C. 58:11A–1 et seq.), P. L. 1962, c. 19 (C. 58:16A–50 et seq.) and P. L. 1977, c. 224 (C. 58:12A–1 et seq.), with the freshwater wetlands permit process established herein so as to provide for a timely, consistent and coordinated permit process.

10. Any person may obtain judicial review of a decision made pursuant to sections 4, 5, and 6 of this act by filing a petition in the Law Division of the Superior Court of New Jersey within 30 days after the approval or rejection. The court shall have the power to make and enter an order enforcing, modifying, and enforcing as so modified, remanding for further specific evidence or findings, or setting aside, in whole or in part, an action of the department. The findings of fact on which the decision is based shall be conclusive if supported by substantial evidence on the record considered as a whole.

11. The following activities are exempt from the provisions of this act:

a. Agriculture management practices recommended pursuant to P. L. 1983, c. 31 (C. 4:1C–1 et seq.) on lands valued, assessed and taxed pursuant to P. L. 1964, c. 48 (C. 54:4–23.1 et seq.);

b. Emergency activities carried out to protect the public health and safety;

c. Maintenance, reconstruction, or repair of roads or public utilities lawfully existing prior to the effective date of this act;

d. Maintenance or repair of active irrigation or drainage ditches lawfully existing prior to the effective date of this act;

e. Maintenance and repair of storm water management facilities lawfully constructed prior to the effective date of this act;

f. Maintenance, reconstruction or repair of buildings or structures, and appurtenant or accessory uses, lawfully existing prior to the effective date of this act; and

g. Site plans and subdivisions for which preliminary approval has been applied for or received pursuant to the provision of P. L. 1975, c. 291 (C. 40:55D–1 et seq.) prior to the effective date of this act, and which have received final approval thereof within six years of enactment of this act.

h. State or federally funded roads which are planned and developed in accordance with the "National Environmental Policy

Act of 1969," P. L. 91-190 (42 U. S. C. § 4321 et seq.) or with Executive Order Number 53, approved October 5, 1973, except that this exemption shall expire three years after the date of enactment of this act or when the department secures the delegation of, or the general permit to carry out the permit jurisdiction exercised by, the United States Army Corps of Engineers pursuant to the "Federal Water Pollution Control Act" (33 U. S. C. § 1344.) whichever is earlier:

i. Regulated activities which have received approval by the United States Army Corps of Engineers pursuant to section 404 of the "Federal Water Pollution Control Act" (33 U. S. C. § 1344), and which have received a grant waiver pursuant to the "National Environmental Policy Act of 1969" (42 U. S. C. § 4321 et seq.), or which have received all freshwater wetlands related permits from, or approvals by the department, prior to the effective date of the act.

12. The department shall make application to secure the delegation of, or a general permit to carry out, the permit jurisdiction exercised by the United States Army Corps of Engineers pursuant to the "Federal Water Pollution Control Act" (33 U. S. C. § 1344) within six months of enactment of this act.

13. If a person violates this act, the Department of Environmental Protection may institute a civil action in the name of the State in a court of competent jurisdiction for injunctive relief to enforce this act and to prohibit and prevent that violation, and the court may proceed in the action in a summary manner. A person who violates this act is subject to a penalty of not less than $250.00 nor more than $3,000.00 for each offense, to be collected in a civil action by a summary proceeding under "the penalty enforcement law" (N. J. S. 2A:58-1 et seq.), or in any case before a court of competent jurisdiction wherein injunctive relief had been requested. The Law Division of the Superior Court shall have jurisdiction to enforce "the penalty enforcement law." If the violation is of a continuing nature, each day during which it continues constitutes an additional, separate, and distinct offense.

14. a. The department shall, pursuant to the provisions of the "Administrative Procedure Act," P. L. 1968, c. 410 (C. 52:14B-1 et seq.), adopt procedural rules to carry out the provisions of this act.

b. The department shall, within one year of the effective date of this act, adopt as a regulation a list of vegetative species which are classified as hydrophytes, as defined in section 3 of this act, which

are indicative of freshwater wetlands and consistent with the geographical regions of the State.

15. The department shall, within one year of the effective date of this act, conduct a public education program on the provisions of this act and its accompanying rules and regulations.

a. The department shall make or cause to be made a preliminary inventory of all freshwater wetland areas in this State on a county by county basis and file the inventory with the register of deeds, county clerk, and municipal clerk, which inventory shall be mapped at a scale of one inch equals 200 feet.

b. A hearing shall be held by the department after publication and due notice so that interested parties may comment on the inventory. After the hearing the department shall issue a final inventory which shall be sent and kept by the register of deeds, county clerk and municipal clerk. Legislators shall receive an inventory of a county or regional classification for their districts including both preliminary and final inventories unless the legislators request not to receive the materials.

c. Before an inventory is made of a county, interested persons may request the department to inspect property and the department shall make a written wetland determination. The determination shall be made within 20 days after the request. Completion of the inventory shall not delay implementation of this act.

16. a. As inventories of wetland are completed, the inventories shall be used as one of the criteria by the department in issuing permits. The inventories shall be periodically updated every five years. The maps, ground surveys and description of wetlands included in the inventories shall be submitted to the respective county register of deeds and shall become a public document available to review by any member of the public.

b. Aerial photographs and satellite telemetry data reproductions shall be made available to the respective county register of deeds for cost as determined by the department.

17. As wetland inventories are completed as specified in section 14, owners of record as identified by the current property tax roll shall be notified of the possible change in the status of their property. Notification shall be printed on the next property tax bill mailed to property owners in the county. It shall contain information specifying that a wetland inventory has been completed and is on file with the register of deeds, county clerk and municipal clerk, and that property owners may be subject to regulation under this act.

18. a. This act shall not be construed to abrogate rights of authority otherwise provided by law.

b. For the purposes of determining if there has been a taking of property without just compensation under New Jersey law, an owner of property who has sought and been denied a permit or has been made subject to modification or conditions in the permit under this act or the department's action or inaction pursuant to this act may file an action in a court of competent jurisdiction.

c. If the court determines that an action of the department pursuant to this act constitutes a taking of the property of a person then the court shall order the department, at the department's option, to do one or more of the following:

(1) Compensate the property owner for the full amount of the lost value.

(2) Purchase the property in the public interest as determined before its value was affected by this act or the department's action or inaction pursuant to this act.

(3) Modify its action or inaction with respect to the property so as to minimize the detrimental effect to the property's value.

d. For the purposes of this section, the value of the property may not exceed that share which the area in dispute occupies in the total parcel of land, of the State equalized evaluation of the total parcel, multiplied by two, as determined by an inspection of the most recent assessment roll of the township or city in which the parcel is located.

19. There is appropriated to the department, the sum of $2 million to carry out the provisions of this act.

20. This act shall not take effect until such time as the delegation of, or a general permit to carry out, the permit jurisdiction exercised by the United States Army Corps of Engineers pursuant to the "Federal Water Pollution Control Act" (33 U. S. C. § 1344.) has been secured by the State of New Jersey, except that sections 14, 15, 18 and 19 shall take effect immediately. From the date of enactment of this act, until such delegation occurs, all freshwater wetlands jurisdictional and regulatory determinations shall be made by the United States Army Corps of Engineers. The department shall take all actions necessary prior to the effective date to implement the provisions of this act on the effective date.

STATEMENT

This bill, known as the "Freshwater Wetlands Preservation Act," establishes a comprehensive system to protect, preserve and regulate the state's valuable freshwater wetlands.

The bill is modeled after a wetlands preservation law in Michigan, the only state allowed by the federal government to assume regulation of wetlands under the "Federal Water Pollution Control Act." The legislation is designed to regulate wetlands development in an economically-feasible and environmentally-sound manner.

The bill provides for a systematic review and management of freshwater wetlands by the Department of Environmental Protection, beginning with a thorough inventory and classification of freshwater wetlands to serve as the criteria for consideration of permit issuance.

The bill establishes a permit process in the department, designed to meet federal standards for state assumption of regulatory responsibilities and to eliminate duplicative permit procedures. The legislation appropriates $2,000,000.00, the present annual cost of federal regulation of freshwater wetlands in New Jersey, to the department to implement the preservation act.

The bill exempts a number of wetlands activities, including certain agriculture management practices, emergency activities to protect the public health and safety, and maintenance and reconstruction of roads and buildings lawfully existing prior to the effective date of this act.

The bill establishes an equitable mitigation program and freshwater wetlands classification rating system under the management of the commissioner of the department, to provide fair compensation for the environmental value of freshwater wetlands affected by the granting of a department permit.

The bill would take effect upon delegation of the permit jurisdiction of the United States Army Corps. of Engineers under section 404 of the "Federal Water Pollution Control Act."

NATURAL RESOURCES

Provides for the regulation of freshwater wetlands by the State.

ASSEMBLY, No. 2342

STATE OF NEW JERSEY

INTRODUCED MARCH 13, 1986

By Assemblywoman OGDEN, Assemblymen BENNETT, SCHUBER, WEIDEL, Assemblywoman RANDALL, Assemblymen FRELINGHUYSEN, KERN, Assemblywoman DONOVAN, Assemblymen GENOVA, PALAIA, ROONEY, Assemblywoman MUHLER, Assemblymen SMITH, FELICE, DARIO, MAZUR, ARANGO, CATRILLO, GARGIULO, FRANKS, Assemblywoman SMITH, Assemblyman BAER and Assemblywoman CRECCO

AN ACT concerning the regulation of freshwater wetlands, supplementing Title 13 of the Revised Statutes, and making an appropriation.

BE IT ENACTED *by the Senate and General Assembly of the State of New Jersey:*

1. This act shall be known and may be cited as the "Freshwater Wetlands Act."

2. a. The Legislature finds that freshwater wetlands play an integral role in maintaining the quality of life through material contributions to the water quality and supply of the State, its economy, food supply, and fish and wildlife resources by:

(1) Serving as an integral and invaluable component of the surface water systems of the State, which function to support the biological viability and natural and finite effluent purification capacity of surface and ground waters, to the benefit of the general public;

(2) Providing a natural means of flood and storm damage protection through the absorption and storage of water during high runoff periods and through the reduction of flood crests, thereby protecting against the loss of life and property;

(3) Serving as a buffer zone between dry land and water courses, thereby retarding soil erosion;

(4) Providing essential breeding, spawning, nesting and wintering habitats for a major portion of the State's fish and wildlife, including migrating birds, endangered species, and commercially and recreationally important wildlife; and

(5) Maintaining critical base flow to surface waters through the gradual release of stored flood waters and ground water, particularly during drought periods.

b. The Legislature further finds that:

(1) While the State has acted for the public benefit to protect coastal wetland areas, it has not, except indirectly, taken concomitant action to protect the State's inland waterways and wetlands; that in this the most densely populated State, located in the Northeast corridor where pressures for commercial and residential development define the pace and pattern of land use, and while wetland conservation is a matter of State concern because a wetland in one jurisdiction may be affected by acts on a river, lake, stream or wetland of another jurisdiction, it is consistent with the public interests to establish a program for the systematic review of activities in and around freshwater wetlands areas to provide predictability in the protection of the finite and valuable resource.

(2) The public benefits arising from the natural functions of wetlands, and the public harm from wetland losses, are distinct from and often exceed the private value of wetland areas.

(3) It shall be the policy of the State to preserve the purity and integrity of freshwater wetlands from random, unnecessary or undesirable alteration or disturbance.

(4) In an effort to preserve and protect freshwater wetlands areas it is important that the State secures, as expeditiously as possible, the assumption of the permit jurisdiction exercised by the United States Army Corps of Engineers pursuant to the "Federal Water Pollution Control Act," (33 U. S. C. s. 1344).

3. As used in this act:

a. "Buffer" or "buffer zone" means an area of land adjacent to a freshwater wetland which serves to protect the wetland from adverse impacts or serves as an integral component of the wetlands ecosystem;

b. "Commissioner" means the Commissioner of the Department of Environmental Protection;

c. "Department" means the Department of Environmental Protection;

d. "Environmental commission" means a municipal advisory body created pursuant to P. L. 1968, c. 245 (C. 40:56A–1 et seq.);

e. "Freshwater wetland" means an area that is inundated or saturated by surface water or ground water at a frequency and duration sufficient to support, and that under normal circumstances does support aquatic life or a prevalence of vegetation typically adapted for life in saturated soil conditions, commonly known as hydrophytic vegetation;

f. "Freshwater wetlands permit" means a permit to engage in a regulated activity issued pursuant to the provisions of this act;

g. "Hazardous substances" means those substances enumerated in section 3 of P. L. 1976, c. 141 (C. 58:10–23.1b);

h. "Hydrophyte" means plant life adapted to growth and reproduction under periodically saturated root zone conditions during a significant portion of the growing season;

i. "Linear development" means land uses such as roads, sewerage and stormwater management pipes, gas and water pipelines, electric, telephone and other transmission lines, and the rights- of-ways therefor whose basic function is to connect two points to serve a public purpose. Linear development shall not be construed to mean residential, commercial, office or industrial buildings and associated roadways or utilities;

j. "Person" includes corporations, companies, associations, societies, firms, partnerships and joint stock companies as well as individuals, unless restricted by the context to an individual as distinguished from a corporate entity or specifically restricted to one or some of the above enumerated synonyms and includes agencies of this State, the United States, any other state of the United States, and any foreign country or government lawfully owning or possessing property within this State;

k. "Regulated activity" means an activity which would alter a freshwater wetland in any of the following ways:

(1) The removal, excavation, disturbance or dredging of soil, sand, gravel, or aggregate material of any kind;

(2) The drainage or disturbance of the water level or water table;

(3) The dumping, discharging or filling with any materials;

(4) The driving of pilings, or the erection of buildings or structures of any kind;

(5) The placing of obstructions whether or not they interfere with the flow of water;

(6) The destruction of plant life including the cutting of trees,

except when performed to the minimum extent feasible in connection with survey soil borings for environmental investigations.

4. a. A person proposing to engage in a regulated activity may, prior to applying for a freshwater wetlands permit, request from the department a letter of interpretation to establish that the site of the regulated activity is in fact located in a freshwater wetland.

b. A person proposing to engage in a land use within a buffer zone may, prior to applying for a buffer zone waiver pursuant to section 6 of this act, request from the department a letter of interpretation to establish that the site of the land use is in fact located in the buffer zone.

c. Within 20 days after receipt of a request for a letter of interpretation, the department may require the submission of any additional information necessary to issue the letter of interpretation.

d. If no additional information is required, the department shall issue a letter of interpretation within 30 days of receiving the request.

e. If additional information is required the department shall issue a letter of interpretation within 45 days of receipt of the information.

f. If a person requesting the letter has not made a reasonable good faith effort to provide the department with information sufficient to make a determination, the department shall issue a letter of interpretation requiring the application for a freshwater wetlands permit.

g. The department may charge a fee for reviewing the information submitted and for issuing a letter of interpretation.

5. a. A person proposing to engage in a regulated activity shall apply to the department for a freshwater wetlands permit, for a fee not to exceed the cost of reviewing and processing the application, on forms and in the manner prescribed by the commissioner pursuant to the "Administrative Procedure Act," P. L. 1968, c. 410 (C. 52:14B–1 et seq.). An agency of the State proposing to engage in a regulated activity also shall apply to the department for a freshwater wetlands permit on forms and in a manner prescribed by the commissioner, but shall not be required to pay a fee therefor. The application shall include at least the following:

(1) A plan of the site containing all proposed development activities and a written description of the proposed regulated activity, the total area to be modified, and the total area of the freshwater wetlands to be affected.

(2) Verification that a notice has been forwarded to the clerk, environmental commission and planning board of the municipality, and the planning board of the county, and landowners within 200 feet of the site of the proposed regulated activity which notice may be filed concurrently with notices required pursuant to P. L. 1975, c. 291 (C. 40:55D–1 et seq.) wherein the regulated activity is to occur, which notice shall describe the activity and advise these instrumentalities of local government of their opportunity to submit comments to the department;

(3) Verification that notice has been published in a newspaper of local circulation.

(4) A statement detailing any potential adverse environmental effects of the regulated activity and what measures may be necessary to mitigate those effects.

b. The department shall, after according consideration to the comments of the environmental commission and planning board of the county wherein the regulated activity is to take place, federal and State agencies of competent jurisdiction, other affected municipalities and counties, and the general public, issue a freshwater wetlands permit only if it finds that the regulated activity does not constitute linear development and the activity meets all of the following:

(1) Requires access to water or freshwater wetlands or is water dependent as a central element of its basic function;

(2) Has no prudent and feasible alternative site which does not involve freshwater wetlands or a significantly reduced area of freshwater wetlands;

(3) Does not result in an unacceptable disruption to wetland resources. In determining whether a disruption to the wetland resources is unacceptable, the findings set forth in section 2 of this act shall be considered;

(4) Is in the public interest, is necessary to realize the benefits derived from the activity, and is otherwise lawful.

c. To assist in determining whether the activity is in the public interest, the applicant shall provide information comparing the benefits which may reasonably be expected to accrue from the proposal and the reasonably forseeable adverse effects of the activity. The decision by the department shall reflect the national and State concern for the protection of natural resources from pollution, impairment and destruction. The following criteria shall be considered:

(1) The relative extent of the public and private need for the proposed activity;

(2) The availability of feasible and prudent alternative locations and methods to accomplish the expected benefits from the activity;

(3) The extent and permanence of the beneficial or detrimental effects which the proposed activity may have on the public and private uses to which the area is suited, including the benefits the wetland provides;

(4) The probable impact of each proposal in relation to the cumulative effect created by other existing and anticipated activities in the watershed;

(5) The probable impact on recognized historic, cultural, scenic, ecological, or recreational values and on the public health or fish and wildlife;

(6) The size of the wetland which may be affected;

(7) The amount of the remaining wetland in the general area;

(8) Proximity to any waterway; and,

(9) The economic value, both public and private, of the proposed land change to the general area.

d. If the regulated activity constitutes linear development the department shall issue a freshwater wetlands permit only if:

(1) The existing hydrologic function of the wetland will be maintained to the maximum amount feasible;

(2) There is no prudent and feasible alternative site for the activity that is not a freshwater wetland or which affects a significantly reduced area of freshwater wetlands;

(3) The alignment of the proposed activity is located in existing transportation rights-of-way to the maximum extent practicable; and

(4) The proposed activity will not facilitate additional development in freshwater wetlands or promote degradation of freshwater wetlands.

e. The department may use the National Wetland Inventory maps prepared by the United States Fish and Wildlife Service for the State, and the county soil surveys prepared by the Soil Conservation Service of the United States Department of Agriculture, or any other maps or information which will aid the department in its review.

f. If a freshwater wetlands permit is approved and issued pursuant to the provisions of this act the department may reduce or eliminate the buffer zone as required to accommodate the approved use.

g. Under all circumstances the department shall require that,

as a condition of the freshwater wetlands permit, all appropriate measures have been carried out to mitigate adverse environmental impacts, restore vegetation, habitats, and land and water features, prevent sedimentation and erosion and minimize the area of freshwater wetlands disturbance. The department may require the creation or restoration of an area of freshwater wetlands for regulated activities or any other special conditions the department deems necessary.

h. The department shall require a person applying for a permit or in receipt of a permit to provide any information the department reasonably requires to assure compliance with the provisions of this act. Upon reasonable cause or obtaining a search warrant, the department may enter the premises wherein a regulated activity is located or where the information required under this subsection is located.

6. a. There shall be a buffer zone adjacent to freshwater wetlands which shall have the following purposes:

(1) Ecological transition zone from uplands to wetlands which is an integral portion of the wetlands ecosystem, providing temporary refuge for wetlands fauna during highwater episodes, critical habitat for animals dependent upon but not resident in wetlands, and slight variations of wetland boundaries over time due to hydrologic or climatologic effects;

(2) Sediment and storm water control zone to reduce the impacts of development upon wetlands and wetlands species;

b. The following average buffer zone distances shall be applied by the department in considering applications for buffer zone waivers under subsection d. of this section:

(1) 300 feet for hazardous and solid waste facilities, industrial facilities as regulated under the "Environmental Cleanup Responsibility Act," P. L. 1983, c. 330 (C. 13:1K–6 et al.), office or commercial developments greater than 100,000 square feet in floor space, and residential subdivisions or developments greater than 100 units;

(2) 200 feet for office or commercial developments greater than 50,000 square feet in floor space, residential subdivisions or developments of greater than 50 units, and linear development;

(3) 100 feet for commercial or office developments of 50,000 square feet of floor space or less, and residential subdivisions or developments of less than 51 but more than one unit. The actual buffer zone distance shall be delineated in such a way as to maximize the protection of freshwater wetlands, with an average buffer

zone meeting the criteria established in paragraphs (1) through (3) of this subsection, so that the wetlands protection provided by the buffer zone will be essentially consistent throughout the zone, with a minimum distance of 20 feet in any section of the buffer zone.

c. A person proposing to engage in a land use described in subsection b. of this section within 300 feet of a freshwater wetland shall apply to the department for a determination as to the applicable presumed buffer zone for the proposed use, for a fee of $25.00 per application. The application shall describe the proposed land use with respect to the criteria in subsection b. of this section and include a map showing the freshwater wetland boundary, the proposed land use and the proposed freshwater wetland buffer. The department shall notify the applicant of the applicable buffer zone for the proposed land use, within 30 days of the receipt of the application.

d. A person proposing to engage in a land use described in subsection b. of this section within a buffer zone shall apply to the department for a buffer zone waiver, for a fee not to exceed the cost of reviewing and processing the waiver application, on forms and in the manner prescribed by the commissioner pursuant to the "Administrative Procedure Act," P. L. 1968, c. 410 (C. 52:14B–1 et seq.). An agency of the State proposing to engage in such a land use in a buffer zone shall also apply to the department for a buffer zone waiver on forms and in a manner prescribed by the commissioner but shall not be required to pay a fee therefor. The waiver application shall include at least the following:

(1) A plan of the site containing all proposed development activities and a written description of the proposed land use, the total areas to be modified, and the total area of the buffer zone to be affected;

(2) Verification that a notice has been forwarded to the clerk, environmental commission, and planning board of the municipality, and the planning board of the county wherein the land use is to occur, which notice shall describe the land use and advise these instrumentalities of local government of their opportunity to submit comments to the department;

(3) A statement detailing any potential adverse environmental effects of the land use on the freshwater wetlands and what measures may be necessary to mitigate those effects.

e. The department shall, after according consideration to the comments of the environmental commission and planning board of the municipality and the planning board of the county wherein the

land use is to take place, and the general public, issue a buffer zone waiver only if it finds that the land use:

(1) Will have no adverse impacts on the freshwater wetlands, and maintains the purposes set forth in subsection a. of this section as well as the protection of endangered and threatened species as listed by the department; or

(2) Is necessary to avoid an extraordinary hardship on the applicant brought about by circumstances peculiar to the subject property, or to meet a compelling need of such importance to the public as to override the public intent in protecting freshwater wetlands as established by this act, provided that the impact on freshwater wetlands is minimized.

f. This waiver shall permit a reduction of the average buffer zone distance by no more than 80% or to a minimum of 20 feet, whichever is larger, except where the land use is a State, county or local roadway, or a stormwater management facility, in which case the waiver may permit further reduction of average buffer zone distances if there is no prudent and feasible alternative location and the roadway or stormwater management facility will result in minimum feasible adverse impacts on the freshwater wetlands.

g. If the department determines and sustains proof that the buffer zone distance as provided in subsection b. of this section is insufficient to protect habitat critical to endangered or threatened species as listed by the department or a major concentration of wildlife or to sufficiently attenuate sedimentation and stormwater impacts upon the wetlands, the department may require additional average buffer zone distances up to 100 feet.

7. a. The department shall consolidate wetlands related aspects of other regulatory programs which affect activities in freshwater wetlands including, but not limited to, sewer extension approvals required pursuant to P. L. 1977, c. 74 (C. 58:10A–1 et seq.), permits required pursuant to P. L. 1973, c. 185 (C. 13:19–1 et seq.), and any permits and approvals required pursuant to P. L. 1977, c. 75 (C. 58:11A–1 et seq.) and P. L. 1962, c. 19 (C. 58:16A–50 et seq.), with the freshwater wetlands permit process established herein so as to provide a timely, consistent and coordinated permit process.

b. Within 60 days after receipt of the completed application and fee, the department may hold a hearing. If a hearing is held, it shall be held in the county wherein the wetland is located, whenever practicable. The department may approve or disapprove a permit application without a public hearing unless a person requests

a hearing, in writing, within 20 days after the publication of notice of the permit application in the bulletin of the department.

c. If a hearing is not held, the department shall approve or disapprove a permit application within 90 days following the date that the application is deemed complete, or within 180 days of submittal, whichever is sooner. If a hearing is held, the department shall approve or disapprove the permit application, request modification in the application, or deny the permit within 90 days of the hearing. If the department approves the permit, the department shall send notice thereof to the applicant. If the department denies, or requests a modification of, the permit application, the department shall send notice thereof to the applicant. The department may approve a permit imposing conditions necessary for compliance with this act. If the department does not approve or disapprove the permit within the time provided by this subsection, the permit shall be considered approved and the department shall be considered to have made the determinations required under subsection b. of section 5 of this act. The action taken by the department under this section may be appealed in accordance with the "Administrative Procedure Act."

d. Fees for the freshwater wetlands permit and buffer zone waiver shall be those established in sections 5 and 6 of this act, plus the fees charged for those permits, as required, enumerated in subsection a. of this section.

8. a. If a freshwater wetlands permit is denied, the owner of record of the property affected may request, and the local tax assessor shall provide that, this fact be taken into account when the property is valued, assessed and taxed for property tax purposes.

9. a. Any person may obtain review of a decision made pursuant to sections 4, 5, 6, or 7 of this act by the Office of Administrative Law by filing a petition with the Office in accordance with the "Administrative Procedure Act," P. L. 1968, c. 410 (C. 52:14B–1 et seq.).

b. Any person may obtain judicial review of a decision made pursuant to sections 4, 5, 6 or 7 of this act by filing a petition in the Appellate Division of the Superior Court of New Jersey within 30 days after the approval or rejection. The court shall have the power to make and enter an order enforcing, modifying, and enforcing as so modified, remanding for further specific evidence or findings, or setting aside, in whole or in part, an action of the department. The findings of fact on which the decision is based

shall be conclusive if supported by substantial evidence on the record considered as a whole.

10. a. Whenever, on the basis of any information available to him, the commissioner finds that any person is in violation of any provision of this act, or any rule, regulation or permit issued pursuant to this act he shall:

(1) Issue an order requiring any such person to comply in accordance with subsection b. of this section; or

(2) Bring a civil action in accordance with subsection c. of this section; or

(3) Levy a civil administrative penalty in accordance with subsection d. of this section; or

(4) Bring an action for a civil penalty in accordance with subsection e. of this section; or

(5) Petition the Attorney General to bring a criminal action in accordance with subsection f. of this section.

Use of any of the remedies specified under this section shall not preclude use of any other remedy specified.

b. Whenever, on the basis of any information available to him, the commissioner finds that any person is in violation of any provision of this act, or of any rule, regulation or permit issued pursuant to this act, he may issue an order: (1) specifying the provision or provisions of this act, or the rule, regulation or permit of which he is in violation; (2) citing the action which caused such violation; (3) requiring compliance with such provision or provisions; and (4) giving notice to the person of his right to a hearing on the matters contained in the order.

c. The commissioner is authorized to commence in a civil action in Superior Court for appropriate relief from any violation of this act or of a permit issued hereunder. Such relief may include, singly or in combination:

(1) A temporary or permanent injunction;

(2) Assessment of the violator for the costs of any investigation, inspection, or monitoring survey which led to the establishment of the violation, and for the reasonable costs of preparing and litigating the case under this subsection;

(3) Assessment of the violator for any cost incurred by the State in removing, correcting or terminating the adverse effects upon the wetland resulting from any unauthorized activity for which the action under this subsection may have been brought;

(4) Assessment against the violator of compensatory damages for any loss or destruction of wildlife, fish or aquatic life, and for any

other actual damages caused by an unauthorized activity. Assessments under this subsection shall be paid to the State Treasurer, except that compensatory damages shall be paid by specific order of the court to any persons who have been aggrieved by the unauthorized discharge;

d. The commissioner is authorized to assess a civil penalty of not more than $10,000.00 for each violation and each day during which such violation continues shall constitute an additional, separate and distinct offense. Any amount assessed under this subsection shall fall within a range established by regulation by the commissioner for violations of similar type, seriousness and duration. No assessment shall be levied pursuant to this section until after the discharger has been notified by certified mail or personal service. The notice shall include a reference to the section of the statute, regulation, order or permit condition violated; a concise statement of the facts alleged to constitute a violation; a statement of the amount of the civil penalties to be imposed; and a statement of the party's right to a hearing. The ordered party shall have 20 days from receipt of the notice within which to deliver to the commissioner a written request for a hearing. After the hearing and upon finding that a violation has occurred, the commissioner may issue a final order after assessing the amount of the fine specified in the notice. If no hearing is requested, then the notice shall become a final order after the expiration of the 20-day period. Payment of the assessment is due when a final order is issued or the notice becomes a final order. The authority to levy an administrative order is in addition to all other enforcement provisions in this act, and the payment of any assessment shall not be deemed to affect the availability of any other enforcement provisions in connection with the violation for which the assessment is levied. Any civil penalty assessed under this section may be compromised by the commissioner upon the posting of a performance bond by the violator, or upon such terms and conditions as the commissioner may establish by regulation.

e. Any person who violates this act or an administrative order issued pursuant to subsection b. or a court order issued pursuant to subsection c., or who fails to pay an administrative assessment in full pursuant to subsection d. shall be subject upon order of a court to a civil penalty not to exceed $10,000.00 per day of such violation, and each day during which the violation continues shall constitute a separate violation. Any penalty incurred under this subsection may be recovered with costs in a summary proceeding

pursuant to "the penalty enforcement law'" (N. J. S. 2A:58–1 et seq.). The Superior Court shall have jurisdiction to enforce "the penalty enforcement law" in conjunction with this act.

f. Any person who willfully or negligently violates this act shall, upon conviction, be guilty of a crime of the fourth degree and shall be punished by a fine of not less than $2,500.00 nor more than $25,000.00 per day of violation, or by imprisonment for not more than one year or by both. Punishment for a second offense under this subsection shall be a fine of not less than $5,000.00 nor more than $50,000.00 per day of violation, or by imprisonment for not more than two years, or both. Any person who knowingly makes a false statement, representation, or certification in any application, record, or other document filed or required to be maintained under this act shall, upon conviction, be subject to a fine of not more than $10,000.00 or by imprisonment for not more than six months, or both.

g. In addition to the penalties prescribed in this section, a notice of violation of this act shall be recorded on the deed of the property wherein the violation occurred, on order of the commissioner, by the clerk or register of deeds and mortgages of the county wherein the affected property is located and with the clerk of the Superior Court and shall remain atached thereto until such time as the violation has been remedied and the commissioner so orders.

11. The following activities are exempt from the provisions of this act:

a. Agriculture management practices recommended pursuant to P. L. 1983, c. 31 (C. 4:1C–1 et al.) on lands valued, assessed and taxed pursuant to P. L. 1964, c. 48 (C. 54:4–23.1 et seq.) and actively cultivated or used for production agriculture;

b. Regulated activities which have received individual permit approval or a finding of no jurisdiction by the United States Army Corps of Engineers pursuant to section 404 of the "Federal Water Pollution Control Act" (33 U. S. C. § 1344), and which have received a grant waiver pursuant to the "National Environmental Policy Act of 1969," (42 U. S. C. ss. 4321 et seq.) and which have received all freshwater wetlands related permits from, or approvals by, the department, prior to the effective date of this act.

c. Areas regulated as a coastal wetland pursuant to P. L. 1970, c. 272 (C. 13:9A–1 et seq.).

d. State or federally funded roads which are planned and developed in accordance with the "National Environmental Policy Act of 1969," (42 U. S. C. ss. 4321 et seq.), section 404 of the

"Federal Water Pollution Control Act." (33 U. S. C. s. 1344) and with Executive Order Number 53, approved October 5, 1973.

e. Regulated activities on land under the jurisdiction of the Pinelands Commission pursuant to P. L. 1979, c. 111 (C. 13:18A–1 et seq.) provided the Pinelands Commission shall adopt regulations to regulate activities in freshwater wetlands within its jurisdiction in a manner consistent with the purposes of this act.

f. Regulated activities on land under the jurisdiction of the Hackensack Meadowlands Development Commission pursuant to P. L. 1968, c. 404 (C. 13:17–1 et seq.).

g. The harvesting of peat for the commercial production of peat moss.

12. a. The department may, after notice and opportunity for a hearing, issue general permits on a Statewide or county basis for the following categories of activities if the department determines that the activities will cause only minimal adverse environmental impacts when performed separately, and will have only minimal cumulative adverse impacts on the environment:

(1) Emergency activities carried out to protect the public health and safety;

(2) Maintenance, reconstruction, or repair of roads or public utilities lawfully existing prior to the effective date of this act or permitted under this act;

(3) Maintenance or repair of active irrigation or drainage ditches lawfully existing prior to the effective date of this act or permitted under this act;

(4) Maintenance and repair of storm water management facilities lawfully constructed prior to the effective date of this act or permitted under this act;

(5) Maintenance, reconstruction or repair of buildings or structures lawfully existing prior to the effective date of this act or permitted under this act;

(6) Appurtenant improvements or additions to residential dwellings lawfully existing prior to the effective date of this act, provided that the improvements or additions require less than a cumulative surface area of 750 square feet of fill and shall not result in new alterations to the freshwater wetlands outside of the fill area;

(7) An activity which would ordinarily be regulated under the provisions of this act but which is proposed for a freshwater wetland less than three acres in size and not contiguous to a surface water tributary;

(8) Water supply facilities planned, designed, acquired and constructed in a manner consistent with the New Jersey Statewide Water Supply Plan.

13. a. The department shall, pursuant to the provisions of the "Administrative Procedure Act," adopt rules and regulations to carry out the provisions of this act.

b. The department shall, within one year of the effective date of this act, adopt as a regulation a list of vegetative species which are classified as hydrophytes, as defined in section 3 of this act, which are indicative of freshwater wetlands and consistent with the geographical regions of the State.

c. The department shall within 180 days of enactment of this act, forward to the clerk of each municipality copies of the appropriate National Wetlands Inventory maps prepared by the United States Fish and Wildlife Service for the State and direct the clerk to notify the residents of the municipality of the availability for inspection of these maps, by publication in a newspaper of general circulation.

d. The department shall take appropriate action as necessary to secure the assumption of the permit jurisdiction exercised by the United States Army Corps of Engineers pursuant to the "Federal Water Pollution Control Act," (33 U. S. C. s. 1344).

e. The department shall, within one year of the effective date of this act, conduct a public education program on the provisions of this act and its accompaying rules and regulations.

14. Counties, municipalities or any political subdivision thereof shall not regulate activities in freshwater wetlands in a manner inconsistent with the provisions of this act, but are encouraged to control land uses in a manner that protects the long term viability and public values of land regulated under this act.

15. a. The department shall, within two years of enactment of this act, prepare and submit a report to the Governor, to the President of the Senate and the Speaker of the General Assembly, and to the Senate Energy and Environment Committee and the Assembly Environmental Quality Committee, or their designated successors. The report shall describe:

(1) The success or failure of mitigation measures performed in actual development situations, both within the State and in other states, and the nature thereof, as well as the current state of the art techniques used for mitigation;

(2) Recommendations for legislative or administrative actions necessary to ensure the long term preservation of freshwater wet-

lands from damage and degradation resulting from land use activities, pollution, and hydrologic changes which occur in upstream regions of the same watersheds of particular freshwater wetlands.

b. The department shall submit, within 18 months of the enactment of this act and after public hearing, a draft report containing the findings and recommendations required in subsection a. of this section. The information obtained at the public hearing shall be considered in the final report.

16. The object, design, and purpose of this act being the protection of the freshwater wetlands resources of the State, this act shall be liberally construed.

17. There is appropriated from the General Fund to the department the sum of $500,000.00.

18. This act shall take effect on the 180th day after enactment except section 17 which shall take effect immediately. The department shall take all appropriate actions necessary prior to the effective date to implement the provisions of this act on the effective date.

STATEMENT

This bill provides for the systematic review of development activities in and around freshwater wetlands to better protect the citizens of the State from chemical contamination of water supplies, flood and storm damage, and depletion of natural resources which serve both recreation and commercial purposes. The bill requires that a proposal to dredge, fill, develop, or in any other way alter freshwater wetlands be accompanied by an application to the Department of Environmental Protection for a freshwater wetlands permit to engage in the activity.

The bill utilizes technical terms generally consistent with federal and State law and provides a procedure for identifying freshwater wetlands, describes the conditions under which certain activities may take place, and exempts those activities which will not harm the resource.

To prevent duplicative procedures with respect to freshwater wetlands already regulated, the bill exempts lands located in the pinelands areas as defined in section 10 of the "Pinelands Protection Act," P. L. 1979, c. 111 (C. 13:18A–11), those lands under the jurisdiction of the Hackensack Meadowlands Development Commission pursuant to P. L. 1968, c. 404 (C. 13:17–1 et seq.), and those areas regulated as coastal wetlands pursuant to P. L. 1970,

c. 272 (C. 13:9A–1 et seq.) from the requirements of the bill.

The bill specifically provides that a freshwater wetlands permit may be issued if the activity:

(1) Requires access to water or freshwater wetlands or is water dependent as a central element of the basic function of the activity;

(2) Has no prudent or feasible alternative site which does not involve freshwater wetlands;

(3) Does not result in unacceptable disruption to wetland resources, and

(4) Is in the public interest, is necessary to realize the benefits derived from the activity and is otherwise lawful.

The bill also provides for the regulation of the buffer area immediately adjacent to the wetlands.

Certain administrative and procedural provisions have been included to provide for regulatory efficiency and predictability. For instance a letter of interpretation as to whether the site of a proposed activity is in fact a freshwater wetland has been provided so as to clarify situations wherein freshwater wetland permits may or may not be required. Specific time limits have been established for the issuance for these letters of interpretation. Included in the provisions of the bill is a specific direction to the department to consolidate other related permits and approvals required by State law, with the freshwater wetlands permits process, and to take appropriate action to secure the delegation of the permit jurisdiction of the United States Army Corps of Engineers under the "Federal Water Pollution Control Act." This program is commonly referred to as the "404" program and provides limited regulation of wetland areas. Finally, the bill provides that the department must approve, conditionally approve or deny a permit application within 90 days of the submission of a complete application or within 180 days of the original submission of the application, whichever is sooner.

The bill appropriates $500,000.00 to the Department of Environmental Protection.

The bill would take effect 180 days after enactment to provide the department with time to develop and adopt regulations to implement its provisions.

NATURAL RESOURCES

Provides for the systematic review of development activities in and around freshwater wetlands.

ASSEMBLYWOMAN MAUREEN OGDEN (Chairwoman): I would like to get started this evening. This hearing was scheduled for 7:30, and we're only going to be able to go until 10:00 because the building has to be closed by 10:30. There seems to be enough people here.

What I would like to tell everyone who is here -- who doesn't know this -- is that we would like to sign up anyone who wishes to speak on behalf of one or the other of these two bills that are the subject of the hearing tonight. So, if you would come up here and give you name and organization, then we'll put you on the list.

I'd like to welcome everyone to this second hearing on two pieces of legislation dealing with freshwater wetlands, my bill, which is A-2342, and Assemblyman Penn's bill, which is A-2499. They are both before the Committee. This is the second of three hearings. The third hearing is going to be this Friday down in Burlington County at 10:00 in the morning in the Freeholder's Building there. We held one hearing last-- I think it was last-- Was it last week? The weeks go by so fast.

UNKNOWN SPEAKER: The 16th.

ASSEMBLYWOMAN OGDEN: One hearing on the 16th in the middle of the State, in New Brunswick. We are now holding this hearing tonight in Northern New Jersey. And we are holding the third hearing down in Burlington County, in Southern New Jersey, and we feel by doing the three hearings, and traveling around the State, we are giving everyone an opportunity to speak their piece, so to speak, and to make their points.

At this time I'd like to introduce the cochairman of the Committee, Mr. Robert Martin, who also represents Lincoln Park and this District, and he'd like to say a few words about his District.

ASSEMBLYMAN MARTIN: Thank you. I am Bob Martin, Vice Chairman of the Energy and Natural Resources Committee. This

is the 26th Legislative District, and I'm very pleased that we have the opportunity to have this meeting here in Lincoln Park.

Our District is a District which runs from New York State down to Chatham Township. It's interesting in that it's also a District that more or less parallels the Passaic River and many of its major tributaries, such as the Pequannock, the Wanaque, and Ramapo, other rivers which have had a great deal of flooding, and Lincoln Park, of course, has -- perhaps as much as any other town -- suffered from flooding.

Part of our concern here today as we look at these bills is to balance New Jersey's economy and interest in continuing to have first-class development with its environment, and also the concerns of flooding.

So with that in mind, we are looking at two pieces of legislation. I'm seated between the two principals, as it were -- Maureen Ogden has one piece of legislation and Jack Penn, who is next to me, has another piece of legislation. Both of these people -- I can tell you from having served in the Assembly -- are very honorable. Their intentions are sincere. They would like to see both development as well as a concern for the environment -- flooding -- handled as properly as possible.

With that in mind, we'll be hearing testimony from all of those people tonight who wish to speak about both of these legislators. They are the sponsors of that legislation, and we'd like to hear what you have to say. Thank you very much, Maureen.

ASSEMBLYWOMAN OGDEN: Thank you, Bob. Sitting to Bob's left, as he stated, is Assemblyman Penn who is the sponsor of A-2499. Sitting to my right here is Norman Miller, who is the aide to the Committee on Energy and Natural Resources. To his right is Judy Jengo, a member of the Majority Staff of the Assembly. And David Inverso is

reporting this for the Office of Legislative Services. This is a public hearing, and the transcript will be available.

I'd just like to briefly tell you how the hearing will be conducted tonight. We shall begin with any spokesman that we have for the Federal government, then we shall go to the State government, county government, elected officials -- any of those levels -- and then we'll go to organizations, and then to individuals.

I'd like to say that even though I don't have a gavel, I would appreciate it if everyone would refrain from demonstrations and showing favoritism on one side or the other, in terms of these two bills. I think that's the fairest way to hold this hearing so that it can be orderly. And, in addition, I would request that everyone who does speak, speaks to the issues involved in the bills as opposed to personal comments and getting off the subject matter of what they either support or oppose in the two particular pieces of legislation.

Having given the ground rules, I'd now like to call the first person who is Mr. Christopher Daggett, the Administrator for the U. S. Environmental Protection Agency for New Jersey and, I guess, New York, the Virgin Islands, and Puerto Rico. I don't know if there's anything else included in your jurisdiction, but that sounds like a pretty good territory.

We only have one microphone, so I have to pass it back and forth.

C H R I S T O P H E R J. D A G G E T T: Thank you very much. Good evening, Chairwoman Ogden, Assemblyman Martin, Assemblyman Penn, my name is Christopher Daggett. I am the Regional Administrator of the U.S. Environmental Protection Agency for Region Two.

I appreciate the opportunity to participate today in the public hearing process on legislative proposals to protect

freshwater wetlands, and I welcome the opportunity to provide information on state assumption of the Federal 404 Program, the primary Federal regulatory program for the protection of Wetlands.

Whether or not this State chooses to seek delegation of the Federal 404 Program, I applaud the Legislature for considering enactment of a law to protect this valuable resource. Such a program would complement and, in some cases, supplement, Federal requirements by adding a level of protection not currently afforded under the national program. Equally important, a state Wetlands Protection Program would also involve local and state government agencies in a consolidated, permanent review process.

Finally, such a program would add another level of enforcement to protect this vital resource. Enforcement of Federal program requirements is one of our highest priorities. A strong state enforcement provision within a state Freshwater Wetlands Protection Act would significantly augment enforcement provisions under Federal law.

Regarding the matter of delegation, or "state assumption" of the Federal 404 Program, I personally would be delighted to see the State of New Jersey authorized to run the Program in State-regulated waters, since only one other state in the nation, Michigan, has so far assumed this responsibility.

The philosophy behind the concept of delegation is that the states are closer to the problems of concern and, more often than not, are capable of doing a first-rate job of regulating and enforcing both state and Federal law.

The Environmental Protection Agency concurs with this idea, and stands behind the states in taking those legally assumable programs.

Tonight I will outline the Federal role in administering the 404 Program; highlight program transfer requirements; lay out the time frame for state assumption; and

tell you where New Jersey stands toward meeting the Federal requirements.

The Federal Clean Water Act gives EPA the authority to approve and oversee state assumption of the 404 Program. Specifically, the EPA regulations under the Clean Water Act -- 40CFR, Part 233 -- allow for a state to assume the regulation of inland wetlands and waters that are non-navigable and non-tidal. However, the Corps of Engineers must retain authority for navigable and tidal waters, and their adjacent wetlands.

EPA regulations under the Clean Water Act defines wetlands as meaning -- and I quote -- "Those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support -- and that under normal circumstances do support -- a prevalence of vegetation typically adapted for life in saturated soil conditions." End of quote.

Wetlands are areas of great natural productivity, hydrological utility, and environmental diversity, providing natural flood control, improved water quality, recharge of aquifers, flow stabilization of streams and rivers, and habitat for fish and wildlife resources. The protection of wetlands has been identified as a priority issue by EPA at both the national and regional levels.

Without strong protection, this vital resource will be lost, bit-by-bit, to illegal dumping, to thoughtless filling operations, and to badly planned development.

EPA and the Corps of Engineers share responsibility for implementing the Federal 404 Program. The Corps of Engineers issues permits for the discharge of dredged or fill material and EPA reviews and comments on all permit applications received by the Corps.

But, EPA's authority is broader than just review. The Agency has the power to prohibit or restrict the use of any disposal site, even if the Corps intends to issue, or has

already issued, a permit.

Most relevant to tonight's discussion is the fact that EPA has the responsibility and authority for delegating and overseeing state 404 Programs.

I would now like to lay out the major requirements and the time frame for state assumption of 404 Programs. The Clean Water Act requires that a approvable state 404 Program must be at least as extensive as the Federal program in terms of jurisdiction, environmental criteria, and enforcement. EPA may not approve a program administered by levels of government lower than the state. Local governments may play a role in permit review and certification, but the state must be responsible for overall administration, permit issuance, and enforcement.

Also, a state 404 Program must be applicable to the entire state. Specific geographic areas, such as the Pinelands or the Hackensack Meadowlands, for example, may not be excluded. However, different state agencies may operate the program in certain areas.

There are five key components to an assumable program:

First, any and all pieces of a state program must be at least as stringent as the Federal Program.

Second, the state definition of wetlands must be at least as inclusive as the EPA definition.

Earlier, I stated how the Federal government defines a wetland. The determination of whether wetlands are subject to protection is made on the basis of vegetation, soils, and hydrology. If the program is transferred, the state would make these determinations with EPA oversight.

Third, state programs must also regulate all discharges of dredged or fill material into State regulated waters, as defined by the Clean Water Act. In simple terms, the definition of State regulated waters amounts to those waters that are non-navigable and non-tidal. Examples could be

an intermittent stream, a small creek, or a tributary above the headwaters of a larger waterway. The point is that a state assumable program will include not only the protection of wetlands, but will also include regulation of those areas no longer under the jurisdiction of the Corps of Engineers when delegation occurs. Partial program transfers are not allowed.

A fourth requirement of an assumable program is adequate permit criteria. Environmental review criteria must be as stringent as the Federal criteria and conform to 404B(1) guidelines. The permit process must allow for public participation. In addition, state 404 Permits must have fixed duration: They may not be issued for more than five years at a time.

The fifth key component of a state program is enforcement. The state must have enforcement powers comparable to the Federal enforcement powers under Federal law. These include the authority to assess -- or to sue to recover -- in court, civil penalties, and to seek criminal remedies.

Civil penalties for violation of permit conditions must be assessable at least up to $5,000 per day of each violation. Criminal fines must be assessable up to at least $10,000 per day for each violation, and criminal fines against any person who falsifies a statement in any notice or report required under the 404 permit must be assessable at least at $5,000 for each violation.

I would like to comment also on the issue of overlap. I don't believe that an overlap of State and Federal programs will necessarily amount to extra paperwork and delays for permit applicants. As you know, the New Jersey Coastal Wetlands Permit Program presently overlaps with the Corps 404 Program. In fact, the state program works so well, it augments the Federal program for the protection of coastal wetlands.

If the State Legislature passes a bill that encompasses more than the requirements under the Federal 404

Program, then some overlap between the State and the Corps programs would result. There also could be a temporary overlap of state and Federal responsibilities regardless of the extensiveness of an enacted Freshwater Wetlands Bill. This would occur as the state program gears up and is gradually phased in. Exactly how the program is phased in would affect the extent of overlap. In any case, the issue would be addressed in a memorandum of understanding between the state and the Corps of Engineers.

In all likelihood, there will be some overlap between the two programs, and I share your concern that unnecessary duplication be avoided. But I do not think that a temporary overlap of responsibility will be overly burdensome.

I would now like to take a few moments to describe in simple terms just how the program would work after it has been transferred to the state. As is the case with the program now administered by the Corps, EPA would maintain program oversight after delegation occurs. Also, EPA would have the opportunity to review and comment on every permit application under consideration by the state. Of course, we would not get involved in every permit application. Any comments we made on a permit, however, must be passed on to the state within 90 days of the receipt of the permit.

A memorandum of understanding between New Jersey and EPA would spell out exactly the types of applications on which EPA would waive review altogether. Initially, we expect that EPA oversight would be close. But, as confidence in the state program grew, oversight would become less restrictive.

As is also the case right now, ultimately authority to issue or deny a permit application would continue to rest with EPA. EPA would, however, work closely with the state to resolve any objections raised by the agency or any other Federal agencies through EPA.

To give you an idea of the time frame for state

delegation, a few assumptions must be made:

The first assumption is that the state submits a complete delegation package. I will explain what the contents of the package must include in a moment.

The second assumption is that the contents of the package submitted are approvable. And the last assumption is that EPA makes a determination to approve the state's application after fully considering public comments and comments by other Federal agencies.

Our best estimate, given no significant snag in the process I've described, is that delegation could occur approximately 12 months from the time the completed application package is received. Although state legislation enabling delegation is key, there are several other components of a State 404 Program application package. This package must include: A letter from the Governor requesting program approval; a complete program description, including staff, costs, funding, and enforcement compliance; an Attorney General's statement laying out the statutory authority enabling the state to assume the Federal program; a memorandum of understanding with a regional administrator laying out the workload to be assumed and how the workload and responsibilities will be shared; a memorandum of understanding with the Corps of Engineers describing state regulated waters and how the transfer will actually take place -- in other words, how it will be phased in; and, finally, copies of all applicable state statutes and regulations.

The time frame for assembling such a package is pretty much up to the state, given that the first major step toward delegation is assembling a completed package for EPA review. If the state so chooses, it could expedite the process by starting to assemble the package right now.

Perhaps the biggest issue occupying all of us is the enabling state legislation. This is not the proper forum to go

into a point-by-point review of the two bills before you. I'm not prepared tonight to go into detail about them. However, after having my staff review both legislative proposals, A-2342 and A-2449, and after meeting separately, both with Assemblywoman Ogden and Assemblyman Penn, our position on these bills is that neither one, as it stands, would enable state assumption of the Federal 404 Program.

The real issue before the Legislature -- as I see it -- is whether or not there is interest in having the Clean Water Act Section 404 Program delegated by EPA, from the Corps of Engineers to the State of New Jersey.

Several states -- New York is an example -- decided not to seek delegation at this time. But, if New Jersey does want delegation, the issue is not one of overlap, because I believe that can be taken care of. The issue is also not one of compromise because neither bill before you is completely adequate to allow us to delegate the program.

So, the real issue is whether or not you want the program. If you do, then in my opinion it will require both sides to sit together and fashion another bill. If the real interest here is delegation, and if both sides are interested in developing a bill which meets the requirements of delegation, I will gladly offer the time of my staff to assist you in ensuring that the language in the bill is adequate for our needs.

What I cannot do with my limited resources is to offer to review one individual bill after another until someone can develop a strong enough coalition of support to push it through the Legislature. I do not think that would be a productive use of time for any of us.

If delegation is not the objective, then the bill you developed can simply be a compromise of the two bills before you. While resulting in some overlap, this approach would be quite valid and could lead to a more sensible and protective

program than now exists. In the end, it's up to the Legislature to decide in which direction it wants to go.

To the extent that EPA can be of assistance to you, I stand read to help. I appreciate the opportunity to appear before you tonight and I'd be pleased to answer any questions. Along with me tonight, I have Mario DelVacaro (phonetic spelling), who is the Assistant Chief of the Marine and Wetlands Protection Branch of our offices in New York. Thank you very much.

ASSEMBLYWOMAN OGDEN: Thank you very much, Mr. Daggett. Do you have copies? Thank you very much, Mr. Daggett, and if you have copies, we would appreciate receiving them for inclusion in the record.

At this time, I'd like to introduce another member of the Committee who has just arrived, Assemblyman Nicholas Felice from Bergen County. We're very glad to have you here.

UNIDENTIFIED SPEAKER: And Passaic. He represents Passaic.

ASSEMBLYWOMAN OGDEN: And Passaic, I'm sorry.

Assemblyman Penn, do you have any questions at this point?

ASSEMBLYMAN PENN: No, I have no questions, Madam Chairman. I would like to thank Mr. Daggett for taking the time to come down here to appear, and also to offer his office to help -- that they might be of help to resolve this pressing problem.

ASSEMBLYWOMAN OGDEN: Do you have any questions, Assemblyman Martin?

ASSEMBLYMAN MARTIN: I have just one question. So I ascertain correctly, if either one of these bills were passed in their present form, there's no question in your mind that 404 permanent approval of the Federal government would still be required separately from any additional permit process then required by the State DEP?

MR. DAGGETT: Yes, the bills in their present form -- if passed, wouldn't be sufficient to allow delegation of the program. Keep in mind, though, an important point to remember: By shifting the delegation ultimately from the Corps of Engineers to the State of New Jersey -- if that's what the final goal is and what transpires -- it will still mean-- I mean, the role of EPA doesn't shift. The role of EPA will still be an oversight capacity with respect to the State. All that it does is to transfer the authority to issue the permits from the Corps of Engineers to the State of New Jersey, while EPA still retains the oversight role.

ASSEMBLYMAN FELICE: Mr. Daggett, I'm sorry. From what I understand -- I got here a little late -- the gist of what you were saying is that you could live with a compromise, or a combination of both bills, is that correct? -- in other words, if both were passed this evening.

MR. DAGGETT: Yes, in a sense, I could live with it. But I'd really have no role in that, in the sense that it wouldn't allow for delegation, it just would mean that there are -- as Assemblyman Martin mentioned -- two separate programs, essentially. There would be the 404 Program, as administered by the Corps of Engineers, and there would be the State of New Jersey program, as developed in the compromise bill.

ASSEMBLYMAN FELICE: But it would be a step in the right direction?

MR. DAGGETT: Oh, absolutely, in the sense that it would certainly provide, I think, more protection than exists now because we are limited, in particular, in our areas of enforcement, in that -- as you know -- we have a limited number of resources. If we had a separate program going, there would be that additional review, if you will, and the additional eyes taking a look at illegal or unintentional fill that might be going on.

ASSEMBLYWOMAN OGDEN: I too, Mr. Daggett, would like to echo the sentiments that Assemblyman Penn expressed. We're grateful for your making the trip here this evening, and also for all the time that you and your staff have put into (indiscernible) as in both the bills, and for coming up with these five points that you say are necessary in terms of fashioning an additional bill, taking parts of both of our bills and coming up with something that would be appropriate for the delegation.

I believe that Jack Penn has stated on a number of occasions -- and I certainly have -- that delegation is one of the prime goals that we have, feeling that the State of New Jersey has-- Without casting any aspersions on the Army Corps, but our own State has a better knowledge of what we, in New Jersey, want, and we feel that -- particularly in view of you're saying that there's a shortage of personnel -- we could deal in a more timely fashion with these permits.

The thing that does concern me-- And I just wanted to ask a couple of questions about it because I would like to see no overlap whatsoever, if that's possible, no duplication, if that's possible. As I understand it, you would always have the ultimate authority -- assuming that we would come up with a bill that would meet with your specifications. The EPA would always have -- what? -- a call-up review, or something like that. Oversight would continue. But, you said that within a 12 month period that we could do all the various things that you cited, and then it would be possible that-- Say if we were to have a bill that were passed -- say on January 1 -- it would not take effect until the following January, and during that period we could deal with all these various issues that you've outlined, such as a letter from the Governor, the resources and the staff, the memorandum agreement, and all the State statutes, etc. It could be possible that the State could set up its own program and not have any duplication of permits?

MR. DAGGETT: That's true in terms of the overlap of the-- From the time you pass the bill, if you want to put in a provision to now allow the Act to take effect, essentially a year later, we could probably make it within that year and prevent the overlap. I would caution you to say two things: One, there's going to be some overlap anyway because, as you know, the Corps has the title and the navigable waterways. So, to the extent that the final bill covers any of that, as well as non-navigable areas, then there may be some program overlap.

With respect to the timing, if you time the bill so that it starts in, say, a year, we should be able to make that timetable, but I would encourage you -- to the extent possible -- to put the program package together, or begin now in those areas that don't require the legislative approval to begin so that you could have at least part of the program ready, because the faster you can get that full package to us, obviously the faster we can act on the delegation.

ASSEMBLYWOMAN OGDEN: If there are no more questions, thank you very much.

The next representative at the Federal level that I'd like to call up is Mr. Charles Kulp, who is a representative of the Fish and Wildlife Service of the U.S. Department of the Interior.

C H A R L E S K U L P: Madam Chairwoman, members of the Committee, thank you very much for the opportunity to come here tonight and present the views of the U.S. Fish and Wildlife Service on the two wetland bills being considered.

My name is Charles Kulp, and I am the Supervisor of the Fish and Wildlife Service office, and our main office is in State College, Pennsylvania, and we have another office in Absecon, New Jersey, and our area of jurisdiction is those two states.

Regional Director Howard Larson (phonetic spelling) regrets that he could not personally come here tonight, and has

asked me to testify on his behalf.

The service was responsible, under the Fish and Wildlife Coordination Act of 1958, to investigate, report, and provide recommendations for the enhancement of fish and wildlife resources, including wetlands which may be impacted by Federal projects, and activities requiring Federal permits or licenses. During the past 20 years, our office has been active in New Jersey providing reports on thousands of construction activities requiring Federal approval. Many of those activities involved projects having insignificant adverse impacts to wetlands and were approved without much problem. Others, however, especially activities in wetlands, have not fared as well. Federal efforts to protect wetlands are relatively new and have not been as effective as they should be. Enforcement of the law is lacking and hundreds of acres of wetlands are unnecessarily destroyed in New Jersey every year. I would hope that a State Wetland Law could help to rectify that problem.

Nearly two years ago I testified for the Fish and Wildlife Service at the public hearing on wetland legislation then pending before the Assembly. The Service supported the need for State wetland legislation at that hearing and continues to do so now. My professional experience regarding wetland issues during those two years has only reinforced a strong belief that a State administered program for wetland protection is needed in New Jersey to complement the existing Federal program. Pennsylvania has a very sound state wetland protection law that could be used as a model for New Jersey.

The two bills being discussed today differ markedly in their approach for regulating wetlands. Each bill has its list of supporters who claim their bill is superior to the other.

Bill 2499, sponsored by Assemblyman Penn, does not regulate dredging, draining, pile construction, obstructions, or tree cutting in wetlands. It exempts from regulation most

isolated wetlands less than five acres in size, omits wetland buffers, lacks a strict requirement for water dependency, and offers wetland mitigation as an option to wetland avoidance.

Bill 2499 also requires expensive large-scale mapping of wetlands, development of a wetland ranking system, provides property owners with an opportunity to sue the Department of Environmental Protection if they believe the permit decision constitutes taking of property, and requires that the Corps of Engineers conduct all wetland jurisdictional determinations. Enforcement penalties in this bill are weak and the act won't take effect until the DEP assumes that Section 404 Permit Program from the Corps of Engineers, a process which must be approved by the EPA.

The Penn bill provides for mitigation of wetland losses through enhancement or creation of wetlands before a public interest decision is made by the DEP. The Service has had much experience over the past decade or so with mitigation for losses under the Federal Permit System. We find that mitigation, although often recommended, is an extremely flawed process which is either not done at all, often trades off one habitat type for another and, if successful, doesn't result in replacement of all wetland values. Mitigation is also often used as an excuse to avoid consideration of project alternatives benefiting the public.

Examples of mitigation failures in recent years in New Jersey include Hartz Mountain in the Hackensack Meadowlands, Timer Properties, Hartman & Hartman in South Jersey, the Mt. Olive Trade Zone -- where an endangered plant was buried under about 15 feet of dirt, and the Belle Meade project in the Meadowlands. We would be pleased to provide the Committee with more detailed information about the failure of mitigation in New Jersey and elsewhere, if so desired.

In contrast, Bill 2342, sponsored by Assemblywoman Ogden, regulates dredging, draining, pile construction,

obstructions, and tree cutting in wetlands; isolated wetlands, three acres or larger; specifies wetland buffers ranging from 20 to 300 feet; requires access to water or wetland as a basic project function; and requires mitigation of wetland losses only if the DEP determines there is no prudent and feasible non-wetland site. This bill relied on existing wetland and soil mapping and does not require a wetland ranking system or afford unusual opportunity to property owners to sue the DEP if they believe the permit decision constitutes taking of property. Furthermore, Bill 2342 requires letters of interpretation from the DEP to establish that the site of the regulated activity is, in fact, located in wetland. Lastly, enforcement penalties in this bill are strong and the bill becomes effective 180 days after enactment.

Of the two bills, we believe the Ogden initiative offers the strongest framework for regulating activities in wetlands in New Jersey. It is more comprehensive, self-sufficient, effective, and enforceable, and it is less expensive than the Penn bill. Therefore, the service supports enactment of the Ogden bill.

Although we favor the enactment of 2342, there are aspects of this measure which we believe should be changed. First, State or Federally funded roads, planned and developed in accordance with the National Environmental Policy Act, should not be exempt from provisions of the act. There is no question that road construction causes extensive damage to wetlands in New Jersey despite the National Environmental Policy Act. Current examples include State Route 24, State Route 147, the Trenton Complex, Interstate 287, Route 55, State Route 18, and widening of the Garden State Parkway and the New Jersey Turnpike.

Second, we believe regulated activities on land under the jurisdiction of the Hackensack Meadowlands Development Commission should not be exempt from the act. Over a thousand

acres of wetlands are targeted for destruction if the Commission is to fulfill its Master Plan. Activities proposed in the HMDC area needs State review if the wetlands are to remain for future generations.

Third, we believe the minimum size limitation of three areas on isolated wetlands is inappropriate. Wetlands of this size and location function just as well as wetlands connected to streams or lakes. In fact, small isolated wetlands are often sanctuaries for wildlife and men in urban environments.

In conclusion, the Service strongly recommends enactment of Bill 2342 with the above changes. Further delays will only result in unnecessary destruction of wetlands in New Jersey, and I urge the Legislature to act on this matter as soon as possible. Thank you very much.

ASSEMBLYWOMAN OGDEN: Thank you, Mr. Kulp. We'll start passing the microphone.

ASSEMBLYMAN PENN: Mr. Kulp, thank you for joining us tonight. I just have a couple of questions for you. What is the scale of mapping now used?

MR. KULP: We have the entire State of New Jersey mapped under what we call The National Wetlands Inventory, and I believe they used a one to six thousand scale. What we had were the aerial photos, which were interpreted by experts, and we go out and (indiscernible) the wetlands.

ASSEMBLYMAN PENN: In other words, your scale is one inch equals six thousand?

MR. KULP: Yes.

ASSEMBLYMAN PENN: That's a very fine scale, but I think -- if I'm correct -- that in the Department of Environmental Protection map, one inch equals two hundred feet.

With a scale of one inch equals six thousand feet -- a pencil mark, wouldn't that just almost be a wetlands on a map?

ASSEMBLYWOMAN OGDEN: Two thousand feet.

ASSEMBLYMAN PENN: Oh, two thousand. You said six

thousand. One inch equals two thousand.

Another comment, if I can ask you about it: In your testimony, you talk about compensation for the taking of land. You don't believe that a landowner whose development rights are taken away should receive any compensation?

MR. KULP: The only thing I can say about that is that there is a very, very long case history in the Federal Court on the issue of taking, and in every case it has never stood up under Federal law. And if you would like to have copies of that legislation, I'd be happy to provide it to the Committee.

ASSEMBLYMAN PENN: I think we would like to have copies of that. I think that's a very important consideration of any bill that we were to enact in New Jersey.

Mr. Felice?

ASSEMBLYMAN FELICE: I'll pass.

ASSEMBLYMAN MARTIN: Just one area. You referenced part of the Ogden bill from last year, which some of us were concerned about; it deals with highways. And one of your comments was that the bill wasn't strong enough with respect to the fact that highways that had received certain permits should continue to come under a new act. I don't know how familiar you are with Route 24, but since Route 24 is within this District, most of the people here today, I would assume, are probably north of Route 24. But those who live within the Chatham, Madison, and Florham Park area know that for close to 30 years, the Route 24 area has been attempted to be realigned to get out of the downtown areas and provide an alternate route into Morris County.

My question to you is a general one, but with our interest in fish and natural wildlife, isn't there some concern for the environment in which people live, and the fact that if we have these roadways reach the point where they're virtually inoperable during commuting hours, doesn't that also -- isn't

that a concern that we should be dealing with as part of our general environment?

MR. KULP: The first question you had about Route 24, I am somewhat familiar with it. If you recall, there were alternative routes that would have probably hastened the construction of that highway project years ago. They were routes south of the existing finally selected route across the wetlands. Not only that, but that went through a (indiscernible) process, and many, many agencies did recommend an alternative route. But, when you really look into it, the DOT bought the right-of-way in 1968, so you know darn good and well they weren't very serious about any alternative route, regardless of the National Environmental Policy Act.

Secondly, we certainly are concerned about the public because that's the entire thing that we're concerned about also, except that when we regulate water quality, for example, in the United States, it is to protect the water quality, and it is for the public also so we'll have a resource in the future to think about. And it's the same thing with wetlands in New Jersey. With the bulk of development pressures that you have, and the lack of a State protection and an effective Federal system, you won't have any wetlands. You won't have any streams flowing in this State in a few years.

I'd like to point out that my in-laws have lived on Long Beach Island, New Jersey, for the past 30 years, and I know what people go to the beach for, and I know why they go to Barnegat Bay -- because they like to fish and they like to crab, and they like to boat. And I think that in New Jersey without a strong State wetlands program, you're going to be losing many, many more environmental amenities in this State.

ASSEMBLYMAN MARTIN: Thank you.

ASSEMBLYWOMAN OGDEN: Mr. Kulp, in your statement here you come down rather hard on mitigation, the process whereby the developer, in exchange for invading the wetlands, either

builds new wetlands or upgrades the (indiscernible), or donates wetlands in another area. Exactly what is it that you find so objectionable about mitigation?

MR. KULP: In a litigation policy, the fist thing you should do to reduce damages is to avoid them in the first place. So, what we're looking for is to-- Rather than putting up a house and filling in (indiscernible), and putting a house out there which is also going to be damaged by storms, you shouldn't put houses in the wetlands.

With highway projects, or anything, what you should do first is to avoid the damages, and then the next step is you look at what the unavoidable damages are, and then you mitigate for those.

Again, I can provide you with a copy of our mitigation policy if you would like.

ASSEMBLYMAN PENN: In other words, Mr. Kulp, you do feel there are times that mitigation is desirable and necessary, is that correct?

MR. KULP: There are some cases where it's inevitable, but I think the main point is that you wouldn't have to mitigate if you avoided it in the first place, and I do have many, many examples of that also.

ASSEMBLYWOMAN OGDEN: Thank you very much, Mr. Kulp. If you could supply us with your paper on mitigation -- your policy -- we'd appreciate it. Thank you.

Just one other question. You praised Pennsylvania as having a model that we should look at. What does Pennsylvania do in terms of mapping?

MR. KULP: Most of Pennsylvania is also mapped with using the National Wetlands Inventory. The only sections that aren't mapped are the central part of the state, and that's really a matter of money. New Jersey was mapped early on because it is a high priority State with a coastal wetlands. Central Pennsylvania is a very mountainous area and, from our

standpoint, was not a high priority item. However, if we get money from various agencies we can have that done.

I just want to-- By the way, we used the Inventory Map. The State DER is responsible for disseminating those maps and any developer can just write to or call DER and get copies of those maps for a very limited fee.

I want to just expand somewhat on the state permit -- the State of Pennsylvania permit system, if you will. The State of Pennsylvania has a very broad-based wetlands protection law, passed in about 1978 -- I think it was -- and it was enforced in 1980. It's broader than the Federal law. It covers all wetlands in the State, regardless if they're isolated or not. It has a water dependency stipulation, and it also covers draining, whereas the Federal law does not. We meet with the State every month to look at all the State's permit systems, not only the Fish and Wildlife Service but the Corps of Engineers, the EPA, and the State agencies meet every month. We look at all the projects. We do the field work for them, and we comment on the State permits, and that usually solves the problem before a Federal permit is even applied for. So, if there's no permit system really, there's no problem in practice.

ASSEMBLYMAN PENN: Could I ask you one more question on that? Don't you feel that a scale of one inch equals 2000 feet is a very difficult scale to work with in any sort of aerial photographing to define wetlands?

MR. KULP: Well, these aerial photos -- I think I got my figures mixed because I think they're like 6000 feet, or something. But in actuality we have found that in the national inventory maps they're probably -- in most cases -- 95% accurate. There are some errors in interpretation when a person is looking at an aerial photograph. When there is a wet field, for example, it might show up in the photograph as water, and that's why we need a ground troop. We go out and we

groundwork these areas so that we can verify if they are wetland or they are not. But, in most cases, the wetlands maps are extremely accurate.

ASSEMBLYMAN PENN: When you groundwork, don't you work at a scale of one inch equals 200 on your groundwork?

MR. KULP: The groundwork is this actual observation on the ground. We go to the site and we take the aerial photograph with us, and we can tell right from that line pretty well where we are, and also what type of wetland.

As I mentioned, there are some errors that occasionally pop up, and there might be a line one way or the other of 20 feet or 30 feet, but, on the whole, they are extremely accurate.

ASSEMBLYMAN FELICE: Just one quick question. Is there any crossover between the Federal and the military. We all know there's a tremendous amount of mapping being done in our country, both by satellite, infrared, and other technologies, and the military. Is there any crossover in getting some of their -- to use some of their facilities and maps to supplement what we have already?

MR. KULP: Well, I think there are because we also use some of the military maps -- some infrared, some high altitude photography, and that type of thing. But, it seems to me that you don't have to map New Jersey all over again because it's already been mapped, and it's very accurate. So, I don't see any sense in going out and remapping the entire State, because it's a very expensive process, and it's already done.

ASSEMBLYMAN FELICE: I was just talking about the new technology that wasn't available 10, 20, or 30 years ago. The mapping shows a different type of terrain if we visualize this is in a black and white photo.

ASSEMBLYWOMAN OGDEN: Thank you very much, Mr. Kulp.

Are there any other elected officials, either county, members of council, mayors, or anyone who would like to speak

this evening? (no response)

Then we will go to the organizations. From Middlesex County we have Mr. James Callahan, the President -- or is someone here speaking for him? Is it Steven-- I'm sorry, I can't read this.

(At which time witness pronounces his name)

S T E V E N R. S E K E I A: Assemblywoman Ogden, Assemblymen Martin and Felice, President Callahan couldn't be here tonight. As you know, it was stated here he is the President of the Middlesex County Building Trades, and I am a delegate to the Middlesex County Building Trades, and as you know we have some labor people here tonight.

The reason I'm here is to speak for labor. My name is Steven R. Sekeia. I am the President of Local Union 358, IBW. I'm also a delegate to the Middlesex County Building Trades, and I'm an Executive Board member of the Central Labor Body of Middlesex County.

The statement that I would like to read to this Committee is from Business Manager Calahan, who is also President.

The Middlesex County Building Trades Council is an organization dedicated to the promotion of a sound and prudent building construction industry within the State of New Jersey, and especially Middlesex County, naturally.

This entails both the recognition of the economic benefits provided by the creation of new jobs and rateables, and a recognition that we need to preserve the integrity of our environment.

It appears thus far that the witnesses before this Committee have fallen into groups -- those who have been termed environmentalists and those who have been termed developers. I come before you this evening to speak for the labor group, for it is the labor force that will feel the impact of the wetlands legislation most directly and most severely. If the Ogden

bill, in its present form, becomes law and development is effectively stopped, or -- as some have suggested -- redirected into rural areas, jobs will be lost.

It takes no great degree of sophistication to grasp what this means to our workers, their families, and to our economy as a whole. We do not suggest that there should not be a wetlands preservation legislation. We all support wetlands preservation, but in a manner that protects our jobs and industry, our families and our homes as well.

A-2499 recognizes that in the grand scheme of things the protection of jobs and the maintenance of a thriving economy is as much in the public interest as is the protection of the wildlife, waterfowl and native flora and, therefore, requires the DEP, in considering whether a proposed activity is in the public interest, to weigh its economic value, both public and private, to the general area.

It would be foolish and shortsighted to assume an all or nothing approach to wetlands preservation. In the midst of the impassioned testimony I've heard from some critics of the Penn bill, we have lost sight of the fact that A-2499 is a tough wetlands regulation measure. It vests authority over wetlands squarely with the New Jersey Department of Environmental Protection, not with developers. It establishes a permit process in the DEP, designed to meet Federal standards not developer standards. It contains a penalty provision that may be summarily enforced. It places the burden of proof on the applicant to demonstrate to DEP that permit requirements have been met. Lastly, it permits issuance of a permit unless the DEP determines that the permit is in the public interest. Therefore, it is a balance that will work for all of us, and only the Penn bill strikes that balance.

And, gentlemen, as I said, this is a statement from our President of the Middlesex County Building Trades, and I thank you for allowing me to speak tonight. I hope everything

will be clarified. (applause)

ASSEMBLYWOMAN OGDEN: Do you want to pass the mike?

When I said at the outset that I'd like everyone to refrain from clapping, I really mean it. Unfortunately, I don't have a gavel, and that clapping was so loud you probably wouldn't hear the gavel anyhow, but please, from now on, do refrain -- whichever side you're on.

Next on the list we have, representing the Upper Rockaway Watershed Association, Susan Shaw. Is she here? (affirmative answer)

S U S A N S H A W: I'm representing the Upper Rockaway River Watershed Association, who supports the Ogden-Lynch Freshwater Wetlands Bill. I have also completed an extensive paper on freshwater wetlands as part of my master's degree in ecology.

Section 404 of the Clean Water Act only prohibits projects in wetlands that would not be in the public interest. It does not regulate activities occurring outside the wetland, although the activities may destroy or impair the function of the wetland. It does not offer protection to wetlands from destruction by draining, damming or dredging, nor regulate activities affecting certain types of wetlands. Thus, there is a pressing need for a freshwater wetlands statute in New Jersey.

The values of freshwater wetlands have been recognized by at least six of our most progressive states who have adopted their own freshwater wetlands protection statutes. These states are New York, Rhode Island, Connecticut, New Hampshire, Massachusetts, and Michigan -- and Mr. Kulp just mentioned Pennsylvania.

The Penn-Zane Bill is inadequate to protect wetlands, as it regulates only those activities that are already regulated under the Federal 404 Program -- that is, the discharge of dredged materials into the wetlands.

The Ogden-Lynch Bill, as well as the six states that I have mentioned that have freshwater protection statutes,

regulate other activities in wetlands that may impair or destroy wetlands, such as draining, disturbance of the water level, and placing of obstructions, whether or not they interfere with the water flow. Thus, the inclusion of these other activities as regulated activities is of the utmost importance to protect wetlands.

In order to preserve the ecological integrity of freshwater wetlands, a buffer -- an area of vegetation -- adjacent to the wetland must be protected from development. This buffer, or wetland edge, is a transition zone bordering the wetlands and a portion of the upland. Most of the states that have adopted freshwater wetland protection statutes have recognized the importance of the wetland edge, and have established a regulatory mechanism to protect it.

In addition, the New Jersey Pinelands Comprehensive Management Plan prohibits activities within 300 feet of wetlands in the Pine Barrens, unless the developer can demonstrate that the proposed activity will not have a significant adverse impact on the wetland.

Likewise, our New Jersey Coastal Management Program recognizes the importance of buffer areas by regarding all land within 300 feet of wetlands in coastal areas as comprising an area in which the need for a wetlands buffer shall be determined. Just recently, Rutgers University completed a report on the importance of buffers.

The Penn-Zane Bill encourages the creation and enhancement of wetlands as mitigation measures, while the Ogden-Lynch bill does not.

Firstly, legislation requiring or encouraging mitigation may deflect, or blunt efforts to preserve wetlands by proffering a trade of restoration. Mitigation measures are going to be viewed as a panacea to justify projects which result in wetland destruction.

Secondly, most available information on creation and

restoration of wetlands is for coastal tidal wetlands which are easier to deal with due to the predictable and reliable nature of the hydrology upon which to build wetlands. For example, the study entitled, "The Evaluation of Artificial Salt Marshes in New Jersey" is the first scientific analysis of restored and artificially created wetlands in New Jersey. The investigation found that not all artificially created wetlands are successful and that the creation of wetlands is still in the experimental state.

It is important to note that the Division of Coastal Resources within our DEP only considers proposals for wetland destruction and mitigation only when the proposed project must require water access or be water oriented, has no feasible alternative non-wetland site, and results in the minimal alteration or impairment of the natural tidal circulation, contour, and vegetation of the wetlands.

The Penn-Zane Bill exempts a multitude of maintenance and repair activities that should not be exempted, but should be handled under the general permit program which would be established under the Ogden-Lynch Bill. It has been our experience that the maintenance and repair of drainage ditches, for example, has caused more than a minimal adverse environmental impact on the wetland and thus cannot be considered a harmless activity.

As a Watershed Association, we are particularly concerned about water quality and flood control. Within the Charles River Watershed in Massachusetts there are about 20,000 acres of wetlands which the U.S. Army Corps of Engineers has estimated provide $1.3 million in flood control benefits each year. The Army Corps has also estimated that flood peaks would increase by as much as 1.2 meters in the upper and middle reaches of the River if only 40% of the system's wetlands were to be lost.

It has been our experience that the public usually

bears the economic burden of destruction of wetlands, such as the prevention of flooding by means of channelization and the construction of dams, dikes and levees, and emergency assistance as a result of the flooding.

In conclusion, we feel that the Ogden-Lynch Bill is more effective in regulating activities that destroy or impair the values and functions of freshwater wetlands. Thank you.

ASSEMBLYMAN PENN: Thank you. Ms. Shaw, I have a couple of questions.

MS. SHAW: Sure.

ASSEMBLYMAN PENN: One, you talk about buffers. When you talk about them, are you referring only to natural wetlands, or wetlands that may have been created by man as well as natural?

MS. SHAW: When you say man-made wetlands, what are you referring to?

ASSEMBLYMAN PENN: When you have man-made lakes, you have man-made drainage ditches, you have retention ponds, you have a lot of different man-made types of wetlands which are, today, considered wetlands.

MS. SHAW: Well, if you're referring to a drainage ditch, I think that this bill would take care of the problem. If you have a drainage ditch with some wetlands species, I think this bill would take care of it. But, if you're talking about lakes, a lake should have a buffer to take care of it, to protect the quality of the water. So, a buffer would be very important, and many of the State's wetland protection laws that I had mentioned do provide buffers around their rivers, streams, and lakes.

ASSEMBLYMAN PENN: Man-made or natural.

MS. SHAW: Right. That's correct, a man-made lake to--

ASSEMBLYMAN PENN: Yeah, okay. The other question dealt with-- We talked about repairing and working on the various streams, perhaps-- Whether they be ponds or dams, and

so forth, they still go through a permanent process.

At the last hearing we had a man come in from the Mosquito Control Division, who dealt with-- He was very concerned with the fact that under certain legislation that they would no longer be able to open up and have a clear cold water, and therefore it would speed up the spore, and the mosquito problem would get far worse. The only control he had at that time was spraying into the water some pesticides that killed the mosquitoes. So, there are more things there, and there's got to be a balance in here of some sort, and I'd like to know how you might go about that?

MS. SHAW: Well, under the Ogden-Lynch Bill, as I understand it, the maintenance and repair of the drainage ditches for the Mosquito Commission would be taken care of under a general permit system.

ASSEMBLYMAN PENN: But he didn't seem to think so.

MS. SHAW: Oh.

ASSEMBLYMAN MARTIN: Maybe I'll try Assemblyman Penn's Bill in a different way. You did a study, I take it, which led to your master's degree in this area. New Jersey -- as I'm sure you're aware -- basically allows local municipalities to control most of their zoning, presently. Having served on a Planning Board in Morris Plains, there were many concerns and various competing interests that you run into.

My concern would be, you have some municipalities where, hypothetically at least, when you start to deal with wetlands and buffer zones -- especially when you start drawing circles around wetlands -- you may, in a given municipality, take away much of the area for economic growth, and then you run into competing interests, which is the need for low-cost, medium housing, perhaps playgrounds, and other kinds of interests that the local populous may want to have.

My question is a general one, and that is, in the course of your concern -- and I share with you a concern for

preserving the open environment, and particularly wetlands -- did you give any thought to the other types of competing interests as you take away more and more land from development?

MS. SHAW: When I look at a lot of the development in Morris County -- a lot of the office buildings and the hotels, etc., and housing -- a lot of it could have been clustered. We didn't. We have a lot of wasted, sort of open space. We should be leaving the environmentally sensitive land alone and developing the more suitable land and clustering the development more. And, if you look at some of our hotels and office space, you'll see what I mean. You know, it could be clustered, thereby saving the more environmentally sensitive areas.

ASSEMBLYMAN FELICE: Some of the reasons that the areas are where they are is because they are desirable to be in that environment you speak of, and atmosphere. We cannot in all cases-- I think looking at both sides of the coin, we cannot say that all building will be in a cluster, or a community -- a small community -- type of living. Most people move into areas of New Jersey and Pennsylvania so that they can have that open feeling and not live in clustered areas. I think there has to be a very pronounced balance, where people are not restricted, and to have that kind of opening, and to protect the environment. So, there's got to be a happy balance here, and not just say everything stops because there are a lot of people that-- And I know many cases that I get in my office -- that people have bought land down in the areas where they are now considered wetlands, with the hope to someday build a little home down there when they retire. And now, all their years of saving and investing and hoping that they could utilize that land -- which may people did, some for profit and some for their own personal reasons -- that is all being taken away from them -- their little dream area.

So, we have to have some kind of a balance for those

people too, rather than just going into mitigation and litigation.

MS. SHAW: The Ogden-Lynch Bill will take care of it with less problems.

ASSEMBLYMAN FELICE: Well-- (laughter)

ASSEMBLYWOMAN OGDEN: Thank you, Ms. Shaw.

Next, I would like to call Jason Cortell, who I know has come a long way tonight, and I don't want to keep him longer than we need to.

J A S O N M. C O R T E L L: Assemblywoman Ogden, Assemblyman Penn, Assemblymen Martin and Felice, ladies and gentlemen. As a representative of both the environmental community and the development, I feel somewhat in a unique position because I speak from both the experience of a trained, professional environmental consultant and an environmentalist, as well as the President of an environmental consulting firm that deals in the development area.

I have worked on several major -- several highways, including the infamous Route 24. We'd like to discuss that with you, Mr. Martin, any time, and some of the reasons why we're having it approved.

But, I'm here primarily tonight to discuss the wetlands legislation that is being proposed here in New Jersey. Let me begin by saying that unlike many of the other speakers, I don't favor either bill. I simply favor a good, quality wetlands bill which this State has needed for many years.

Unlike the Fish and Wildlife Service representative, on the other hand, since I have considerable personal experience throughout the State, we are not losing the wetlands -- the streams, the lakes -- at such a rapid pace that unless we do anything in the immediate future, the State will be without these resources. I think that's a hysterical and unnecessary statement by a Federal agent, and I don't think

it's appropriate for the seriousness that both Assemblywoman Ogden and Assemblyman Penn have put into this bill.

On the other hand, I think that there are some aspects of both bills that seriously need to be reviewed. I don't feel that it's my job, because I've looked at the testimony from previous presentations, some of which has already been presented this evening by the EPA in particular, and I'm not going to undertake a review of the deficiencies -- the pros and cons of the bill.

I would like to focus on one area though that I think is of extreme importance, and that is the question of buffer zones. Now, the previous speaker spoke on the value of buffer zones, and I believe The Fish and Wildlife Service's Mr. Kulp has spoken of them as well. They do not exist in the Penn Bill, and I believe they exist in the excess in the Ogden Bill.

There's been a great deal of talk over many years about buffers, and in some cases the qualities of buffers are, in fact, extremely important to the maintenance and the qualities that we attribute to wetlands. On the other hand, a development appropriately designed and planned can be designed within an area, in close proximity to wetlands, without impairing those values which we seek to protect. And there are numerous cases throughout the State where good quality, well-planned development has not impaired the qualities of wetlands and, in many cases, they have enhanced them.

We have looked seriously at the problem of buffers, and basically feel that buffers should be approached not from the point of view of the land user aspect, which is found in the Ogden Bill, but more with respect to what qualities the wetlands have and what we are trying to protect. In a simple sense, we have proposed -- and are here to propose -- a wetland evaluation system, very simple, which follows both State and Federal guidelines, uncomplicated, and -- hopefully -- inexpensive to manage to put into effect. But basically,

it's designed to protect those qualities which both bills feel in their preambles that wetlands protect.

Let me briefly go through this. I know this is going to be a long, hot evening, and I do not want to get into a vast technical discussion, Assemblywoman Ogden, but let me just paraphrase some of the aspects of this proposal. I'm going to leave copies of it with you, if I may.

First of all, the proposed wetland classification that we have developed for the State of New Jersey includes the ranking system which is based, basically, on five criteria, two of which are project oriented, and three of which are wetlands related.

Project oriented criteria pertain to the size and extent of the potential wetland impact area, which means, basically, the size and its location. Now, the size criteria exists in two categories: One, projects affecting less than one acre; and, two, those affecting those of greater than one acre. The two categories also compromise the local and regional criteria. These include projects affecting either isolated wetlands -- or those located above the headwaters -- and projects affecting wetlands contiguous to non-headwater surface waters. Consistent with the U.S. Army Corps of Engineers Regulatory definition, headwaters refer to a point on a non-titled stream above which the average annual flow is less than five cubic feet per second. The remaining wetland oriented criteria are based on surface water, flood hazard area, and wildlife habitat classification.

Let me briefly go through these categories that we have listed, and then 1'll explain how they're used in the basic criteria established for the use of buffers. There are three criteria again: Surface water, wildlife area, and wild habitat. Now, I recognize that this does not include all of the major categories, such as evaluation of diversity of habitat, but we believe that because we have hit on the three

key areas and the three key values to which we attribute to wetlands, that we have in this effect brought together a very simple and easy to manage wetlands buffer system.

The first category under surface water classification includes the following:

One, FW-1 waters -- those are State controlled waters, within State areas, and FW-2 trout production waters and their tributaries. Those categories that I have in category one would require the placement of a mandatory buffer of 100 feet.

Category two, undersurface water classification includes FW-2 trout maintenance waters, and FW-2 non-trout waters, upstream of FW-2 trout production and trout maintenance waters. Those would require a buffer zone of 50 feet.

And, category three undersurface water would be all other FW-2 non-trout waters, and that, by the way, makes up the majority of waters in the State, and we don't believe that they require any buffers.

Under flood hazard area classification we have three categories, again similar to the first group. Category one would be wetlands within the floodway of our encroachment lines, and those would be areas which would require a minimum of a 100 foot buffer.

Category two would be wetlands within the flood fringe, or between the encroachment lines and the 100-year flood plain boundary, and that would require a minimum of a 50 foot buffer.

And, category three -- again the majority of wetlands within the State -- would be wetlands not subject to flooding by the 100 year flood.

The third category would be wildlife habitat classifications. Again, category one, with the 100 foot buffer, would be those existing wetland habitats that are on the State and Federal endangered or threatened species list.

Category two would require, again, a 50 foot buffer

and would be potential wetland habitat for State and Federal endangered and threatened species in areas in which it is reasonable to assume that the range of threatened species are likely to extend.

And, category three would be all other wetland habitats which would require no buffer zones.

Now, we have determined that the implementation of such a plan, again, would be relatively simple. The reasons why we have determined there are two categories, one less than one acre and one greater than one acre, is because we believe that the regulations, as passed, should comply with the Federal regulations in that category. However, we should mention that we do not believe that either buffers or wetland zones need be protected, and may be permitted for filling, should a site study and analysis shows that, one, the wetland criteria established for that area are not of a sufficient significant area that they do not impact the wetlands or those values pursuant thereto; and, two, that in selected cases, those wetland features can be mitigated at an off-site area or an on-site area by, in all cases -- preferably within the same watershed -- the water and flood control protection. So we feel that some mitigation should be allowed, and a buffer zone system, somewhat different than that being proposed in either of the bills.

And finally, we have -- basically - a system or framework by which wetland review of permits should be allowed. Now, that's relatively a simple system which basically calls for the developer to identify the project and to immediately determine if there is a wetland impact area.

Let me comment, if I might, on the question which was raised by Assemblyman Penn in his question of Mr. Kulp on the quality of the fish and wildlife mapping. I know that is one of the main areas that the so-called two camps seems to be fragmented on, and let me make my point. Since I come from

Massachusetts, I can say all of this. I can go back tonight, no problem.

We have a stricter wetlands act, by the way, in Massachusetts than you have proposed here.

Let me just say this: The quality of the mapping is not the issue here. The quality of the information used in the permit is the issue. Now, in many cases the fish and wildlife mapping and the information available through the Soil Conservation Service on the State and Federal level is extremely valuable, and if you put all that information together -- the wetlands data, the soils data, and the flood data -- we have a good base to determine where the wetlands ought to be, and I think that using the existing mapping is a good tool to advise both local and State officials that an area subject to development is possibly going to be subject to wetlands permits.

Now, the mapping is not perfect, and I think Mr. Kulp agrees to that, but I do feel that the intent of the mapping was not to be quite as accurate as Kulp mentioned. I think the intent of the mapping is accurate and correct. To go to a mapping system of one to two hundred -- even one to four hundred -- would pose a tremendous economic burden on the State and its resources. Just providing the base maps alone would cost millions of dollars, and take years -- if not decades -- to complete. Providing the information on the mapping would be an annuity to all the environmental consultants in the audience, and while I think it would be great to myself and my fellow consultants to have life-long work mapping the wetlands in New Jersey, the fact is that in each case of development it is going to be a second requirement for the developer to do the mapping anyway because I'm sure that, just as I go out into the field to map wetlands -- or my staff does these days -- and I might meet with someone from the Absecon office, from the Fish and Wildlife Service, I can assure you that we have a

disagreement on where that line of the wetlands will be. And I think that disagreement is healthy and it's valuable, but the fact is it does exist. It is not a perfect science, and even at one to two hundred feet it is impossible to draw those lines accurately. It must be done on a site-specific basis, and it must be done in the field.

Therefore, the map -- to go to the expense, and basically to go to the cost in time, 20 years from now we will still be waiting for those maps to be completed, and I don't think that the purpose of this wetlands bill, to wait that long until we get an accurate set of maps, and even then they will be questionable, believe me they will be. That's my little speech on mapping.

I'd like to just continue, and then I will conclude my statement. We feel that after the site has been determined as to whether it is less than one acre, or one acre of wetlands to be filled, we then would likely determine whether the category of the wetlands -- as I mentioned before -- apply. Which category? Would category one, with 100 feet, category two, with 50 feet, or category three, with no buffers, be the adequate buffer zone that would apply? And then from that, we could determine whether a permit would be required to, one, fill the wetland; two, fill the buffer -- or fill both; or whether or not the DEP felt that under the circumstances, based on the information provided in the permit, that a mitigation plan was appropriate. And, basically, Assemblywoman Ogden, that is the approach that I have proposed here tonight for you to review, and, hopefully, both you and Assemblyman Penn will look at this and read it, and take it into consideration. Thank you.

ASSEMBLYWOMAN OGDEN: Thank you very much. We appreciate all the thought and effort that you've given to this subject. Thank you very much Mr. Cortell -- especially you coming from Massachusetts -- for all the help you've given us

to solve our problems here in New Jersey.

Mr. Penn, do you have any questions?

ASSEMBLYMAN PENN: I don't have any questions. I just want to thank Mr. Cortell for coming down. His reputation has preceded him, and I wanted to be sure that your remarks made here tonight and your help are appreciated.

ASSEMBLYMAN FELICE: I would also like to echo that, as a consultant engineer myself and knowing that some of the problems that are involved. I think you've put some new light onto the different buffer zones. I think that's very important, as we all have a local and State land use. I think that it's important we have freshwater lands. I think that's a very important attitude that you've given us this evening.

MR. CORTELL: Thank you, I appreciate it.

ASSEMBLYMAN MARTIN: Mr. Cortell, obviously your expertise is considerable. Just so I'm clear about something, suppose I have a piece of property which has not been identified in the past as obvious wetlands, how am I to know -- under your best thoughts -- about the process, that if I were to apply for some type of site plan application that I would be encountering the process of determining the whole wetlands application process? I mean, is there any way that somebody, without hiring a consultant, would have some assurances of knowing that they're safe from this process?

MR. CORTELL: Assemblyman Martin, that's exactly what this proposal is. We've used, for the most part, available information to develop the categories. For example, in the surface waters, we have used -- in the floodways -- information that's readily available in most municipal town offices with regard to floodways and with regard to flood fringe areas. So, we don't feel that anyone has to go out and hire an engineer or a consultant to map that.

Now, if we're dealing with the second-- Let me take the second issue, and that is the question of endangered

species. We feel that's an important issue. A list of endangered species is available at the Soil Conservation Service, usually at each municipal environmental commission office, and I think it's the type of thing that we could readily make available, municipally in a wetlands package that would be provided on the local basis so that individuals who are interested in finding out whether or not -- or which category their wetlands were in, could easily refer to that, almost on a matrix system.

And then, the third category is the quality of the feeding waters. That, again, is State mapped. Every stream in the State is mapped, and that is readily available in most town halls and city municipal government.

So, I think -- for the most part -- the system we've applied and are basically using, is readily available information, and I think the reason why it served the function of protecting the wetlands is because each of these functions we have already designated by other actions as being something significant we need to protect.

If we protect, for example, trout waters, we are protecting water quality, and we know FW-2 water for trout maintenance is the highest of water quality, otherwise the trout are not going to live there, and that's certainly not going to (indiscernible). And if we protect those waters, then we protect the water quality downstream. And the same is true of all the other categories.

I don't know if we've answered all your questions, but let me just say this: I think we could make that information available very easily so that any individual can go and find out whether or not he has wetlands, and what category they would be in.

ASSEMBLYMAN MARTIN: Let me just take it one step further. Those people who bought a house oftentimes will find out from the lending institution that they require a

certificate which determines whether they are in a flood zone or not. In New Jersey, I know of at least one company that for $9.75 will certify as to whether or not you're in one or not. Do you see some system like that, for a small amount of money? I'm not as concerned, obviously, with the big developer's process; of course, he would have his consultants, and he would have his engineers for his developments. But for the smaller person who is involved with one-acre or two-acres, depending on legislation, could you foresee some process like that which would solve the problem?

MR. CORTELL: What I foresee is, in each municipal office, let's say the planning board office, or the environmental commission -- depending on the size of a municipality here -- that a reference book or file, probably something prepared by DEP, would be available that would basically have the necessary information for a person to quickly go through a matrix to determine whether or not his property is under category one, category two, or category three. And all that information is available. It just needs to be assembled and put in an orderly manner and made available to the average public to use, and it would cost nothing to do it. That would be the real goal of the program.

ASSEMBLYMAN FELICE: May I (indiscernible) I just want to be sure I can tell my clients that. (laughter)

ASSEMBLYMAN PENN: One other question you touched on is the mapping. I think because certain bills refer strictly-- I mean, certain bills refer strictly to the Fish and Wildlife map, but there are other maps available today: The flood hazard maps, the maps used in stream encroachment, and there are county planning boards that have put together a map of their communities, and all that. Those maps are readily available, and most of them are at a scale of one to two hundred or-- Well, that's the ones I've seen anyway.

Could you envision putting together these maps over a

period of time, not five years or whatever it means, and eventually using those maps as a substitute for the existing maps, because I find them -- having seen them many times -- totally inadequate. One inch equals is-- We can put on a pencil and you have a whole stream covered.

MR. CORTELL: You're absolutely right. We would like to see mapping at any scale better than the one by the Fish and Wildlife Service. As I've said, I think they do play a valuable role because they do provide an indicator that a piece of property, or an area, or a zone may be subject to regulation. But, I do agree. I think that the municipalities and even EPA could update maps, and provide additional information, so that we could have more accurate maps. No one would ever argue against better information, that's for sure. I just do not want that to be the substitute for real, good field work -- I don't. I think everyone, including myself and the Fish and Wildlife Service, would agree with that.

ASSEMBLYMAN PENN: I think we all agree to that.

ASSEMBLYWOMAN OGDEN: Thank you. Mr. Cortell, I wonder if you have any estimate, because we're talking about roughly 200,000 acres of freshwater wetlands, of what percentage of that would include your rare and endangered species, or within the range? I'm wondering what we're talking about in terms of proposing these buffers, whether we're talking about the buffers -- you know -- in half or more of the area, or considerably less than that? Would you have any idea, for the three categories that you're talking about?

MR. CORTELL: No.

ASSEMBLYWOMAN OGDEN: All right. Then a related question is, with a maximum of 100 for a, say, pristine wetland area with rare and endangered species, you would have, say, a regional shopping center with all of its activities really extremely close, and it's hard to believe if you have an activity that involves so much movement and runoff and cars and

people that even a buffer of 100 feet -- whether that would be of value under those circumstances.

MR. CORTELL: I don't want to give a speech here. Ms. Ogden, let me say this: There are other mechanisms, hopefully, in place that would protect the quality of the receiving stream and waters, other than the 100 foot buffer. But you must understand that the buffer-- Wetlands are a buffer for fresh water, and while they have a function in terms of water quality, in terms of flood prevention, and in terms of habitat, when you are talking about a shopping center, per se, you're primarily talking about the effect of runoff from the shopping center into the receiving waters. A 100 foot buffer-- I have to make this clear. There are all kinds of buffers. There are grass buffers; there are heavily vegetated buffers; there are deciduous tree buffers, all of which provide a different level of purification of the water running across it. There can be, believe it or not, a hard clay buffer with nothing on it which provides little or no protection to the buffer, even if it was 300 to 500 feet. So, the size of the buffer isn't really the issue.

And I think, looking at the data that I've looked at in shopping centers, that a quality shopping center can be built with proper drainage and curbing and direction of drainage away from those valuable areas so that a 100 foot buffer would be more than adequate to protect it.

I don't think we need to protect buffers by 500 or 1000 feet. In some areas I'm not sure that wouldn't be required. If I had a very special species or a plant, like the one that was buried under seven or eight feet of fill in a shopping center somewhere -- that was referred to earlier -- I'd dig three miles around that if I could, frankly, and I'd be the first one in line to prevent the bulldozers from going in to do that. But, in fact, we need to have buffers that do their job, and the wetlands protect water quality and the buffers

do, and I think both of them together will do the job. I don't think we need 500 feet, or 400 feet, or even 300 feet to do that job.

ASSEMBLYWOMAN OGDEN: Your emphasis is really almost totally on water quality, and I think that when we're talking about the rare and endangered species, we're also talking about all of the activity that's occurring, let's say, in a shopping center and the effect of that on what's going on in the wetlands. I think under those circumstances, certainly the very minimum would have to be, say -- with trees (indiscernible) the plants -- you certainly couldn't have that open.

Just one other question here. You were dealing with buffers in terms of protection of the resource, and my bill is dealing with the resource -- or, is dealing with the planned activity and keeping it a certain distance away, depending on what kind of activity it is, from the freshwater wetland. Why do you favor the proposal that you have, as opposed to what I have in my bill?

MR. CORTELL: Well, I think the basic differences between what your bill proposes and what I'm proposing -- that we know from real-time experience, from 20 years of dealing in the development community, that there is no way that you can adequately determine a particular project beforehand, and what type of impact it's going to have. Now, if you have an office building with a 200 foot buffer because of parking, that 200 foot buffer because of the parking is not necessarily any more of an impact than a housing development with a 50 foot buffer. And I don't think that you can adequately say that one type of activity has a greater impact on a wetland area and the quality of water and floodways and rare and endangered species than another, and I don't feel-- I've never seen this, frankly. I've looked at all types of development and been involved in them. I can tell you quite candidly -- and I think it's been

mentioned by Assemblyman Martin -- there are many highways in this State that are a lot closer to wetlands than many of these developments that have proven to be a far greater deterrent to wetland quality than the developments that have grown up and are directly related to those highways. That's a philosophical point, I understand, but you know what I'm talking about.

I think that, in fact, we also have to look at the other side of the coin. I think that if you place your buffers with the idea that you want to protect water quality, that you want to protect rare and endangered species, that you want to protect critical habitats, that you want to protect floodways from being filled and having flooding downstream, then it is more important that those criteria are the ones that you legislate around, and not legislate around what the potential development is. And, frankly, it seems to me that a bill which legislates against certain kinds of development tends to take on the view of an anti-development bill. I know it's not, but that's my objective opinion of the reasoning behind that kind of a use -- land use -- and I believe that there a number of checks and balances within the system that prevent poor development from taking place today, as opposed to what took place five years ago. I know this isn't universal throughout the State, but I think you'll agree that the development patterns within the State are getting better and the environmental requirements are better. And each of these bills -- yours, Mr. Penn's, and the slight revisions that I've proposed -- all call for supervision and careful control by the DEP. So, none of this has taken place in a vacuum.

ASSEMBLYWOMAN OGDEN: Just one comment about the roads and going closer to the wetlands from the shopping center. Of course, the reason there is that it is deemed that the roads provide transportation and they are in the public interest and, therefore, the criteria for public roads is less stringent than private development.

MR. CORTELL: Ms. Ogden, just for the record I want you to know that my firm did the environmental studies for Route 24, and we did not recommend the route through the wetlands in Chatham and Montgomery Townships. And I can tell you that, fact, by giving the DOT a carte blanche to build without restrictions, we are going to continue to have highways put through the middle of wetlands when there was adequate routes and adequate designs to go around those wetlands. So, I don't think that highways should be exempted, and I think, quite frankly, the highway situation needs to be looked at more carefully than your bill represents it does. (applause)

ASSEMBLYWOMAN OGDEN: I'm always glad to hear how my bill can be strengthened. (laughter) Thank you very much for coming, particularly such a long distance. We appreciate it.

Next, in terms of being signed up here, is Yvonne Maitland, representing the Norwood East Hill Watch. Is she here? (affirmative answer)

Y V O N N E M A I T L A N D: My name is Yvonne Maitland and I am a resident of the Borough of Norwood, Bergen County. I am the North Jersey Sierra Club representative for the Palisades Preservation Coalition. I am speaking for the Norwood East Hill Watch, a residents' group concerned with environmental issues and the critical lands of the 151 acre Boy Scout Camp in Norwood, the last remaining remanent of ancient forest on the western slopes of Palisades. This land, a gift to the Boy Scouts from the Rockefellers is presently in Green Acres and has been since 1979. It was targeted for a Mount Laurel suit, although only luxury single-family homes and townhouses are proposed for the site.

The East Hill Watch, concerned with the environmental integrity of this tract, was allowed to intervene on environmental grounds in the Norwood-Mount Laurel case. I would like to state here that we also objected to low- and moderate-income housing going on at or near a municipal

landfill, which was in wetlands and in a flat plain. I believe we were instrumental in an alternate site being designated, free from these restrictions.

It is interesting to note that the New Jersey Council on Affordable Housing in its proposed new rules states: The Council shall exclude inland wetlands, protection of flat hazard areas, and sites with slopes in excess of 15% -- the first time the State has taken a position on steep slopes.

The East Hill Watch wholeheartedly supports the Ogden Wetland Bill, A-2342, a bill that allows far more justice to the environment and the people of New Jersey. Builders and developers are notorious for resisting and fighting any regulations that prohibit or restrict development, but safeguards are necessary and laws are enacted for the greater public good.

Too many environmental injustices have been allowed to take place in the past in New Jersey in the name of progress, and the abuses continue. Money cannot be allowed to be the guiding authority. True progress is working with and not against nature, utilizing resources, such as inland wetlands which absorb precipitation and gives us a free measure of protection and flood control, provides food and wildlife habitat, especially those of plant and animal threatened and endangered species. Destruction of critical land deprives people of an insight into the natural character of a region and denies the public much of its natural heritage. What are we going to leave for the future generations?

We present the 150 acre forest tract as an example of why we desperately need the Ogden-Lynch bill now. The land-- The unique combination of steep slopes and steep ravines, laced by many streams -- indeed the whole area -- is one vast supply of underground water, and supplies the Boy Scouts with all their water needs in the adjoining camp in Alpine. Some of the streams feed the Hackensack Reservoir and some flow into the

Hudson River.

The developer, in his initial plan, presented a network of detention basins, all 42 of them, to hold back the strong water runoff and, yet, our objections and previous flood hazard designations, shown on 1974 and 1976 food hazard maps, were removed from the area. Mr. Cortrell states that every stream is mapped -- I believe he said in New Jersey. That is certainly not the case with the 150 acre tract in Camp Alpine.

The existence of pristine wetlands was confirmed by Fish and Wildlife, and naturalist author and environmental expert, John Sorao (phonetic spelling), delineated and testified in court to thirty-plus acres of forest wetlands, including a lowland grove of bitter nut hickory wetlands, unusual in New Jersey. Many experts, including John Sorao, have not only been impressed but astounded by the area's diversity and rich abundance of wildlife, and the area has also been designated by the State and placed on the register of natural areas.

Assemblyman Penn said at the last hearing that the last place he -- a builder -- wants to build on is wetlands, and he reemphasized that. I want to disagree with him. From personal experience and observation, most builders will not only build in wetlands but they will divert, fill in streams, and build on top of them, sometimes denying even their existence. To them, these are poor drainage areas, high water tables, and substandard lots. A natural stream with spice bush and wild azaleas and geraniums and ferns growing along its banks is referred to by the engineer as a drainage ditch. It is ripped out and, lo and behold, is transformed into a riprap drainage ditch. It all depends on which side of the ditch you're on.

It is development in these areas of wetlands and streams that the most irrevocable damage occurs. We are desperate for a strong bill. I would like to thank you for the opportunity to speak in favor of the Ogden Bill. Thank you

very much.

(indiscernible remarks made from member of audience)

ASSEMBLYWOMAN OGDEN: Thank you very much.

MS. MAITLAND: Thank you.

ASSEMBLYWOMAN OGDEN: Mr. Robert Franklin, who is Chairman of the Economic Development Council.

R O B E R T F R A N K L I N: Chairwoman Ogden, Assemblymen Felice, Penn, and Martin, I thank you for the opportunity to let me appear before your group. I just recently retired as Vice President of Public Service after 40 years of service with that company, and of those 40 years, I spent approximately 25 years in the economic development arena trying to promote the State to get jobs for the people of the State of New Jersey.

Just over four years ago I had the honor of being appointed by Governor Kean as Chairman of the New Jersey Economic Development Council, which is an advisory group to the Commissioner of Commerce of the State of New Jersey.

About three years ago, the Governor appointed me as Chairman of the New Jersey State Job Training Coordinating Council, which oversees the job training operations of all of the local municipalities and counties in the State of New Jersey.

These experiences have convinced me that wetlands preservation and management goals, as well as other environmental goals, must be weighed against other important and legitimate public policy objectives. Among these, and foremost in my mind, is the critical and very real need to ensure job stability among our employed, and to create new jobs to shrink the growing ranks of the unemployed, particularly in the industrial sector.

It appears that many who have watched and been part of New Jersey's growth over the last several years are under the impression that unemployment is not an issue before us. They couldn't be more wrong. The problem has been underscored by

Governor Kean, time and time again, and as Chairman of the Governor's Economic Development Council I'm acutely aware of that. As a matter of fact, in both terms of the Governor, he stated the prime mission of his administration would be the creation of jobs.

For this reason, I endorse the Penn Bill. I do not believe that the need to protect our environment must conflict with the need to ensure steady economic growth. Only the Penn Bill, A-2499, will address both needs. Only the Penn Bill strikes the crucial balance. The Ogden Bill would protect the wetlands at the expense of the economy. Can we who are working today deal so callously with our neighbors on the bread line?

Please consider all of the consequences of your wetlands decision. I think Assemblyman Martin was trying to touch on a point: There was more to the environment than the physical environment. There's the social environment. When you deal with a piece of legislation, you've got to deal with how it affects the cities as well as the suburbs. It is the economic environment that I think, in the past year, overlooked the other two environments, the social and economic environment, and concentrated strictly on the physical environment. I think there's more to it than that. We have to look at the whole, broad picture.

I thank you for letting me appear before you, and I'd be happy to answer any questions you might have.

ASSEMBLYWOMAN OGDEN: Are there any questions?

ASSEMBLYMAN FELICE: Well, I can honestly say -- looking at the side of industry and what they've done in New Jersey -- that New Jersey, for many years, was just known as the chemical state and a state where all the toxic wastes were dumped, and so forth; yet, I've known personally that the major corporations in the State of New Jersey have led the way in helping to develop our environment in all aspects, and I commend them. I know personally many of the corporations and

the utilities are doing a lot of special work that no other state in the country is doing to help our environment.

I think that some of the points you brought up about balance, along with Assemblyman Martin, is something that has made New Jersey what it is in the last few years as far as economic development, as far as its tourism, and that all branches of private industry have worked together, and that's the direction we're looking to go in on both of these bills, and try to get the best information that we can before a vote is taken. Thank you.

ASSEMBLYWOMAN OGDEN: Thank you. Mr. Franklin, I really have to take exception to your comments when you imply that my bill is against jobs and against the economy -- against economic growth in the State of New Jersey -- as it is not that at all. When I have listened to Governor Kean speak, I have always heard him say that all we need to have is a balance. Yes, we do need to have economic development, but we also have to care about the environment in which it occurs, and the only way we are all going to prosper in the years to come is to have that balance, that we do not create economic development at the expense of the environment, that we do not create environmental regulations at the expense of jobs. It is a delicate balance that we always have to keep.

But I think that New Jersey has been known as a State that has tough environmental laws. We're enjoying an absolute boom time in spite of that, and maybe because of it. The workers who are out there know that the State of New Jersey also cares about the health of the workers -- for instance, the right to know. And one thing that's key in terms of the wetlands is the question of water supply -- both quality and quantity -- which is related to the workers. It's related to you. It's related to me. It's related to all of our children and grandchildren who are going to be here in the decades to come.

So, I agree with what everyone really is saying, that we're concerned with the total environment of New Jersey, which means that we do have to have a balance, but we have to make sure that while we still have choices, that we are going to protect the resources that we need for the future, because without those resources in the future, our current economic role is going to come to a stop, and that's what I don't want to see, and that's why I feel strongly about this particular bill. (applause)

MR. FRANKLIN: I did not mean to imply that you are anti-development. I just suggested that the Penn Bill, in my opinion, is more balanced as far as economic development goes. I think the State of New Jersey has done a tremendous job. As a matter of fact, it's been recognized nationally within the last year or two. This State, and two other states were singled out as states that have done an extremely fine job with the environment. I'm just suggesting that we've got to look at more than the environment, and we've got to take a balanced look at every action we take.

Unfortunately, I've never found an environmentalist, for example, in the ghetto. You know, they have different problems. So, we've got to take care of everyone out there, and there has to be a balanced approach. That's all I'm asking you.

ASSEMBLYWOMAN OGDEN: Thank you very much, Mr. Franklin. (applause)

The Passaic River Coalition, Mr. Robert Myers, Chairman.

D R. D A N I E L V A N A P S: Thank you for this opportunity to testify on the freshwater wetlands legislation. I'm not Mr. Myers. Mr. Myers is our Chairman. He's in North Arlington. I'm not sure if he's familiar with this part of the basin, and he's obviously lost. He never made it, so I'll speak for him.

My name is Doctor Daniel Van Abs. I'm the Technical Director of the Passaic River Coalition. With me is David Epstein, who is our Flood Plain Watch Coordinator. We will be speaking on just two points: One is the buffers -- the concept of buffer zones -- and the other is enforcement.

The Ogden-Lynch Bill strongly endorses the use of buffer areas to protect wetlands from development impacts. The Penn-Zane Bill does not include buffer provisions, though Assemblyman Penn stated at the last hearing that buffers do have values in some situations.

Jason M. Cortell & Associates, as you've heard, has similarly endorsed wetland buffers for some circumstances in a report for Vantage Associates, a development firm.

Most development interests oppose wetland buffers, saying that, "There is no clear scientific evidence for buffer zones." Clearly, the development community is split on the need for buffer zones. Also clearly, some members of the development community are not aware of the scientific consensus that is building on the need for wetland buffers. Several states use buffer zones. Close to 40% of our own State is subject to wetland buffer zone provisions in the regions regulated by the Pinelands Commission and the New Jersey DEP, Division of Coastal Resources.

Some of the confusion may derive from the lack of understanding about wetland buffers. We often talk about the mechanical benefits of wetlands. Wetlands do store flood waters at the surface and in the soils during the growing season. Wetlands often are groundwater discharge areas, providing base flow to rivers during dry seasons. Wetlands in the Passaic River Basin often cap valuable aquifers, preventing aquifers from losing pressure and protecting them from contamination. Wetlands also do serve to protect surface waters from degradation from sediments and other pollutions. All of these functions depend on the physical presence of wetlands,

but wetlands also play an ecological role.

Wetlands are ecosystems, biological communities of plants and animals which function together in a unique web of interrelationships. Wetlands tend to be developed last, and so are the final refuges for animals and plants, both endangered and common, which have been displaced or destroyed elsewhere. Wetlands often are the sinks to which environmental insults from surrounding development flow and settle. The New Jersey Builders Association has recognized in its testimony at the last hearing that wetlands have intrinsic ecological values, worthy of protection independent from their water quality and flood control benefits. The environmental community recognized these intrinsic values near the turn of the century -- we welcome the new awareness of the development community.

Despite a common recognition of wetland values, some still ask, "Why buffer the buffers?" The ready answer is that if wetlands are destroyed by human actions around their perimeters, the value of wetlands in protecting water quality and quantity will also be destroyed. In addition, the intrinsic values of wetlands, such as wildlife habitat, can be destroyed easily if buffers are absent. A third point is that wetlands buffers provide some measure of protection against human intrusion once adjacent lands are developed. Therefore, buffer zones around wetlands makes sense.

There is a fourth reason for wetland buffer zones. The wetlands ecosystem does not come to a sudden halt when wetland vegetation is no longer prevalent or predominant. A gradual blending of wetland and upland vegetation and animal species occurs along the boundary between the two. This boundary is called the ecotone and generally has a greater diversity of species than either upland or wetland. It is important as a breeding area for animals which feed in wetlands, as a refuge from flood waters, as a link between the uplands and the wetlands. As such, the wetlands edge is a

valuable part of the wetlands ecosystem and should be protected.

The scientific evidence for wetlands buffer zones exists, and is becoming more established with time. Research continues, but several studies have pointed to the necessity for buffers. The research most frequently cited in New Jersey is a model prepared for the Jew Jersey Pinelands Commission by Roman and Good in 1983. Doctors Roman and Good cited numerous important roles that buffers play in protecting wetland values and established the model which the Pinelands Commission now uses for buffer zone delineations.

The New Jersey DEP review of the literature on wetlands buffers found that Niering and Warren, Karr and Scholosser, Erman et al., and Johnson, all have concluded that buffer maintenance is critical to aquatic habitat and wetland protection. Wetlands, with their intrinsic public values, require the same level of buffer zones as streams or coastal wetlands.

Shisler et al., in a recent draft report for the New Jersey Division of Coastal Resources, prepared an extensive literature review with regard to wetland buffer zones. A copy of their reference list is enclosed. I don't expect you to run out and buy all of these references; they're 10 pages long.

Several references merit special attention. Research in Oregon by Broderson indicated that a minimum buffer of 50 feet was needed to control the movement of sediment, with a maximum of 200 feet under conditions of steep slope and exposed soil. Broderson, Thurow et al., Burton et al., Clark, and Haussman and Pruett have all noted that multiple factors affect the buffer widths necessary to protect streams or wetlands. Shisler et al. conclude that "The general consensus is that as the degree of development increases, the need to provide additional vegetative buffer width increases." They note that Rhode Island, North Carolina, New Hampshire, Montana, California, Washington, New York, Massachusetts, New Jersey,

and New Hampshire use buffer zones for the protection of surface waters and wetlands.

The Ogden-Lynch Freshwater Wetlands Act provides for buffer zones which vary according to the degree of development proposed adjacent to the wetlands. Both minimum and maximum widths are established. The minimum widths ensure that the ecotone between wetland and upland areas will be protected, that human intrusion will be minimized, and that buffer will still exist if stormwater management and sediment control measures fail. The maximum distances are sufficient to protect the public values in wetlands where major soil disturbances, poor design, steep slopes, easily erodable soils, and critical wildlife or plant habitats require such distances. Conversely -- and this is an important point in the Ogden Bill -- developers may reduce their buffer zone requirement through the application of sound design principles and good quality control.

The Freshwater Wetlands Campaign concludes that scientific justification for wetland buffers exists. The Penn-Zane bill is seriously deficient because buffer zones are not provided in any instance. The Ogden-Lynch bill, along with its many other attributes, deals with the buffer zone issues in a thorough yet flexible manner and should be enacted.

Now, we can either take questions on that part, or we can move to Mr. Epstein's testimony and then take questions, at the panel's pleasure.

ASSEMBLYWOMAN OGDEN: Are there any questions? (no response)

DOCTOR VAN ABS: Thank you for this opportunity. This is David Epstein.

D A V I D E P S T E I N: My name is David Epstein. I'm the Coordinator of the Flood Plain Watch for the Passaic River Coalition. The Flood Plain Watch trains citizen volunteers to monitor development of the flood plains and wetlands of the Passaic River Basin in cooperation with the New Jersey

Department of Environmental Protection. In response to reports of possible violation, filed by the Flood Plain Watch, the DEP has issued stop work orders on 24 projects in the Passaic River Basin, 17 of which have been in wetlands. We also send copies of possible flood plain violations which are in wetlands to the U.S. Army Corps of Engineers. In response to our reports, the Corps has issued four stop work orders, and is continuing to investigate 10 other projects.

Investigations and research conducted by the Flood Plain Watch led us to conclude that while Section 404 of the Clean Water Act is theoretically strong enough to protect our wetlands from many types of development, over the past decade it has failed to do so. It is clear to us that one of the major reasons for this failure is the lack of an effective enforcement element, as written in the law and as carried out by the Corps of Engineers. A Freshwater Wetlands Bill will serve to protect our wetlands only if it includes strong enforcement providions and vests the DEP with the authority to immediately stop work when the law is being violated and to punish the violators.

A review of the two wetlands bills, however, points out the disparity in enforcement authority given to the DEP to protect wetlands. The Penn Bill merely empowers the DEP to bring a civil action in court against violators and to seek fines of between $250 and $3000. The experience of the Flood Plains Watch with the enforcement branches of both the Corps and the DEP shows that fines such as these are far too small to deter illegal development of economically valuable wetlands. Also, because these small fines are below the $10,000 threshold which the Clean Water Act mandates, the DEP will not be allowed to take over the 404 Program from the EPA and the Corps under the Penn Bill.

Furthermore, both the DEP and the Corps are hesitant to bring violators to court due to the time, expense, and

uncertainty of the outcome. The courts may be an adequate arena to settle certain type of large scale violations, but the wetlands bill will continue the failure of the Corps program to protect wetlands if this is the only enforcement power given to DEP.

The Ogden Bill, on the other hand, will allow the DEP to use strong enforcement actions to protect wetlands from violators and to punish violations which do occur. The Ogden Bill gives the DEP the power to issue stop work orders, to issue civil administrative penalties of up to $10,000 a day -- similar to the Clean Water Act -- assess the violator for the State's cost of investigating, litigating, and removing the violation, petition the Attorney General for criminal charges against violators, with convictions resulting in fines of $2500 to 25,000 per day and as much as a year in jail -- again, similar to the Clean Water Act -- place a deed restriction on property where a violation has occurred to ensure that the violation is resolved prior to the sale of the property, and, finally, to bring civil actions, if all else fails, against the violators in court.

Violations of wetlands protection laws in the Passaic River Basin have been both blatant and unenforced for many years. These violations have destroyed much of the wetlands which once thrived in our Basin. The Flood Plain watch has documented the fact that most of the wetlands violations have been small in nature, projects consuming between two and ten acres. But the consistent, cumulative loss of these small portions of wetlands over the past decade has resulted in the large overall wetlands losses and the diminished ability of the wetlands to perform the many functions on which the municipalities of the Passaic River Basin depend. The wetlands of the Passaic River Basin are vital components of the ecology and economy of our region. If the loss of wetlands continues at the present rate, the flooding and drinking water problems

of our Basin will continue to increase and could result in a halt to economic growth for our region. The Passaic River Basin can afford nothing less than a wetlands protection bill with strong enforcement procedures. For these reasons, the Passaic River Coalition supports the Ogden Freshwater Wetlands Protection Bill. Thank you. (applause)

ASSEMBLYWOMAN OGDEN: Are there any questions?

ASSEMBLYMAN MARTIN: The question I have is, you spoke of these small parcels in which the bulk of the violations occur. I'm interested to know what type of violations have been predominant, and to what extent, of any, the local municipalities -- through their planning board or through their zoning -- have inherent authority now to prevent such violations from occurring?

MR. EPSTEIN: While the violations have been small in nature, they haven't necessarily occurred in only small wetlands. Sometimes there are small violations in large wetlands. The municipalities have a great deal of leeway to provide enforcement power. They have the ability to issue stop work orders. They, under the State Food Hazard Are Control Act, are mandated to require a stream encroachment permit from the State before considering a project for development. The biggest problem we have found is that they don't understand, or agree with, the law in that respect. But they do have significant abilities in that sense.

DOCTOR VAN ABS: One of the things we've done in our (indiscernible) there's a tremendous variety of local interest in wetlands preservation and flood plain control. Some of the municipalities are very concerned about it and watch over it. They require the permits of developers. They follow up. They do inspections. They do everything they can to make sure the developers follow the law. We have had other municipalities which have not taken those steps and the variation over the breadth of the basin is amazing.

ASSEMBLYMAN PENN: Would you care to express any specific violations -- any one particular person that you can cite as an example?

MR. EPSTEIN: There are so many. We would be more than happy to take people on the Committee for a tour of the different violations which we see every day on the way to work. They are so obvious, as they're right off the major highways. We have been happy to see that the (indiscernible) violation in Fairfield, which has been going on for over a decade -- which has sold over 140 acres of wetlands right off Route 80 in Fairfield -- has been named as one of the "terrible eleven" here in New Jersey. There are going to be eleven worse environmentally polluted sites in the State. That certainly merits intention.

However, I think the point of the Flood Plain Watch is that it is not only these major violations, it is the cumulative impact of the small violations over and over and over again that are destroying the wetlands in our basin.

In the town right next door to here, Fairfield, there are 14 stop work orders in one single town. Almost every one of them is-- Many of them are in the flood plain. Almost every one of them are in wetlands. And we are seeing this over and over again. And in many instances we cannot even bring these violations to the attention of the Corps or the DEP. They're simply overworked at this point. There are many more out there, and I think we have to disagree very strongly with Mr. Cortell when he says that we're not losing these at rapid rate. We are losing them at a very rapid rate.

ASSEMBLYMAN PENN: Given the latitude, do you think the DEP could, as a practical matter, handle this today? If it were given to the DEP to handle, do you think they would be able to handle those (indiscernible) of this magnitude?

DR. VAN ABS: We certainly feel that the DEP has had its shortcomings in the past in terms of enforcement. However,

recently, over the past year, they've added to their enforcement staff in the Passaic Basin; they've increased it from one enforcement person to seven. We're being given a very high priority right now. We're very happy with the enforcement actions that we're getting from the DEP. Given the proper funding, I think that they will do a good job. What we're trying to see happen is that the fines from these many violations that the violators will have to pay will go back into the enforcement effort, so that it will be a self-paying program and the people of the State will not have to pay continuously to subsidize, essentially, the violators. I think they can do a good job.

ASSEMBLYMAN PENN: Okay. Thank you.

ASSEMBLYWOMAN OGDEN: Thank you very much. (applause)

Next I'd like to call Mr. Frank Visceglia of the Raritan Center.

F R A N K F I S C E G L I A: I certainly appreciate the opportunity to appear before you this evening to discuss freshwater wetlands. Federal Business Centers is a 48-year-old firm that owns and operates approximately five million square feet of office, high tech and industrial buildings with over 2,000 acres of land in various stages of development. All of this, I'm proud to say, is exclusively in the State of New Jersey.

The issue before this Committee is not whether we should protect wetlands but how we do it. It is vital in discussing how we do that, that we understand the full extent and meaning of the various proposals before this Committee. It is important that we separate fact from fiction, the real versus the perceived, and fully understand what each proposal will really yield to the people of New Jersey.

First some facts: Tens of thousands of homeowners, farmers, business owners, and every level of government will be affected by this legislation. The estimates vary from two to

400,000 acres that will be affected. On the assumption that 300,000 acres will be affected, and when you include buffers significantly more than that, if an average house sits on a half acre of land, that is equivalent to the land necessary without roads and other accouterments to handle 600,000 possible homes. It's an area that's larger than all of Bergen County, larger than all of Essex County, larger than all of Morris County -- on an individual basis -- it's larger than all of Middlesex County. So, we're not talking about some small piece of the State lands that we have.

At the present time the wetlands are regulated by the Federal government through the Army 404 Program, with considerable input from the EPA, from Fish and Wildlife, and the State gets involved in the same process through its Waterfront Development Permits, Stream Encroachment Permits, Flood Plain Regulations, Tideland Council, Water Quality Certificates, ad infinitum. The result is often conflicting criteria, goals, and solutions.

With respect to the existing permit process, anyone who believes the present regulatory atmosphere is not suppressive and protective is frankly either naive or seriously misled as to the facts. It has taken our firm over 18 months just to get a jurisdiction map out of the Army Corps of Engineers, this only to determine what is wet and what is not.

The studies we have undertaken have spanned 15 months and costs, so far, have exceeded one-half million dollars. Still, we have no idea where we stand in this process. We support, wholeheartedly, the takeover of the 404 Program by the State because it will be New Jersey regulating what happens in New Jersey, and not the Corps of Engineers' New York District, which is involved in other states and other areas. However, our State wetland program should not be effective until the takeover is accomplished. It will be some time before the DEP's program is operating effectively and in a timely fashion.

The development of this State should not be shut down during this period. The current ECRA situation is a telling example: Two and one half years, and some applications are not yet fully processed. I can tell you from my own personal experience it takes six months just to get a non-compliance letter. It absurd.

Our desire for the ideal must be tempered with a dose of reality. To put things into perspective, it now takes -- on a building with few problems -- twice as long to get the permits than it actually takes to build the building. This results in increased costs which are then passed on to the consumer in higher priced homes, or higher rent. Delayed or lost opportunities for business costs the State jobs and revenue.

There are similarities in the bills before this Committee. Both would preserve freshwater wetlands and both would mandate a takeover of the Army Corps of Engineers' 404 Program. They differ in their methodology. A-2342, simply put, eliminates all development in all freshwater wetlands and provides for a buffer area surrounding the wetlands. It is through a shotgun approach to the problem of protection by saying, "If it is wet, no development." It assumes that each wetland is the same as the next and does not provide for enhancement of wetlands by off-site mitigation. We ask if this is the answer, a band aid, or a solution.

John R. Clark, Executive Secretary of the National Wetlands Council, a prolific environmental writer and Director of the Coastal Resources Program of the Conservation Foundation states in a paper delivered to the National Wetlands Assessment Symposium held in Portland, Maine, June 1985 -- and I quote: "It will soon dawn on the decision-makers that much of the wetlands acreage we are trying to save is not worth saving unless it is repaired. There are major questions to be answered" -- I'm still quoting -- "at the policy level about

the functional condition of wetlands to be protected by regulations. Should a wetland unit already degraded to near zero function be given the same protection as the one that is pristine and operating at full ecological function?"

He continues: "In the more developed states" -- I think New Jersey certainly qualifies in that category -- "the present condition of wetlands resources range from healthy units to almost totally disfunctional ones."

Simply put, Mr. Clark recognizes that not all wetlands are the same, that some are very valuable and some have almost no value, that some must be protected vigorously, and some he questions protecting at all unless remedial action is taken. I've attached to the copy of my statement, which I will give to all Committee members, the full text of Mr. Clark's presentation.

A-2342 does not recognize this difference; A-2499 does. Recognizing the distinction in wetlands values leads naturally to mitigation techniques. Fred O. Dunham from the Louisiana Department of Wildlife and Fisheries, at the same symposium, recognizing the validity and effectiveness of mitigation states before the same symposium -- and I quote: "It becomes evident that on-site mitigation was only possible in some cases; therefore, off-site mitigation opportunities were necessary." His paper, delivered at the symposium, discusses the concept of mitigation banking to provide for off site mitigation opportunities where none are available at the time a project is undertaken again. Again, I've attached the text of his full paper.

Elizabeth P. Riddle and Melanie F. Denninger of the California State Coastal Conservancy also endorse mitigation banking in their theme paper on Coastal Wetland Mitigation Banks at the same symposium. They state -- and I quote: "Wetland Mitigation Bank Programs, properly administered to prevent exploitation which would facilitate inappropriate

development, are a means for assisting with timely, effective mitigation." Again, I've attached the full text of their statement.

The various articles presented at the symposium clearly state that government and private groups acting with all interested parties should work together to bring about a sound, viable, and fair-to-all wetlands mitigation and mitigation bank policy. This includes interest from government, the environmental community, to the development community. In fact, it is only with representation of all interests involved that a positive, workable program will be developed and supported.

Again, the foregoing writers all recognized that, 1) not all wetlands have equal value; 2) Mitigation is a useful and positive tool to protect, enhance and restore our valuable wetlands; 3) The establishment of mitigation banks done properly can be of great positive benefit.

A-2499 provides for mitigation and for both State and private mitigation plans. A-2342 does not. I ask, why not? A-2342, in making no provision for mitigation or ranking of wetlands says, in effect, "Stop all development in any wetland regardless of the environmental value of the wetland, and let's not provide a means to obtain for this State and its people better wetlands than they have now." Again I ask, why not?

One is almost brought to the conclusion that the supporters of A-2342 just want no development, no growth, irrespective of the value of what they purport to want to save.

There are other differences between the bills. A-2499 recognizes that the taking of all economic benefit from a landowner is, in effect, condemnation, a principle recently recognized by the U.S. Supreme Court. It also allows State tax relief which is fair and reasonable by any standard of fairness. I question whether the backers of A-2342 recognize that if the State takes something from its people, it must be

ready to pay for it.

It is appropriate at this time to put into focus the issue of taking land without compensation.

I want you to imagine that the State has just passed the "Endangered Species Act" and the rarest most endangered plant on the list is the Specie Pentatus Ogdentatus. It is so rare, the bill states, that it is to be protected absolutely by a 20 foot buffer on all sides. No one is permitted in the buffer area, and if any building falls within the buffer, it will have to be vacated and its certificate of occupancy revoked. The bill does not provide for compensation to the landowner. Imagine, further, that you wake up the next day to the receipt of a certified letter from the New Jersey DEP, notifying you that 10 feet from your front door, in the crack in your sidewalk, is a positively identified Pentatus Ogdentatus. You are ordered to vacate your house, the last mortgage payments having been made the day before, and told that you will receive no compensation for the loss of use and value of your home. I the background you hear the sound of the mandated fence being installed. I want you to think about that. I want you to think whether it's fair. I want you to think what your reaction would be. Would you want to save the plant, or would you start screaming for your lawyer? I think that you'd start screaming for your lawyer.

I would take an entirely different view if the bill provided for compensation. Well, I submit to you that A-2342 does no less to the tens of thousands of property owners that happen to own wetlands on or about their property.

I think it's time the Legislature faces up to the fact that in order to save our valuable wetlands, it is going to cost money, money that is going to have to come from the State through programs similar to the Green Acres Program or the Farmlands Preservation Program, and private money.

A-2342 is not like determining what economic use you

can put to your land; it prevents any economic use. That to me is a taking. I question it, and hope that this Committee has the intestinal fortitude to recognize that fact, and I hope that it does not avoid the issue and let the courts make them face it.

Please don't misunderstand my position on this. I firmly believe the use of State funds from general tax revenue or bond issues should be used to preserve, enhance, and restore the wetlands. This is a good and valuable use of government money, and it's a commendable government policy. Private groups should be encouraged by incentives to become involved, and, yes, the development community that wants relief must also share the burden. But in sharing the burden, the development community should be given the opportunity to present environmental alternatives that are directed away from areas that developers in the State and Federal government have slated for development -- that is, areas where the infrastructure is already in place. The Federal, State, county, and local governments have spent hundreds of billions of dollars to provide the infrastructure to certain areas of this State, in roads, in sanitary sewers, storm drains, flood control, sanitary treatment plants, etc., etc.

The Star Ledger recently identified nine priorities where this infrastructure exists, and where a larger percentage of development has taken place in the last 10 years. I submit to you that the planning of where development is is desirable while mitigating, replacing, or restoring the environment in those area -- or in areas better suited to the long term. Does it make any sense to have a developer leave a quarter acre puddle in the middle of an industrial park, or would it better serve New Jersey to permit the developer to develop the puddle and create or add an environmental center elsewhere in this State?

I've had the opportunity to observe and be part of the development community in this State for the past 25 years, and

one point has become evident and clear to me: Development is going to go on. It will not stop. It is official State policy. We encourage it through the Economic Development Authority, the Department of Community Affairs, and all our Governors have personally encouraged the location of business in this State. Simply put, this State has a growing population that must be housed. They must have a place to work, and our older facilities must be replaced. We must have a place where our senior citizens can live when they want to retire to a different type of residence. Development stopped in one place will only gravitate to another. Prevent all wetland development, irrespective of the environmental value of the wetlands, and the results will be simple: Our farmlands will face extreme pressure; areas now open will be developed, with or without adequate road networks, sewage, or water resources.

The key is planning and encouraging specific development areas and discouraging others. The wetlands is only one of the valuable State resources. Our farmlands, our mountains, the pine barrens, and our beaches are but a few of the other valuable resources. There must be a balance. Stopping development on one type of land will only cause another to suffer disproportionately.

Let me put one myth to bed, in support of Assemblyman Penn's position. Developers are not out there racing to develop wetlands. The reality is wetlands are the least desirable land to develop. They are the last land in any area to be developed. One has to merely review the history of the Hackensack, Secaucus Meadowland area to see that. Those Meadowlands did not start to develop until the bulk of all other land was built upon and development had no other place to go. I might add the Meadowlands Sports Complex probably could not be built if A-2342 was in effect at the time that it was built. Is there anyone in this room tonight that honestly feels that the stench of the pig farms was a better alternative

than the Sports Complex?

The wetlands are not the private preserve of the environmental community. They are, foremost, the private property of their owners. But they also belong to all of the people of this State because of their ecological importance. We must all participate in the determination of how this resource is to be used and how the inability to use it is going to be compensated for.

It is time for all the various interested parties in the State to get together and bring about a sensible, valuable, and doable wetlands policy. The development community -- which I think in this instance I speak for -- stands ready to participate fully and responsively. Isn't it time we did it together?

Thank you for your attention, and thank you for the opportunity to speak tonight. (applause)

ASSEMBLYWOMAN OGDEN: Are there any questions?

ASSEMBLYMAN PENN: Yes, I have a question. As you see it, Mr. Visceglia, what do you see is the impact of each bill on economic development in New Jersey?

MR. VISCEGLIA: I think the difference between the bills on the economic impact is that the Ogden bill, as I stated in my statement, takes all wetlands, treats them equally and says that no development is to take place, and also provides for certain buffers around them.

I don't personally believe that all wetlands are the same. I happen to be the proud owner of some 400 acres of wetlands, of different values, and I think that the Penn bill, in mandating that the State become involved in mitigation and allowing private mitigation, will permit us to, 1) mask the wetlands. The environmental consultants tell me is a far better process to have 100 acres of solid wetland than 52 acre pieces scattered hither and thither and yon. And I think that the Penn Bill permits development to take place in those areas

where the infrastructure is already in place, and would permit the proper planning to prevent it where it is not.

ASSEMBLYMAN PENN: I just have one other question that I know you touched on earlier. Why is it critical that the effective date of the State Wetlands legislation coincide with the takeover of the Federal 404 Program?

MR. VISCEGLIA: Because I think that it's going to take time for the DEP to gear up. I used the ECRA example in my prepared statement, but I think that it's important to elaborate on that. When they set up ECRA in the DEP, they started out with three people. They thought that they were going to cover all bases. They now have 48 or 49 people in that department, and they're not even beginning to cover the bases. So, I think that if the State is to get involved in this wetlands issue, they're going to find it's a much more mammoth task, and there must be more adequate time for the DEP to prepare so they can properly, effectively, take it over without placing on undue burden upon the development industry in the meantime.

ASSEMBLYMAN PENN: Okay. Thank you.

ASSEMBLYMAN FELICE: I'm going to pass.

ASSEMBLYWOMAN OGDEN: Mr. Visceglia, I've recently had an opportunity to review a report by Fish and Wildlife, detailing the illegal fill of more than 100 acres in the Raritan Center since 1978, and I wondered if your company or any of the companies you are associated with was involved in this activity?

MR. VISCEGLIA: There is no acreage at Federal Business Center, or its affiliated companies -- that I am aware of -- that has a pending enforcement action against it by the Army Corps of Engineers. I know that there are some fill violations within the center, but I am not aware of trouble, if any, that would affect lands that I own and companies that I control.

ASSEMBLYWOMAN OGDEN: Thank you. I'm glad to hear

that. Are there any other questions? (no response) Thank you for appearing.

Since we have to be out of here within 10 minutes, I'll just have one more person to testify. He came the last time and couldn't speak, and he's here again -- David Peifer, from the Upper Raritan Watershed Association.

D A V I D P E I F E R: Chairwoman Ogden and members of the Committee, I thank you for this opportunity to speak with you tonight. I'm glad that you have the time to fit me in. I've been sitting through these things for a while.

My name is David Peifer. I'm here tonight representing the Upper Raritan Watershed Association, which is a private nonprofit conservation organization with about 650 members. It's encouraging to me that we're considering wetlands preservation. Since 1959, when my organization was founded, we've been advocating the preservation of wetland areas.

We've been increasingly frustrated as local governments find themselves unable, or unwilling, to actively preserve wetland areas in the local development review process. Additionally, while some wetland values have been protected by local action, others have been severely compromised by the lack of a comprehensive statewide regulatory framework. Even protection on a regional or watershed basis is difficult to achieve in the fragmented system that presently exists.

There can be little doubt that wetlands provide important function within river systems. Much testimony has been given on that point, and I'm sure that you are all well aware of the values represented in wetlands.

What the Legislature must consider, in our opinion, is the development of a law and implementing regulations which preserve and protect all of those values to the maximum extent possible. In our opinion, the legislation should be driven

primarily by the values of the resources. The task before the Legislature is one of broad public interest, a task which must consider present and, more importantly, long term future need.

The Association firmly supports the Ogden Bill for the following reasons. I've got a lot of testimony here, and I'll try to paraphrase some it so we can all go home.

I think the present regulatory situation is chaotic, remote, and ineffective, and I think that there's general agreement on that fact.

I think that most developers, most builders, and most environmentalists would agree that we're not getting the degree of protection for our wetlands that we should have, and that the process that's involved is very cumbersome and complex.

I would also suggest that while it appears that there's a consensus here, there are great internal differences within the consensus. The fact of the matter is that there is a consensus, and I urge you to try to build upon it as we continue with this process. But the assumption issue is a critical issue for us, as well as for Mr. Penn and members of the building community.

I think that the Ogden Bill is quite a bit further down the road in allowing us to assume the program than the Penn Bill is. That's partly because of the development of the bill, and the long term of the development of the bill. There are specific points which have been addressed from the first speaker on which relate to the assumption issue.

Regulated activities -- I think that what New Jersey does not need is another imitation 404 permitting process. We need something that goes beyond merely the requirements for dredge fill permitting. We've got problems in New Jersey that relate not just to dredging fill and construction of wetlands. We've got activities which are greatly reducing the value of our wetlands, and I've brought some photographs with me tonight, and I'd like to spend most of my testimony going

through these with you. Unfortunately, due to the cost of duplicating color photos, I don't have some for each of you.

Photo 1-A: This shows a (indiscernible) filling which has occurred in Chester Borough, Morris County. The fill has been placed in small quantities over a long period of time, into a wetland area that acts as a source of Oakdale Brook.

Oakdale Brook is classified by the DEP as Freshwater 2, Trout Production Water, Category One. The stream is known to contain native Eastern Brook Trout, a threatened species in New Jersey, and an organism which is an indicator of good water quality. The U.S. Fish and Wildlife Service responded by reporting this fill to the Corps but, to date, no punitive action has been taken.

A recent field visit to the site by URWA staff indicated that the downstream water has been severely degraded by the deposition of silt, effectively eliminating the trout habitat. It should also be noted that this stream flows into a large wetland area owned by the State, the Black River Fish and Wildlife Management Area, and ultimately on, to the Black River. Thus, the silt loads generated from this activity are being transferred to an important public resource, held in trust by the State for future generations.

The photos labeled number one all relate to that site.

It looks to be a small thing--

ASSEMBLYMAN PENN: What is it being filled with, do you know?

MR. PEIFER: Just clean fill. It's not being filled with--

ASSEMBLYMAN PENN: Toxic matter?

MR. PEIFER: It's not toxic or garbage. It's simply silt moving downstream as a result of filling with soil, some of it from the widening of Route 206.

ASSEMBLYMAN PENN: So, maybe it's the State itself

that's doing this, right?

MR. PEIFER: The State did not do it. It was done by one private individual who had a (indiscernible) contract.

Photo Group 2 shows the Black River, within the Black River Fish and Wildlife Management Area, and I think you'll agree that these first photographs of the area indicate the aesthetic and open space values represented by wetlands in 2-A and 2-B. That area is owned by the State, contained a number of endangered species -- threatened species -- and is used by very many hunters and fishermen which support the EPA Program with license fees.

It looks healthy. It looks good. But there's a water level problem with that marsh, and if you look at the--

ASSEMBLYMAN PENN: This is the back part. I guess you've turned it over already.

MR. PEIFER: Okay. If you look at the one part that shows the mud (indiscernible)--

ASSEMBLYMAN PENN: Yes.

MR. PEIFER: Those are at the upstream end of the swamp, and they're directly adjacent to a major water supply facility -- a groundwater (indiscernible) -- operated by the Morris County Municipal Facilities Authority which provides a lot of water for a lot of Morris County. There are declining water levels in the swamp. We don't have an accurate determination of the cause, but there seems to be a strong implication that water removal by wells in the surrounding area, both by public authority and by individual homeowners has reduced the water level in the swamp. What this means is that the values represented in that swamp -- its water filtration facilities and other things -- are being compromised by the withdrawal of water for human use.

Unfortunately, the stream which exits that swamp also provides water for human use, so we're getting into a very sticky conflict somewhere down the road, with water shortages

at both ends of the river basin.

Photo group 3 is a very typical kind of situation which occurs when development is installed without regard to wetlands or stream quality and the values. It's a large storm drain located in the Chester Borough which is discharging into trout production waters in an unmapped, wet-- It's certainly wet, and I invite you all to come and stand in it with your boots. But the stream itself is being extremely degraded by the hydraulic impact of that facility. The wetlands appear to be filtering out a large percentage of the pollutants. A half mile downstream, water quality tests show marked improvements in water quality when compared to tests at the outfall of the pipe. However, the stream is degraded, even a half mile downstream, indicating that there are finite (indiscernible) to what wetlands can do in the way of pollutant removal.

ASSEMBLYMAN PENN: Sir, do you want us to wait until the end, or can I ask a question on this particular thing?

MR. PEIFER: Go right ahead.

ASSEMBLYMAN PENN: I just was-- Is this part of a township project, or a State project, or a county project, or what? It's obviously underneath a road of some sort.

MR. PEIFER: It's underneath a large parking lot in a private development.

ASSEMBLYMAN PENN: Okay. But it's something that had a-- Was it passed on by the DEP, or--

MR. PEIFER: That was done probably some time in the 1960s.

ASSEMBLYMAN PENN: Okay. I thought recently.

MR. PEIFER: It's not a recent-- No, it's not a new occurrence. The point of the matter is that wetlands are doing the job, to some extent, but those wetlands are limited in what they can do, and they shouldn't be expected to have an unlimited capacity.

ASSEMBLYMAN PENN: I just wanted to know how old it

was, that's all.

MR. PEIFER: Oh, by the way, the Watershed Association recommends a retention pond at that point.

ASSEMBLYMAN PENN: Did they?

MR. PEIFER: But, it never did get done.

ASSEMBLYMAN PENN: That was the '60s.

MR. PEIFER: Yes, that's right.

Photo group 3 we've already covered, the storm drainage issue.

Photo 4 is an open water wetlands map. There's an open water area on one of the Fish and Wildlife Service maps. It is in Chester Borough. Again, part of a public park, which has been partially filled in order to remove what the municipal officials classified as a swampy nuisance of a cat-tail marsh. Now what they filled it with was construction debris, some solid waste. You see there a 55-gallon barrel floating in the water. It certainly lost its aesthetic value, and the water itself is green, and it appears that it's probably contaminated, and having tested it -- the DEP has the test. Another example of some thoughtless filling.

Now we come to my favorite group of pictures. Group 4 having been covered, Group 5 is a series of photographs dealing with wetlands destroyed by the action of a solid waste facility, Combe-Fill South, located in Chester and Washington Townships. The water exits from this wetland, flows directly to Hackelbarney State Park. What you see in those pictures is-- the orange color that you see in the water is as a result of severe degradation of the aquatic habitat by landfill which is not placed in a wetland. The landfill is adjacent to the wetland. And, in fact, the Army Corps exercised jurisdictional lines, and the fill was placed to the line. There is no buffer. There is total landfill on the wetland marsh. The result is the project from Superfund, which we have estimated now as costing $42 million to clean up. Had we moved the

landfill 500 feet, 300 feet from that wetland, the tab for that cleanup might be considerably less today.

What I'm saying is, without some kind of buffer protection, we're looking for situations perhaps not as gross and visible as that, but situations very similar to that occurring elsewhere throughout New Jersey in future years. Now, these are some more pictures of the river itself.

The last series of pictures is a series that shows some municipal activity in the area which is adjacent to wetlands, which probably was wetland at one time, but which had been filled in the past and has since been developed by the Township of Roxbury, partially as a municipal facility. And what you see in these photographs is a salt shed here, containing road salt for municipal use, which is running over the surface, down this ditch, into the Black River, through the Alamatong well field recharge area.

Additionally, the town had created a so-called composting facility, which is located down here. You see piles of debris which is backed up on the wetland, and in that debris you'll find all sorts of interesting things like barrels, tires, engine blocks, oils and greases -- all sorts of things -- adjacent to a (indiscernible) wetland, where, again, we do need some sort of-- However, I admit that it's not easy to determine the width of the buffer. It's not easy to tell someone they can't do it. It's not easy to do the right thing for a wetland, but because it's not easy, there's no reason we should not try.

Buffers work. The Watershed Association owns a small wildlife preserve. We've been operating that place since the mid-1960s. We have water quality problems in our pond. I put in a buffer plan -- 100 feet of no mowing and no activity whatsoever along anything that ever flowed, any water. Two things happened when I did that. Number one, I found wetlands I didn't know I had because the plant communities reestablished

themselves on the hydric soils which were hidden in the fields, the vegetative community having been destroyed by mowing.

Secondly, the water quality improved dramatically. We no longer have algae blooms. We know what the water quality in that pond is. The water is crystal clear. It works. From personal experience it works. That was the amazing thing, to actually see it happen.

In sum, we are supporting the Ogden Bill because it will allow us, we think, to get a little closer to assumption of a program that doesn't work for New Jersey, and which we can make work.

Secondly, the issue of buffers is not addressed in Mr. Penn's Bill, and it should be.

And, thirdly, we think that effective preservation of wetlands is in the long-term public interest of the citizens of New Jersey. Thank you. (applause)

ASSEMBLYMAN PENN: Thank you very much. I personally want to thank you. I've always had a great deal of respect for the Upper Raritan Watershed, and I know that some of the work you've done I'm very familiar with. I think that tonight that Mr. Cortell said that there are times and places where we need buffer zones. I want you to know that as far as I'm concerned we're simply not -- our mind is not closed on the times that you've said we need buffer zones. We've never said that was absolute.

Secondly, I think that what you've mentioned about the soil is something we've been saying right along in our bill. We've called for soil classifications, and I think that as you said, you found wetlands you didn't know existed. We've been saying this right along. Mr. Riley has done some work. He's come up with a photo -- a good deal of tape showing these different types of soils. To the eye, we don't think they are wetlands, but when tests are run, and -- as you've said -- when the vegetation is allowed to grow, you find out that you have a

wetland. So, we want those protected as well, as long as they're visible to the eye.

So, as we move along, as we feel it is important, we do have these soil classifications and the comments on the type of soil that are hydric soils and all, and I just want to, again, thank you for being here this evening.

MR. PEIFER: I think one thing you have to keep in mind is the difference between mapping or predicting wetlands location on a statewide scale and what you need to do on a site specific basis. I don't think there's any substitute -- I would agree with Mr. Cortell on this -- for doing on-site determination of soil. To require this, as a delineation technique, would require an unbelievable amount of field work.

I don't know how long it took New Jersey to do the soil survey that you have, but to delineate each and every wetland by actually going out and taking (indiscernible) it is not going to ever be done.

ASSEMBLYMAN PENN: Yes, but we're saying that as development moves, as classifications are done, as people go into the field, these records should be preserved. These records should become part of a public record and, eventually, over a period of time we would build that type of information. We'd know a lot more from the on-site than we know today. But it can't be done overnight. We're not looking for it to be done overnight. It would be an ongoing flow. I feel it would be an ongoing flow, and I really can't speak for it. But it's something that has to be a day's start, and a day to move ahead, and a day to start pooling the records, and you have it there. And I think that's what we're looking for. I know that as this progresses, you'll be active and you'll know whatever happens. And, again, I want to thank you.

ASSEMBLYMAN FELICE: I would also like to add my comments. I think you brought up some points that-- I think a lot of us here, both sitting on the Committee and people in the

audience-- And I commend the young people and the older people who are taking time out of their summer on a very hot evening. But, I think there are good points in both bills, and I think that's something that has to be addressed. As Assemblyman Penn said, he's not locked in cement as far as buffer zones, and I think that today we had some experts that have given us a new feel of designation: What should be buffer zones as far as wetlands are concerned?

I think that people like yourself, and other people who have taken the time, have added a little more to all of us who are on some of these bills ourselves. And I'd just like to take a moment to commend you and the other people that are here.

ASSEMBLYMAN MARTIN: Just for my own knowledge, if you would just take a moment or two, the last speaker, as you well know, basically took a position that not all wetlands are alike. Perhaps from your perspective as a representative, maybe you can just make some comment with respect to that kind of analysis.

MR. PEIFER: I's quite obvious if you look at those photographs, that the wetland around Combe-Fill landfill is not the same as number seven, which is the one owned by the Watershed Association. I think that's a truism. Some things vary in the world. Some wetlands do this; some wetlands do that. Even naturally there are differences in the quality of wetlands.

Human impact has made a big difference. There are wetlands which are severely degraded, I'll give you that. The point is, what do you want to do about that? What is the policy issue involved? Do we want to write them off and say, "Okay, because of the last 200 years' degradation we've got a pre-fire zone here and this entire wetlands should be wiped out? That's one extreme position.

On the other side, do we take the position that these are resources to be brought back to production, brought back to the values you saw by regulation and by good land planning

practice? I think it's -- in my mind at least -- a career decision that you should opt for restoration of resource, or at least maintain options -- a holding action, if you will -- in the case of degraded wetlands.

I also think you're going to run into a very large problem in trying to determine: "This one is an L-6, this one is 104." Some objective ranking system, I think, would be extremely difficult, and would be the devil's playground for a lot of self-serving behavior on the part of those who wish to destroy wetlands further.

I also think that the environmental organizations would avail themselves of the opportunity to argue that wetlands -- this particular wetland wasn't as degraded as someone said, and you'd begin this terrible rite over and over again. I think it's much better to make a clear policy decision which says, "Not all wetlands are equal, but all wetlands should be treated as if they are capable of being restored."

ASSEMBLYWOMAN OGDEN: Thank you very much, Mr. Peifer. I'm sorry that you were last, but your presentation was excellent. It was very helpful to have the case histories and the photographs to go along with them.

I'd like to thank everyone who came tonight. We are beyond our deadline so we can't have any other speakers. I apologize to anyone who came and wanted to speak. We didn't have time for you. I hope that you're able to come on Friday to Burlington, and we'll certainly put you at the top of the list.

I'd like to thank both members of the audience and the members of the Committee for attending this hearing.

(HEARING CONCLUDED)

Appendix

WETLAND CLASSIFICATION AND RANKING SYSTEM
PROPOSED NEW JERSEY FRESHWATER WETLANDS ACT

Introduction

The following discussion outlines a wetland classification and ranking system relative to the proposed New Jersey Freshwater Wetlands Act. In contrast to other wetland evaluation methodologies developed to date, this system is primarily based upon existing State of New Jersey environmental classifications, which are readily available to both decision-making agencies and prospective applicants.

System Criteria

The proposed wetland classification and ranking system is based upon five criteria, two of which are project-oriented and three of which are wetland-related. Project-oriented criteria pertain to the size or extent of the potential wetland impact area, and its location. The size criteria consists of two categories, i.e., projects affecting less than one (1) acre of wetlands and those affecting greater than or equal to one (1) acre of wetlands. Two categories also comprise the locational criterion. These include projects affecting either isolated wetlands or those located above the headwaters, and projects affecting wetlands contiguous to non-headwater surface waters. Consistent with the U.S. Army Corps of Engineers regulatory definition, headwater refers to the point on a nontidal stream above which the average annual flow is less than five cubic feet per second.

The remaining wetland-oriented criteria are based on surface water, flood hazard area, and wildlife habitat classifications, as presented in Table I.

Table I

WETLAND-ORIENTED CLASSIFICATION CRITERIA

Surface Water Classification

Category 1. FW-1 Waters and FW-2 Trout Production (TP) Waters and their tributaries

Category 2. FW-2 Trout Maintenance (TM) Waters and FW-2 Nontrout Waters Upstream of FW-2 TP and FW-2 TM Waters

Category 3. All other FW-2 Nontrout Waters

Flood Hazard Area Classification

Category 1. Wetlands within the Floodway or Encroachment Lines

Category 2. Wetlands within the Flood Fringe or between the Encroachment Lines and the 100-year Floodplain Boundary

Category 3. Wetlands not subject to flooding by the 100-year Flood

Wildlife Habitat Classification

Category 1. Existing Wetland Habitat for State/Federal Endangered or Threatend Species

Category 2. Potential Wetland Habitat for State/Federal Endangered or Threatened Species

Category 3. All other Wetland Habitats

System Implementation

Implementation of the proposed wetland classification and ranking system is based upon a three-fold approach. Using the two project-oriented criteria, the need for a freshwater wetland permit is initially established. Consistent with Federal (U.S. Army Corps of Engineers) and State (New Jersey Department of Environmental Protection) regulations, only those projects affecting less than one (1) acre of isolated wetlands or less than one (1) acre of wetland located above the headwaters do not, generally, require a permit. Notwithstanding these exclusions, a freshwater wetlands permit is required when the affected wetland contains a State/Federal endangered or threatened species.

A freshwater wetlands permit is required for all other projects affecting wetlands.

Wetland Buffer Zones

For projects not involving direct impacts to wetlands, the wetland-related criteria cited in Table I are applied to establish wetland buffer zones within which proposed activities are also subject to regulatory agency review. Category 1 wetlands, i.e., wetlands adjacent to FW-1 or FW-2 TP waters and their tributaries; or wetlands located within a floodway or encroachment lines; or wetlands which constitute existing habitats for State/Federal endangered or threatened species, for example, are to exhibit a buffer zone of 100 feet. Specifically in the case of existing State/Federal endangered or threatened species habitats, however, the 100 foot wetland buffer zone may be extended to ensure the continued survival of the species.

A 50 foot buffer zone is applied to Category 2 wetlands. As indicated in Table I, such wetlands consist of those adjacent to FW-2 TM waters, and FW-2 Nontrout waters upstream of FW-2 TP and FW-2 TM waters; or wetlands located within the flood fringe area, or between the encroachment lines and the 100-year floodplain boundary; or wetlands which constitute potential habitat for State/Federal endangered or threatened species. Regarding the flood hazard area classification, specifically, the 50 foot buffer zone is to extend 50 feet from the wetland boundary or to the flood fringe/100-year floodplain boundary, whichever is greater.

No buffer zone is to apply to Category 3 wetlands. In the event of overlapping buffer zones or buffers established pursuant to different classification categories, the more extensive wetland buffer zone shall apply.

Mitigation

Upon establishing the need for a freshwater wetland permit, as well as the wetland classification category and associated buffer zone, wetland mitigation requirements can be formulated.

For projects involving wetland/buffer zone encroachments, a permit may be granted only if it is demonstrated that the encroachment, with or without

mitigation, will not adversely affect any of the classification categories (surface waters, flood hazard areas, and wildlife habitats) under regulation. More specifically, any mitigation of impacts to Category 1 or 2 wetlands or buffer zones is to be conducted onsite or in as close proximity to the impact area as is feasible. When in the case of Category 2 wetlands or buffer zones such forms of mitigation are not feasible, mitigation activites may be conducted at more remote locations so long as the mitigaton efforts are conducted within the same watershed or drainage basin as the impact area. Impacts to Category 3 wetlands/buffer zones which require mitigation may similarly be offset via mitigation activities within the same watershed or drainage basin as the impact area, unless it can be demonstrated that the implementation of mitigation activities elsewhere will more fully serve to compensate potential wetland/buffer zone impacts.

Summary

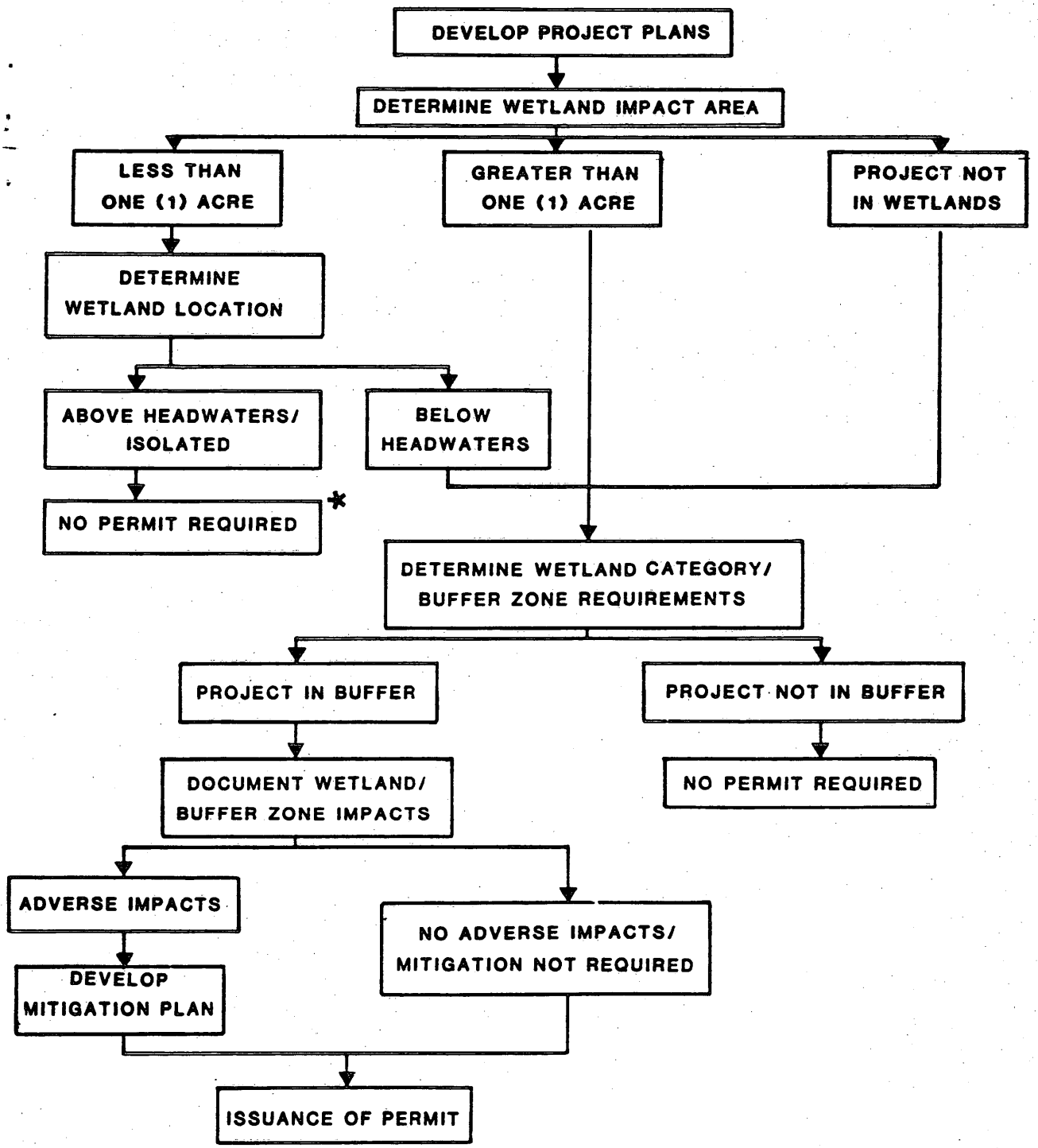
The wetland classification and ranking system described above and presented in Figure 1 establishes permitting, evaluation, and mitigation guidelines relative to proposed actions in or near freshwater wetlands. Due to its incorporation of existing State of New Jersey classifications, the system may be implemented effectively with limited time expenditures by regulatory agency personnel.

Project-oriented criteria are used initially to document the need for a freshwater wetlands permit. For projects not involving direct wetland impacts, the wetland-related classification criteria serve this same purpose by establishing wetland buffer zones within which proposed activities are also subject to regulatory agency review. Depending upon the extent of the buffer zone and, thus, the value of the wetland, mitigation guidelines are set forth which provide a framework for the compensation of potential wetland impacts. Mitigation measures only need to be implemented, however, when a proposed wetland buffer zone encroachment will adversely affect any of the wetland-oriented classification criteria. A freshwater wetlands permit is to be granted only when it can be demonstrated that the wetland or buffer zone encroachment, with or without mitigation, will not adversely affect any of these same classification criteria.

JASON M. CORTELL
AND ASSOCIATES INC.

PERMIT REVIEW PROCEDURES

Proposed New Jersey Freshwater Wetlands Act



* Notwithstanding these exclusions, a freshwater wetlands permit is required when the affected wetland contains a State/Federal endangered or threatened species

Figure 1

5X

TESTIMONY OF THE PASSAIC RIVER COALITION
ON BEHALF OF THE FRESHWATER WETLANDS CAMPAIGN
BEFORE THE ASSEMBLY COMMITTEE ON
NATURAL RESOURCES AND THE ENVIRONMENT
30 July 1986

Presented by: Robert J. Myers, Chairman, with
Daniel J. Van Abs, Ph.D., Technical Director
David J. Epstein, Flood Plain Watch Coordinator

Mr. Myers

Thank you for this opportunity to testify on the freshwater wetlands legislation before the Assembly. We in the Passaic River Basin are highly sensitive to the need for freshwater wetlands preservation. The history of flooding in our region is well known. Only our freshwater wetlands prevent major floods from causing devastating damage. After decades of wetlands losses from improper development, we are finally realizing their values. The Army Corps of Engineers has estimated that the region's largest flood, in 1903, would have caused twice as much damage had the freshwater wetlands not existed. Those who say that wetlands are not important in flood control obviously don't live downstream of them. The people of the Passaic support wetlands protection.

The Freshwater Wetlands Campaign, of which the Passaic River Coalition is a co-founder, has reviewed both bills before the Legislature for freshwater wetlands protection. We have found that the Ogden/Lynch bill has standards strict enough to truly protect wetlands, but also has many provisions which provide flexibility for development which either must use wetland areas or will not harm wetlands or their buffer areas significantly. The strict standards are critical to save the

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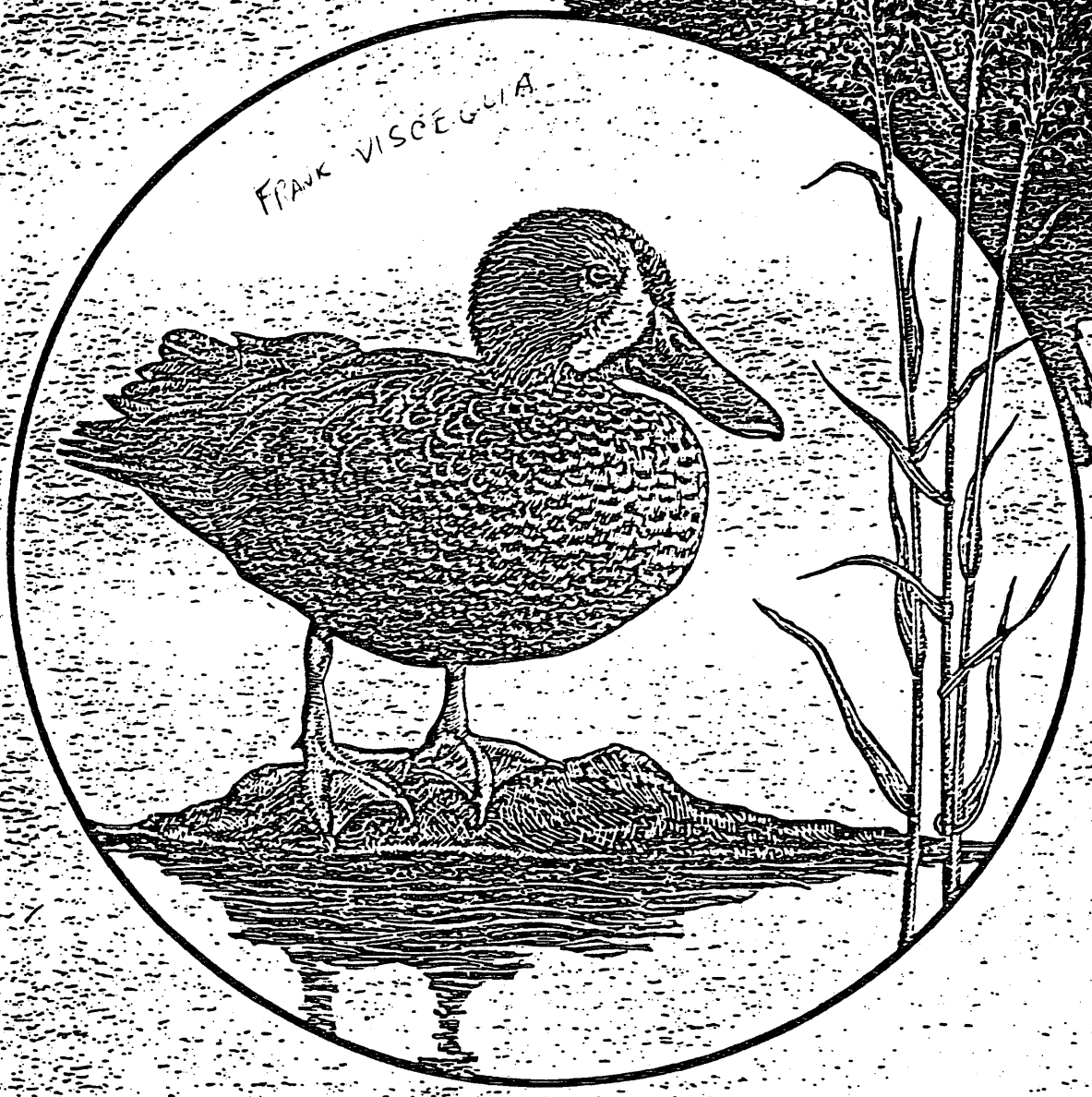
APPEND # 3

NATIONAL WETLANDS ASSESSMENT SYMPOSIUM



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23x

Assessment for Wetlands Restoration

John R. Clark
Environmental Guidance Group

INTRODUCTION

At the present time, functional restoration and repair of damaged wetlands is, in most states, a second class pursuit. National and state operating policy on restoration of wetlands is relegated to occasional mention in reference to "mitigation." The emphasis is on protection of wetlands, regardless of their condition. Yet many of the nation's wetlands have been altered, and much of the acreage is in so serious a state of disrepair as to be almost non-functional. In fact, national policy asks protection of wetlands regardless of condition and with little concern for returning them to functional condition. With a few exceptions, neither state nor federal agencies budget capital improvement funds for restoration (Snyder and Clark 1985).

While restoration and repair have a low priority today, I think it soon may come to the top of the policy agenda. If it does, I believe it will be forced up from the grass roots where people see the problems and sense the opportunities on a regional scale and it will soon dawn on decision-makers that much of the wetland acreage we are trying to save is not worth saving unless it is repaired. Much of the acreage in the United States that is not seriously dysfunctional is at least operating at sub-optimal levels — because of dikes and dams, sedimentation and pollution, and dessication and dumping.

There are major questions to be answered at the policy level about the functional condition of wetlands to be protected by regulation. Is a wetland unit already degraded to near zero function to be given the same protection as one that is pristine and operating at full ecological function? If so, do the regulatory authorities intend to restore such degraded wetlands to higher functional states? If not, who should? What amounts of capital funds will be budgeted for the purpose of wetland rehabilitation? (Clark 1985).

In the more developed states, the present condition of wetland resources ranges from healthy units to almost totally disfunctional ones. Coastal, inland and riverine marshes and swamps are affected, usually by alteration of their hydrologic regime. Thousands of acres have been drained, diked, or otherwise altered to the extent that their output functions are greatly reduced or eliminated (Clark 1985). The closer wetlands are to industrial zones or urban centers or intensive agricultural areas, the higher the probability of damage.

In the U.S. as a whole, we may have 80 million acres of real wetlands left. I would estimate that as many as 30 million of those are seriously damaged, and not more than 50 million, at the very most, are in anything like full functional condition. Such guesswork should be replaced by numbers, but unfortunately, most wetlands surveys do not tabulate the health of the wetlands that are counted. Dying ones count the same as live ones.

THE CONCEPT OF RESTORATION

So far, I have used "restoration" in the general sense of repairing damage but a refinement of terms is necessary for continuing the subject. As set forth by Bradshaw (1984):

> Restoration involves putting back what was there as completely as possible; rehabilitation involves progressing towards this, but achieving only partial success. Often, no attempt will be made to restore what was present; instead there is replacement of the original ecosystem by another different one.

Because wetland repair has been so low on the conservation priority list, it is not surprising that wetland assessment methodologies have not given major attention to the subject. Wetland functions are not evaluated so much on a condition scale as on a capability or capacity scale, which Adamus (1985) calls "effectiveness" (Adamus 1985). No measure of the potential for improvement in oututs through functional repair is generated by most assessments at their present state of advancement. Clearly, if a wetland unit is judged to be low in functional capacity, or effectiveness, one would want to know how much can be gained through repair — restoration, rehabilitation, replacement, or a combination of these. This is particularly true where the assessment is done relative to a development project where mitigation to repair function can be required.

ASSESSMENT APPROACHES

This need for a practicable measure of pairability could be accomplished through a cenario approach" using existing assessment chnology. To do this, the assessor first termines the values to be assigned to the rious wetland functions in present condition, id second, estimates what those values would be ider appropriate restoration, rehabilitation, or placement (RRR) programs. This still leaves to ie judgement of the assessor what would or would ot be "appropriate," which brings us to the tter of differences between "supply-side" and emand-side" approaches to choosing which nctions to enhance.

Adamus (1985) separated functional rating nto: "opportunity" and "significance" as well s' "effectiveness" which I mentioned previously. pportunity — which evaluates the chance the etland has to perform the function — and ffectiveness are both supply-side concepts; they ssess what the wetland can supply. The third, significance," assesses "...whether society ight value the wetland performing the nction..." and is a demand-side concept; it ssesses the degree to which the wetland meets he demand for its output of goods and services. damus (1985) visualizes opportunities to use ither "the function with the highest rating" supply-side) or "the function of greatest social ignificance locally" (demand-side). Which pproach to take in conservation protection ctions may be a theoretical consideration, but n mitigation/repair actions the decision is eterminative and governs the range of ppropriate RRR options for the wetland to be epaired.

At today's level of wetlands knowledge and cological engineering know-how, supply-side ased projects are straightforward. Policy spects are simplified. The practice is nitative — one merely restores or rehabilitates he subject wetland to original specifications to aximize its capability to supply its original et of outputs, as can be determined from the cenario approach to assessment. On the other and, demand-side projects are creatively hallenging from ecological, engineering and olicy standpoints. They often involve eplacement of the original set of functions with new set that conforms to regional needs for etland outputs, that is, for nature's goods and ervices.

Trying to replicate an original wetland through restoration may not produce the most appropriate result in terms of meeting the region's critical need for wetland output. For example, creating a coastal high marsh area of sea daisy and saltwort, although a close replication of the original wetland, may be of far less value than a replacement low marsh of mixed cordgrass and mangrove with open channels, which provides a nursery area for fishes and exports detritus to the estuary. Often there is a current regional demand caused by shortages of particular types of wetland function that are recognized in a region. Whether the shortage has occurred because of wetlands conversion or wetland dysfunction, the demand can be at least partially provided through repair of dysfunctional wetlands in many circumstances.

In the demand-side approach, there is an evaluative question to be answered: What design of wetland would yield the highest socio-economic benefit, considering regional needs for natural goods and services? If the critical regional need is for snook habitat, then a freshwater marsh grading to low saltmarsh with adjacent seagrass beds would be the appropriate design. If waterfowl habitat is critical, then a relatively shallow open water area would be most appropriate. If shorebird habitat, shoreline stabilization, or runoff water purification are the priority need, then different designs for rehabilitation projects are indicated. This is the "demand-side" of RRR design. This strategic approach to demand-side mitigation requires that someone other than the project developer -- perhaps the state or a regional entity — select the regional priorities for wetland outputs of natural goods and services. Once that is accomplished, an ecologist can convert these priorities to functional criteria, and engineers convert the criteria to design construction standards. There is a limitation though — neither can create a wilderness.

Where an aquatic ecosystem is seriously degraded by an accumulation of individual adverse wetland alterations — cumulative impacts — the demand-side approach is clearly the best. To reverse the cumulative degradation, it will usually be necessary to determine which of the lost and/or damaged functions are in most critical demand and to design mitigation and other RRR projects accordingly. An example is the Indian River Estuary on Florida's east coast which has as many as 30,000 acres of wetland impounded for mosquito control and essentially removed from the estuarine system. Many interests are now suggesting that alternative mosquito control methods be found so that most of the impounded wetland area can be reconnected to the estuary. But full restoration is not possible and some combination of rehabilitation and replacement seems inevitably the best approach. Therefore, it seems necessary to determine the societal demand for goods and services by consensus among those familiar with the system's condition and those aware of the desires of the public. The public desires may be for commercial and/or sports fisheries for public utilization or for wading birds or vegetation types for aesthetic appreciation. Where more than one social demand is significant, parallel or interactive evaluations can be made (Snyder and Clark 1985).

At present, wetland RRR needs are poorly addressed by state and Federal agencies, with a few exceptions (e.g. California's coastal wetlands restoration/rehabilitation initiatives; see McCreary and Robin (1985) and Gates (1982). The subject arises mostly during permit reviews when agency staff may attempt to persuade the developer to repair damaged wetlands as "mitigation" for expected project-caused adverse impacts on aquatic ecosystems. In effect, they return the ball to the developer's side of the court, challenging him or her to invent a mitigation program with virtually no specific guidelines. After the developer has created a plan with design and construction decisions, it has to be submitted with the permit application for review by staff of various agencies who are free to agree or disagree among themselves or with developers or to independently suggest major changes. These matters can be highly technical, requiring considerable study, expertise, and upfront money. (Clark 1985)

Developers faced with the need to design wetlands RRR projects must decide how much acreage to include and what design targets and standards to choose. The simplest approach would be supply-side full restoration; i.e., to re-create the wetland as it was before the site chosen for mitigation was diked, ditched or otherwise affected by human activity. But past condition may be unknown and undiscoverable, requiring that a guesstimate be made from indications on the ground or from old maps or aerial photographs. Most often, a rough approximation has to suffice. Surrounding conditions may prevent reactivation of the original hydrologic system or achievement of the original wetland elevations. Other questions arise, such as: How much of the degraded wetland system now delineated should be restored? What parts of it? And to what degree of replication?

These considerations often lead to the demand-side, whereby the developer asks: What does the public need from this wetland? What demands exist for wetland function? How can I best meet those demands? If these questions can be answered, the developer's task may be simplified, the RRR work more highly targeted, and the public interest better satisfied. Current methods of wetlands evaluative assessment can be modified to assist with filling this need.

Ecosystem thinking is engendered by demand-side RRR planning, perhaps more than it is by protection activity. You can't think of each individual wetland as a unit of landscape in isolation. You have to think about a wetland in terms of the whole system. It has to be treated as part of a greater ecological and hydrologic system, particularly when dealing with cumulative impacts. When you start thinking about how you want to engineer a wetland to respond to the demand for RRR, you have to start thinking about performance specifications. You have to think about what the demand functions are for what the wetland can produce. If it is snook, you can produce snook. If it is mallards, you can produce mallards, We will have to think about each particular wetland — what it is capable of doing and what we want it to do.

Thinking discriminately is what demand-side RRR engineering makes you do. You can no longer just classify or evaluate a wetland. You really have to think about the wetland and the variety of configurations, functions, and social needs it can meet. From the ecological engineering point of view, you can do almost anything to a wetland that you can afford. You can regrade it. You can reshape it. You can change the substrate. You can plant what you want. You can change the elevation, topography, or the supply of water.

WILDERNESS AND UTILITY WETLANDS

But preceding any large-scale facilitation of wetland RRR projects is the necessity to discriminate between "wilderness wetlands" and "utility (or economic) wetlands". Wilderness wetlands are those that should be protected, that should be preserved, that should be held onto in their historic condition for all the benefits this nation ascribes to wilderness areas. Let us save all the wetlands possible that are in pristine condition, that are performing their historic ecological functions. Let us save five million, 10 million, or 20 million acres or whatever is appropriate. I think the political system will support any protection program that has a reasonable price tag. Don't ask what those wetlands can do for you; don't try to analyze them. You don't need aesthetic surveys, intensive assessments, or ecological surveys. If you want to save a wetland for wilderness, you save it for wilderness as a just cause in its own right. But don't ask wilderness wetlands to produce shrimp or stop floods or do the job of a sewage plant — those are utilitarian/economic parameters ascribed to utility wetlands. This is not preservation but conservation, which implies utility including economic use, and often multiple uses.

Areas identified for protection as "wilderness" wetlands — rather than conservation as "utility" wetlands — must be restored to and kept at as near original condition as possible. But utility wetlands should be considered as economic resource to be rehabilitated or replaced as appropriate to meet regional wetland priorities for natural goods and services.

Wilderness wetlands include those already designated for perpetual preservation and candidates for such designation that meet criteria relating to size, location, importance to consequential species, ecological quality, and scarcity on a regional or national basis. Wilderness wetlands not already in public ownership (or under guaranteed private

protection) should be identified and acquisition and management programs developed and budgeted. Those wetlands in federal, state or local government ownership should be inventoried and evaluated with respect to condition. It can probably be agreed, at least in most cases, which wilderness wetland should be restored to original condition. General, stepwise restoration plans should be developed to accomplish a gradual and systematic full restoration as funds incrementally become available. There should also be provisions for monitoring (Sorenson 1982).

For utility wetlands, I favor region by region inventory of (1) demands for wetland services and (2) condition of the regional stock of wetlands. In this manner, a regional list of wetland rehabilitation and replacement goals could be developed to match future development project mitigation requirements as they come forward. Such an effort would create a "shopping list" for mitigation agreements for alteration of utility wetlands and would fit the characteristics of a demand-side approach.

With the U.S. Corps of Engineers alone processing 11,000 dredge and fill wetlands permits every year, the opportunities are great for conducting demand-oriented strategic wetland RRR programs through cumulative mitigation projects extracted from developers needing permits. These would need to be coupled with whatever additional restoration projects the public is willing to be taxed for, to complete each regional program of restoring, rehabilitating, and replacing wetland functions lost through past abuses.

As stated by Sorensen (1982) "...the relative scarcity and abundance of the resource needs to be determined on a region-wide basis in order to set priorities on the types and locations of habitats that should be provided in a restoration site plan."

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WETLAND FUNCTIONS AND VALUES:
THE STATE OF OUR UNDERSTANDING

Edited by

Phillip E. Greeson
John R. Clark
Judith E. Clark

The purpose of the Symposium was to provide a forum for scientists to review the state of knowledge on values of wetlands in the United States, both inland and coastal, and to consider research priorities. The Symposium intensely examined the ecological values of wetlands, particularly such functions as nutrient cycling, decomposition, hydrology, and productivity. These functions were translated into social, health, welfare, and safety issues, like flood control, water supply and quality, wildlife habitat, and basic life support.

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Mitigation Banking: A State Perspective

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Louisiana Department of Wildlife and Fisheries

INTRODUCTION

The Louisiana Department of Wildlife and Fisheries (LDWF) reviews and comments pursuant to the Fish and Wildlife Coordination Act on proposed projects in Louisiana wetlands that require Section 10/404 permits. We have developed criteria to prevent, reduce and/or compensate for the adverse impacts to fish and wildlife resources through mitigation.

In establishing mitigation criteria, it was first necessary to establish a common definition for mitigation (Rappoport 1979). We used the mitigation definition given in the National Environmental Policy Act regulations (40 CFR Part 1508.20[a-e]). Mitigation can be: "(a) avoiding the impact altogether by not taking a certain action or parts of an action; (b) minimizing impacts by limiting the degree or magnitude of the action and its implementation; (c) rectifying the impact by repairing, rehabilitating, or restoring the affected environment; (d) reducing or eliminating the impact over time by preservation and maintenance operations during the life of the action; and (e) compensating for the impact by replacing or providing substitute resources or environments." More simply, mitigative measures are those that avoid or minimize impacts through project modification or compensate for impacts that are unavoidable.

Only in recent years has mitigation been required to offset the unavoidable adverse impacts of development projects to fish and wildlife habitat. It became evident that onsite mitigation was only possible in some cases. Therefore, offsite mitigation was necessary. However, offsite mitigation opportunities are not always available at the time of a project.

The development of a "mitigation banking" concept was brought about as a means of achieving compensation for those unavoidable habitat losses associated with development projects. Soileau et al. (1985) stated the concept as:

> "...mitigation banking is similar to maintaining a bank account. A developer undertakes measures to create, restore, or preserve fish and wildlife habitat in advance of an anticipated need for mitigation for project construction impacts. The benefits attributable to these measures are quantified, and the developer receives mitigation credits from the appropriate regulatory and/or planning agencies. These credits are placed in a mitigation bank account from which withdrawals can be made. When the developer proposes a project involving unavoidable losses of fish and wildlife resources, the losses (debits) are quantified using the same method that was used to determine credits, and a withdrawal equal to that amount is deducted (debited) from the bank. This can be repeated as long as mitigation credits remain available in the bank."

In 1981, Louisiana's first mitigation bank was initiated between the State's Department of Highway (DOH) and LDWF along with the U.S. Fish and Wildlife Service (FWS) and the Federal Highway Administration. This bank involves the purchase and transfer of 3000 acres (1214 ha) of bottomland hardwoods to be operated and managed in LDWF's wildlife management area program. Credits developed by the bank would be applied to highway construction projects.

Although the lands have been purchased, complete implementation of the bank has not occurred because of the lack of a formal agreement, lack of coordination and cooperation from the highways agencies, and the lack of agreement on an assessment method. Steps are now being taken to correct these deficiencies and to implement an effective program.

As a result of this first bank, Louisiana's second venture into banking, the Tenneco Oil Company (Tenneco) mitigation bank, was approved only after several specific provisions were incorporated into the Memorandum of Agreement (MOA). These provisions were derived specifically from issues brought forth during intense interagency/industry negotiations. The interagency team consists of the National Marine Fisheries Service, Soil Conservation Service, Louisiana Department of Natural Resources, FWS and LDWF.

Some of the issues are listed along with a brief explanation.

1. Life of the Mitigation Bank - The interagency team formed the position that the mitigation bank should have an effectiveness life at least equal to the life of any mitigated project. Based upon available data for the mitigation bank site, marsh will convert to open water within 77 years because of erosion, subsidence, and saltwater intrusion; therefore, to effectively compensate for losses, project

impacts must not occur beyond this time. The 77 year life was agreed upon, although Tenneco would only guarantee intensive management for 25 years. Management beyond year 25 is to be evaluated at that time.

2. Assessment Methodology - FWS Habitat Evaluation Procedures (HEP) was selected to evaluate the effectiveness of the management plan in developing credits and the debits resulting from projects.

3. Debiting Availability - In-kind mitigation by debiting from the bank is only appropriate and will be used to offset only unavoidable impacts when no onsite mitigation is available or feasible.

4. Geographic Limits - Credits developed can only be applied to projects in the same hydrological unit unless the interagency team gives approval.

5. Selling or Trading of Credits - The selling or trading of credits by Tenneco was approved by the interagency team as a reasonable extension of the concept. However, the acceptability of those credits for mitigation by a third party must receive approval from the interagency team.

6. Protection of Mitigation Bank Site - Development projects occurring within the site would be debited at twice the amount as a similar project occurring outside the site.

7. Monitoring the Mitigation Bank - The interagency team will reevaluate the management plan at years five and 25 with the option of additional evaluations when significant operational and/or structural changes occur.

8. Credits Banked - The management plan created credits for the entire bank site. Since Tenneco only owns 70 percent of the site, credits were reduced accordingly. Credits were lowered again by 52/77 (68.5 percent) as a result of Tenneco's reluctance to guarantee intensive management beyond 25 years. The resulting number of credits was guaranteed by the interagency team even in the event the management program unexpectedly fails to produce these credits. The completed HEP analysis provided a measure of the average number of credits available on an annual basis. The accruing of unused credits from one year to the next would not be allowed, since adverse impacts should be mitigated as they occur.

A complete and detailed analysis of the Tenneco mitigation bank, along with a copy of the formal MOA, is available in a report by Soileau (1984).

CONCLUSIONS

Louisiana has a coastal wetland loss rate over 40 plus square miles per year. The major of these lands are privately owned. Some also managed, resulting in a reduction in t rate of loss. Management actions can enha fish and wildlife habitat. The cost of th actions can be offset by the establishment banks in which credits can be sold or trad Thus, the bank serves as an incentive, both private landowners and industry, for furt management of wetlands to obtain a variety tangible benefits. In addition, the impro habitat provides increased monetary benefits i hunting and trapping leases.

In examining each of our two mitigat banks, we see both an unsuccessful bank an successful, established, implementable bank.

To establish a successful mitigation bank formal interagency agreement should be adop that defines the bank life, assessm methodology and processes, habitat manage plan, and monitoring and re-evalua methodology. It should provide a contin mechanism for administering the plan. Such agreement can lead to a clear understandin the formation, structure, implementation, operation of the bank. It can also lea coordination and cooperation between participants.

A creditable habitat assessment methodo (e.g. HEP) should be used instead o conventional method (e.g. acre-for-acre). In case, the methodology should provide consis and reliable data for the assessment of cre and debits by an interagency team. designation of one of the team members as "banker" will facilitate bookkeeping requirem and promote a smoother operation.

Prior to our mitigation banking experie offsite mitigation was carried out only selected features, resulting in varying de of effectiveness. Mitigation banking can pr a more effective method of meeting mitig needs and obtaining benefits over a l period. The concept, put into action, can benefit to landowners, developers, and regul and resource agencies. Having mitig up-front can save time and manpower. It can provide the landowner with a means to re some of his or her expenses in implementin maintaining the management plan.

Misuse of the banking concept can lead incomplete review of development projects failure to minimize their their unavo impacts. Some developers may enter the b an effort to obtain blanket approval for projects. Therefore, careful pla implementation, and coordination should b in establishing a mitigation bank to insur

it is both agreeable and successful for each party involved. We believe there are uses for banks but this is not to be viewed as a blanket endorsement of the mitigation banking concept.

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Coastal Wetlands Mitigation Banks: The California State Coastal Conservancy Experience

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INTRODUCTION

California's coastal wetlands are protected by federal, state, and local policies that limit alterations to wetlands and require mitigation for allowable wetland impacts. However, the intent of wetland development and mitigation policies — which is to protect natural resources while accommodating appropriate development — is not in all ways served by the process currently used for issuing and conditioning coastal wetland development permits (Eliot 1985). As Eliot has found, permit conditions describing wetland mitigation requirements are often vague about mitigation goals and specifications, mitigation for small projects can result in wetland fragments of questionable habitat value, and applicants often fail to comply with permit mitigation conditions.

As a means to improve the resource value of mitigation projects and ensure compliance with mitigation requirements, several public agencies and private non-profit organizations in California have sponsored coastal wetland mitigation programs that provide for program sponsors to collect fees from permit applicants in lieu of the applicants carrying out mitigation requirements themselves, and then to apply the fees toward enhancement of large, consolidated mitigation sites. However, sponsors of mitigation programs have lacked sufficient funds to complete mitigation projects before collecting fees from permit applicants. The result has been that applicants have paid fees to bank sponsors based on estimated enhancement costs. These fees may prove inadequate to cover the eventual cost of acquiring and enhancing a site to replace habitat values lost due to development projects. Perhaps more importantly, the lag time between wetland habitat loss and replacement becomes institutionalized and unavoidable when program sponsors accept mitigation fees in advance of site acquisition and enhancement. In fact, in some cases replacement may never occur because the sponsors have been unable to locate and acquire appropriate mitigation sites.

One way to eliminate both the guesswork in assessing fees to cover proposed enhancement costs and the lag time and uncertainty about mitigation project completion is to establish regional mitigation "banks." The California State Coastal Conservancy has initiated mitigation bank programs in several coastal wetland areas.

A mitigation bank is created when a sponsor locates, acquires, and enhances a l parcel with little existing wetland hab value. Development permit applicants then p fee to use the banked habitat value to sat off-site mitigation requirements imposed permitting agencies. Thus, the habitat valu several off-site mitigation projects consolidated onto one site, compliance mitigation requirements is easily verifia applicants' mitigation costs are known earlie the project planning process, and the l drawn-out process of carrying out mitiga requirements is replaced for applicants by si payment of a fee.

The disussion that follows is designe show how effective off-site wetland mitiga can be planned and managed through the us mitigation banks that are acquired and enha in advance of accepting mitigation fees. analysis is based on experience gained thr the California State Coastal Conserva involvement in mitigation bank program Humboldt Bay, San Francisco Bay, and th Angeles area.

DEVELOPING A MITIGATION BANK PROGRAM

A variety of agencies and organization find it in their interest to initiate a we mitigation bank program. Taking the desi off-site mitigation out of the hands of p applicants and putting it into the hand resource agencies allows agencies to mitigation project design. Resource agenci non-profit organizations are also abl undertake larger, more expensive project they normally would, in the expectation t least a portion of their project costs w reimbursed. Even private landowners may b to realize a profit by sponsoring mitigatio projects on undevelopable land-holdings.

Extent of Commitment Necessary from Spons

Mitigation bank programs are costl time consuming for bank sponsors. embarking on a bank program, a sponsor determine that it has sufficient time an and a strong commitment to carry o program. While the sponsor can ant eventual reimbursement for most c expenditures, it must be prepared to b

·ogram costs for an indefinite period. In ldition to staff time, costs may be incurred for ı inventory and preliminary assesment of ɔtential bank sites, appraisals, enhancement lans, acquisition, enhancement plan ɔplementation, and interim management of bank ites.

Establish a Working Group

Once a sponsor's commitment to a mitigation ank program has been established, the sponsor ould form an advisory bank working group ɔmposed of those essential parties to a itigation bank program who will have the uthority to make critical decisions about rogram implementation. The working group should nclude permitting agencies, such as the U.S. rmy Corps of Engineers and state and local gencies, and resource agencies, such as the U.S. ish and Wildlife Service and their state ounterparts. It may also include environmental nterest groups and representatives of permit pplicants. Each participant will have valuable xperience and perspective to contribute to bank rogram planning. Furthermore, to ensure that a itigation bank will be used, all the articipants must support the bank concept and mplementation details. Each agency should have he opportunity to tailor the program to their eeds. For example, an agency may have a limited urisdiction that restricts its involvement in he mitigation program to the use of certain abitat types, or an agency's internal policies ay require the use of a particular formula for ssessing mitigation fees.

Develop Program Guidelines

The bank sponsor and the bank working group hould develop program guidelines that outline hat the mitigation bank program can and should ccomplish, how the program should function, and hat regional wetland restoration goals should be ursued. The guidelines, in turn, should be incorporated into formal mitigation bank greements between bank sponsors and permitting gencies for the use of each bank. It typically akes many months to compose generally accepted program guidelines as working group members radually come to appreciate program complexities nd potential.

Bank sponsors have vested interests in itigation banks that they need to protect through program guidelines and mitigation bank greements. Program guidelines adopted by a itigation bank sponsor can serve as a program anifesto declaring the sponsor's intent in creating the mitigation bank program and establishing standards for its use. To discourage exploitation of a mitigation bank for promotion of inappropriate development or for circumvention of more complex and costly, but environmentally superior mitigation requirements, the guidelines should specify that the mitigation bank can be used only when the permitting agency and the advising resource agencies find that project redesign, on-site mitigation, and off-site mitigation arranged by the applicant are not appropriate and that a designated mitigation bank has appropriate habitat value available. As a last resort to prevent misuse, the guidelines may reserve the sponsor's right to refuse to accept mitigation fees from applicants.

There are, however, some limitations on what mitigation bank guidelines can accomplish. First, a sponsor cannot seek to relax existing laws or regulations. Second, some permitters insist on retaining the discretion to negotiate mitigation requirements based on the benefits, pressures, impacts, and assorted idiosyncrasies of each project. On the other hand, other permitters prefer that the mitigation sponsor adopt clear guidelines for the use of banks that the permitters may in turn use to fortify their position on mitigation requirements. Resource agencies may condition their endorsement of a mitigation bank on strict use guidelines that preclude use of a bank site to facilitate development that they judge to be inappropriate. Finally, if a mitigation bank sponsor adopts use guidelines that are not entirely acceptable to all the key parties to the mitigation process, the sponsor may forfeit the opportunity to be reimbursed, and the existing off-site mitigation process that has proven unsatisfactory will continue in use.

The program guidelines should also establish regional wetland restoration goals — such as restoring historic proportions of wetland types, increasing habitat diversity, and creating habitat for endangered or other targeted species — that will direct site selection and enhancement plan design. In both the site selection and design stages, the restoration goals will also be synthesized with projections of habitat losses and with site-specific constraints and opportunities. The State Coastal Conservancy's Humboldt Bay program provides an example of how one working group defined the overall goals of a mitigation bank program. In Humboldt Bay, the working group consists of representatives from the County of Humboldt, the Cities of Eureka and Arcata, the California Coastal Commission, the Humboldt Bay Harbor Recreation and Conservation District, and state and federal resource agencies. The working group first identified regional wetland restoration goals and determined the number of acres of each type of existing wetland designated for coastal-dependent development, the only form of coastal wetland development permissible under California's Coastal Act. The working group determined that the most suitable sites for enhancement as mitigation banks would be those that could provide compensation for projected habitat losses and also accomplish as many regional restoration goals as practicable (Humboldt Bay Working Group, 1984).

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Establish Site-Selection Criteria and Prepare an Inventory

Once it has established the general program parameters, the bank working group can begin to consider specific sites. If bank working group members are well-informed about historic wetland losses, development trends, and predicted rates of wetland losses, a formal study is not essential to determine site selection criteria. In general, the site selection criteria should include specifications regarding existing resource value, enhancement potential, size, and location.

To avoid destroying resource value in the course of enhancement and to add significantly to existing resource value, bank sites should have minimal wetland habitat value before enhancement is undertaken. At the same time, they must be feasibly restorable. Feasibility encompasses both the physical possibility of enhancement for a particular wetland type and cost. While the restoration goals set by the bank working group will have defined targeted wetland types, suitability for meeting restoration goals will vary from site to site. There are at least three dimensions to cost constraints: the amount that a sponsoring agency is able to invest in a mitigation bank, the amount that a management agency will be willing to commit toward maintaining a bank over the long term, and the cost per unit of habitat value that applicants will be willing to pay. Sites of various sizes may be appropriate depending on other site characteristics. Small, isolated sites may have value as islands of habitat in areas that are highly developed. While management agencies ordinarily shun small sites, they may be willing to take them on if they are clustered near other management units. Large sites are generally most cost effective for both bank sponsors and managers and are more likely to afford a variety of habitat types. Large sites can be used to consolidate a number of small mitigation projects that would otherwise be difficult to complete and to verify, whereas very small sites may only accommodate the mitigation needs of one or two development projects. Costs to permit applicants may be lower on larger mitigation banks as enhancement, acquisition, and management costs are divided over more acres and by more applicants.

Site location is important in a number of ways:

Proximity to development: Bank sites should be located close to anticipated development so that nutrient supply, microclimate, soils and water chemistry are more likely to duplicate those destroyed by development and some individual organisms may be able to transfer from the development site to the mitigation bank. In large complex areas such as the San Francisco Bay, it is important to define regions limiting the allowable distan between development impacts and mitigati banks in order to maximize the replaceme value of mitigation banks and to preve applicants with projects in high land val areas from using up mitigation banks in l land value areas, leaving applicants in t latter areas without affordable off-si mitigation locations. Regions should defined narrowly enough to refle ecological and development patte differences, but should be large enough encompass an area of anticipated wetla destruction and an area of potenti mitigation bank sites.

Proximity to managed areas: Manageme agencies will be more inclined to take the responsibility of long-term manageme of a mitigation bank if it is close another preserve that it manages.

Proximity to complementary habitat: T habitat value of wetlands increases f many species when the wetland adjo uplands or open water, or when a variety wetland and upland types occurs in complex.

Bank sponsors, in consultation with t working group, compile an inventory of potenti mitigation bank sites that meet these criteri In the course of the inventory, sufficie information should be gathered about each site indicate feasibility of acquisition enhancement, and to facilitate furt investigation of the site. If the bank spon is unable to own and manage a bank site over long term, then the first steps should also taken to identify agencies willing and able undertake ownership and management of each of potential bank sites.

Prioritize Sites

In compiling a comprehensive inventory potential mitigation bank sites, the sponsor have begun the process of comparing potentials of each of the inventoried sites the regional restoration goals and select criteria established by the working group. potential sites are assigned priorities, high priority site should be scrutinized special constraints on, and opportunities acquisition, enhancement, and use as a site. For example, a landowner may be willin sell, but only at a price higher than sponsoring agency can afford or justify pa for resource preservation, or a landowner insist upon unacceptable deed restrictions. closer inspection, physical conditions otherwise suitable sites may also insurmountable obstacles to wetland enhance — such as large expanses at very high or

elevations, the presence of endangered ecies, toxics in the soil or water, or an reliable water supply.

Other more subtle barriers to the use of tential bank sites may exist as well. In the boldt Bay area, for example, there are very vacant areas of filled former wetlands; most rshes have been diked and drained and are rrently in agricultural use. Converting these ricultural lands to salt or brackish marshes uld create hardships for the local agricultural onomy — an important resource which is offered otection by California's Coastal Act. The bank rking group met with local agricultural tension representatives who reviewed the ventory of potential mitigation bank sites to termine which, if any, were important ricultural lands and should not be considered r wetlands restoration. The working group is aluating only those sites which are marginal ricultural lands which, if restored as tlands, will not affect the local agricultural conomy.

In the San Francisco Bay area seasonal tlands are currently the type of wetland most reatened by development proposals. Even though ost of the seasonal wetlands were created by king and limiting or excluding tidal action on rmer tidal marshes, the Conservancy and the ank working group decided that the value of the isting seasonal wetland habitat precludes estoration of the historic tidal habitat. In act, sentiment in the bank working group runs so trongly against tampering with seasonal wetlands hat the group has eliminated the term restoration" — connoting recreation of historic onditions at the expense of existing seasonal etlands — in favor of "enhancement" — onnoting improvement of existing conditions — n describing regional mitigation bank program oals.

In the extensively developed Los Angeles nd Orange Counties, most of the few remaining ragments of disturbed wetlands that might be nhanced or restored are already targeted by esource and permitting agencies and landowners or mitigation for specific development projects hat are now in the early stages of planning. If he Conservancy is able to establish a mitigation rogram in this region at all, it is likely to onsist of accepting mitigation fees for the nhancement of lands currently in public wnership or for the acquisition of property that s too expensive for the Conservancy to consider cquiring without supplementary funds.

The working group must carefully consider ite-specific constraints and opportunities and ank the potential sites. Then the sponsoring gency initiates appraisals on the highest riority sites whose owners would be willing ellers. (The Conservancy does not condemn roperty, but other bank sponsors, with the oncurrence of the bank working group, may wish to do so.) A bank sponsor may need to purchase an option on a potential bank site in order to reserve it during the sometimes lengthy acquisition process.

ESTABLISHING A MITIGATION BANK

Develop Management and Mitigation Bank Agreements

When acquisition of a particular site appears likely, the bank sponsor should secure formal management and mitigation bank agreements with resource and permitting agencies. Management agreements will vary considerably from one bank project to another. In general, management agreements should detail the terms and conditions under which the management agency agrees to accept title to and manage the mitigation bank site in perpetuity as wildlife habitat. Management agreements should also specify the level of funding that the bank sponsor will provide to the management agency and a schedule for payment.

The bank sponsor should enter into a separate agreement with each permitting agency for the use of each mitigation bank in order to render the use of banks orderly and predictable. The mitigation bank agreements should incorporate the program guidelines previously composed by the bank working group, refer to site-specific details, commit the permitting agency to use the bank within clearly defined parameters, define the obligations of the sponsoring agency, and establish the unit price of banked habitat value. The agreements may also identify the particular types of habitat eligible to be offset by purchase of banked habitat value, restrictions on the allowable distance between development impacts and a mitigation bank, and impose any other restrictions the working group decides are appropriate for the program or for a specific bank site.

Prepare a Site-Specific Enhancement Plan

At the outset of enhancement planning, the regional wetland restoration goals previously identified should be reviewed by the working group in light of projected habitat losses and the enhancement opportunities and constraints on the chosen site to arrive at site-specific design criteria. Existing wetland habitat values and the values projected for various enhancement alternatives should also be quantified using the U.S. Fish and Wildlife Service's Habitat Evaluation Procedure, the technique recently developed by Adamus for the Federal Highway Administration (1983), or an equivalent method. Because it is the increment of added habitat value that should be made available to permit applicants for purchase as mitigation, the amount of habitat value added should be a factor in

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determining which enhancement alternative is selected. The working group is periodically consulted and the final enhancement plan should meet with the approval of the prospective management agency and at least all those working group members who will participate in the use of the mitigation bank site.

Tally Mitigation Bank Costs

Once the enhancement of a mitigation bank has been completed, the bank sponsor tallies those costs incurred by the sponsor that the bank working group has determined to be appropriate to pass on to permit applicants in mitigation fees. In general, the costs that should be charged to permit applicants include acquisition, enhancement planning, construction, and management and monitoring, with up to an additional ten percent of project costs for the sponsor's administrative costs. While the chargeable categories are clearly defined, there are gray areas within some categories.

In areas where development expectations are high, land prices will, of course, be correspondingly high. As long as mitigation bank land costs are in line with other land costs in the vicinity, the bank sponsor should not subsidize a mitigation bank. However, sponsors should seek especially strict use agreements that compel permitters to use the bank and that prevent applicants from using mitigation sites farther afield where land prices are lower. As always, sponsors should be prepared to bear bank costs indefinitely.

Permit applicants may bridle at being required to contribute to monitoring the biological success of a mitigation project and to managing an enhanced wetland. The argument against applicants paying for monitoring is that, since applicants have paid for an enhancement plan designed or commissioned by bank sponsors and for enhancement construction, they have disposed of their responsibility and should not be liable for monitoring to identify imperfections in planning or implementation. The arguments against paying for management costs are that natural marshes are not managed and that, in any event, management agencies are funded precisely to provide resource management.

There are, however, several overriding reasons to charge applicants for the costs of managing and monitoring mitigation bank sites. Wetland enhancement techniques do not yield predictable results. Only careful monitoring of the results of various approaches under differing conditions will help perfect techniques. Indeed, if the results of uncertain enhancement strategies were not studied in order to improve future enhancement projects, the rationale for allowing enhancement attempts to compensate for wetland destruction would be questioned. Management of mitigation banks is also a legitimate cost to applicants, as monitoring may reveal the need to make adjustments to some facet of the design, such as water supply or levee protection, and because enhanced wetlands depend on artificial measures for their existence a for protection of adjacent land uses.

Determine Unit Cost

Once the enhancement of a mitigation ba site has been completed, the acreage or units habitat value to be adversely impacted by proposed development project have be quantified, permitting and resource agencies ha found that project redesign, on-site mitigatio and off-site mitigation arranged by the perm applicant are either infeasible or inappropriat and permitting and resource agencies consultation with the bank sponsor have fou that a mitigation bank has an appropriate amou and type of habitat available, a permitter th has entered into a mitigation bank agreement wi the bank sponsor may condition a wetla development permit with payment of a mitigati fee toward a designated mitigation bank based the habitat replacement requirement and t mitigation bank unit cost. The unit of cost s be either per added unit of habitat value or p acre of enhanced wetland and adjacent upland open water on a mitigation bank site that a integral to the functioning of the wetl acreage. As a general rule, permit applica should be allowed to use only the units habitat value added — not existing habitat va — on a mitigation bank site to compensate development project impacts. However, in ord to prevent a net loss of wetland acreage, b sponsors should also set a minimum ratio of acre of mitigation bank for each acre development impact.

CONCLUSION

Existing coastal wetland protection l and policies have proven inadequate to halt destruction of California's coastal wetlands. particular, the current process intended ensure mitigation of development impacts wetlands is yielding unsatisfactory resul Wetland mitigation bank programs, prope administered to prevent exploitation which wo facilitate inappropriate development, are a me for assisting with timely, effective mitigati Agencies that undertake mitigation bank progr may also augment their resource enhancem capabilities through reimbursement for mitigat project costs.

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The California State Coastal Conservancy Experience in Wetland Enhancement

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INTRODUCTION

The increasingly rapid destruction of wetlands in the United States has been well documented in the past several years. Across the nation, it is estimated that 50 percent of the original wetland acreage has been lost to fill and flooding from development, agriculture and other man-made and natural causes. In California, losses have been even more dramatic. Over 90 percent of the state's historic wetlands have been destroyed. This tremendous decline in wetland acreage has been equaled by the significant decline in the numbers and types of waterfowl and other birds of the Pacific Flyway, animals, insects, plants and fish who are dependent on wetland habitats. The loss of wetlands and these living resources have in turn impacted the state's fishing and recreation industries, water supply quality and quantity, flood storage capacity and the overall quality of life of California residents.

This paper summarizes the activities undertaken by the California State Coastal Conservancy to preserve and restore significant coastal resources, primarily wetlands. After providing a general background on how the agency's Resource Enhancement Program developed, some examples of the typical types of projects the agency undertakes will be discussed along with the lessons learned along the way on how-to-do projects and more importantly, how-not-to-do projects.

BACKGROUND

Since its inception in 1978, the California State Coastal Conservancy's Resource Enhancement Program has been involved in all facets of wetland protection and enhancement along the coast of California and San Francisco Bay. The program seeks to preserve coastal resources through acquisition, enhancement and other implementation activities rather than through regulation. This focus is the result of legislative recognition that regulation alone can not prevent the destruction of California's coastal resources. Regulation cannot resolve all resource problems effectively for the following reasons:

1. Regulations can require restoration of degraded systems only where development applications are forthcoming. Many important resources have already been adversely affected by historic and/or existing land uses.

2. Even where regulations now exist to prohibit certain activities in the coastal zone, such as fill in wetlands, a specific perpetrator cannot always be identified for enforcement purposes (i.e. sedimentation exacerbated by normal urban runoff throughout an entire watershed).

3. Despite the fact that regulations to preserve coastal wetlands are on the books, political and economic realities often make strict application of the laws impossible. Further, efforts to "mitigate" wetland losses in one area by restoring or creating wetlands elsewhere have only meant that overall wetland losses have been slowed rather than stopped. This is largely because wetland restoration is still more of an art than a science — many experiments don't work in the long run; mitigation sites are often chosen for their price and availability rather than conduciveness to restoration; and mitigation sites must require enhancement to fulfill permit conditions. As a result, mitigation allows viable habitat to be destroyed and replaced with potentially non-restorable habitat. Finally, permit conditions requiring mitigation are often not enforced and rarely require adequate monitoring and maintenance.

4. Many adverse impacts to wetlands are not caused by people. Natural erosion, sedimentation and flooding have resulted in wetland habitat changes and sometimes destruction.

The Coastal Conservancy's Resource Enhancement Program seeks to achieve a broad range of objectives through the use of Conservancy funds, staff resources and expertise and the cooperation of public agencies and nonprofit organizations. These objectives include the prevention of impacts to scenic and natural values through sound resource management, resolution of environmental impacts and issues

caused by adjacent land use activities, the relocation or redesign of improper or inefficient improvements, the preservation of threatened habitat or unique coastal resources, the restoration of altered or degraded coastal resources and the creation of new coastal wetlands and habitat areas.

Specific methods that the Conservancy may use to achieve these objectives are: acquisition of interests in land including fee and less-than-fee interests, provision of technical assistance for project development, preparation and implementation of enhancement plans, construction of site improvements, and assistance with the resolution of land use conflicts (environmental mediation). The Conservancy is able to undertake enhancement projects directly as well as provide grants to local public agencies and nonprofit organizations to facilitate the development and implementation of acquisition and restoration projects.

ASSESSMENT FOR RESTORATION PROJECTS

Generally, potential projects fall within one of the following broad categoreis: wetland or other habitat enhancement, watershed restoration [1], mitigation banks [2], and environmental mediation. Each type of project involves assessment of several factors to determine the appropriate restoration goals and implementation tasks.

Physical Factors

What existing and historic constraints/ opportunities to restoration exist? What species are present? Which species could utilize the area in the future? What habitat types should be promoted and designed for? What hydrologic conditions exist? What potential impacts can be expected from existing and future development in the surrounding area? Answers to questions such as these give staff an idea of what is technically feasible and appropriate to the site and to the region.

Political and Economic Factors

Just because a restoration project is technically possible does not insure that it will be implemented. There are several potential political and economic obstacles that can arise. Conservancy staff ultimately spend far greater time resolving these issues in the development of a project than in actual technical design. Discussions with other federal and state resource agencies, local agencies and individuals and a literature search assist staff in refining their analysis of existing environmental conditions, potential controversial issues that may influence project design, the possible enhancement activities that would/would not be permitted by regulatory agencies, identification of data needs to complete an enhancement plan, and the assessment of the pros and cons of the alternative approaches that staff could take to effect a positive outcome for the site.

As much of California's coastal wetlands are privately owned, gaining landowner cooperation is key to any project. Landowners generally only cooperate if they gain something by doing so. As coastal property is expensive and public dollars limited, staff often conducts various financial analyses for property owners to demonstrate potential tax benefits of bargain sales or donations, feasibility analyses of land exchanges, alternative development configurations and other scenarios that will achieve resource protection yet permit development to occur.

Long-Term Factors

The Conservancy's small size and limited legislative authority prevents it from being a long-term property owner and manager. Thus, all projects are designed with alternative management entities in mind. Restoration design alternatives must be evaluated in light of their potential maintainence requirements and costs. Local governments and nonprofit organizations often do not have staff resources available to operate sophisticated hydrologic engineering systems correctly to ensure that salinity, turbidity and other water quality and quantity factors are optimal nor do they have access to significant funds for maintenance and monitoring. Thus, the Conservancy generally emphasizes low-tech design solutions over highly engineered alternatives to increase the probability that wetland systems will function as envisioned and remain viable over the long-term. In addition, simple restoration improvements often have lower initial implementation costs.

RESTORATION GUIDELINES

Through the years, the State Coastal Conservancy has learned many useful lessons in how-to-do wetland restoration projects and more importantly how-not-do-do them. Some of the basic lessons are listed here for other states to consider.

1. Make design decisions based on the best available information, not only of physical factors but in light of political and economic realities and long-term maintenance and monitoring needs. Given the active imaginations of engineers, practically anything is technically feasible. However, it makes no sense to design a BMW if you've only got enough political support and money to build and maintain a Chevy.

2. Start early in involving all conceivable interests — regulators, supporters, property owners and opponents. Plans developed through a consensus process are harder to shoot down than plans developed in a vacuum. Also, most issues will be identified at a time when they can be designed for or resolved.

3. Never forget the end goals (there is no such thing as an "easy" project). Obstacles and issues will arise. Designs must be flexible to allow trade-offs yet still achieve ultimate objectives. Use assessment methods not only to help design the best project but also to identify potential fall-back alternatives.

4. Look at the total system. Wetlands do not exist in a vacuum, but are affected by surrounding land uses. Restoration of the wetland without consideration to long-term watershed issues may negate enhancement benefits in a short time (for example, dredging to increase water circulation, without a complementary watershed erosion control program will not secure long-term benefits). Also, fish and wildlife have a tendency to move around. Regional habitat goals need to be assessed and designed for.

5. Act as quickly as possible without sacrificing key project goals. Opportunities for acquisition come and go and available restoration funding doesn't wait forever. While good planning and designs are critical, the opportunity to implement a good project is often lost when the planning process drags on too long.

6. Do not lose sight of the fact that the ultimate goal is to preserve and enhance wetlands. Don't sacrifice a basically good project by getting hung up on details. Wetland restoration is still an art not a science; there are still more "unknowns" than "knowns." Waiting until 100 percent of the scientific support is in may result in continued short-term wetland loss. You have to proceed based on the best information available and learn from each restoration project.

7. Use the simplest restoration techniques that can achieve your enhancement goals. Design the project for the reality at hand, not for the imagined "ideal situation". Reality wins over dreams every time.

8. Take the time (and it will involve substantial hours) to educate. Design projects to serve as models and publicize them. In the long run, the world's wetlands will be preserved (or not preserved) by individual landowners and land use decisions at the local level. Implementation of low-cost, effective restoration projects that create ammenities and values to property owners will expand the constituency for wetland preservation and generate needed support for future restoration activities.

9. Always include monitoring programs as a component of wetland restoration plans. Design the monitoring activities to facilitate maintenance decisions and activities to ensure long-term habitat goals are achieved. Finally, the more information that is gathered, the better the chance that future wetland restoration projects will be successful over the long-term.

In sum, be practical. It is great to study and assess and design and plan, but if the restoration project can't be implemented and maintained through time, wetlands won't be preserved. Scientists and other wetland professionals must work on developing assessment techniques that not only describe wetland functions, but also help to evaluate these functions on a site specific basis in order to design the best strategies for wetland preservation and restoration, identify potential impacts and habitat changes and lead decision makers to appropriate land use decisions.

FOOTNOTES

[1] In California, many areas of the coastal zone are characterized by steep slopes and highly erosive soil types. The watershed restoration program focuses on keeping soil on the slopes rather than in coastal streams and downstream wetlands. Both in-stream and on-site erosion control techniques are used on a watershed wide basis on both public and private lands to reduce sedimentation impacts to coastal resources.

[2] In brief, the mitigation bank program seeks to acquire large areas of degraded habitat, restore as well as set up maintenance and monitoring programs for them, and recoup public costs through the use of developer mitigation fees established by regulatory agencies such as the Army Corps, Coastal Commission and others. The program was developed in response to the fact that current mitigation efforts are not creating viable habitat in many instances, demonstrating the need to develop a program that will have greater probability of success in maintaining wetland productivity over the long term (see Riddle, Denninger, "Mitigation Banks in California" 1985 Association of State Wetland Managers Wetland Assessment Symposium for more information).

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TESTIMONY
of
THE UPPER RARITAN WATERSHED ASSOCIATION
on
FRESHWATER WETLANDS LEGISLATION

PREPARED BY: DAVID PEIFER
EXECUTIVE DIRECTOR
U. R. W. A

SUBMITTED: JULY 30, 1986

INTRODUCTION

The Upper Raritan Watershed Association is pleased to present testimony regarding pending legislation concerning the protection of freshwater wetlands in New Jersey.

The Association is a 650 member private, non-profit conservation organization which serves the area drained by the North Branch of the Raritan River and its tributaries. This area includes all or part of twenty-one municipalities in three counties: Morris, Somerset and Hunterdon.

It is at once encouraging that the legislature is considering this issue and disappointing that it has taken us so long to reach this point. Since the inception of the Association in 1959, we have advocated the preservation of wetlands area as being good conservation practice.

We have been increasingly frustrated as local governments find themselves unable or unwilling to actively preserve wetland areas in the local development review process.

Additionally, while some wetland values have been protected by local action, others have been severely compromised by the lack of a comprehensive statewide regulatory framework. Even protection on a regional or watershed basis is difficult to achieve in the fragmented system that presently exists.

There can be little doubt that wetlands provide important functions within river systems. Much testimony has been given on that point and I am sure that you are all aware of the values represented in wetlands.

What the legislature must consider is the development of a law and implementing regulations which preserve and protect all of those values to the maximum extent possible. In our opinion, this legislation should be driven primarily by the values of the resource, rather than short sited pecuniary considerations. The task before the legislature is one of broad public interest; a task which must consider present and, more importantly, long term future needs.

ENDORSEMENT OF A-2342

You have before you two bills which address the issue of wetlands protection, A-2342, the so called Ogden Bill and A-2499, introduced by Assemblyman Penn.

The Association firmly supports the Ogden Bill for the following reasons.

The Assumption Issue

There is general agreement that the existing regulation of activities in freshwater wetlands in New Jersey is cumbersome, confusing, remote, and inadequate. There is

general agreement that the status quo should not be maintained.

However, the reasons for this so called "consensus" are widely divergent. Our organization and many other environmental groups throughout the state believe that the major reason for change lies with the inadequate protection provided to these critical resources by the present regulatory system.

For example, in a document entitled "An Assessment of the Corps of Engineers' Section 404 Program in Northern New Jersey, 1980-1984", the U.S. Fish and Wildlife Service concluded:

"It is our view that we were unable to prevent the largely unnecessary loss of nearly 500 acres of wetlands from 39 of the 40 evaluated projects in the past four years because (1) the NY District is either unwilling or unable to protect wetlands under section 404 of the Clean Water Act; (2) EPA Region II is either unwilling or unable to protect wetlands left unprotected by the NY District; and (3) FWS is unable to obtain further review of environmentally unsound projects under the current Memorandum of Agreement with the Corps which governs such review." (FWS, 1984, ii)

and further:

"The pattern that emerges from the 40 cases examined in this report is that very little is being done to stop the filling of wetlands in northern New Jersey. Unauthorized fills are ignored. Large fills are exempted from environmental review via nationwide general permits. Applications for individual 404 permits to fill wetlands are granted almost without exception (the NY district has denied only one permit for wetland filling in northern New Jersey since 1975) and recommendations for reducing fish and wildlife losses are often rejected. Where recommendations are accepted there is no attempt to follow up to insure applicant compliance".

It is remarkable that, in the face of such lax regulation, the development community complains about over-regulation of activities involving the dredging and filling of wetlands.

It is also interesting to note that in the Fish and Wildlife report 10 (25%) of the cases investitgated involved major developers, and 16 (40%) involved small developers, 6 (15%) involved quasi-public or public entities with the balance made up of individuals, solid waste operations and "undetermined" parties.

However, one must feel some sympathy for those developers who attempt to comply with the law and encounter long regualtory delays when permit applications are in the hands of the

Corps, while others who flaunt the legal requirements proceed with their activities without penalty or delay.

Additionally, regulatory problems often result from the Department of Environmental Protection's use of existing regulations never intended to protect wetlands for that purpose.

The Department is to be commended in its efforts to protect wetland resources but the process would be greatly facilitated if they had at their disposal the proper legislation and regulatory framework.

In sum, the "consensus" that a new method to regulate wetlands is necessary is reasonable and workable, despite the internal differences that exist among interest groups.

The legislature should not mistake this process as a debate solely between interest groups. Admittedly, such a debate exists. But more importantly, real public interest issues are involved.

At the present time, under the present regulatory system, neither the interests of the various elements of society nor those of the state as whole are well served.

Assumption by the State of New Jersey of the 404 permit program is essential for all concerned. Such action would carry out one of the Association's prime tenents, "Go to the lowest level of government which gives you effective action".

The delegation of powers to a lower level of government is a serious matter. I need not remind members of the legislature of the care exercised by you in delegating powers to the County and Local levels of government.

Accordingly, the Federal Government has devised "transfer regulations" which must be followed it the State is to assume the existing Federal program. Adequate protection of the resource must be provided and an orderly process which allows adjustments and corrections of State policy must be followed.

It must also be kept in mind, that while minimum requirements must be met, there is nothing which prevents a State from offerring better protection to its resources and more effective and stringent control of potentially damaging activities.

It is our belief that, due to the density of population in New Jersey, the inter-relatedness of our natural and economic environment, the magnitude of our past resource losses, and the values present in our wetlands, New Jersey needs more than a direct imitation of the 404 Program.

We need to assume the program, yes, but we need to provide a protection package which is tailored to the needs of our State and which protects the all values present in wetlands.

It is our opinion that the Ogden Bill will allow for assumption in a timely and orderly manner. We believe that the bill was drafted with assumption in mind at every step of the way, beginning with the definition of wetlands.

Conversely, it is our belief that the Penn Bill, with its definition which excludes isolated wetlands of less than five acres, cultivated or disturbed wetlands soils which do not contain wetlands plants and all soils which have seasonal high water tables greater than one foot from the surface is not scientifically defensible, and is too restrictive a definition to allow assumption of the program. Additionally, these exempted wetlands categories would simply not be protected.

Conversely, the Ogden Bill adopts a scientifically defensible definition of wetlands which closely parallels the presently accepted definitions in use by the Corps and the EPA in the 404 program.

The Penn Bill would go into effect only after the the State assumes the program but contains definitional deficiencies which would present severe obstacles to assumption. Thus, the Ogden Bill is our best hope for assumption in a timely manner.

Fears have been expressed by the development community that the Ogden Bill would create a period of "dual regulation" when both the State program created by the new law, and the existing 404 process are at work. The Penn Bill would create a sharp break between the period of Federal juristiction and the beginning of State regulation, while the Ogden Bill would provide for a six month transition period.

Fears of the "dual regulation" period are unfounded since the DEP is directed to consolidate all permitting, a proceedural improvement, in the Ogden Bill. The Penn Bill would preserve the chaotic status quo while the assumption issue is fought out. From a management perspective, a transition period is highly desirable, so that DEP can gear up for its new responsibilities and develop an orderly process for implementation which includes public participation. Thus, the Ogden Bill is superior from a proceedural viewpoint.

Regulated Activities
The legislature should be aware the the present Corps permit only regulates dredge and fill activities in wetlands.

Wetlands may be destroyed, their beneficial functions impared and their values lost from numerous other types of

activities.

The interests of New Jersey residents and the remaining wetlands resources are not well served by merely copying this restrictive and inadequate definition of regulated activities.

The Penn Bill regulates only dredge and fill activities, while the Ogden Bill regulates a broad range of activities that would impact New Jersey's wetlands if left unregulated.

The Ogden Bill's regulated activities address the full range of wetlands values including hydrologic alterations. From our experience within the Raritan Basin, activities other than direct dredging and filling have been responsible for losses of wetlands values. Additionally, such effects have been observed in the Great Swamp.

The introduction of silt and sediment, changes in hydraulic loads, the pumping of groundwater, and careless uses in upland areas in close proximity to wetlands are documented in the accompanying photographs.

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Photo Group 1

Photo Group 1 shows wetlands filling which has occurred in Chester Boro, Morris County.(1-A) The fill has been placed in small quanties (1-B) (1-C) over a long period of time into a wetland area which acts as the source of Oakdale Brook.

Oakdale Brook is classified by the N.J. DEP as "Freshwater 2, Trout Production Water, Category One. The stream is known to contain native Eastern Brook Trout, a threatened species in New Jersey, and an organism which is an indicator of good quality water. The U.S. Fish and Wildlife Service responded by reporting this fill to the Corps but, to date no action has been taken.

A recent field visit to the site by URWA staff indicated that the downstream water has been severely degraded by the deposition of silt, effectively eliminating the trout habitat.

It should also be noted that this stream flows into a large wetland area owned by the State, the Black River Fish and Wildlife Management Area, (see photo group 2) and ultimately to the Black River. Thus, the silt loads generated from this activity are being transferred to an important public resource, held in trust by the State for future generations.

Photo Group 2

Photo group 2 shows the Black River within the Black River Fish and Wildlife Management Area located in Chester

Township, Morris County. The aesthetic and open space values represented by wetlands are clearly illustrated (2-A)(2-B).

While the area appears to be an intact wetland system, a serious hydraulic imbalance appears to be present. Photo (2-C) shows shallow exposed areas indicating low water conditions at the upstream end of the Black River Fish and Wildlife Management Area.

Water levels in the wetland are declining, threatening the entire ecosystem.

The cause of these declines is undetermined at present, although adjacent development and groundwater pumping by the Morris County Municipal Utilities Authority could be the cause.

Note that these wetlands are not being directly threatened by dredging or filling, but that loss of wetlands values is occurring, threatening both the quantity and quality of the Black River, one of New Jersey's most valuable and scenic rivers and a source of potable water for the Elizabethtown Water Company at Bound Brook.

Photo Group 3

Photo group 3 shows the outfall of an undetained stormwater system (3-A) which enters the headwaters of Tiger Brook in Chester Boro, Morris County, via an area of wetlands (3-B) presently undelineated on the wetlands inventory maps. Water quality tests by the Township of Chester (the downstream receiver) indicate high levels of sewage contamination.

Additionally, severe mechanical disturbance is occurring due to bank and bed scouring. Pollution loads and hydraulic burdens are being placed on the wetland. It is important to note that Chester Twp's and DEP tests indicate that one-half mile downstream, water quality improves. This shows that the wetland is acting as a stormwater retention "basin" and a sewer treatment plant.

However, impacts are severe enough to show measurable effects downstream, indicating that the wetland is at or near its capacity to keep up with man-produced alterations.

Photo Group 4

Photo group 4 shows the results of the deposition of fill and solid waste in an unmapped open water wetland area within a municipal park in Chester Boro, Morris County, done primarily to eliminate the "swampy nusisance" of a small cat-tail wetland.(4-A) Although no water quality testing has been performed, the water appears turbid and enriched. The water is possibly contaminated. Additionally, the aesthetic impact is striking.

Photo Group 5

Photo group 5 shows the impact of a solid waste facility, Combe-Fill South, located in Chester and Washington Townships in Morris County. The wetland involved is a mapped forested wetland. Solid waste has been placed virtually at the delineated wetland boundry, resulting in the contamination of the shallow aquifer systems which supply the wetland.(5-A). (5-B) (5-C). The wetland (5-D) and the stream which rises within the wetland (5-E) are also contaminated by organic chemicals, heavy metals as well as silt and sediment.

The stream bottom is covered with a degraded biological community of fungus and bacteria, giving it its bright orange color.(5-F) This stream, Trout Brook (!) flows through Hackelbarney State Park and enters the Black River.

The site is the subject of Superfund clean-up which will cost the public $42,000,000 in capital funds and require treatment and monitoring for 40 years.

It should be noted that as far as the Corps is concerned, this project did not require a permit. Further expansion into the wetland was proposed by the operator and a permit would have been required for that activity. However, the operator declared bankruptcy prior to the expansion. Without the control provided by the Odgen Bill, such results would still be possible.

Photo Group 6

Photo group six shows Horseshoe Lake municipal lands located in Roxbury Twp., Morris County. While not actually located within a wetland area, filling has occurred at some time in the past, converting a mapped area of hydric soil to "upland". A salt storage facility has been erected.(6-A) which is leaching salt into a small ditch which runs to a the Black River.(6-B) This salt facility is located on a prime recharge area for the Morris county Municipal Utilities Authority's Alamatong well field, a major regional water source. Wells for this facility are located in the adjacent wetland.

Also note that the area has been used as a "composting" facility which has accumulated vegetative wastes and a wide variety of solid waste, including tires (6-C) and several 55 gallon barrels.(6-D) In addition, a large underground fuel storage facility has been located here. Should this facility leak, the welfare of the adjacent wetlands, the surface water of the Black River and the major groundwater drinking water supply could be contaminated and lost.

Photo 7

Photo 7 illustrates a forested, mapped wetland owned by the URHA which is managed as a component of our wildlife preserve located in Bedminster Township, Somerset County. Compare this

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area with the degraded wetlands shown in the preceeding photos.

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It should be noted that these photographs were taken in the period between July 17, 1986 and July July 28, 1986 in a small geographic area. Similiar examples could be easily illustrated in virtually every community in New Jersey.

The activities that have been illustrated above indicate the need for comprehensive wetlands protection that goes beyond the dredge and fill restrictions suggested in the Penn Bill.

Buffer Zones

Our experience in the Raritan Basin indicates that effective wetlands protection requires the use of a "buffer zone" concept.

As the above photographs so clearly show, wetlands can be destroyed by in-appropriate land uses, directly adjacent to or even at some distance from wetlands.

Many of the severe impacts shown could have been avoided or minimized by the employment of wetland buffers. As stated before, wetlands are known to remove pollutants. However, there are finite limits to the amount and type of pollutant which can be removed. Preserving these functions is vital to water quality and is best guaranteed by by providing transition zones between areas of intensive land use and wetland.

Statements have been made that there is no scientific research that indicates that buffers are necessary to protect wetland values. Further statements have been made such as,"If wetlands serve as buffers, why buffer the buffers?"

The first statement indicates that the speaker is not conversant with the literature while the second indicates an ignorance of the issues involved.

For an excellent discussion of the importance of buffers to the protection of aquatic systems, including wetlands, I refer you to "Dynamic Fluvial Zone: A Buffer for Aquatic Systems, John Rogers et. al, 1975. Many other advocates of aquatic buffers can be found.

Think of the wetland as the "foyer" of any stream system. It is here that water enters, pauses and then continues on its way downstream, much like your guests do when they arrive in the foyer of your home when you have a party.

Think now of what those guests do to the floor of your foyer if there is a snowstorm going on outside. Dirt, mud, and water are left behind on your floor. In fact, your Karastan

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carpet has been "bufferred" from the harmful effects of the flow of guests.

You could accept this situation and spend time and energy cleaning up afterward but a smart housekeeper would examine the situation and provide a doormat outside for the guests to wipe their feet.

The doormat is analogous to the buffer zone around a wetland.

The common sense fact of it is that a wetland will not remain a wetland in the same sense if it is surrounded by concrete walls, paving, buildings and has its incoming water polluted and its flow deranged.

The size of buffers is the matter of concern, not the need for them. The fact is that the required buffer depends on the values protected, the use proposed, and the site specific conditions of the wetland.

In attempting to protect wildlife habitat, for example, very large buffers may be necessary for some species, such as bald eagles. Conversely, smaller buffers may be necessary to protect water quality from relatively immobile pollutants which may bind to soil particles and be entrapped in grasses and other vegetation.

A wetland surrouded by steep slopes may require a buffer to the top of the slope while one in more gentle topography may require a more narrow band.

Some land uses are capable of generating considerable risk to water quality while others are much less damaging. Thus, potentially damaging uses require a larger buffer.

As can be seen, the size of a buffer is not an easy thing to determine. However, simply because somthing is difficult is no reason not to try. The fact is that buffers are necessary to reduce the rate of wetland degradation and to preseve all of the wetland values. A reasonable, flexible buffer policy is essential to effective wetlands protection in New Jersey.

It is our opinion that the Ogden Bill makes the best attempt possible at providing buffers which protect the resource and which are fairly applied. The Penn Bill ignores this necesasary task.

CONCLUSION

In sum, the Upper Raritan Watershed Association strongly favors the Odgen Bill. It is our belief that it provides superior wetlands protection applicable to the resources and conditions of New Jersey.

We believe that it will allow for orderly assumption of the

presently ineffective Federal program and provide New Jersey with the comprehensive wetland protection it needs.

Our primary concern is resource protection and we believe the Ogden Bill gives us a more comprehensive package.

Additionally we feel that the Bill is a solid approach to creating a deliverable regulatory package in a fair and rational manner.

We strongly urge the adoption of the Ogden Bill.

COMMENTS ON PROPOSED
FRESHWATER WETLANDS LEGISLATION: A-2342 AND A-2499
PRESENTED ON BEHALF OF GARDEN STATE BUILDINGS

My comments focus not on specific technical issues or provisions contained in the proposed freshwater wetlands bills (A-2342 and A-2499), but rather upon a constitutional issue which we feel requires consideration in your deliberations on how to implement a freshwater wetlands program in New Jersey. The issue is whether the prohibition of development in freshwater wetlands, which will be attendant to the freshwater wetlands regulatory program, may result in a taking of property without just compensation in violation of the Fifth Amendment of the United States Constitution. I raise this issue not in its generic sense, as to whether the regulation of freshwater wetlands will, in and of itself, constitute a taking without just compensation, but rather within the context of specific "just compensation" claims should freshwater wetlands permits be denied by the Department of Environmental Protection pursuant to this program resulting in a taking of property.

This issue is raised, in large part, in response to the United States Supreme Court's decision in United States v. Riverside Bayview Homes, Inc., which was decided on December 4, 1985. In that case, Riverside Bayview Homes contested the jurisdiction of the United States Army Corps of Engineers' jurisdiction to regulate the filling of wetlands areas, alleging that the wetlands in question were not encompassed

under the Corps of Engineers' 1975 regulations defining waters of the United States.

The U.S. Court of Appeals for the sixth circuit found in favor of Riverside Bayview Homes by narrowly construing the Corps of Engineers' jurisdiction over defined wetlands. The Supreme Court reversed the Court of Appeals decision and found that the Corps of Engineers did, in fact, have jurisdiction over the wetlands at issue. The Court held that Congress, in fact, intended to give the Corps of Engineers broad jurisdiction to regulate discharges into wetlands areas.

The scope of the Army Corps of Engineers' jurisdiction was, therefore, preserved by the Supreme Court. However, in reaching its decision, the Supreme Court gave serious consideration to the "taking" and "just compensation" issues. It is this impact that we believe must be evaluated by the legislature in order to determine the ultimate effectiveness and enforceability of any freshwater wetlands legislation adopted in this state.

Certain statements made by the court in its decision illustrate our concerns, which I would like to describe below. During the pendency of the Riverside Bayview Homes appeal, the Corps of Engineers denied Riverside its 404 permit. In response, the court noted the following:

> Because the Corps has now denied respondent a permit to fill its property, respondent may well have a ripe claim that a taking has occurred. On the record before us, however, we have no basis for evaluating this claim,

> because no evidence has been introduced that bears on the question of the extent to which denial of a permit to fill this property will prevent economically viable uses of the property or frustrate reasonable investment expectations. In any event, this lawsuit is not the proper forum for resolving such a dispute: If the Corps has indeed effectively taken respondent's property, responsent's proper course is not to resist the Corps' suit for enforcement by denying that the regulation covers the prooerty, but to initiate a suit for compensation in the claims court.

Given the Supreme Court's decision in Riverside Bayview Homes, it is likely that the establishment of such a regulatory program will be held constitutional as the court has made it quite clear that "[t]he mere assertion of regulatory jurisdiction by a governmental body does not constitute a regulatory taking." The Court stated that regulations for a particular piece of property result in a taking only if the regulation does not substantially advance legitimate state interests or denies an owner economically viable use of his land. In this regard, it can, therefore, be anticipated that a second tier of legal action will be pursued by a landowner that is denied a freshwater wetlands permit, whose remedy will be to seek just compensation for this taking. The Supreme Court held in Riverside Bayview Homes, that "[s]o long as compensation is available for those whose property is, in fact, taken, the governmental action is not unconstitutional." This brings us to the issue of concern which we raise to you: that is, in order to preserve the constitutionality of a freshwater

wetlands program, it will be necessary to insure that compensation is available for a landowner whose property is, in fact, taken by freshwater wetlands regulation; and that it is necessary to evaluate and determine the economic impact and costs that will result from these claims. For this reason, we recommend that the legislature must evaluate the potential costs that could be associated with just compensation claims that inevitably will result from the regulation of freshwater wetlands, and make provision for addressing these claims.

Both bills that are being considered provide for the evaluation of certain economic impacts and balancing of interests to determine as to whether a freshwater wetlands permit shall issue. Both bills require that in order to approve a freshwater wetlands permit the economic value, both public and private, of the proposed land change to the general area must be considered. This does not, however, address the specific economic evaluation that should be undertaken to determine the amount of a just compensation claim that could result should a freshwater wetlands permit be denied. The more restrictive the legislative standards, the more likely a permit will be denied. Should a permit be denied, and the reasonable investment expectations of the property owner be frustrated, to use the phrase of the Supreme Court in the Riverside Bayview Homes case, this economic cost, or "claim", will have to be borne by the State.

The cumulative impacts of such claims could represent a substantial economic cost and impact. These impacts must be known so that the administrative officials responsible for the regulation of the program can evaluate and balance these impacts together with the remaining factors or conditions that must be considered in a determination as to whether or not to deny a freshwater wetlands permit.

The Penn bill does provide for and require that the Department of Environmental Protection develop a classification system to rank or prioritize wetlands values so that they are regulated consistent with the benefits they provide. At first blush this appears to present merely an environmental evaluation tool. It also has a direct implication in balancing economic and environmental considerations in determining the "value" of the wetlands. Should the reasonable expectations of the landowner be frustrated by denial of the freshwater wetlands permit, this classification process will enable the Department of Environmental Protection to make an environmental and economic evaluation as to whether the wetlands are important enough for the State to pay for their taking. It may ultimately be deemed inappropriate to make regulatory decisions that may require just compensation from the State for wetlands that have a marginal or less significant environmental value. Conversely, it may be deemed appropriate to risk a just compensation claim for those wetlands which have a greater environmental significance to the local, regional and statewide

freshwater wetlands interests in the state. A wetlands ranking system would be a critical component in the state's overall freshwater wetlands management and regulatory program.

As noted in the Riverside Bayview Homes case, compensation must be available for a landowner whose property is, in fact, taken in order to render a governmental decision to be constitutional. Without evaluating these costs and considering, and to the extent possible making available, the funds necessary for such compensation, places the defensibility of the regulatory program at risk to "taking" claims.

The Penn bill does take into consideration the issue of just compensation by providing explicitly that an owner of property can file a compensation claim, and providing for the exercise of several options by the Department of Environmental Protection in response to the court order. We believe it is important to address this issue and appreciate that these provisions have been included within the Penn bill.

In summary, we would recommend that the legislature consider the economic impact of the just compensation issue and provide, to the greatest extent possible, for inclusion of provisions within the final freshwater wetlands bill for consideration of just compensation issues in the permit review process, and funding for just compensation claims that may arise as a result of the implementation of the freshwater wetlands regulatory program.

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July 30, 1986

Assembly
Natural Resources Committee
Trenton, New Jersey

RE: Freshwater Wetlands Legislation
A-2342 Ogden, A-2499 Penn
Testimony at Lincoln Park Public
Hearing, July 30, 1986

Dear Committee Members:

The two (2) above-described bills have been under review by the Assembly Committee for some time. The underlying concept of the bill is in the best interest of the citizens of the State of New Jersey, however, the content of each bill is dramatically different. Consequently, the results of either bill will have dramatic consequences on progress, growth, and the ultimate economic vitality of the State of New Jersey. We are in favor of Assembly Bill A-2499 sponsored by Assemblyman Jack Penn. His bill would permit responsible economic development in areas where wetlands are located. Solutions for these problems are what is required, not an absolute shutdown of construction activity in the State of New Jersey which is what the Ogden bill will eventually create.

A-2499 provides for a Department of Environmental Protection to develop the following:

1. a grandfather clause which honors those developers currently in the process of obtaining permits under present rules and regulations;
2. the mapping and clear identification of all wetlands in the State (necessary for long-term development planning);
3. avoidance of overlapping or duplication of Federal and State regulations applicable to wetlands;
4. no unnecessary requirements for buffer zones other than the wetland areas themselves;
5. the Department of Environmental Protection to develop a classification system to rank the values of wetland areas;
6. the creation of new wetlands or the expansion of existing wetlands as possible mitigation to be considered during the permit process.

apa

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Hopatcong Quarry: Rt 181 at Sussex County Line, Lake Hopatcong, New Jersey 07849 (201) 663-2010
Wallkill Valley Aggregates, Wheatsworth Road, P.O. Box 247, Hamburg, New Jersey 07419 (201) 827-8145

I trust you will take all these facts into consideration when developing the final freshwater wetlands legislation.

Sincerely yours,

TRI COUNTY ASPHALT CORPORATION

George T. Tucker
Executive Vice President

GTT:mek

Chairman Ogden,

Great Swamp Watershed Assn.
P.O. Box 300
New Vernon, N.J. 07976

Statement of Great Swamp Watershed Association
July 30, 1986

My name is Paul Wehn and I am ~~secretary~~ treasurer of the Great Swamp Watershed Association. We thank the Committee for providing this opportunity for groups like ours to testify on the importance of freshwater wetlands and the need to preserve their special natural values before they are lost forever.

The Great Swamp Watershed Association is a non-profit public interest group with some 300 members throughout the state of New Jersey. Over the past several years we have worked with federal, state, county and municipal officials to preserve and protect the remaining wetlands in the 55-square mile Great Swamp watershed. We are a member of the steering committee of the Freshwater Wetlands Campaign and support A-2342, for we believe it will provide the strong protection New Jersey's remaining freshwater wetlands desperately need. A-2342 ~~has several key elements:~~

-- it contains the standards needed for the state of New Jersey to gain delegation of the Army Corps of Engineers 404 permit program and eliminate the dual regulatory processes;

also ~~--~~ allows for buffers and recognizes that in certain instances, wetlands need an extra measure of protection from the surrounding development.

You have heard from many others about how freshwater wetlands improve water quality, and provide flood control, wildlife habitat and recreation at no public cost.

I would like to reflect on the value of buffer areas to protect freshwater wetlands. Great Swamp is one of the major wetland areas of the Passaic River basin. Over the last 25 years over 10 square miles in Great Swamp have been preserved as a federal wildlife refuge and wilderness area. The Great Swamp wetlands have been saved through preservation. Paradoxically, Great Swamp today is not safe.

Part of a larger ecosystem , the Great Swamp wetlands do not exist in a vacuum but are affected by what happens in the surrounding watershed. Little land has been set aside to buffer the Great Swamp wetlands. As a result the natural functions of those wetlands are in danger.

Increasing volumes of stormwater runoff and sewage effluent from the upland areas in the watershed surrounding Great Swamp have stressed the Great Swamp wetlands. Rising water levels and decreasing water quality are endangering the natural functions of the Great Swamp wetlands. And these natural functions have impacts beyond the Great Swamp watershed. The water quality improvement provided by the Great Swamp wetlands assures a clean drinking water supply -- without public cost -- for hundreds of thousands of residents in communities downstream on the Passaic River.

Buffers around the Great Swamp wetlands would have given them an added protection, and insured their

functioning for generations to come at much less public cost than may be required to provide clean drinking water for hundreds of thousands of New Jersey residents who depend on the Passaic River for their drinking water supply.

Finally, I would like to say something about the connection between wetlands protection and economic development. In some quarters, the two are held up as opposing concepts. Rather, we believe the two go hand in hand. Wetlands protection enhances economic development. Developers -- and buyers -- are attracted to areas with aesthetic values. It's a basic human instinct. The presence of the Great Swamp National Wildlife Refuge has been an important factor in the recent development of southern Morris County and the northern Somerset County. With a 10 square mile expanse of open space, greenery, trees and wildlife, it's an area where people want to be for their homes and businesses. And when people want to be somewhere, it's a lot easier to sell the real estate.

A-2342 will provide the kind of protection New Jersey's freshwater wetlands need to continue to provide New Jerse's residents with the flood control, water quality enhancement, wildlife habitat and recreational opportunities that are so important to the continued economic health of this state.

We thank the Committee for this opportunity to testify and urge you to move forward with A-2342 so that New Jersey's freshwater wetlands will be protected before they are gone forever.

COMMUNITY RESOURCES ASSOCIATION, INC.
411 Ridgedale Avenue
East Hanover, New Jersey 07936

July 29, 1986

Assembly Energy and
Natural Resources Committee
State House
Trenton, New Jersey 08625

Re: Wetlands Legislation (Assembly Bill No. 2342 - The "Ogden" Bill and Assembly Bill No. 2499 - The "Penn" Bill)

Dear Committee Members:

We are a nonprofit corporation consisting of various commercial and private citizens' interests of the Township of East Hanover including most of the major industries of the Township. The Association was created pursuant to an ordinance of the governing body of the Township and New Jersey corporate law. As you are undoubtedly aware, East Hanover, Township has a significant amount of wetlands about which we are concerned. We believe it is important to the community that these wetlands be protected and that the protection be provided in a reasonable and even-handed manner.

This organization has not and will not endorse any particular piece of legislation but rather has determined after careful study and consideration, that the Ogden Bill, as it is currently drafted, has certain serious deficiencies in it and therefore the consensus of this organization is to urge the Legislature to adopt criteria which would, as a minimum, include the following:

1. A clear definition of wetlands which is objectively determinable and reasonable in its application.

2. There should be one review process and one reviewing agency. To do otherwise is extremely burdensome to the regulators as well as those being regulated.

3. The wetlands should be mapped. The case by case approach suggested by the Ogden Bill is undesirable and unfair and contrary to basic principles of statutory and regulatory precedent and the right of land owners as well as local governing bodies to plan reasonably for future land use.

4. The agency whose responsibility it is to implement this law should be adequately funded and we are convinced from past experience with other programs, that adequate funding would mean at least $1,000,000 annually.

We would appreciate it very much if you would seriously consider these factors in your further deliberations and we will enjoy hearing from you in regard to these comments in the near future.

Thank you very much.

Very truly yours,

George T. Hanley
Chairman

GTH:wa
FN: 1020 (CRA/01)

Thank you Chairwoman Ogden, members of the Environment and Natural Resources Committee, for holding this public hearing tonight and giving me a chance to share my concerns regarding freshwater wetlands protection and the related legislation currently under consideration.

My name is Lorie Mottese and I am a resident of Lincoln Park. Living in a community within a region characterized by the Federal Government as being one of the most flood prone areas on the eastern seaboard, I have taken a personal responsibility to avail myself of certain facts that are unique to our precarious situation.

Two-thirds of the Borough of Lincoln Park falls within the designated flood plains of the Passaic and Pompton Rivers. All of Bog & Vly Meadow and a substancial portion of Great Piece Meadow, two major wetland complexes of the Central Passaic Basin, are also located within the borough. The ability of these wetlands to absorb and retain flood waters is not only essential to reduce potential damage and innundation in Lincoln Park, but also plays a great role in minimizing flood peaks and flood velocity for all downstream communities.

Lincoln Park has historically experienced acute flooding problems. According to the Federal EPA and the US Army Corps of Engineers, over development and filling in huge quantities of freshwater wetlands throughout the basin have contributed to an increase in the severity of flooding in recent years.

Recognizing this worsening trend, the borough has taken the initiative to adopt criteria twice as stringent as on the State level towards regulating the filling

of lands found to be located within flood plains.

While the borough's effort is indeed laudable, it does not and cannot go far enough simply because the nature of our flooding problem is regional in scope and as such cannot be adequately dealt with in isolation. State-wide legislation is imperative so that, in our case, one town's efforts to protect its citizenry is not undone by another's incompatible construction practices.

The Ogden/Lynch Freshwater Wetlands Bill recognizes this critical component as part of a comprehensive regional flood control plan. While the value of fresh-water wetlands has long been appreciated, the Ogden/Lynch Bill presents the first real opportunity to include this important protection in an effective, uniform manner. It will not place a moritorium on all development, but unlike Mr. Penn's proposal, it also will not allow any developer to be permitted to fill and destroy natural functional wetlands as long as their loss can be off-set by mitigation - creating artificial wetlands in areas often far removed from the original wetlands in question. It will instead create a tough yet fair standard whereby the onus is on the applicant to prove that a proposed project has such a compelling public need that destruction of freshwater wetlands would be unavoidable. This standard is indeed warranted for such an important and irreplaceable natural resource.

I respectfully request that Assemblyman Penn withdraw his bill and endorse the Ogden/Lynch bill measure for real and meaningful freshwater wetlands protection in New Jersey.

Thank you.

Lorie Mottese 65X

7/30/86

Thank you, Mrs. Ogden, distinguished members of the Environmental and Natural Resources Committee for giving me this opportunity to present my views regarding freshwater wetlands protection in New Jersey.

My name is Alene Sagiyuchi and I have been a resident of Little Falls some 30 years. As one might imagine, I have seen many changes in the composition of the land area in Little Falls with regard to commercial and industrial development. Having personally experienced devastating floods in my community, particularly the April, 1984 flood which wrought an estimated $ 250 Million in damages and caused 2 people to perish, I can tell you with authority that the man-made alterations to our river system that have compounded the severe flooding problem we face in Little Falls have continued unabated at a frenzied pace in the last two years. I am talking about unbridled commercial and residential development that continues to encroach on our flood plains and destroys our freshwater wetlands. The Passaic River Basin has been declared a federal disaster area seven times in different sections since 1968 due to rampant flooding. The Federal EPA and the U.S. Army Corps of Engineers have both acknowledged the excellerated loss of freshwater wetlands as being a prime contributor in increased flood patterns in our basin. Once these invaluable flood storage areas are lost, they are lost forever. No form of mitigation, which is sometimes helpful in purchasing prime wetlands for protection, can ever compensate or re-create the actual low-cost high-yield flood protection that freshwater wetlands continue to provide when left in their natural state.

The Ogden-Lynch Bill is a comprehensive effort to provide the long-needed legal designation of freshwater wetlands throughout New Jersey, affording this vital natural resource special regulation and protection. By making this bill law, we take a major step in removing the current irony of our flood control program. High tech, high cost plans have been devised by the Armu Corps of Engineers to construct a billion dollar flood control project, the cost of which will fall upon the municipal taxpayer for all operations

and maintenance of an 18 mile, dual inlet tunnel some 400 feet below the earth. The construction will be financed by Federal and State dollars, with New Jersey assuming at least 30% of the total cost. Overruns are already anticipated, with Congressman Robert Roe of the 8th District projecting at least $1.8 billion over the next 15 years. This massive flood control project and its prohibitive costs for local communities has been elevated to center stage as the answer to our prayers.....15 years down the road. Meanwhile, we collectively allow, directly or through ignorance, our natural flood storage capacity that has kept our rivers in balance since the beginning of time to be squandered by developers and real estate speculators, as if our watershed is a glorified going-out-of-business sale. This is the tragic irony, that the Corps would seek tremendously elaborate means to minimize flood damage at a price and on a time frame we cannot afford, while our freshwater wetlands which provide so much protection at zero cost and impact are wholesaled off to the highest bidder, increasing storm water run-off and peak flows, thus contributing to the tunnel's planned obsolesence.

We have lost much of our freshwater wetlands to development and the finality of their destruction with its additional office buildings, condos, and parking lots have only exacerbated the flooding of downstream residents. But we have much still remaining that warrants our strongest efforts for their protection and preservation. The Ogden/Lynch measure, withs its buffer zone requirement to insure against the indirect filling and contamination, is a well-reasoned, well-designed effort to require those who would develop these fragile lands to prove that the over-riding public interest would be better served by a particular construction project than by the recognized benefits that our wetlands provide. This will be done on a case by case basis with the N.J. Department of Environmental Protection assuming the regulatory authority from the Corps of Engineers. Because this program will be implemented and managed within our own state, local environmental organizations and concerned citizens will

be able to effectively monitor its progress and bring public pressure to bear where appropriate. This situation differs immeasurably from the current regulatory program whereby the public has no access and as a consequence no influence on the speed and assertiveness by which the Corps proceeds with its enforcement program.

I applaud the efforts of this committee in working for strong, meaningful legislation to protect our remaining freshwater wetlands and urge the entire legislature to adopt the Ogden/Lynch Bill as a tangible, workable means to acheive that protection.

Thank you.

Mrs Alene Szczynski

July 30. 1986

US Army Corps
of Engineers
Philadelphia District

Regulatory Mission

Presentation to the State of New Jersey, Assembly Agriculture and Environment Committee, Monday, September 24, 1984.

Prepared by:

U.S. Army Corps of Engineers
Philadelphia District
Custom House
2nd and Chestnut Streets
Philadelphia, Pa. 19106

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The U. S. Army Corps of Engineers originated in 1775 and is the world's largest and most unique engineering organization. Today, it's missions include civil works projects, mobilization (National Readiness), special assignments such as superfund and dam inspection, and regulatory functions. The Corps of Engineers is highly decentralized; structured into 14 Division Offices and 39 District Offices. The Assistant Secretary of the Army acting through the Office of the Chief of Engineers located in Washington, DC has the principal responsibility for establishing doctrine and overseeing the Corps' missions.

The North Atlantic Division of the Corps of Engineers is composed of four District Offices: Norfolk, Baltimore, New York and Philadelphia. The Districts are delineated geographically by drainage basins or watersheds. The Philadelphia District is defined by the Delaware River and Bay drainage basin and the contiguous reach of the Atlantic Coast from Manasquan River to Cape May and from Cape Henelopen to the southern border of Delaware. There are two Districts, Philadelphia and New York, having responsibilities in the State of New Jersey and I have been designated to represent the Division Engineer at this hearing.

In particular, my presentation will address the regulatory mission of the Corps of Engineers.

The Corps' regulatory program began in 1899 with the enactment of the River and Harbor Act. This act gave the Corps of Engineers authority/ responsibility to regulate work and structures in waterways used as highways for the transportation of interstate or foreign commerce including those waters subject to the ebb and flow of the tide shoreward to the mean high water line. These waters are referred to as "navigable waters". Up until 1968, the Corps administered its regulatory program only to protect navigation and the navigable capacity of the Nation's waters and did not provide for the protection of the environment or wetlands.

On December 18, 1968, in response to a growing national concern for environmental values, the Department of the Army revised its policy for evaluating permit applications. This revision in policy identified this new type of review as a "public interest review". For the first time in the history of the Corps' permit program, the Corps began to consider environmental factors in its permit application review process. This public interest review process remains today and I will discuss this in more detail later.

On October 18, 1972, Congress enacted the Federal Water Pollution Control Amendments (now commonly referred to as the Clean Water Act) with the announced purpose of restoring and maintaining the chemical, physical and biological integrity of the Nation's waters.

Section 404 of this Act established a permit program to be administered by the Corps of Engineers to regulate the discharge of dredged or fill material into the waters of the United States.

In order for the Corps to implement this new permit program, revised Federal permit regulations were published in 1974. These regulations limited the Section 404 permit program to the same waters that were currently being regulated under the River and Harbor Act of 1899; waters that were subject to the ebb and flow of the tide shoreward to their mean high or ordinary high water mark and/or waters used for the transportation of interstate or foreign commerce ("navigable waters"). It was at this time that the Corps of Engineers adopted a wetland policy that would protect wetlands within the Corps' jurisdiction from unnecessary alteration or destruction.

Shortly after publication of these revised permit regulations, the National Resource Defense Council and the National Wildlife Federation challenged in Federal Court the limited extent of the Corps' Section 404 permit jurisdiction to only navigable waters as being inconsistent with the intent of Congress to regulate all waters of the United States. Concern was expressed over the need to regulate the entire aquatic system, including all

of the wetlands that are part of it rather than only those aquatic areas that were distinguished by the presence of a mean high or ordinary high water mark. (See Note #1) Concern was also expressed over the need to regulate the many tributary streams that feed into navigable waters, and for the many other waters, including lakes, isolated wetlands, etc. In March of 1975, the District Court of Columbia ordered the revocation and recission of the Corps' 1974 regulation which limited Section 404 jurisdiction to only navigable waters of the United States.

In response to the District Court decision, the Corps of Engineers published revised Section 404 interim final permit regulations on July 25, 1975. These regulations provided a "phase in" schedule for expanding the Corps' Section 404 permit program to include essentially all waters of the United States, including adjacent and isolated wetlands: all tidal waters, shoreward to the high tide line, including adjacent wetlands; all non-tidal waters shoreward to the ordinary high water line, including adjacent wetlands; and all other non-tidal waters and wetlands that are not part of a surface tributary system. These waters are referred to as "Waters of the United States".

The Corps' permit regulations were further refined and clarified in 1977, 1982, and _____ September 1984. The September 1984 regulation is our most current publication and is the regulation being followed today in carrying out the Corps' regulatory responsibilities.

In summary, the Corps permit program is not a new one. When it began in 1899, its purpose was principally to avoid the obstruction of navigable waters. Now, in response to changing environmental, social and economic conditions, the scope of the program has been broadened. Today, the Corps' regulatory program concerns not only the integrity of our Nation's navigation channels but also the quality of all waters and wetlands of the United States.

As you have requested, I will now discuss in more detail our current permit program in the regulation of activities in freshwater wetland areas. In as much as the majority of freshwater wetlands are located above the head of tide in non-navigable waters, I will focus my presentation on Section 404 of the Clean Water Act. It is under the authority of Section 404 that the Corps of Engineers regulates the majority of freshwater wetlands within the State of New Jersey. Based on available information, there are approximately 860,000 acres of wetlands within the State of New Jersey. Of this total acreage, approximately 590,000 acres are subject exclusively to Section 404 authority.

Pursuant to Section 404 of the Clean Water Act, the Corps of Engineers regulates only the discharge of dredged or fill material into the waters of the United States, including adjacent and isolated wetlands. The 404 legislation does not provide the Corps with authority to regulate the construction of structures or any other activities except as they may involve the discharge of dredged or fill material. For the purpose of this hearing, it is important that I define the following terms:

The term "wetlands" means those areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances, do support a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs and similar areas.

The Corps of Engineers presently utilizes a three parameter approach in making wetland jurisdictional determinations. The first parameter is the presence of "hydrophytic or wetland vegetation". The Corps of Engineers in consultation with the U. S. Fish and Wildlife Service is presently compiling a list of wetland species throughout the Nation. The second parameter considers the nature of soil development in wetlands. If a soil develops under saturated conditions, it will exhibit certain morphological characteristics that distinguish it as being a hydric soil. The term "saturated" refers to

the situation where all soil pores in the root zone are filled with water. The Soil Conservation Service has presently completed a list of these soil types in New Jersey. The final parameter used in wetland determinations is hydrology. An area must either have permanent surface water or be periodically inundated during the growing season by ground or surface water. In determining whether a site is a wetland under Corps jurisdiction, all three parameters must be present.

The term "fill material" means any material used for the primary purpose of replacing an aquatic area with dry land or of changing the bottom elevation of a waterbody. The term "fill material" does not include any pollutant discharged into the water primarily to dispose of waste, as that activity is regulated under Section 402 of the Clean Water Act administered by the U. S. Environmental Protection Agency.

The term "discharge of fill material" means the placement of fill material into waters of the United States, including wetlands. The discharge of fill material generally includes, without limitation, the following activities: placement of fill that is necessary for the construction of any structure in waters of the United States; the building of any structure or impoundment requiring rock, sand, dirt, or other material for its construction; site-development fills for recreational, industrial, commercial, residential and other uses; causeways or road fills; dams and dikes; property protection and/or reclamation devices such as riprap; fill for structures such as sewage treatment facilities; and subaqueous utility lines. The term does not include plowing, cultivating, seeding and harvesting for the production of food, fiber and forest products.

As indicated earlier in my presentation, the keystone of the Corps' permit application review process is the "public interest review". This process is used in evaluating all Department of the Army permit applications, including those involving the discharge of dredged and fill material in freshwater wetlands. The decision whether a particular project is in the

general public interest is based on an evaluation of the probable impact, including cumulative impacts of the proposed activity and its intended use on the public interest. Evaluation of the probable impact which the proposed activity may have on the public interest requires a careful weighing of all those factors which become relevant in each particular case. The benefits which reasonably may be expected to accrue from the proposal must be balanced against its reasonably foreseeable detriments. The decision whether to authorize a proposal, and if so, the conditions under which it will be allowed to occur, are therefore determined by the outcome of the general balancing process. That decision should reflect the national concern for both protection and utilization of important resources. All factors which may be relevant to the proposal must be considered including the cumulative effects thereof: among those are conservation, economics, aesthetics, general environmental concerns, wetlands, cultural values, fish and wildlife values, flood hazards, flood plain values, land use, navigation, shore erosion and accretion, recreation, water supply and conservation, water quality, energy needs, safety, food and fiber production, mineral needs and, in general, the needs and welfare of the people. No permit will be granted unless its issuance is found to be in the public interest.

Unless the public interest requires otherwise, no permit will be granted for work in wetlands identified as "important" unless the Corps of Engineers concludes, on the basis of the analysis required in the public interest review, that the benefits of the proposed alteration outweigh the damage to the wetlands resource, & that the proposed alteration is necessary to realize those benefits. (See Note #2) Three examples of important wetlands are:

a. Wetlands which serve significant natural biological functions, including food chain production, general habitat and nesting, spawning, rearing and resting sites for aquatic or land species;

b. Wetlands which serve as valuable storage areas for storm and flood waters;

c. Wetlands which through natural water filtration processes serve significant and necessary water purification functions. (See Note #2)

In evaluating whether a particular alteration of a wetland is necessary, the Corps of Engineers primarily considers whether the proposed activity is dependent upon being located in the wetland resource or aquatic environment and whether feasible alternative sites are available. For those filling activities in wetlands that are not dependent or being located in or in close proximity to the aquatic environment ("non-water dependent"), practicable alternatives are presumed available.

Although a particular alteration of wetlands may constitute a minor change, the cumulative effect of numerous such piecemeal changes often results in a major impairment of the wetland resources. Thus, the particular wetland site for which an application is made will be evaluated with the recognition that it may be part of a complete and inter-related wetland system. In addition, State regulatory programs for the protection of wetlands will be given full consideration in the Corps' evaluation process. On balance, each individual application is evaluated to determine the probable impact the activity will have on the public interest.

Brief Discussion of Permit Application Review Process

- Application Received.
- Application Acknowledged, Number assigned.
- Application Reviewed for completeness.
- Within 15 days of complete application, public notice issued.
- Public notice issued for 30 days.
- Coordination with other State and Federal agencies: USEPA, USDOI, NMFS.
- Public Hearing may be held. (See Note #3)
- Evaluation of all comments and recommendations. Evaluate public interest factors.
- Permit decision - Issue/Deny.
- Enforcement Compliance

The procedure I have just detailed is referred to as the "individual permit application process"; and is the procedure followed for issuance of "individual Department of the Army permits".

In the Philadelphia District, processing of an individual permit application requires 45-60 days. However, applications that generate significant controversy or environmental impacts may extend processing time beyond 60 days and up to a year or greater if an Environmental Impact Statement (EIS) is necessary. Philadelphia District processes approximately 95% of all permit applications in less than 60 days.

Another form of Federal authorization is known as a General Permit. The General Permit program has been instituted in order to minimize the duplication of effort and needless paperwork and delays in issuance of Department of the Army permits. It was developed in order to reduce the regulatory burdens on the public. It is important to understand that the General Permit Program is applicable only for those regulated activities having minimal individual and cumulative adverse environmental impacts. Under this program there are two types of General Permits: Nationwide and Regional Permits.

A nationwide permit is a form of a General permit which authorizes a category of activity throughout the nation, provided certain special conditions and management practices are adhered to. These permits were published through the Federal Registers, dated July 22, 1982 and September __, 1984 (33 CFR, Part 330). To date, there are 26 of these Nationwide permits. I must emphasize that the issuance of the Nationwide permits is not a relinquishment of jurisdiction or an exemption of regulatory authority. Rather it is a streamlined permitting procedure established to regulate certain specific activities such as the discharge of dredged or fill material into waters of the United States, including freshwater wetlands. Nationwide Permits enable the public to proceed with work without the time-consuming, formal, individual permit application review process required for individual permits.

A Nationwide Permit which demonstrates the extensive geographic regulatory jurisdiction of the Corps of Engineers in freshwater wetlands is the permit for the discharge of dredged or fill material into non-tidal waters and wetlands that are not part of a tributary system to interstate waters or navigable waters of the United States (isolated waters and wetlands); and for the discharge of dredged or fill material into non-tidal rivers and streams and their adjacent wetlands that are located at point on a stream above which the average annual flow is less than five (5) cubic feet per second. (See Note #4)

Our most recent permit regulations, issued on September ___, 1984, modified this Nationwide Permit to require pre-discharge notification for the discharge of dredged or fill material which would cause the loss or adverse modification of more than one acre and less than 10 acres of waters of the United States, including wetlands. The purpose of this notification procedure is to allow the Corps of Engineers to make a determination whether the individual and cumulative adverse effects of the discharge on the environment would be minimal and whether the discharge is in compliance with applicable Nationwide Permit criteria and conditions. If it is determined that the discharge does not meet the conditions of the Nationwide Permit and/or would cause more than minimal adverse effects on the environment, the work could not proceed under the Nationwide Permit and would require submission of a formal Department of the Army permit application and issuance of an individual permit.

Additionally, the discharge of dredged or fill material which would cause the loss or adverse modification of 10 or more acres of waters of the United States, including wetlands, automatically is ineligible for the Nationwide Permit and requires formal application and issuance of an individual Department of the Army permit.

Two examples of other nationwide permits for specific categories of work in freshwater streams and wetlands are: 9 78X

(a) Discharge of fill material for backfill or bedding for utility lines including outfall and intake structures provided there is no change in preconstruction bottom contours (excess material must be removed to an upland disposal area). (See Note #5)

(b) Minor road crossing fills including all attendant features both temporary and permanent that are part of a single and complete project for crossing of a non-tidal waterbody, provided that the crossing is culverted, bridged or otherwise designed to prevent the restriction of and to withstand expected high flows and provided further that discharges into any wetlands adjacent to the waterbody do not extend beyond 100 feet on either side of the ordinary high water mark of that waterbody. A "minor road crossing fill" is defined as a crossing that involves the discharge of less than 200 cubic yards of fill material below the plane of ordinary high water.

There are 23 other nationwide permits for specific categories of activities in waters of the United States and they are contained in Corps' permit regulations 33 CFR Part 330 along with the special conditions and management practices which must be followed in order to proceed under these permits. Non-compliance with any of the Nationwide Permit special conditions would require submission of a formal permit application and issuance of an individual Department of the Army permit. (See Note #6)

Another type of General Permit is the Regional Permit. Similar to Nationwide permits, Regional permits authorize categories of regulated activities in waters of the United States which have minimal individual and cumulative adverse effects. However, what differentiates the Nationwide permits from the Regional permits is that the latter are issued at the discretion of the individual Corps Division/District Engineer based on his evaluation of the individual characteristics of his particular service area. They are issued in accordance with the formal processing procedures and with opportunity for a public hearing that I explained earlier in my presentation.

Of particular interest to me, and possibly this committee, is a provision in the Clean Water Act legislation and in our regulations which allow the Division/District Engineer to issue Regional permits encompassing an entire State regulatory program. Such permits are referred to as "State Program General Permits" or "SPGPs". The purpose of a State Program General Permit is to avoid duplication and reduce the time required to obtain both Federal and State permits by utilizing an established State regulatory program. However, before a Division/District Engineer considers whether to issue such a permit, he must carefully review the State regulatory program for reasonable conformity with the Corps' program and for existence of the required manpower and expertise to effectively carry out such a program. Philadelphia District has issued two State Program General Permits for work in New Jersey's coastal waters. These SPGPs cover such activities as non-commercial piers, docks, breakwater and bulkheads. Any person who wishes to perform work under the terms and conditions of these State Program General Permits need only apply to the State regulatory agency (NJDEP) with a copy of the application furnished to the Philadelphia District Office. Once the State has determined that the proposed work conforms with the General permit, any permit issued by the State for the work also includes the approval of the Corps of Engineers, thus eliminating the need for an applicant to apply to two separate regulatory agencies for an individual project.

Currently, there are no SPGPs for work in non-tidal freshwater wetlands within the State of New Jersey. This is due to the lack of any established freshwater wetland regulatory program. Of course, any future State freshwater wetlands legislation enacted which provides the State with regulatory authority duplicating that of the Corps of Engineers would be a candidate for a SPGP.

Another provision of the Clean Water Act legislation which allows the State government to take an active role in regulating freshwater wetlands is Section 404(h) of the Act. In brief, Section 404(h) allows the Administrator

of the U. S. Environmental Protection Agency to transfer administration of the Section 404 permit program for discharges into certain waters of the United States from the U. S. Army Corps of Engineers to qualified States. The program cannot be transferred for those waters which are used to transport interstate or foreign commerce, including all waters which are subject to the ebb and flow of the tide (navigable waters). If a State's wetland program is approved by the U. S. Environmental Protection Agency, the Corps of Engineers would suspend processing of all Section 404 permit applications in the applicable waters and would transfer pending applications to the State agency responsible for administering the program. District Engineers would assist EPA and the State in any way practicable to effect transfer and would develop appropriate procedures to ensure orderly and expeditious transfer.

It is my understanding that a representative from the U. S. Environmental Protection Agency, Region II will testify this morning and can elaborate on this transfer procedure.

This concludes my presentation on the Corps missions and regulatory program, past and present.

EXPLANATION OF NOTES

1. Under the 1974 regulations, a major portion of the coastal and freshwater wetlands were above the mean high and ordinary high water marks, thus outside the permit review requirements of Section 404 by this interpretation.

2. The following wetlands have been identified as being important to the public interest:

a. Wetlands which serve significant natural biological functions, including food chain production, general habitat and nesting, spawning, rearing and resting sites for aquatic or land species;

b. Wetlands set aside for study of the aquatic environment or as sanctuaries or refuges;

c. Wetlands whereby the destruction or alteration of which would affect detrimentally natural drainage characteristics, sedimentation patterns, salinity distribution, flushing characteristics, current patterns, or other environmental characteristics;

d. Wetlands which are significant in shielding other areas from wave action, erosion, or storm damage.

e. Wetlands which serve as valuable storage areas for storm and flood waters;

f. Wetlands which are prime natural recharge areas. Prime recharge areas are locations where surface and ground water are directly interconnected; and

g. Wetlands which through natural water filtration processes serve significant and necessary water purification functions.

3. A public hearing will be held in connection with the consideration of a Department of the Army permit application, or a Federal project whenever a public hearing is needed for making a decision on such permit application or Federal project. Requests for a public hearing shall be granted, unless the District Engineer determines that the issues raised are not substantial or there is otherwise no valid interest to be served by a hearing.

4. This flow rate may be estimated by using the mean annual precipitation area, drainage basin maps and the average runoff coeffluent or by other similar means. The Philadelphia District generally relies on the drainage basin methodology. As a rule of thumb for determining an average flow rate for streams in northern New Jersey, a drainage area of less than 3 square miles will yield an average flow rate of less than 5 CFS.

For streams that are dry during long periods of the year, District Engineers may establish the headwater point as that point on the stream where a flow of five cubic feet per second is equaled or exceeded 50 percent of the time.

5. A "utility line" is defined as any pipe or pipeline for the transportation of any gaseous, liquid, liquifiable or slurry substance, for any purpose, and any cable, line or wire for the transmission for any purpose of electrical energy, telephone and telegraph message, and radio and television communication.

6. Special Conditions for Nationwide Permits:

(a) That any discharge of dredged or fill material will not occur in the proximity of a public water supply intake;

(b) That any discharge of dredged and fill material will not occur in areas of concentrated shellfish production unless the discharge is directly related to a shellfish harvesting activity.

(c) That the activity will not jeopardize a threatened or endangered species as identified under the Endangered Species Act, or destroy or adversely modify the critical habitat of such species.

(d) That the activity will not significantly disrupt the movement of those species of aquatic life indigenous to the waterbody (unless the primary purpose of the fill is to impound water);

(e) That any discharge of dredged or fill material will consist of suitable material free from toxic pollutants in toxic amounts;

(f) That any structure or fill authorized will be properly maintained;

(g) That the activity will not occur in a component of the National Wild and Scenic River System; and

(h) That the activity will not cause an unacceptable interference with navigation.

In addition to the special conditions listed above, the following management practices should be followed, to the maximum extent practicable, in the discharge of dredged or fill material under Nationwide permits in order to minimize the adverse effects of these discharges on the aquatic environment:

(a) Discharges of dredged or fill material into waters of the United States shall be avoided or minimized through the use of other practical alternatives.

(b) Discharges in spawning areas during spawning seasons shall be avoided.

(c) Discharges shall not restrict or impede the movement of aquatic species indigenous to the waters or the passage of normal or expected high flows or cause the relocation of the water (unless the primary purpose of the fill is to impound waters).

(d) If the discharge creates an impoundment of water, adverse impacts on the aquatic system caused by the accelerated passage of water and/or the restriction of its flow, shall be minimized.

(e) Discharge in wetlands areas shall be avoided.

(f) Heavy equipment working in wetlands shall be placed on mats.

(g) Discharges into breeding areas for migratory waterfowl shall be avoided.

(h) All temporary fills shall be removed in their entirety.

US Army Corps
of Engineers
Philadelphia District

MISSIONS

a. Civil Works Projects

b. Mobilization
(National Readiness)

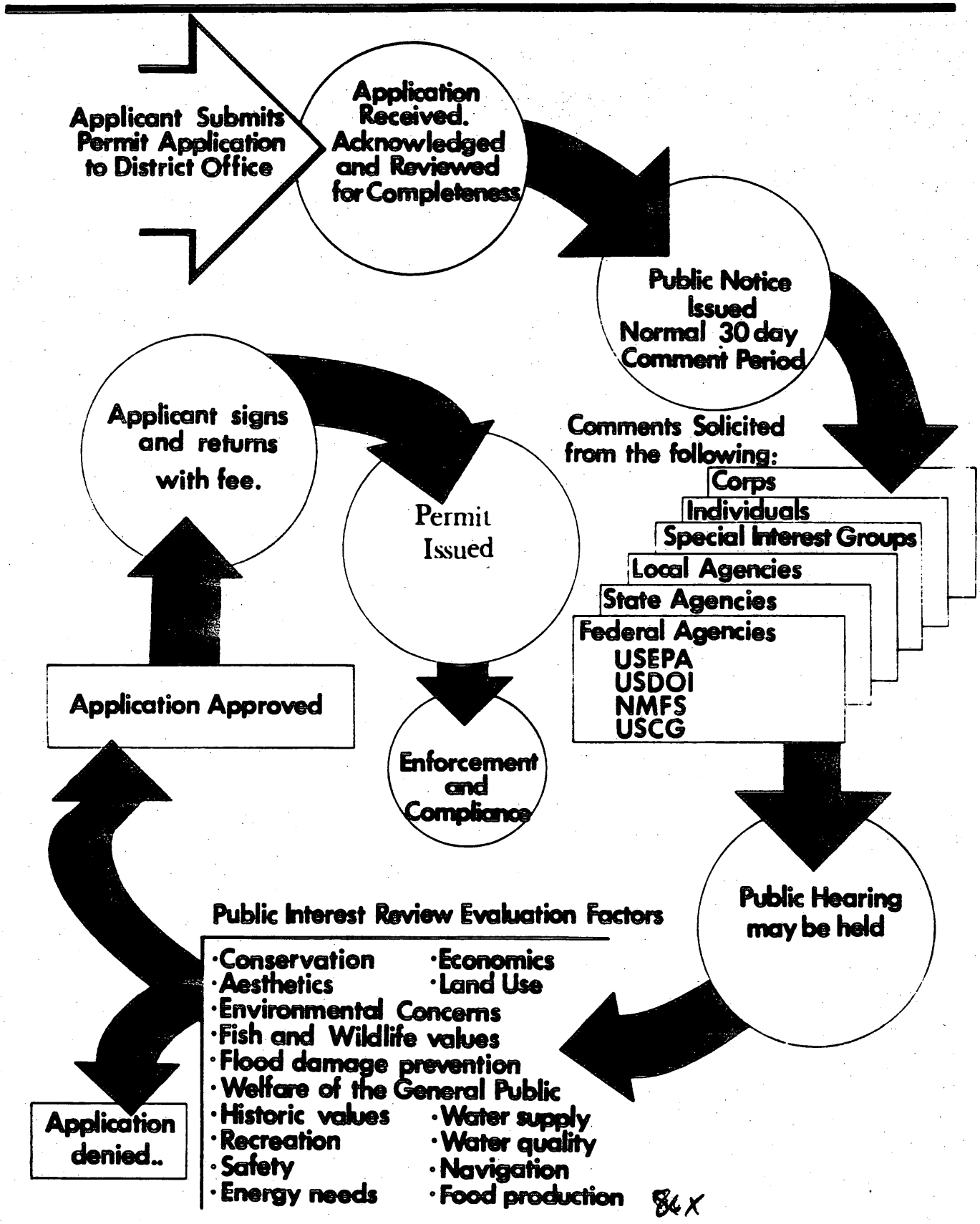
c. Special Assignments
- Superfund
- Dam Inspection

d. Regulatory Functions

85X

REGULATORY FUNCTIONS:

typical corps permit review process



COMMUNITY RESOURCES ASSOCIATION, INC.
411 Ridgedale Avenue
East Hanover, New Jersey 07936

July 29, 1986

Assembly Energy and
Natural Resources Committee
State House
Trenton, New Jersey 08625

Re: Wetlands Legislation (Assembly Bill No. 2342 - The "Ogden" Bill and Assembly Bill No. 2499 - The "Penn" Bill)

Dear Committee Members:

We are a nonprofit corporation consisting of various commercial and private citizens' interests of the Township of East Hanover including most of the major industries of the Township. The Association was created pursuant to an ordinance of the governing body of the Township and New Jersey corporate law. As you are undoubtedly aware, East Hanover, Township has a significant amount of wetlands about which we are concerned. We believe it is important to the community that these wetlands be protected and that the protection be provided in a reasonable and even-handed manner.

This organization has not and will not endorse any particular piece of legislation but rather has determined after careful study and consideration, that the Ogden Bill, as it is currently drafted, has certain serious deficiencies in it and therefore the consensus of this organization is to urge the Legislature to adopt criteria which would, as a minimum, include the following:

1. A clear definition of wetlands which is objectively determinable and reasonable in its application.

2. There should be one review process and one reviewing agency. To do otherwise is extremely burdensome to the regulators as well as those being regulated.

3. The wetlands should be mapped. The case by case approach suggested by the Ogden Bill is undesirable and unfair and contrary to basic principles of statutory and regulatory precedent and the right of land owners as well as local governing bodies to plan reasonably for future land use.

87X

4. The agency whose responsibility it is to implement this law should be adequately funded and we are convinced from past experience with other programs, that adequate funding would mean at least $1,000,000 annually.

We would appreciate it very much if you would seriously consider these factors in your further deliberations and we will enjoy hearing from you in regard to these comments in the near future.

Thank you very much.

Very truly yours,

George T. Hanley
Chairman

GTH:wa
FN: 1020 (CRA/01)

PUBLIC HEARING - WETLANDS PROTECTION BILLS
Lincoln Park, N. J., July 30, 1986

I am a member of the governing board of a recreational lake club which has 500 family members. My responsibilities include water quality management for this lake. I speak in favor of the Ogden/Lynch bills (A-2343/S-2003) and urge that the legislature enact this effective wetlands protection act. These bills would help preserve the quality of water in our lake, as well as in the many other recreational lakes in the New Jersey Highlands that are utilized for swimming.

In a recent study of our lake by a biologist, we were advised that wetlands retain vast quantities of phosphorus and suspended solids which enter into the wetlands from the surrounding hills and from urban stormwaters. Thus, they act as efficient "waste water treatment plants" in helping to filter and remove nutrient-rich runnoff water prior to its release into clean lakes. Without wetlands, lakes would soon fill with sediments, harmful bacteria and nuisance plants. Soon recreational use of the lake would be destroyed.

In our lake, wetlands are especially important, since nearly 1400 largely undeveloped acres drain directly into the lake through the wetlands systems within these 1400 acres. Yet, these wetlands are now unprotected by state and federal law. In 1983, the U. S. Army Corps ruled that development of these wetlands could take place under the nationwide permit program.

Under the Penn/Zane bill (A-2499/S-2121), these wetlands could be destroyed because developers would be allowed to clear vegetation, excavate, dredge, disturb water levels, and build structures. Since no buffer zones are required in the Penn/Zane bill, any wetlands retained by the developers as "open space" would soon fill with sediments, and the wetlands would be overwhelmed through nutrient enrichment from fertilized lawns and septics.

But, under the Ogden/Lynch bill any development that might be proposed for this area would be required to preserve the wetlands intact, and in addition, residential and commercial development would have to be set back from 20 feet to 300 feet, depending upon the type and scope of the activity. While enactment of the Ogden/Lynch legislation is important to preserve the ecology of our lake, it will also benefit the many other headwater lakes throughout northern New Jersey.

NEW JERSEY'S LAKES ARE A RECREATIONAL RESOURCE AS IMPORTANT AS OUR N. J. SHORE. For the public good, the New Jersey legislature must pass a strong inland wetlands law. Other nearby states as urban as New Jersey have strong wetland protection laws requiring buffer zones. The Ogden/Lynch will give New Jersey similar protection.

Help preserve Clean Water and Clean Lakes in our State. Please support the Ogden/Lynch legislation. Thank you.

Diane Nelson
R. D. 2, Box 254
Boonton, N. J. 07005

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