

POLICY GUIDANCE FOR SUFFOLK COUNTY ON SHELLFISH CULTIVATION IN PECONIC AND GARDINERS BAYS



June 2002



REPORT OF THE SUFFOLK COUNTY AQUACULTURE COMMITTEE



Suffolk County Department of Planning
Suffolk County ■ New York

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Policy Guidance for Suffolk County on Shellfish Cultivation in Peconic and Gardiners Bays

Report of the Suffolk County Aquaculture Committee

June 2002

Suffolk County Department of Planning

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Hauppauge, New York
June 2002

	Page
EXECUTIVE SUMMARY	1
INTRODUCTION	4
Authorizing Resolution	7
Formation of the Suffolk County Aquaculture Committee	7
Scope of the Committee’s Work	9
HISTORICAL ROLE OF SUFFOLK COUNTY IN MANAGING UNDERWATER LANDS IN PECONIC AND GARDINERS BAYS	11
Suffolk County Oyster Grant Activities in Peconic and Gardiners Bays	13
Underwater Land Ownership Rights in Peconic and Gardiners Bays	15
Suffolk County Shellfish Cultivation Leasing Authority in Peconic and Gardiners Bays	18
TAX STATUS OF UNDERWATER LANDS	21
Oyster Lot Tax Exempt Acreage vs. Taxed Acreage	23
2000/2001 Oyster Lot Tax Assessments and Tax Payments	23
THE AQUACULTURE INDUSTRY IN PECONIC AND GARDINERS BAYS	27
Status and Trends of Shellfish Cultivation Activities	29
Statements Supporting Expansion of Private Shellfish Cultivation Activities in Peconic and Gardiners Bays	30
Statements Opposing Expansion of Private Shellfish Cultivation Activities in Peconic and Gardiners Bays	31
Interface of NYS Local Waterfront Revitalization Program and County Leasing Authority	32
POLICY ANALYSIS AND RECOMMENDATIONS	33
Fundamental Policy Questions	35
Committee Response to Question #1	36
Committee Response to Question #2	37
REFERENCES	41
APPENDIX	45
Appendix A: Resolution No. 487-2001	46
Appendix B: Laws of 1884, Chapter 385 as amended	49
Appendix C: Laws of 1969, Chapter 990	53
Appendix D: Peconic Estuary Program CCMP - Recommendations Pertaining to Aquaculture ...	56
Appendix E: Peconic Bays Aquaculture Advisory Committee Final Report	62
TABLES	
Table 1. Suffolk County Aquaculture Committee Membership	8
Table 2. Peconic/Gardiners Bays Oyster Lot Acreage - Tax Status	26
Table 3. Peconic/Gardiners Bays Oyster Lot Acreage by Assessed Owner	26
Table 4. Peconic/Gardiners Bays Oyster Lot Acreage - Taxes Paid 2000/2001	26
Table 5. Peconic/Gardiners Bays Oyster Lot Total Based on 2000/2001 Tax Roll Data	26
Table 6. Peconic/Gardiners Bays Leasing Area Criteria	38
MAPS	
Map 1. Coastal Underwater Land Ownership: Towns of Riverhead, Shelter Island, Southold, Southampton & East Hampton, Suffolk County, New York	16
Map 2. Peconic / Gardiners Bays Underwater Land Parcel Tax Status: Towns of Riverhead, Shelter Island, Southold, Southampton & East Hampton, Suffolk County, New York ...	24

Contents

EXECUTIVE SUMMARY

EXECUTIVE SUMMARY

Suffolk County has certain authorities pertaining to shellfish cultivation in Peconic and Gardiners Bays under New York State law, and was actively engaged a century ago in the administration of the program that issued grants of underwater lands for private oyster farming. The current status of oyster beds in the Peconic and Gardiners Bays, the conduct of private shellfish cultivation activities, conflicts among different bay users, and the need for sites to expand shellfish culture in the future are all topics that stir vigorous debate. In response to these concerns and the need to look into the management role of Suffolk County under Laws 1969 Chapter 990 and predecessor acts, Resolution No. 487-2001 was adopted and signed into law by the Suffolk County Executive on June 12, 2001.

Resolution No. 487-2001 called for the creation of the Suffolk County Aquaculture Committee, the holding of public hearings and the submission of a written report on aquaculture in Peconic and Gardiners Bays to the County Executive and the Suffolk County Legislature in June 2002. The resolution directed the Suffolk County Department of Planning to implement the provisions of the resolution.

The Suffolk County Aquaculture Committee held nine meetings during the period from August 10, 2001 to May 23, 2002, and hosted two, well-attended public hearings. The scope of Committee effort focused on the potential role that Suffolk County could play in managing future shellfish cultivation activities in Peconic and Gardiners Bays. The work of the Committee is documented in this report.

There are five sections in this report. The introduction discusses the charge to the Committee, its formation and the scope of its work. The second section provides information on the history of Suffolk County involvement in the Peconic and Gardiners Bays oyster industry; the current pattern of underwater land ownership

rights; and the legal authority of Suffolk County to conduct a leasing program. Data sets from a tax search on underwater lands are summarized in the third section. Different views supporting and opposing the expansion of private shellfish cultivation in Peconic and Gardiners Bays are the primary subjects of the fourth section. The final section contains the results of policy analysis and the Committee's recommendations that are transmitted herein for consideration by Suffolk County.

The Suffolk County Aquaculture Committee recommends that Suffolk County should endorse the following policy determinations pertaining to private shellfish culture in Peconic and Gardiners Bays:

- *Private shellfish aquaculture in Peconic and Gardiners Bays offers advantages to the people and economy of Suffolk County, if conducted in a manner and scale that does not cause undue conflict with other users of marine resources and space, or harm to the marine environment.*
- *Private shellfish aquaculture is a legitimate water-dependent activity that requires the provision of secure and equitable access to publicly owned marine space for private use.*
- *Equitable access for the prospective aquaculturist is achievable through a program that is buttressed by judicious site selection; that allows culture activity to be conducted at appropriate scale; that regulates the use of technology so as to protect marine resources and the environment; and that is rigorously monitored and enforced.*

There are two fundamental policy questions that address the use of Peconic and Gardiners Bays for private shellfish cultivation. The Committee's recommendations respond to these questions.

EXECUTIVE SUMMARY

Question # 1: What should Suffolk County do about the existing pattern of underwater land rights ownership in Peconic and Gardiners Bays and associated use issues, which are the result of past oyster grant management activities and current practices?

The Suffolk County Aquaculture Committee recommends that Suffolk County should take the following actions with respect to underwater land parcel ownership and delineation in Peconic and Gardiners Bays:

- *Suffolk County should take the tax deed for all private grant parcels where taxes are in arrears, after the required statutory period. This policy action should be decisive and automatic, as far as underwater grant lands are concerned.*
- *Reverted grant lands should be retained in public ownership for general purposes and not be sold by Suffolk County at any future tax sale.*
- *Suffolk County should clear title through appropriate legal proceedings to those parcels where records indicate dual assessed owners exist, i.e., Suffolk County and a private entity, and take title where the County has legal rights.*
- *Suffolk County should simplify the pattern of underwater land parcels by consolidating parcels that it owns now with others that it takes control over in response to the actions stated above. The new parcel boundaries should be described using Global Positioning System (GPS) technology. Private parties that retain ownership of grant lands should also be encouraged to establish accurate surveys of their parcels using GPS technology.*
- *Suffolk County should avoid paying property taxes on underwater parcels that it owns, by assigning them to the general purpose use classification.*

Question # 2: What should Suffolk County do with respect to its shellfish cultivation leasing authority in Peconic and Gardiners Bays?

The Suffolk County Aquaculture Committee recommends that Suffolk County should take the following actions with respect to its authority under New York State law to implement a shellfish cultivation leasing program in Peconic and Gardiners Bays:

- *Suffolk County in concert with the Peconic Estuary Program, the State of New York, and local municipalities should pursue the development of a shellfish cultivation leasing plan for Peconic and Gardiners Bays. The decision to implement a leasing program should be deferred until the issues of where and how leasing would occur are resolved in a politically acceptable manner.*
- *Suffolk County should encourage the conduct of required work to enable the identification of areas that would be presumptively compatible for shellfish leasing. This would entail the specification of objective criteria pertaining to environmental parameters; the design of appropriate resource user surveys; conduct of field studies; the portrayal and interpretation of results; and review and comment by the public. Considerable resources will be required to conduct this work. It should not be pursued by the County alone. Progress on resolving aquaculture leasing issues can only be achieved by working in concert with the State of New York and the involved constituencies. Therefore, any Suffolk County decision to proceed with this work should be contingent upon the commitment of resources and joint participation by the New York State Dept. of Environmental Conservation and/or the New York State Dept. of State.*

INTRODUCTION

INTRODUCTION

The conduct of private aquaculture activities in Peconic and Gardiners Bays is a matter of interest to various segments of society, and there are many issues that have stirred debate concerning recent aquaculture activities, future opportunities for shellfish culture, user conflicts, and management procedures. Some of these issues, e.g., the harvest of natural set clams from private oyster grant lands, are the subject of litigation. Suffolk County has certain authorities pertaining to shellfish cultivation in Peconic and Gardiners Bays under New York State law, and was actively engaged a century ago in the administration of the program that issued grants of New York State owned underwater lands for private oyster cultivation.

The Suffolk County Department of Planning was directed to implement the provisions of Resolution No. 487-2001, which was signed by the Suffolk County Executive on June 12, 2001. It called for the creation of the Suffolk County Aquaculture Committee, and required submission of a written report to the County Executive and Suffolk County Legislature on aquaculture in Peconic and Gardiners Bays.

The Suffolk County Aquaculture Committee conducted its work during the past year. Its deliberations on the future of shellfish cultivation in Peconic and Gardiners Bays and the role that Suffolk County could pursue in managing this activity are documented in this Committee report. The marine area in question is bounded by the yellow line superimposed over the aerial photograph shown on the report cover.

Authorizing Resolution

Resolution No. 487-2001 is shown in Appendix A of this report. The resolution mentions a dispute over the status of oyster beds in the Peconic and Gardiners Bays, and the need to look into the role of Suffolk County under Laws 1969 Chapter 990 and predecessor acts. It establishes and sets the membership of the Suffolk County Aquaculture Committee. The Committee is required to hold public hearings for taking testimony on “the outstanding taxes owed on such underwater properties; the role of Suffolk County in managing such lands; and the status of the aquaculture industry on Long Island.” It must also submit a “written report making findings and determinations to the County Executive and each member of the County Legislature” in June 2002.

Formation of the Suffolk County Aquaculture Committee

In June 2001, the Director of Planning solicited the elected officials, department heads, etc. having authority to appoint members of the Committee in accord with the stipulations of Resolution No. 487-2001, for the names of those individuals designated to serve on the Committee. The membership was so duly established in order to meet the deadline of conducting the first Committee meeting within 60 days of the effective date of the resolution. The names of the 16 Committee members and their affiliations appear in Table 1. The members brought to the Committee a wide range of expertise reflecting different County and local government functions, as well as viewpoints reflecting commercial fishing and environmental concerns.

INTRODUCTION

Table 1. Suffolk County Aquaculture Committee Membership

Appointing Entity	Member
Director, Suffolk County Planning Department	Thomas A. Isles , Chairman of the Committee Suffolk County Department of Planning
Suffolk County Executive	George Proios , Assistant County Executive Suffolk County Office of Environmental Affairs
Suffolk County Treasurer	Joseph Sawicki, Jr. , Chief Deputy Treasurer Suffolk County Treasurer's Office
Commissioner, Suffolk County Department of Economic Development	Carolyn Fahey , Intergovernmental Relations Coordinator Suffolk County Department of Economic Development
Commissioner, Suffolk County Department of Health Services	Walter Dawydiak , Chief, Office of Ecology (Laura Bavaro-Alternate) Suffolk County Department of Health Services
Commissioner, Suffolk County Department of Public Works	Edwin Cohen , Director of Material Testing Suffolk County Department of Public Works
Director, Suffolk County Real Property Tax Service Agency	Penny Wells LaValle , Director Suffolk County Real Property Tax Service Agency
Town of Southampton Supervisor	Hon. Jon Semlear , Secretary Town of Southampton Trustees
Town of Southold Supervisor	James McMahon , Executive Administrator Town of Southold
Chairman, Suffolk County Legislature Ways & Means Committee	Hon. George O. Guldi , Vice Chairman of the Committee Suffolk County Legislature Ways & Means Committee
Town of East Hampton Supervisor	Hon. Job Potter , Councilman Town of East Hampton
Town of Shelter Island Supervisor	John Kotula , Secretary of the Committee Town of Shelter Island
Town of Riverhead Supervisor	Lt. David Lessard Town of Riverhead Police Department
East End Supervisor's Association	Hon. Gerard Siller , Chairman Commercial Waterfront Business Committee
Village of Greenport Mayor	Hon. Bradley B. Burns , Trustee Village of Greenport
Peconic BayKeeper	Kevin McAllister , Peconic BayKeeper

Scope of the Committee's Work

Early in its deliberations on the scope of its work, the Committee determined that the term *aquaculture* is not defined in the NYS Environmental Conservation Law (ECL), and is not used in the NYS Department of Environmental Conservation (NYS DEC) regulatory program. This term is also not found in the law that authorizes Suffolk County to lease underwater lands in Peconic/Gardiners Bays for "the purpose of shellfish cultivation." However, the terms *shellfish* and *cultivation* are defined in the ECL, and the New York State Official Compilation of Codes, Rules and Regulations, respectively. According to ECL Article 11, section 11-0103:

"Shellfish" means oysters, scallops, and all kinds of clams and mussels.

Title 6, Part 48 Marine Hatcheries, On-bottom and Off-bottom Culture of Marine Plant and Animal Life, section 48.1 defines cultivation as follows:

"Culture" or "cultivation" means the controlled or partially controlled raising, breeding, growing, planting and containment of marine plant or animal life in any marine hatchery or through on-bottom or off-bottom culture as herein defined."

Given the above, the Committee decided to direct its attention to *shellfish cultivation* based on a combination of the above definitions, and with respect to how this activity has occurred in the past, is now underway or could occur in the future within the specific geographic area of Peconic and Gardiners Bays. The term *aquaculture*, as used herein, is synonymous with and limited to this interpretation of *shellfish cultivation*.

Suffolk County, the State of New York, private companies and individuals have been named as defendants in lawsuits concerning the ownership status and use of oyster grant underwater lands in Peconic and Gardiners Bays. Although these disputes were a catalyst that contributed to the establishment of the Aquaculture Committee, the Department of Planning was advised by the Suffolk County Attorney that the Committee should not discuss any matters relating to ongoing litigation.

Hence, *the scope of Committee deliberations focused on the future of shellfish cultivation in the Peconic/Gardiners Bay region, and the potential role that Suffolk County could play in managing this activity.* To the maximum extent possible, the Committee avoided discussion of issues subject to ongoing litigation.

The Committee conducted nine working meetings during the period from August 10, 2001 to May 23, 2002, and hosted two public hearings. The working meetings were devoted to acquiring information, reviewing data and evaluating opinions pertaining to the charge to the Committee in its authorizing resolution. Personnel from Suffolk County departments and agencies, NYS DEC, and Marine Sciences Research Center made presentations to the Committee. Members of the public were allowed to attend the meetings as observers, but did not actively participate in the work at hand.

The public and representatives of various interest groups and constituencies were able to provide their input and opinions directly to the Committee at its two public hearings, which were advertised in the media and by notices that were widely distributed by mail. (The mailing list included: Town Supervisors; Village Mayors; Suffolk County Legislators; local members of Congress; local members of State Senate and Assembly; Suffolk County Planning Commission; selected Suffolk County Depts.; town planners; Peconic Estuary Program Citizens Advisory Committee; Town and Village Conservation Advisory Councils; Peconic Bays Aquaculture Committee; NYS Marine Resources Advisory Council; NYS Shellfish Advisory Committee; Long Island Shellfish Managers; East End Marine Farmers Assoc.; NYS DEC marine hatchery permit holders and on/off-bottom culture permit holders; and Town Baymen Associations.) The hearings were held in the early evening on September 25, 2001 and December 6, 2001 at the Riverhead County Center.

The September 25 Public Hearing was devoted solely to receiving testimony from the public on a variety of topics, such as underwater land taxation; the role of Suffolk County in managing underwater lands; the need for a shellfish cultivation leasing program; where leasing should/should not be allowed; society views on private aquaculture as an industry in Peconic/Gardiners Bays; and the

INTRODUCTION

benefits/costs of existing and potential aquaculture activities. Ninety people attended this hearing, and oral testimony was given by 24 people.

Invited expert testimony initiated the second Public Hearing held on December 6, which was attended by about 80 people. Mr. Gregg Rivara (Cornell Cooperative Extension of Suffolk County Marine Program) spoke on the status of aquaculture activity conducted in Peconic and Gardiners Bays on private underwater land grants, town trustee lands and temporary marine area use assignments issued by NYS DEC (e.g., cage culture of oysters; hard clam relays). Mr. Richard C. Karney, Martha's Vineyard Shellfish Group, Inc. discussed the private aquaculture training initiative conducted by the Group that has resulted in the opportunity for baymen to grow high quality/high value oysters using rafts on floating grants issued by a local township in Martha's Vineyard, MA. After these presentations, the floor was opened for the public to ask questions on the presentations; and give testimony on the opportunities for expansion of shellfish culture in Peconic and Gardiners Bays, and the actions that should be taken to realize these opportunities. Eighteen people gave oral testimony at this hearing.

During the conduct of its work, the Committee was briefed on the progress made by another group that was convened by The Nature Conservancy to develop recommendations for the public

management of aquaculture in the Peconic Bays system. The membership of the Peconic Bays Aquaculture Advisory Committee included stakeholders, scientists and professional agency staff having direct involvement with the aquaculture industry and the management of public fisheries in these bays. As such, the Peconic Bays Aquaculture Advisory Committee targeted its work to the technical aspects of shellfish culture, and how this activity could be sited and regulated. Both committees coordinated their efforts, so as to avoid duplication. Hence, the Suffolk County Aquaculture Committee was able to direct its attention to County responsibilities and management authority, while the Peconic Bays Aquaculture Advisory Committee discussed the nuances of shellfish culture operations and regulation.

The three main sections that follow in this report provide information on: 1. the history of Suffolk County involvement in the Peconic/Gardiners Bay oyster industry, the current pattern of underwater land ownership rights, and legal authority to conduct a leasing program; 2. the tax status of underwater lands; and 3. the different views and perspectives on aquaculture as an industry on Long Island. The final section contains the results of the Suffolk County Aquaculture Committee's deliberations in the form of recommended policy actions that are transmitted herein for consideration by the County of Suffolk.

**HISTORICAL ROLE OF SUFFOLK COUNTY
IN MANAGING UNDERWATER LANDS
IN PECONIC AND GARDINERS BAYS**

HISTORICAL ROLE OF SUFFOLK COUNTY IN MANAGING UNDERWATER LANDS

HISTORICAL ROLE OF SUFFOLK COUNTY IN MANAGING UNDERWATER LANDS

The ownership of underwater land is a key component of any marine resource management program, because the owner has either jurisdictional control over the shellfish found on the land, or the exclusive right to their harvest. Suffolk County has the sole authority under New York State law to issue shellfish cultivation leases in Peconic and Gardiners Bays where underwater lands are owned by New York State. (A 1996 amendment to the NYS Environmental Conservation Law [ECL 13-0301] precludes the NYS DEC from issuing leases in these bays for shellfish cultivation purposes.) To date, the County has not exercised this authority. However, Suffolk County was once very active in managing the Gardiners and Peconic Bays area for oyster culture pursuant to Laws of 1884 Chapter 385 as amended. (Text references to this and other State laws in this report will use the following format: L 1884, ch 385.)

Suffolk County Oyster Grant Activities in Peconic and Gardiners Bays

The first piece of State legislation that affected oyster cultivation in Gardiners and Peconic Bays was passed in 1884. Known officially as Chapter 385, *An Act to cede lands under water of Gardiners and Peconic Bays, to Suffolk County, Long Island, for the cultivation of shellfish*, this legislation permitted Suffolk County to issue grants of underwater land for the purpose of oyster culture only. All grantees were to have their deeds recorded in Suffolk County and pay property taxes on the underwater land. Under L 1884, ch 385, three Commissioners of Shell Fisheries were to be appointed by the County. These commissioners were authorized to sell and convey, by warranty deed, four acre parcels of underwater lands to persons who would agree to plant specified quantities of oysters within one year. This legislation was amended in 1896, 1906 and 1923. (See Appendix B.) Significant amendments pertaining to the granting of underwater lands by the Commissioners are identified below.

1. In 1896 the 1884 Act was amended and the size of the parcels increased from 4 to 25 acres. Further, the legislation specified 10 bushels of oysters per acre as the minimum to be planted by each grantee within one year (L 1896, ch 916).
2. The 1906 amendments to the 1884 Act (L 1906, ch 640) included among other things, the following:
 - a. The Board of Supervisors of the County was required to appoint a civil engineer to prepare maps. These maps had to show the location of grounds previously or thereafter deeded by the County for oyster cultivation.
 - b. All prior unrecorded grants and assignments were confirmed.
 - c. The 1884 Act contained a provision that a parcel, which had been conveyed, reverted to the County if the grantee failed to plant oysters within one year. This provision was altered to extend the period within which the grantee must plant to three years. In lieu of automatic reversion, the act required an order of the Supreme Court, based on a finding of bad faith on the part of the grantee, to effect the reversion.
3. A 1923 amendment to the 1884 Act altered the description of the land ceded to the County. The language included as part of the grant “lands under water of Gardiner’s Bay and the Peconic Bays and the tributaries thereof” (L 1923, ch 191). Grants of land in such tributaries made prior to the date of the act were confirmed.

At the present time, several thousand acres of underwater lands in Peconic and Gardiners Bays are controlled by private interests as a result of grant activities conducted by Suffolk County pursuant to L 1884, ch 385 as amended. In order to gain an understanding of how the present ownership pattern has evolved, the *Proceedings* volumes of the Suffolk County Board of Supervisors were reviewed to ascertain how Suffolk County implemented this law. The activities of the Commissioners of Shell Fisheries, as reported in the *Proceedings*, are of particular relevance in the observations below.

1. The Commissioners of Shell Fisheries functioned during the period from 1884 to about

HISTORICAL ROLE OF SUFFOLK COUNTY IN MANAGING UNDERWATER LANDS

1915. During this time, the Commissioners were responsible for writing deeds, reviewing applications for grants, recording deeds, conducting inspections of oyster grounds, filing annual reports, etc. After 1920, the Board of Supervisors and its Salt Water Fisheries Committee (1915) and later, the Shell Fish Committee (1938), apparently assumed the leading role as far as the oyster fishery was concerned. (By 1957 both of these Committees were abolished.)

2. Oyster cultivation grants were issued in perpetuity so long as annual property taxes were paid. During the initial period, 1885-1896, only 911 acres were granted, as experimental plantings were being tried during this time. Grants increased to an average of 1,200 acres per year from 1897-1902. A dramatic increase in grant activity then occurred; over 30,000 acres were granted from 1903-1906. There was a steep drop in acres granted from 1907-1910 in response to concerns raised by the Board of Supervisors over reservation of natural scallop grounds for the public. Between 1911 and 1914, 4,171.5 acres were granted. Over 1,600 acres of land were returned by grantees in 1915. No record of grants or returns of land were found in the *Proceedings* after 1915.

A total of 45,081.5 acres of land were granted by the County during the period 1885-1914. This amounts to 40% of the total area of Peconic and Gardiners Bays. The majority of those lands granted have reverted to the State over time because of non-payment of taxes. Other grant acreage remained in private ownership through deed transfers, etc.

3. It was not possible to ascertain whether the requirement of planting a specific number of bushels of oysters per acre pursuant to the law was actually met by the grantees.
4. The Commissioners apparently were faced with the question of determining whether or not specific parcels supported a natural growth of clams or contained shell beds, and if they did, the parcels could not be

granted. Criteria were established in L 1896, ch 916. If a person could dig three bushels of clams in one day from an area, then public access to this area could not be restricted. Obstruction to navigation in the form of oyster lot markers was also a significant issue.

5. There were several attempts by organized groups of baymen to limit granting activity.
6. The Board of Supervisors expressed its concern on several occasions over the issue of retaining control of grant activity in Peconic and Gardiners Bays. There was fear that control would be lost to the State as a result of amendments to authorizing legislation.
7. The extent to which oyster planting requirements were met by grantees could not be ascertained. The Board of Supervisors issued quitclaim deeds on large areas, thus eliminating the need to fulfill such conditions.
8. There appears to have been underwater "land grabbing" during the early 1900s for speculation purposes. No doubt, more acres were granted than were actually used for oyster cultivation.
9. References were made to the filing of maps showing oyster lots in Peconic and Gardiners Bays with the County Clerk.
10. The fees levied for grants were set to meet the expenses of the Commissioners.

The relative significance of oyster management activities in the County decreased significantly after the 1920s, reflecting in part, the decline in the oyster industry. From this time on, County attention focused on other needs associated with the urbanizing process, such as provision of highways, police, parks, etc. The one exception to this trend was support for passage of the bill that eventually became L 1969, ch 990.

HISTORICAL ROLE OF SUFFOLK COUNTY IN MANAGING UNDERWATER LANDS

Underwater Land Ownership Rights in Peconic and Gardiners Bays

With the exception of town ownership of stream corridors and small embayments that are tributary to Peconic/Gardiners Bays, the ownership pattern of underwater lands in the open bays has been the result of past oyster ground management activities conducted by Suffolk County. The Suffolk County Real Property Tax Map shows the boundaries of underwater land parcels that were drawn pursuant to the issuance of oyster cultivation grants in the open bay areas from the mouth of the Peconic River east to a line running from the most easterly point of Plum Island to Goff Point at the entrance to Napeague Harbor. Approximately 550 irregularly shaped parcels were created in the area located seaward of a 500 foot-wide, State-owned buffer along the shore.

Over the years, grantees have bought and sold oyster lots. The title to and exact locations of many of the grant parcels have become clouded. In some instances, reference points on adjacent uplands that were used a century ago to locate underwater parcels, as referenced in original deeds, are no longer in existence. Determining the *precise* location and extent of these parcels today is difficult at best.

The Suffolk County Department of Planning prepared underwater land ownership maps for each of the townships located within the Peconic estuary study area under the Peconic Estuary Program using the Suffolk County Real Property Tax Map Service Property Data File (1996). The Geographic Information System (GIS) files for each of these maps were combined to produce one map for the Suffolk County Aquaculture Committee showing the entire estuary, including its tributaries.

The *Coastal Underwater Land Ownership* map in this report shows the complex pattern of ownership rights in the estuary. It has eight map key categories that refer to ownership. Four of the categories refer to a government jurisdiction (New York State, Suffolk County, Town [including Town Trustees property] and Village), and one to

a New York State agency assigned stewardship of underwater lands (Long Island State Park Commission). Private ownership is designated for parcels where there is a single, private interest on the property. The “Joint Suffolk County/Private” category indicates a dual or multiple ownership where two or more conveyances cover the same parcel of underwater land. (This condition exists due to poor conveyance practices, particularly where underwater land was of marginal value.) Parcels with unknown owners are designated as such.

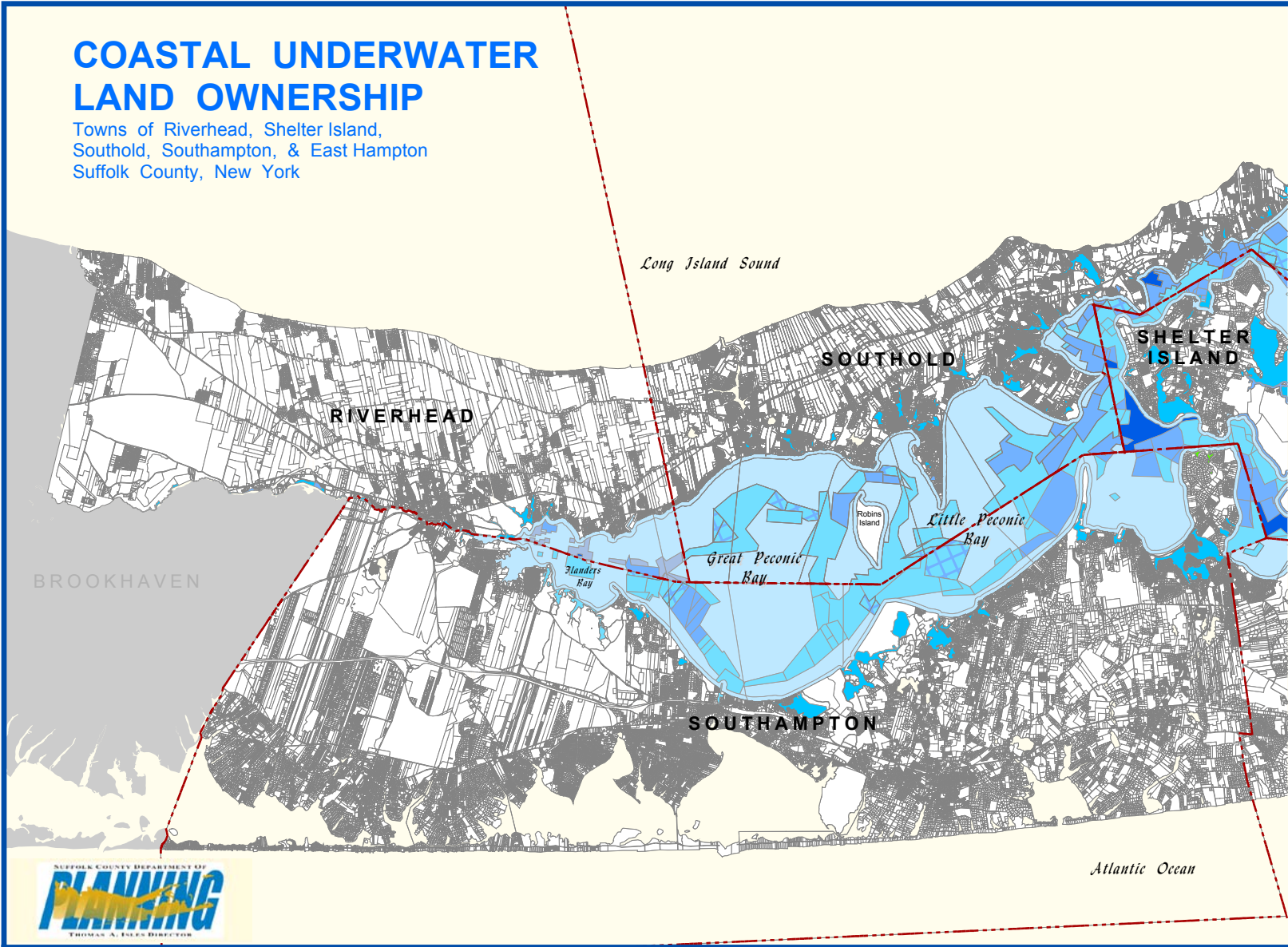
The geographic scope of the map inventory encompasses lands under marine (saline) waters in the Peconic/Gardiners Bay system, contiguous bays and tidal creeks, and the bottom of the Peconic River above the head of the tide. (Other lands under fresh surface waters are not in the inventory.) A total of 811 parcels of underwater land are shown on the map. (Resolution of most parcel boundaries on the version of the map in this report is precluded, given its reduced scale.) Of this total, 345 parcels are in private and joint Suffolk County/private ownership. Those parcels identified as “Unknown” and “Joint Suffolk County/Private” and many of the parcels identified as “Suffolk County” and “Private” were created through the issuance of oyster cultivation grants by the County. This implies that these parcels are not held in fee by the parties involved.

Over 121,000 acres of underwater lands are included in the map inventory. The majority of this area (nearly 54%) is owned by New York State, with holdings in Peconic and Gardiners Bays and additional near-shore areas adjacent to State parks (1.7%). Suffolk County has control over roughly one-quarter of the underwater lands (30,290 acres), and a joint interest in about 2% of the area where title is unclear. Most of the County land is located west of the Plum Island to Goff Point boundary line and more than 500 feet offshore, but also includes Peconic River bottoms. More than 11,000 acres are privately held, with most of this acreage consisting of oyster grants in the main bays, but there are significant private holdings in harbor areas and small tributaries. About 7% of the

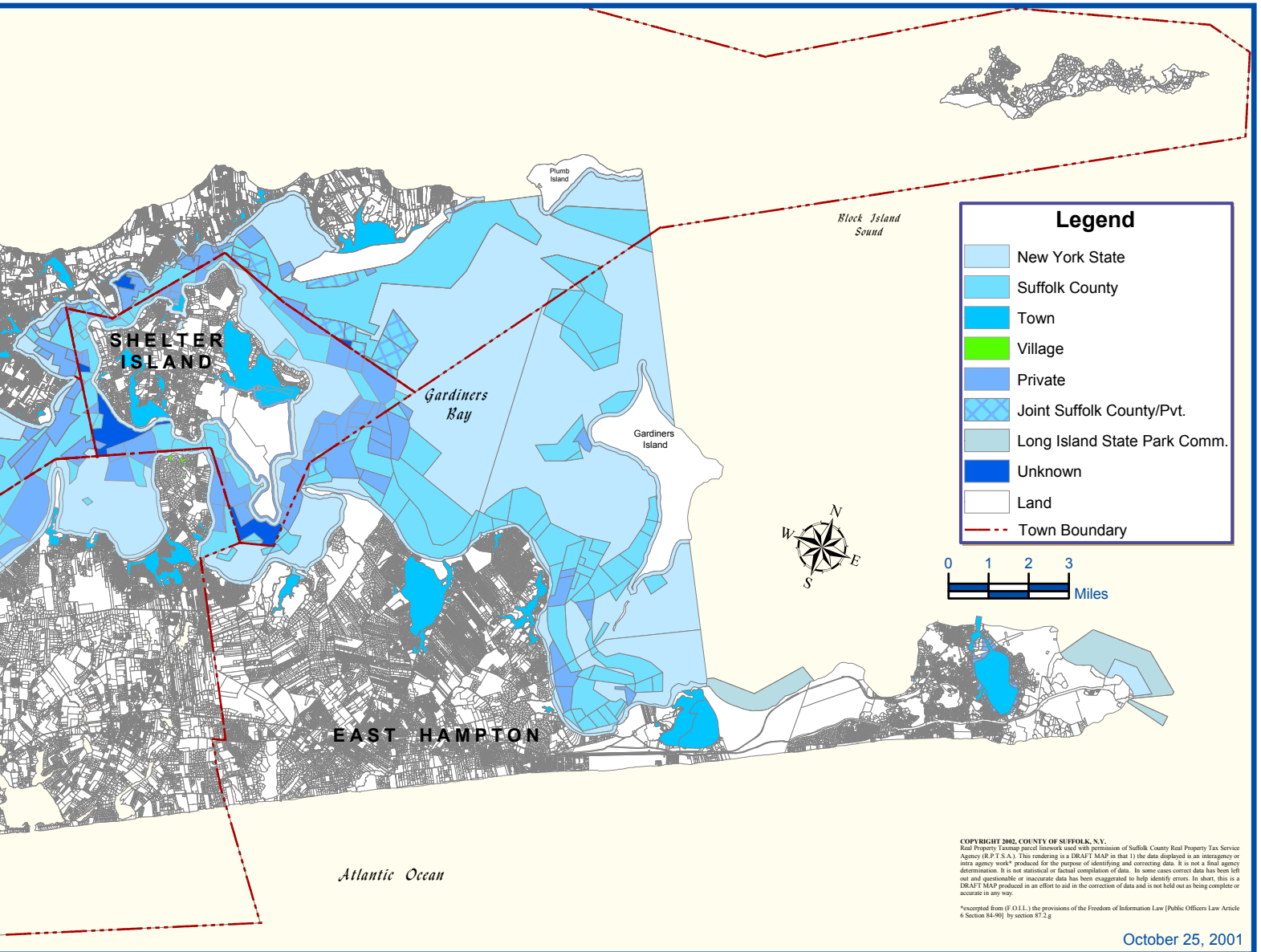
HISTORICAL ROLE OF SUFFOLK COUNTY IN MANAGING UNDERWATER LANDS

COASTAL UNDERWATER LAND OWNERSHIP

Towns of Riverhead, Shelter Island, Southold, Southampton, & East Hampton
Suffolk County, New York



HISTORICAL ROLE OF SUFFOLK COUNTY IN MANAGING UNDERWATER LANDS



HISTORICAL ROLE OF SUFFOLK COUNTY IN MANAGING UNDERWATER LANDS

bottom (8,659 acres) is controlled by the towns or Town Trustees. Town ownership is generally limited to coastal ponds, tributaries and harbors. Villages own only 27 acres.

Suffolk County Shellfish Cultivation Leasing Authority in Peconic and Gardiners Bays

Perplexing jurisdictional regimes, the need for a more modern administrative mechanism and local political support led to passage of a law entitled, *An Act to cede lands underwater of Gardiners and Peconic Bays to Suffolk County, and in relation to the management of such lands for the cultivation of shellfish*, by the State (L 1969, ch 990) that supplemented the 1884 oyster grant law. (See Appendix C.) The preamble to this 1969 law noted that shellfish other than oysters were being harvested in these bays, and that the status, location and title of underwater parcels were uncertain. The State Legislature found that the Commissioners of Shellfisheries had ceased to function, and the best interests of the people in the State would be served by the survey and management of the area so as to promote the cultivation of shellfish.

Under the provisions of this law, lands which had previously reverted or may in the future revert to the State as a result of non-payment of taxes were ceded to Suffolk County for the purpose of shellfish cultivation; existing oyster cultivation grants were ratified and confirmed; and underwater lands would be leased rather than granted. The area ceded to Suffolk County extends from the mouth of the Peconic River east to a line running from the most easterly point of Plum Island to Goff Point, at the entrance of Napeague Harbor.

The rights ceded to Suffolk County are contingent upon certain requirements. Before leasing or using the underwater lands ceded to it, Suffolk County must survey the land and prepare maps from the survey showing:

- town boundary lines in Gardiners and Peconic Bays;
- ordinary high water mark and a line located 1,000 feet seaward of same;

- location of existing grants, easements, franchises and cable lines;
- federally designated fish trap areas;
- underwater lands presently privately owned for the purpose of oyster cultivation;
- areas where bay scallops are produced regularly and harvested on a commercial basis;
- structures on the land and federal aids to navigation that are useful for taking ranges and determining points on the surface of the waters; and
- proposed plots for leasing and location of buoy markers.

A local law must then be enacted, which contains regulations governing:

- lease applications, required notices, and fees for filing applications, maps and documents;
- the form, terms, transfer & renewal of leases;
- re-survey and mapping where significant changes in the location of the shoreline occur, or where there are changes in range markers or navigation aids;
- the placing and maintenance of marker buoys; and
- the use of lands not leased.

With the regulations and surveys in hand, the County may then lease underwater lands for the purpose of shellfish cultivation only to Suffolk residents (one year residency required) in plots containing 50 acres or more for a term of 10 years. Underwater lands within 1,000 feet of the high water shoreline are exempt from leasing, as are "areas where bay scallops are produced regularly and harvested on a commercial basis." Seventy-five percent of the lease fees received by the County must be returned to the Towns of Riverhead, Southold, Shelter Island, Southampton and East Hampton in an amount proportional to the leased acreage located within each town.

While Suffolk County has authority to develop and implement a shellfish cultivation leasing program for this area, it does not have the power to do so because all of the requisite surveys of underwater lands have not been completed, and the policy decision to lease has not been institutionalized by

HISTORICAL ROLE OF SUFFOLK COUNTY IN MANAGING UNDERWATER LANDS

passage of the necessary local law and regulatory program. Hence, Suffolk County has not issued any leases for shellfish culture activity in this area. (The Suffolk County Real Property Tax Service Agency did prepare the *Oyster Lands – Flanders, Gardiners & Peconic Bays* map dated February 28, 1983, which shows underwater parcels and references to original oyster lot and oyster deed recordings.)

Baymen have often opposed any attempts to develop private intensive aquaculture activities in

Peconic /Gardiners Bays. A 1982 Suffolk County introductory resolution that would have provided funds for the accurate mapping and survey of underwater lands in these bays and other required items was not adopted as a result of this opposition. This was the last serious attempt to address obstacles to private aquaculture development involving Suffolk County authority. An initiative in the mid-1980s by the NYS Urban Development Corp. to secure lands in this area for the intensive culture of oysters on small plots also never materialized.

HISTORICAL ROLE OF SUFFOLK COUNTY IN MANAGING UNDERWATER LANDS

TAX STATUS OF UNDERWATER LANDS

TAX STATUS OF UNDERWATER LANDS

TAX STATUS OF UNDERWATER LANDS

Many people who presented testimony at the Committee's public hearings voiced their concern over the issue of back taxes owed on private oyster grant parcels in Peconic and Gardiners Bays. In response to this concern, the Suffolk County Department of Planning, Division of Real Estate prepared a tax search on all underwater land parcels in these bays for the 2000/2001 tax year, based on tax assessment data that the individual towns have provided to the Suffolk County Treasurer. This search, conducted in November 2001, provided a breakdown of hundreds of parcels by town, tax map number, acreage, assessed owner, current taxes and whether or not these taxes have been paid. The results of the search are summarized by town in Tables 2 through 5.

(Please note that the aggregate acreage figures shown in the tables are based on parcel acreage used by the town tax assessors, which are not necessarily the same as those shown for parcels on the Suffolk County Tax Map, nor for that matter, parcel acreages derived from any GIS data files. There are many discrepancies between the tax assessment acreage and tax map acreage, due to questions as to where town boundaries are located, whether an assessment covers more than one parcel, or where title problems are apparent.)

Oyster Lot Tax Exempt Acreage vs. Taxed Acreage

Table 2 shows the breakdown of acreage that is taxed in comparison to that which is exempt, i.e., where no taxes are paid. Ninety percent of the 110,924 acres of underwater lands in the bays are tax exempt. Assessed owners in this group include NYS, the County, and towns, as well as parcels where records show either dual County/private ownership, or unknown owners. The *Peconic/ Gardiners Bays Underwater Land Parcel Tax Status* map shows the location of all of the tax exempt parcels (legend color blue). Taxes are assessed on the remaining 11,121 acres, which are held by private interests or Suffolk County. The location of these parcels is also shown on the map (legend colors light blue, teal, red, orange and yellow).

Suffolk County is the assessed owner of 31,587 acres of underwater land, as indicated in Table 3. Title

problems exist on 4,328 acres, i.e., for those parcels having dual owners (County/private) or unknown assessed owners.

2000/2001 Oyster Lot Tax Assessments and Tax Payments

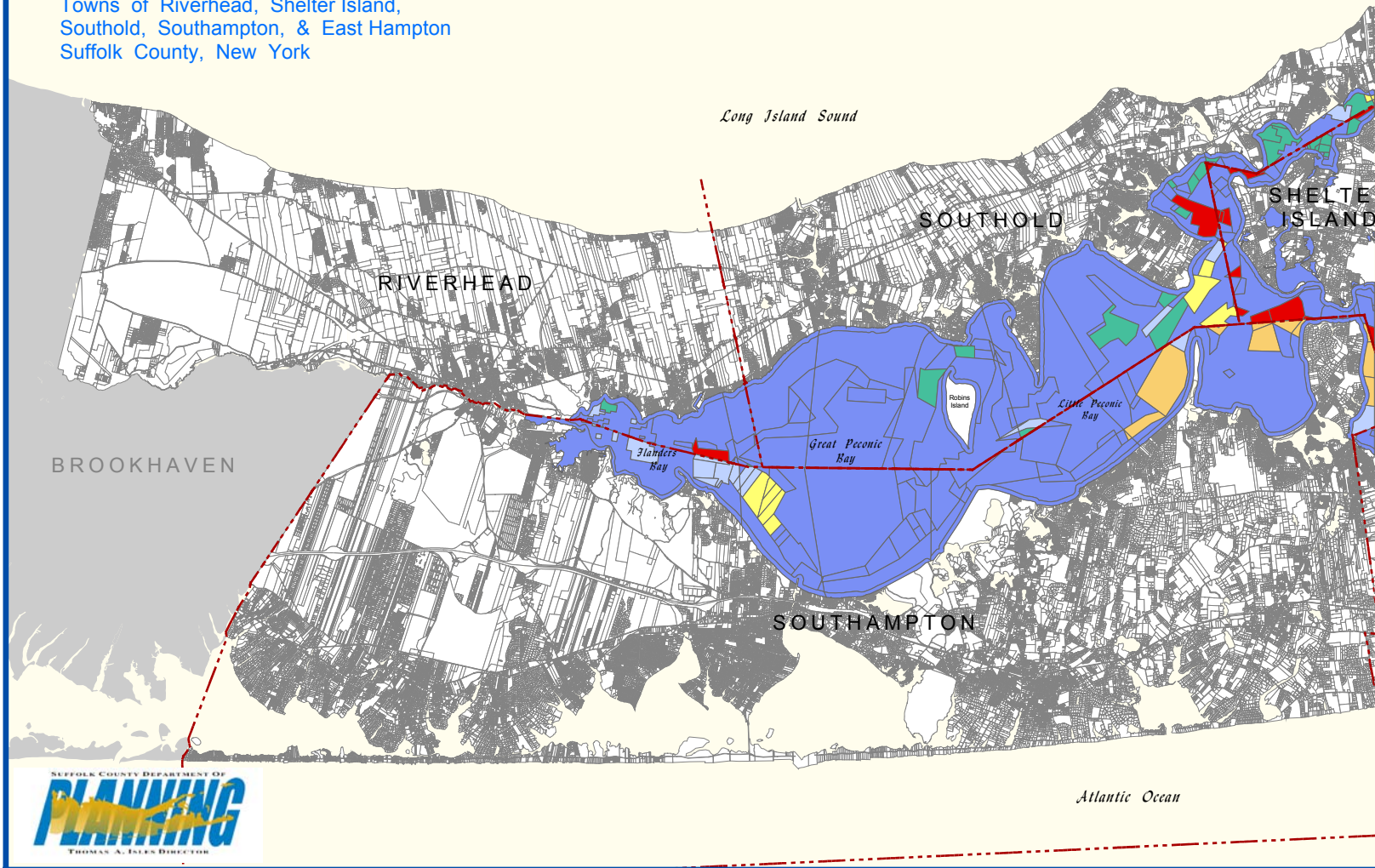
Table 4 shows that Suffolk County paid taxes on 2,167 acres for the 2000/2001 tax year. The taxes on 2,178 acres were paid up by private owners, while the taxes on 6,776 acres remained unpaid. The map referred to above shows the geographic distribution of the parcels where the taxes have been paid by Suffolk County (light blue) and private parties (teal). Private parcels with unpaid taxes are displayed in three colors (red, orange and yellow). The vast majority of the parcels with unpaid taxes for 2000/2001 are assessed to two private entities: Aqua Culture Technologies, Corp. (red); and Long Island Oyster Farms (orange). Many of these parcels are subject to bankruptcy proceedings and litigation.

Tax receipts for 2000/2001 are listed in Table 5. The total taxes assessed for the 111,000 acres in Peconic/Gardiners Bays amount to about \$75,000. Of this total, Suffolk County paid \$10,890; and private parties paid \$13,519. This leaves an unpaid balance due from other private parties of over \$50,500. The figures shown in Table 5 reflect payments received/not received only for the 2000/2001 tax year. They do not reflect back taxes. Many oyster lot parcels have delinquent taxes extending back 15 years or so, with interest and penalties mounting.

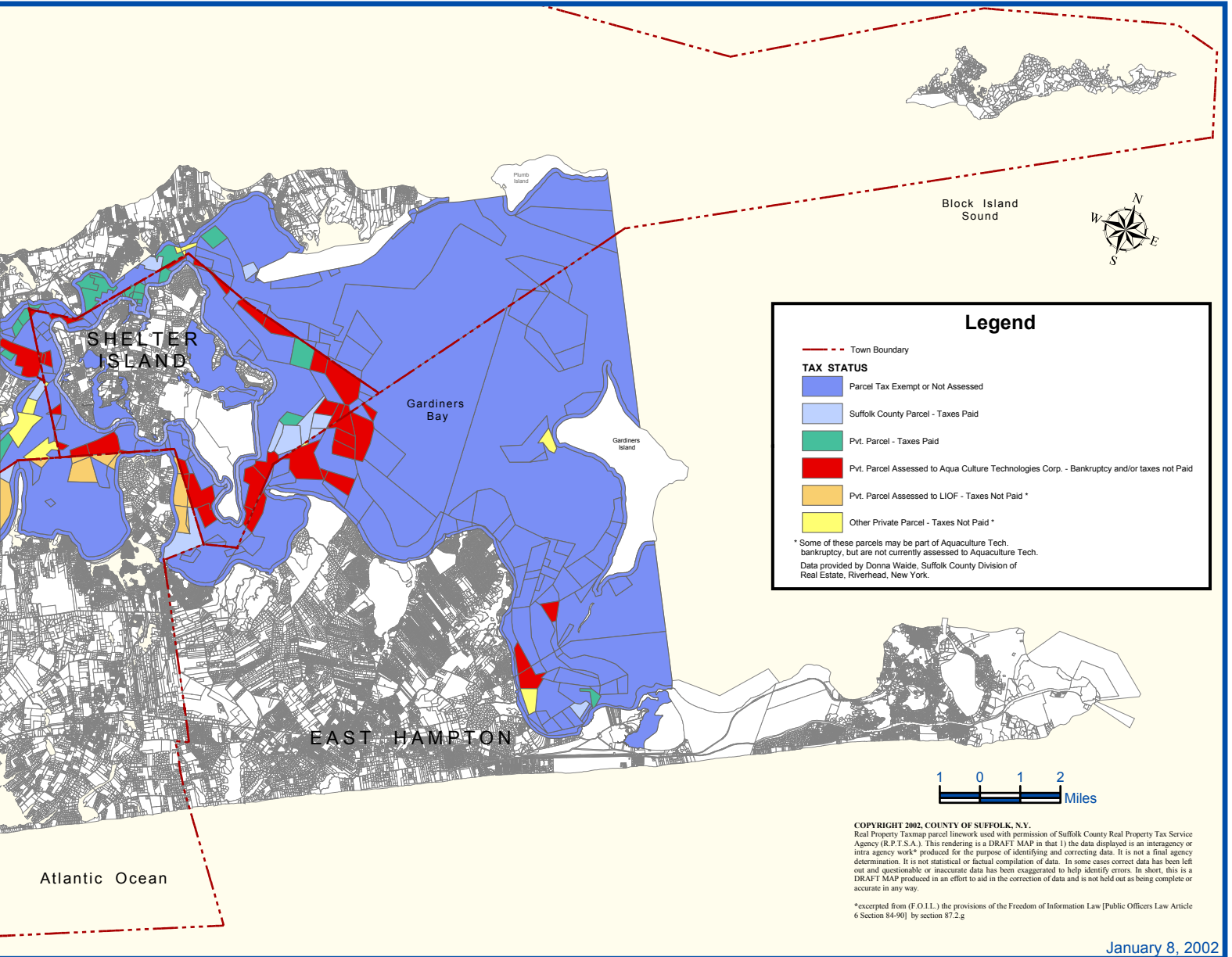
A decisive action by Suffolk County in the spring of 2002 has changed the ownership pattern in Peconic and Gardiners Bays in a dramatic, fundamental way. The deeds for 61 parcels, totaling about 5,190 acres, were taken by Suffolk County for non-payment of taxes on April 10, 2002. These parcels were reputedly owned by Aqua Culture Technologies Corp., Long Island Oyster Farms, and Peconic Bay Oyster Co. As a result of this action, Suffolk County now owns these parcels, and the privately owned taxed acreage in Peconic/Gardiners Bays has been reduced from 8,953 acres (Table 4) to 3,763 acres – a reduction of 58 percent! (This recent ownership change is not reflected in the *Coastal Underwater Land Ownership* and *Peconic/Gardiners Bays Underwater Land Parcel Tax Status* maps included in this report.)

PECONIC / GARDINERS BAYS UNDERWATER LAND PARCEL TAX STATUS

Towns of Riverhead, Shelter Island,
Southold, Southampton, & East Hampton
Suffolk County, New York



TAX STATUS OF UNDERWATER LANDS



TAX STATUS OF UNDERWATER LANDS

Table 2. Peconic/ Gardiners Bays Oyster Lot Acreage - Tax Status

TOWN	EXEMPT ACREAGE	TAXED ACREAGE	TOTAL
East Hampton	35,005.00	2,021.50	37,026.50
Riverhead	2,313.00	202.00	2,515.00
Shelter Island	9,062.00	3,304.00	12,366.00
Southampton	17,044.00	3,091.00	20,135.00
Southold	36,379.00	2,502.20	38,881.20
TOTAL	99,803.00	11,120.70	110,923.70

"Exempt Acreage" includes parcels where the assessed owner is identified as NYS, Suffolk County, Town of Shelter Island, Town of Riverhead, Suffolk County/private entity or unknown. No taxes are paid on these parcels.

"Taxed Acreage" includes parcels where the assessed owner is a private party or Suffolk County. Taxes are assessed on these parcels.

Source: Donna Waide, Suffolk County Division of Real Estate, Riverhead, New York.

Table 3. Peconic/ Gardiners Bays Oyster Lot Acreage by Assessed Owner

TOWN	SUFFOLK COUNTY	TITLE QUESTION	OTHER	TOTAL
East Hampton	11,371.00	1,548.00	24,107.50	37,026.50
Riverhead	445.00		2,070.00	2,515.00
Shelter Island	3,234.00		9,132.00	12,366.00
Southampton	5,126.42	581.00	14,427.58	20,135.00
Southold	11,411.00	2,199.00	25,271.20	38,881.20
TOTAL	31,587.42	4,328.00	75,008.28	110,923.70

"Suffolk County" includes parcels where the assessed owner is the County. "Title Question" refers to parcels where title problems are apparent.

"Other" includes parcels where the assessed owner is NYS, Town of Riverhead, Town of Shelter Island or private party.

Source: Donna Waide, Suffolk County Division of Real Estate, Riverhead, New York.

Table 4. Peconic/ Gardiners Bays Oyster Lot Acreage - Taxes Paid 2000/2001

TOWN	TAXED ACREAGE	TAXED ACREAGE-SUFFOLK COUNTY-ALL TAXES PAID	TAXED ACREAGE-PRIVATE	TOTAL PRIVATE ACREAGE-ALL TAXES PAID
East Hampton	2,021.50	74.00	1,947.50	58.00
Riverhead	202.00	42.00	160.00	45.00
Shelter Island	3,304.00	582.00	2,722.00	456.00
Southampton	3,091.00	1,081.42	2,009.58	0.58
Southold	2,502.20	388.00	2,114.20	1,618.00
TOTAL	11,120.70	2,167.42	8,953.28	2,177.58

Source: Donna Waide, Suffolk County Division of Real Estate, Riverhead, New York.

Table 5. Peconic/ Gardiners Bays Oyster Lot Total Taxes Based on 2000/2001 Tax Roll Data

TOWN	PAID BY SUFFOLK COUNTY	PAID BY INDIVIDUAL	DUE TO SUFFOLK COUNTY	TOTAL TAXES ASSESSED
East Hampton	\$452.76	\$469.06	\$18,555.78	\$19,477.60
Riverhead	208.05	245.75	1,140.02	1,593.82
Shelter Island	648.08	965.49	4,969.15	6,618.72
Southampton	4,860.92	11.28	18,948.92	23,821.12
Southold	4,682.78	11,827.54	6,898.52	23,408.84
TOTAL	\$10,888.59	\$13,519.12	\$50,512.39	\$74,920.10
Less Suffolk County Payments				-10,888.59
TOTAL taxes less S.C. Payments				\$64,031.51

Note: Figures do not reflect open back taxes, interest and penalties.

Source: Donna Waide, Suffolk County Division of Real Estate, Riverhead, New York.

THE AQUACULTURE INDUSTRY IN PECONIC AND GARDINERS BAYS

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The aquaculture industry is composed of individuals and small-scale businesses that operate independently, much like their counterparts in the commercial fishing industry. Data and information on the extent of shellfish cultivation activities in Peconic and Gardiners Bays are limited, due to the proprietary nature of private operations, the need to protect investments made in gear and crops from theft and vandalism, and other reasons. Some information is available from government agencies that regulate culture, i.e., NYS DEC; trade associations like the East End Marine Farmers Assoc.; and the research/educational community (Cornell Cooperative Extension of Suffolk County). The annual harvest value of aquaculture production from Peconic/Gardiners Bays is on the order of five million dollars.

The debate over providing access to public resources for private use is vigorous; it is characterized by positions that reflect a wide spectrum of opinions from different interest groups. This was abundantly clear from the testimony presented to the Committee. But the debate is not limited to just users of marine resources. Public policy decisions pertaining to aquaculture in Peconic and Gardiners Bays include management actions, regulatory/permit functions and commitment of resources. Such decisions involve different levels of government and jurisdictions.

The data, information and opinions expressed on aquaculture to the Committee at its regular meetings and at its two public hearings were reviewed. This section of the Committee's report includes excerpts from this record that have been grouped to provide a snapshot of the scope of aquaculture activities in the region; and a compendium of views supporting and opposing the expansion of shellfish cultivation. It concludes with the discussion of an important jurisdictional issue.

Status and Trends of Shellfish Cultivation Activities

- There are probably between 200 to 300 individuals who directly derive an income from aquaculture products from the Peconic bays. This includes individuals who are involved in the hard

clam transplant program. Twenty years ago, not even 10 percent of this number were involved in aquaculture or aquaculture-related activities in the Peconics. The majority of the people currently turning to aquaculture are baymen.

- Nearly 90% of the annual hard clam production and over 90% of the annual oyster production in the Peconics comes from approximately 2,900 acres on which aquaculture activities are conducted. This acreage figure represents only 2.4% of all the underwater land in Gardiners and Peconic Bays.
- As of January 2002, a total of 21 Temporary Marine Assignments for the purposes of off-bottom culture of shellfish located in Gardiners and Peconic Bays have been issued by NYS DEC, including a site off Fishers Island; four additional applications are pending review and issuance.
- There are approximately 110,000 acres of underwater land in the Gardiners and Peconic Bays. About 65,000 acres have never been granted for oyster culture and are listed as State owned underwater lands on the Suffolk County Tax Map. The un-granted (State of New York) oyster lands are currently used for the Temporary Marine Assignments, each of which covers a circular area about five acres in size.
- As of January 2002, a total of 13 oyster grant land holders have on-bottom and/or off-bottom culture permits from NYS DEC to culture oysters, hard clams and/or scallops on their underwater land.
- There is potential for significant expansion of shellfish aquaculture in Gardiners and Peconic Bays. There are about 95,000 acres of underwater lands held by New York State and Suffolk County combined.
- In each of the years 1999 and 2000, about half a million oysters were grown to market size and about 70,000 bushels of hard clams were relayed in the Peconics. The 70,000 bushels of hard clams represent about 80% of the hard

THE AQUACULTURE INDUSTRY IN PECONIC AND GARDINERS BAYS

clams relayed within the State, and about 37% of the statewide hard clam landings.

- The transplanting of hard clams into Gardiners and Peconic Bays accounts for more than 95% of the total hard clam production in this area.

Statements Supporting Expansion of Private Shellfish Cultivation Activities in Peconic and Gardiners Bays

- Shellfish farming is compatible with the traditions of the East End, allows for the cultivation of a renewable resource, and provides baymen with a sustainable income as harvests of wild shellfish have declined for various reasons.
- The majority of the people currently attracted to aquaculture are baymen who want to stay on the water to earn their living.
- The oyster culture training program conducted by Cornell Cooperative Extension of Suffolk County has been successful in changing the attitudes of some baymen towards the conduct of private, small-scale oyster growout activities.
- Underwater land in areas not traditionally or currently used by fisherman to harvest natural stocks of hard clams and scallops should be considered for aquaculture activity, provided it does not degrade the resource as a whole.
- Diversification through the cultivation of all commercially important marine species in accordance with NYS DEC regulations will help prevent the shellfish industry from crashing.
- Successful aquaculture can provide fresh, locally grown shellfish to area restaurants and seafood shops.
- Introduction of hatchery stock after a disaster, such as brown tide or one of the many oyster disease outbreaks, assists in the quick recovery of shellfish populations.
- Aquaculture enterprises within East Hampton Town should be on a small scale in keeping with the Town's tradition of independent baymen and fishermen.
- Shellfish cultivation contributes to the retention of marine-related jobs, such as seafood processing, marine mechanics, boat repair and aquaculture gear manufacturing.
- Shellfish cultivation activities can stimulate eco-tourism.
- Leasing of underwater lands for shellfish cultivation can increase revenue to Suffolk County and East End towns through rental fees.
- Nutrients entering the estuary will be removed by grazing bivalve shellfish, which are filter feeders.
- The balance between the bottom and water column components of the bay ecosystem has changed over time and natural populations of shellfish have declined. Introduction of large numbers of shellfish through aquaculture could help restore the ecosystem to a condition that would be more beneficial to the successful spawning, growth and survival of natural shellfish populations.
- Cages used in the culture of shellfish create habitat and provide protection for juvenile finfish.
- Cultivated shellfish reduce the harvest pressure on wild stocks.
- Aquacultured shellfish will spawn several times before they are harvested, and relayed clams spawn in the Peconics during the summer before they are harvested for market. The larvae from this spawn will benefit both public and privately controlled underwater land.
- L.I. has five private shellfish hatcheries that are in business only because they have the opportunity to plant shellfish on privately controlled underwater land. These hatcheries have been and continue to be a vital source of

THE AQUACULTURE INDUSTRY IN PECONIC AND GARDINERS BAYS

juvenile shellfish for both public and private shellfish stock enhancement needs. This source of shellfish eliminates the need to purchase out-of-state product, which may introduce diseases that affect local wild shellfish populations.

- The hard clam transplant program uses sites in the Peconics, provides a living for many baymen and accounts for a significant portion of the landings in the State.

Statements Opposing Expansion of Private Shellfish Cultivation Activities in Peconic and Gardiners Bays

- The conflicts between aquaculture and the wild fishery center predominantly on one species; the hard clam. The conflict arises from the fact that shellfish farmers may harvest hard clams mechanically and subsequently diminish populations of wild hard clams on their beds and damage the environment in which they grow.
- Off bottom aquaculture cages stacked in the water column preclude the use of the water column and underwater land for commercial fin fishermen, lobstermen, conchmen and recreational fishermen.
- Aquaculture should not occupy otherwise useful or productive finfish or shellfishing areas. Determining what areas are unproductive for natural sets of shellfish needs to be established and agreed upon by all interested parties.
- East Hampton is opposed to large-scale private aquaculture, because of its potential to displace traditional local fisheries and negatively impact wild stocks.
- East Hampton is opposed to controlled purification or deuration of shellfish in ultra-violet treatment plants; and to shellfish transplants from waters outside East Hampton because of the risk of pathogens infecting local stocks.
- The nutrient budget of the water column in inshore waters is limited, therefore these waters and associated bottomlands are and should be treated as a public resource. To maintain the public nature of the resource, publicly owned productive bottomlands should not be sold or leased to private concerns or individuals.
- There is a limit as to how much shellfish production the estuary can support. Exceeding this limit will affect wild populations of shellfish.
- Wild fish and shellfish populations may be harmed by diseases, exotic species or genetically modified organisms introduced by aquaculture activities.
- Hydraulic harvesting could occur in inappropriate locations such, as eelgrass beds.
- Wild stock, fishing gear, boat anchors, etc. could become entangled in aquaculture gear placed within the water column/on the bottom. Commercial fishermen cannot fish or scallop on grounds where abandoned aquaculture gear is left on the bottom.
- An increase in the number of buoys and markers may cause problems with boaters and shorefront property owners.
- Shellfish leases could displace commercial finfish and shellfish harvesters if sited without sensitivity to those users.
- The cost of administering a leasing program may be more than the income obtained through lease fees.
- The public trust doctrine may be violated (no public benefit) if performance criteria (“use it or lose it”) are not established as lease stipulations and enforced.
- Baymen fear that lease holders will gain control of vast stretches of underwater land, some being productive shellfish grounds, and harvest the natural set of shellfish.
- Public lands should be kept public.

THE AQUACULTURE INDUSTRY IN PECONIC AND GARDINERS BAYS

- Aqua Culture Technologies Corporation used granted oyster lands for the harvest of natural clams by hydraulic dredging; such activity is not aquaculture.

Interface of NYS Local Waterfront Revitalization Program and County Leasing Authority

The offshore boundaries for the Towns of Riverhead, Southold, Shelter Island, Southampton and East Hampton in Peconic and Gardiners Bays, as shown on the Suffolk County Tax Map (and the two maps in this report) were established for the purpose of allocating and collecting taxes on underwater oyster grants issued by Suffolk County. These town boundaries encompass State-owned underwater lands. Questions have been raised concerning the interface of NYS Local Waterfront Revitalization Program (LWRP) procedures and jurisdiction, as implemented by participating towns, state and federal agencies, with Suffolk County authority to lease underwater lands in Peconic and Gardiners Bays for shellfish cultivation.

The NYS Department of State (DOS) has determined that the waterside boundary of LWRPs prepared by the towns would extend to the seaward limits of town jurisdiction, thus encompassing the offshore areas subject to County leasing authority. This implies that local policies on private aquaculture, as expressed in a town's duly-adopted LWRP, could impact the use of underwater lands for aquaculture and the *potential* issuance of underwater land leases for shellfish cultivation by Suffolk County.

In and of itself, the act of leasing lands for shellfish cultivation by Suffolk County would not be subject to coastal consistency provisions. However, shellfish cultivation activities involving town, state or federal approvals would be subject to coastal consistency, e.g., off-bottom culture/grow-out of

shellfish in racks or cages. It is conceivable that a town could develop and adopt an LWRP with policies pertaining to aquaculture that would not be compatible with a County leasing program. In this case, a lease could be issued to an aspiring culturist, but the required state permits (e.g., off-bottom culture permit from NYS DEC) would be withheld, thus preventing use of the leased land for shellfish cultivation.

Each of the five towns could have different policies and criteria relating to the use of underwater lands for private aquaculture. The balkanization of the Peconic and Gardiners Bays at the town level with respect to the future of private shellfish cultivation is something that should be avoided. LWRPs should make specific reference to the authority of Suffolk County to issue shellfish cultivation leases in Peconic and Gardiners Bays, i.e., Laws of 1969 Chapter 990. They should also discuss the interface between this authority and any town policies and recommendations pertaining to private shellfish cultivation in these offshore waters. This points to the need to develop and apply consistent guidelines and standards for the management of shellfish culture in the Peconic and Gardiners Bays region as a whole.

The way in which jurisdictional issues are resolved may have an important influence on future deliberations of Suffolk County and any decision it makes to allocate significant resources to address conflicts, acquire natural resource data and improve needed information bases as a precursor to implementation of a shellfish cultivation leasing program in the region. The NYS DOS has suggested that there is an opportunity for the County to work cooperatively with other entities to establish adequate criteria to define and locate underwater lands that are considered productive, versus those that are unproductive. This information would then be used to identify those underwater lands where appropriate aquaculture activities should, and should not, be undertaken.

POLICY ANALYSIS AND RECOMMENDATIONS

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Previous reports have recommended that Suffolk County should prepare an aquaculture plan and implement an aquaculture leasing program for Peconic and Gardiners Bays. These include: the 1979 Long Island Regional Planning Board report entitled *Assessment of Existing Mariculture Activities in the Long Island Coastal Zone and Potential for Future Growth*; and reports submitted by Suffolk County Executive Peter F. Cohalan to the Suffolk County Legislature in 1980 (*Open Space Policy*) and 1982 (*Annual Environmental Report*). The most recent recommendations pertaining to aquaculture are included in the *Peconic Estuary Program Comprehensive Conservation and Management Plan* (2001) (Appendix D); and the *Peconic Bays Aquaculture Advisory Committee Final Report* (2002) (Appendix E). All of these advisory recommendations are predicated on the determination in NYS law that “*It is in the best interest of the state generally and those of the area in question particularly that the lands under said waters should be surveyed and managed to promote the cultivation of shellfish.*” (L 1969, ch 990, sec. 1) However, these recommendations have not been institutionalized as Suffolk County policy by witness of the fact that the aquaculture plan has not been developed, nor has a leasing program been adopted and implemented.

Before proceeding with recommendations to the Suffolk County Legislature and County Executive on the disposition and future use of underwater lands in Peconic and Gardiners Bays, the Committee discussed the need for a general policy statement on private shellfish cultivation. By consensus, the Committee decided that shellfish culture is an activity that is worthwhile to pursue. Barring this determination, there would have been no need for the Committee to proceed with crafting recommended courses of action for the County to consider that address long-term aquaculture policy.

The Suffolk County Aquaculture Committee’s common ground view on shellfish cultivation as an activity in Peconic and Gardiners Bays and how private aquaculture access could be accommodated in the future is reflected in the recommendation that appears below.

The Suffolk County Aquaculture Committee recommends that Suffolk County should endorse the following policy determinations pertaining to private shellfish culture in Peconic and Gardiners Bays:

Private shellfish aquaculture in Peconic and Gardiners Bays offers advantages to the people and economy of Suffolk County, if conducted in a manner and scale that does not cause undue conflict with other users of marine resources and space, or harm to the marine environment.

Private shellfish aquaculture is a legitimate water-dependent activity that requires the provision of secure and equitable access to publicly owned marine space for private use.

Equitable access for the prospective aquaculturist is achievable through a program that is buttressed by judicious site selection; that allows culture activity to be conducted at appropriate scale; that regulates the use of technology so as to protect marine resources and the environment; and that is rigorously monitored and enforced.

Regardless of whether or not the County establishes a new aquaculture policy for the long-term future and decides to exercise its shellfish cultivation leasing authority, the Committee believes that Suffolk County should/must deal with conditions that are relict from its past administrative actions in these bays. Hence, recommendations for the immediate short-term are included in this report for consideration by the County.

Fundamental Policy Questions

There are two fundamental policy questions that the Committee addressed with respect to the use of Peconic and Gardiners Bays for private shellfish cultivation:

Question # 1: What should Suffolk County do about the existing pattern of underwater land rights ownership in Peconic and Gardiners Bays and associated use issues, which are the result of past oyster grant management activities and current practices?

POLICY ANALYSIS AND RECOMMENDATIONS

Question # 2: What should Suffolk County do with respect to its shellfish cultivation leasing authority in Peconic and Gardiners Bays?

The responses to these policy questions involve independent actions that would occur over both the immediate short-term period, as well as over an extended time frame. The long-term prospect for changing the way access to underwater lands and water column for private shellfish cultivation is obtained depends upon the course of action Suffolk County will take on implementing a leasing program under L 1969, ch 990.

Committee Response to Question # 1

There are about 111,000 acres of underwater lands in Peconic and Gardiners Bays that were subject to the historic oyster grant issuance authority of Suffolk County. As of last year, roughly 9,000 acres of this total were held by private parties under separate ownership. In April 2002, Suffolk County fundamentally changed the status of underwater land rights ownership in these bays by taking ownership of about 5,190 acres for non-payment of taxes. As a result, there are now only about 3,763 acres of private oyster grant lands remaining in Peconic and Gardiners Bays, which is 3.4 % of total bay area.

From a planning point of view, it would be wise to continue to take action, when the opportunity to do so arises, to return private grant lands to public ownership. This opportunity presents itself when taxes remain unpaid after the required redemption period has expired, thus enabling the County to take a tax deed to the property. It is emphasized that private owners of grant parcels would be able to continue to hold their lands in perpetuity, so long as their taxes are paid and up to date.

By taking title to oyster grant parcels by tax deed, the County gains control, and could issue leases on such lands in the future if it chose to do so, under a more modern administrative model that would encourage intensive aquaculture on small lease plots, as opposed to extensive culture on hundreds of acres of private grants. The only down side would be fiscal, in that the County would not be paid the

back taxes that are owed. However, by taking title, the County would prevent reoccurrence of situations where taxes remain unpaid for years, and natural set clams are removed by mechanical means.

Additionally, there is a need for Suffolk County to simplify the underwater land parcel pattern in Peconic and Gardiners Bays. This can be done by taking control of those parcels that have dual assessed owners (e.g., Suffolk County and a private entity, such as Long Island Oyster Farms), and that have no assessed values assigned to them by tax assessors. The number of parcels that currently exists can also be reduced by combining small adjacent parcels having the same owner into a smaller number of larger parcels.

Suffolk County currently pays the taxes on 2,167 acres of reverted grant lands that it owns. This payment, which amounted to \$10,889 in the 2000/2001 tax year, should be eliminated in the future, by having the parcels in question dedicated to general purpose use.

Suffolk County should encourage private grant holders to prepare accurate surveys of grant parcels using Global Positioning System (GPS) technology. GPS technology can be used to locate coordinates for the legal description of a parcel with reference to the New York State Plane Coordinate System. This would ultimately assist the County in addressing the parcel survey requirements of L 1969, ch 990, should it decide in the future to proceed with a shellfish cultivation leasing program.

The recommendations of the Suffolk County Aquaculture Committee that respond to Question # 1 appear below.

The Suffolk County Aquaculture Committee recommends that Suffolk County should take the following actions with respect to underwater land parcel ownership and delineation in Peconic and Gardiners Bays:

Suffolk County should take the tax deed for all private grant parcels where taxes are in arrears, after the required statutory period. This policy action should be decisive and

POLICY ANALYSIS AND RECOMMENDATIONS

automatic, as far as underwater grant lands are concerned.

Reverted grant lands should be retained in public ownership for general purposes and not be sold by Suffolk County at any future tax sale.

Suffolk County should clear title through appropriate legal proceedings to parcels where records indicate dual assessed owners exist, i.e., Suffolk County and a private entity, and take title where the County has legal rights.

Suffolk County should simplify the pattern of underwater land parcels by consolidating parcels that it owns now with others that it takes control over in response to the actions stated above. The new parcel boundaries should be described using Global Positioning System (GPS) technology. Private parties that retain ownership of grant lands should also be encouraged to establish accurate surveys of their parcels using GPS technology.

Suffolk County should avoid paying property taxes on underwater parcels that it owns by assigning those parcels to the general purpose use classification.

The establishment of a clear County policy with respect to tax liens on grant parcels and other recommended actions will result in a simplified pattern of underwater land parcels in Peconic and Gardiners Bays. Over time, the total number of parcels will be reduced; and there will be more large parcels. The number of private grant parcels will be reduced, and so will the amount of private acreage. These recommendations need to be implemented regardless of which path the County takes in the future concerning private aquaculture leasing.

Committee Response to Question # 2

Although there have been attempts to acquire the power to lease underwater lands for shellfish cultivation in the past (e.g., preparation of the *Oyster Lands – Flanders, Gardiners & Peconic Bays* map by the Suffolk County Real Property Tax Service Agency; failed efforts to conduct the

required surveys), no decisive action by Suffolk County has occurred in over 30 years. Hence, Question # 2 has remained unresolved.

In its discussions, the Committee considered a range of options pertaining to County authority to lease under L 1969, ch 990, as follows:

Option A: The County could continue its previous course of action, and the prospect of providing secure access to prospective aquaculturists under a leasing program would remain in limbo.

Option B: The County could decide that it did not want to develop and administer a leasing program, which would amount to be a new activity and additional responsibility under County government. In order to serve the interests of those wishing to pursue shellfish cultivation and eliminate the constraint of uncertainty that now exists, the County could relinquish its leasing authority and any ownership rights to underwater lands back to the State of New York.

Option C: The County could evaluate its options by acquiring the data and information needed to *develop* the specifics of a leasing plan and program. The decision to *implement* the program would be deferred until better understanding of where and how leasing would occur is obtained.

After deliberation and discussion, the Committee endorsed Option C. This choice is reflected in the text below.

The Committee has come to recognize that an impasse to progress in resolving the aquaculture leasing issue exists. It has experienced the frustrations voiced by those who would like to have the opportunity to pursue aquaculture on leased grounds, as well as those who fear that such activity will dramatically impact their livelihoods. It is apparent that generic discussions about shellfish aquaculture in Peconic and Gardiners Bays are not adequate to eliminate the impasse. Site specific data and information are needed to assess the ramifications of aquaculture and to make intelligent policy decisions.

POLICY ANALYSIS AND RECOMMENDATIONS

At this juncture, data and information are needed to determine the locations where private aquaculture leases would be presumptively compatible with both other users of marine resources and environmental protection concerns. Lease site selection and location are the key to whole program, and should be addressed first. Many other issues ultimately need to be resolved, but should be considered in logical sequence. (For example, it makes no sense to debate, say, lease term duration, until consensus on the location of leasable areas is achieved.) Secondary investigations could then proceed, and other aspects of lease program design could be evaluated based on the preliminary identification of leasable areas. These include: size of leases and scale of operation; resolution of total lands leased as percentage of total available; allowable gear types; type of lease ownership; ownership of natural growth sets of shellfish; etc.

The goal of the lease site selection process would be to identify areas where leasing could occur such

that shellfish aquaculture could prosper/grow without causing undue hardship and conflicts with those groups that now utilize the bays (namely, commercial fishermen, recreational fisherman, boaters, marine transport interests, coastal landowners); and without causing unacceptable adverse impacts on bay biota and habitats by meeting the concerns of resource managers and environmental groups. The site selection process will achieve this goal if and only if the appropriate criteria are specified and applied.

The Peconic Bays Aquaculture Advisory Committee has already devoted significant effort in identifying a list of such criteria in its *Final Report* (Appendix E). The Suffolk County Aquaculture Committee has reviewed that report, and believes that the leasing criteria contained therein should be used to initiate the site selection process. These criteria are reproduced in Table 6.

Table 6. Peconic/Gardiners Bays Leasing Area Criteria

Areas not recommended for leasing:

- Oyster grant lands that have been ratified and confirmed, subject to payment of taxes to Suffolk County.
- Areas documented to be naturally productive of shellfish.
- Area where bay scallops are now harvested commercially or have been harvested commercially sometime in the past twenty (20) years, including Northwest Harbor and Orient Harbor.
- Areas of active commercial or heavy recreational fishing activity that are not compatible with shellfish aquaculture operations.
- Area containing submerged, rooted aquatic vegetation.
- Endangered species/marine mammal habitats.
- Areas occupied and permitted by NYS DEC and/or U.S. Army Corps of Engineers for pound and trap nets.
- Officially designated navigation channels.
- Underwater cable and/or utility easements.

Areas that should be considered for leasing; tailor leasing stipulations to minimize user group conflicts:

- "Decommissioned" oyster grant lands.
 - Unused, nearshore areas (limited "off-bottom" culture, only).
 - Areas not demonstrating natural shellfish productivity in the past 10 years.
 - Areas of light to moderate recreational fishing activity or compatible commercial fishing activity.
 - Natural resource management areas/critical environmental areas (e.g., NYS DOS-designated Significant Coastal Fish & Wildlife Habitats).
-

Source: Based on Table 1 in Peconic Bays Aquaculture Advisory Committee. 2002. *Final Report*. The Nature Conservancy, East Hampton, NY.

POLICY ANALYSIS AND RECOMMENDATIONS

The site selection process could be conducted as follows:

- Convene a technical group with the necessary backgrounds and expertise.
- Refine/define the criteria, using quantitative measures to the greatest extent possible.
- Secure resources to conduct the surveys needed, so that the criteria can be mapped at suitable scale.
- Collect existing data and conduct survey work. (Some surveys will be based on biological factors; others will be boundary driven; some will be based on responses received from bay users.) It is noted that the benthic habitat mapping project now underway for portions of the Peconic estuary, as described in Appendix D, will provide some of the needed input.
- Format acquired data for GIS presentation in multiple data layers. Compose GIS maps of the bay system.
- Conduct spatial analysis to identify areas where leasing could initially be considered.
- Enable public scrutiny/debate.

The results of the site selection process would help all to see the potential ramifications of leasing, such as the scale and locations of areas that could be potentially involved. The aim at this point would be to obtain a consensus from both the proponents and opponents of private aquaculture on those areas that could be leased.

Intergovernmental jurisdiction issues concerning leasing, permitting and coastal program consistency were identified earlier in this report. Shared authority implies shared responsibility. The decision to proceed with preparation of a leasing plan should be coupled with the commitment of needed resources to conduct the work. The costs for such work should be shared by the Suffolk County and State of New York, given the regulatory interest of NYS DEC and the coastal management authority of the NYS DOS.

Due to many uncertainties, any policy decision by Suffolk County to implement a leasing program, or to relinquish leasing authority back to the State of New York should be deferred. Implementation of a

shellfish aquaculture leasing program will require changes in New York State law, regardless of whether the County or the State is ultimately designated as the management entity in charge of such a program.

It may also be useful to consider the option of starting with a small scale effort on a trial basis, where there would be a few leases of limited duration issued, to see if different approaches “work.” Provisions could be added to increase the program based on experience. If there is local opposition, the leasing program could be targeted to those areas where private aquaculture is more acceptable, and poses fewer conflicts.

The recommendations of the Suffolk County Aquaculture Committee that respond to Question # 2 appear below.

The Suffolk County Aquaculture Committee recommends that Suffolk County should take the following actions with respect to its authority under New York State law to implement a shellfish cultivation leasing program in Peconic and Gardiners Bays:

Suffolk County in concert with the Peconic Estuary Program, the State of New York, and local municipalities should pursue the development of a shellfish cultivation leasing plan for Peconic and Gardiners Bays. The decision to implement a leasing program should be deferred until the issues of where and how leasing would occur are resolved in a politically acceptable manner.

Suffolk County should encourage the conduct of required work to enable the identification of areas that would be presumptively compatible for shellfish leasing. This would entail the specification of objective criteria pertaining to environmental parameters; the design of appropriate resource user surveys; conduct of field studies; the portrayal and interpretation of results; and review and comment by the public. Considerable resources will be required to conduct this work. It should not be pursued by the County alone. Progress on resolving

POLICY ANALYSIS AND RECOMMENDATIONS

aquaculture leasing issues can only be achieved by working in concert with the State of New York and the involved constituencies. Therefore, any Suffolk County decision to proceed with this work should

be contingent upon the commitment of resources and joint participation by the New York State Dept. of Environmental Conservation and/or the New York State Dept. of State.

REFERENCES

REFERENCES

REFERENCES

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Long Island Regional Planning Board. 1979. *Assessment of Existing Mariculture Activities in the Long Island Coastal Zone and Potential for Future Growth*. Report prepared for the New York State Department of State. Hauppauge, NY.

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REFERENCES

APPENDIX

Intro. Res. 1034-2001
Introduced by Legislator Guldi

Laid on the Table 1/30/2001

RESOLUTION NO. 487 - 2001 ESTABLISHING SUFFOLK COUNTY AQUACULTURE COMMITTEE IN CONNECTION WITH PROGRAMMATIC DISPUTE

WHEREAS, much information has been brought before the County Legislature regarding a dispute over the status of aquaculture beds in the area between Peconic Bay and Gardiner's Bay;
and

WHEREAS, this information has caused the Legislature to recognize the need to visit the general questions with reference to Suffolk County's role under Chapter 990 of the laws of New York (1969) and its related predecessor acts;

WHEREAS, the dispute involves outstanding taxes owed on such underwater properties; the role of Suffolk County in managing such lands; and the status of the aquaculture industry on Long Island; now, therefore, be it

1st RESOLVED, that a Suffolk County Aquaculture Committee (Committee) is hereby established to consist of the following fourteen (14) members:

- 1.) The Director of the Suffolk County Planning Department, or his or her designee, who shall serve as Chairman of this Committee;
- 2.) The Suffolk County Executive, or his or her designee;
- 3.) The Suffolk County Treasurer, or his or her designee;
- 4.) The Commissioner of the Suffolk County Department of Economic Development, or his or her designee;
- 5.) The Commissioner of the Suffolk County Department of Health Services, or his or her designee;
- 6.) Suffolk County Department of Public Works, or his or her designee;
- 7.) The Director of the Suffolk County Real Property Tax Service Agency, or his or her designee;
- 8.) A representative from the Town of Southampton, to be designated by the Southampton Town Supervisor;
- 9.) A representative from the Town of Southold, to be designated by the Southold Town Supervisor;
- 10.) The Chairman of the Suffolk County Legislature's Ways and Means Committee, or his or her designee;

- 11.) A representative from the Town of East Hampton, to be designated by the East Hampton Town Supervisor;
- 12.) A representative from the Town of Shelter Island, to be designated by the Shelter Island Town Supervisor;
- 13.) A representative from the Town of Riverhead, to be designated by the Riverhead Town Supervisor;
- 14.) A representative from the commercial waterfront business community, to be designated by the East End Supervisors Association;
- 15.) A representative from the Village of Greenport, to be designated by the Mayor of the Village of Greenport; and
- 16.) The Peconic Bay Keeper, or his or her designee;

and be it further

2nd **RESOLVED**, that the Committee shall hold formal public hearings during 2001 for the purpose of taking testimony and securing data with regard to the outstanding taxes owed on such underwater properties; the role of Suffolk County in managing such lands; and the status of the aquaculture industry on Long Island; and be it further

3rd **RESOLVED**, that the Committee shall issue a written report making findings and determinations to the County Executive and each member of the County Legislature no later than 360 days subsequent to the effective date of this Resolution; and be it further

4th **RESOLVED**, that the Committee shall hold its first meeting no later than sixty (60) days after the effective date of this Resolution for the purpose of organization and the appointment of a vice chairperson and a secretary; and be it further

5th **RESOLVED**, that the members of said Committee shall serve without compensation and shall serve at the pleasure of their respective appointing authorities; and be it further

6th **RESOLVED**, that the Committee shall hold regular meetings, keep a record of all its proceedings, and determine the rules of its own proceedings with special meetings to be called by the chairperson upon his or her own initiative or upon receipt of a written request therefor signed by at least three (3) members of the Committee. Written notice of the time and place of such special meetings shall be given by the secretary to each member at least four (4) days before the date fixed by the notice for such special meeting; and be it further

7th **RESOLVED**, that eight (8) members of the Committee shall constitute a quorum to transact the business of the Committee at both regular and special meetings; and be it further

8th **RESOLVED**, that the Committee may submit requests to the County Executive and/or the County Legislature for approval for the provision of secretarial services, travel expenses, or retention of consultants to assist the Committee with such endeavors, said total expenditures not to exceed Two Thousand (\$2,000.00) per fiscal year, which services shall be subject to Legislative approval; and be it further

Appendix A: Resolution No. 487-2001

9th **RESOLVED**, that clerical services involving the month-to-month operation of this Committee, as well as supplies and postage as necessary, will be provided by the staff of the County Department of Planning; and be it further

10th **RESOLVED**, that the Committee may conduct such informal hearings and meetings at any place or places within the County of Suffolk for the purpose of obtaining necessary information or other data to assist it in the proper performance of its duties and functions as it deems necessary; and be it further

11th **RESOLVED**, that the Committee may delegate to any member of the Committee the power and authority to conduct such hearings and meetings; and be it further

12th **RESOLVED**, that the Committee shall expire, and the terms of office of its members terminate, as of December 31, 2002, at which time the Committee shall deposit all the records of its proceedings with the Clerk of the Legislature; and be it further

13th **RESOLVED**, that this study shall not be performed by any outside consultant or consulting firm unless explicit approval and authorization for such consultant or consulting firm is granted pursuant to a duly enacted resolution of the County Legislature; and be it further

14th **RESOLVED**, that this Legislature, being the State Environmental Quality Review Act (SEQRA) lead agency, hereby finds and determines that this resolution constitutes a Type II action pursuant to Section 617.5(c)(20) and (27) of Title 6 of the NEW YORK CODE OF RULES AND REGULATIONS (6 NYCRR) and within the meaning of Section 8-0109(2) of the NEW YORK ENVIRONMENTAL CONSERVATION LAW as a promulgation of regulations, rules, policies, procedures, and legislative decisions in connection with continuing agency administration, management and information collection, and the Suffolk County Council on Environmental Quality (CEQ) is hereby directed to circulate any appropriate SEQRA notices of determination of non-applicability or non-significance in accordance with this resolution.

DATED: June 5, 2001

APPROVED BY:

/s/ Robert J. Gaffney
County Executive of Suffolk County

Date of Approval: June 12, 2001

LAWS OF 1884, CHAPTER 385 as Amended (by L 1896, ch 916; L 1906, ch 640; and L 1923, ch 191)

An Act to cede lands under water of Gardiner's and Peconic bays, to Suffolk county, Long Island, for the cultivation of shell-fish.

Passed May 28, 1884, by a two-thirds vote.

The People of the State of New York, represented in Senate and Assembly, do enact as follows:

Section 1. All the right, title and interest which the people of the state of New York have in and to the lands under water of Gardiner's Bay and the Peconic bays and the tributaries thereof, in the county of Suffolk, is hereby ceded to said county for the purposes of oyster culture; and said lands are to be managed and controlled by the board of supervisors of the said county; provided that said lands shall revert to the state when they shall cease to be used for oyster culture, and provided that nothing in this act shall be construed as limiting the power of the commissioners of the land office to grant land under water; and provided that this act shall not be construed to cede, nor shall the said county attempt to convey, any land within the bulkhead or pier lines established or hereafter established by the government of the United States; or in the absence of such bulkhead or pier lines, within five hundred feet of ordinary high water mark along the shore. The easterly boundary of the land above ceded is a straight line running from the most easterly point of Plum island to Goff Point at the entrance of Napeague harbor and the westerly boundary is the westerly shore of Great Peconic bay.

§ 2. The board of supervisors of Suffolk county shall have power, and it shall be their duty, to appoint commissioners of shell fisheries. The commissioners now in office shall remain in office until their terms shall expire. Said commissioners shall be residents of some one or other of the towns lying contiguous to said bays, and at the first appointment thereof one shall be appointed for the term of one year, one for a term of two years, and one for a term of three years; and annually thereafter one commissioner shall be appointed for a term of three years. Said commissioners when so chosen shall take the usual oath of office and shall give bonds in one thousand dollars each, to the board of supervisors of said county, conditioned for the faithful performance of their official duties; and all moneys received by them for the sale of the lands hereinafter specified shall be paid over by them to the county treasurer of said county, and on the third Monday of April in each and every year, the said commissioners shall render to the said board of supervisors an account duly verified, showing all receipts and disbursements for the preceding year.

§ 3. Upon the passage of this act, the board of supervisors of said county shall appoint a competent civil engineer and surveyor who shall be known as the engineer of shell fisheries. He shall receive such reasonable compensation as the said board of supervisors may agree to pay him, and shall hold office during the pleasure of said board. After two years from the passage of this act, the said board of supervisors may in its discretion abolish said office. Within six months after his appointment, he shall prepare duplicate maps, one set of which he shall file with the clerk of Suffolk county and the other of which he shall retain in his own possession until his successor is appointed, when he shall immediately deliver said set to such successor. The set of maps in his possession shall at all reasonable hours be open to public inspection. These maps shall accurately show the outlines of all the waters affected by this act, and shall also correctly show the location of all grounds heretofore deeded by the said county for purposes of oyster culture. They shall also correctly show all boundaries of towns and school districts which are or may be established in said waters; and as other grounds are deeded for the purposes of oyster culture or are set off for clam, shell, or scallop grounds, all such grounds shall immediately be shown on the map in the possession of said engineer who once in every six months shall file in said county clerk's office a supplemental map showing such other grounds.

Appendix B: Laws of 1884, Chapter 385 as amended

§ 4. Upon the passage of this act, the clerk of Suffolk county shall prepare suitable books for recording and indexing all deeds conveying any interest in said grounds for the purposes of oyster culture or any transfer thereof, whether heretofore recorded or hereafter offered for record. In these books he shall at once record all such deeds as have heretofore been recorded in any book in his office, for which service he shall be paid by the county at the same rate as for recording deeds to other real property. In these books he shall also record all other such deeds as may be presented for record, upon payment by the persons so presenting them of the same fees as he is entitled to receive for recording deeds to other real property. He shall also prepare and keep suitable books for recording and indexing all applications affecting any such grounds.

§ 5. Upon the passage of this act, and within one year thereafter, the commissioners of shell fisheries and the said board of supervisors, or a duly appointed committee thereof, shall determine what portions of the lands hereinbefore ceded to the said county as aforesaid and not heretofore granted for purposes of oyster culture are natural clam, shell, or scallop beds of such a nature that the taking of clams, shells, or scallops thereon can be profitably followed as a business. To this end the said commissioners and board, either as whole or by a duly appointed committee, may cause the engineer of shell fisheries to prepare surveys and maps, may consider affidavits and examine and subpoena witnesses; but no final determination shall be made in the matter until after a public hearing to be held at the county courthouse in Riverhead in said county after a notice of at least three weeks to be posted in the county courthouse, in the post office in the village of Greenport, and published in at least two newspapers published in the county. The said final determination shall immediately be made known by the publication thereof and by being shown on said maps as aforesaid, any person deeming himself aggrieved thereby, may present to a justice of the supreme court or at a special term of the supreme court in the judicial district in which said county may be situated, a petition, duly verified, setting forth the injustice complained of; whereupon the justice or court may allow a writ of certiorari to the said commissioners of shell fisheries and the said board of supervisors to review the action thereof, which writ shall be returnable to a special term of the supreme court in the said district. Upon the return of the writ, the court may dispose of the matter upon the said return, or may take testimony, or order a reference to hear and determine. Upon the return and all other papers and evidence in the case, the court shall make a final order, either confirming the said action, or modifying or reversing it as justice may require. From this order either party may appeal, and the appeal shall be heard and determined as are appeals in the supreme court from orders. Costs shall be in such sums and against such parties as the court may direct. No portion of the lands so set apart as clam, shell or scallop beds shall be granted for the purposes of oyster culture; provided, however, that twenty-five resident taxpayers of said county may present to the said board of supervisors a duly verified petition, setting forth that some portion of the lands so set apart has for five years last past ceased to be a clam, shell or scallop bed; whereupon the same proceedings shall be had as above provided, which proceedings shall be subject to the same review, and a final determination shall be made deciding either that the lands described in said petition are no longer to be set apart as aforesaid, but may thenceforth be granted for purposes of oyster culture, or that the said lands shall remain set apart as theretofore.

§ 6. All lands hereinbefore ceded to said county and not heretofore granted or hereinbefore reserved may be granted by the county of Suffolk by warranty deed, to be executed by the said commissioners of shell fisheries for the purpose of oyster culture, whenever application in writing is made to the said commissioners by any person or persons who have resided in this state not less than one year next preceding the date of said application, or by any joint stock company or corporation organized under the laws of this state, all the stockholders of which are citizens of this state. The said application and the said grant shall be in manner and form approved by said chairman. All such grants and assignments shall be recorded within three months of the date thereof in the books hereinbefore prescribed to be kept by the clerk of said county; but all such grants and assignments not heretofore recorded shall not be invalidated, but all grants and assignments heretofore made of lands under water of Gardiner's bay, the Peconic bays, and the tributaries thereof, are

hereby validated, ratified and confirmed. The lands so granted or assigned and all rights therein are hereby declared to be real property, for the purpose of taxation and for all other purposes.

§ 7. When any such application for a grant is filed with the commissioners of shell fisheries, a duplicate thereof shall immediately be filed with the clerk of said county, who shall note upon it the exact time of its filing, and shall immediately cause a written notice stating the name and residence of the applicant, the date of the filing of the application, the location, area, and description of the grounds applied for, to be posted in the county courthouse at Riverhead in said county, and a copy thereof to be posted in the post office in the village of Greenport in said county, and shall send a copy thereof to each owner of oyster ground bounded by said new application. Each application shall remain on file in the office of the said clerk and shall immediately be recorded by him in the book hereinbefore prescribed to be kept by him for this purpose. Any person or persons objecting to the granting of the grounds applied for as aforesaid, may, within ten days after the posting of said notices, file a written notice with the said clerk, stating the grounds of his or their objections, and in case objections are so filed, the said commissioners of shell fisheries and the said board of supervisors or a committee thereof shall upon ten days' notice in writing, mailed or personally delivered to all the parties in interest, hear and pass upon such objections at such place as may be appointed; and if such objections are not sustained to the satisfaction of the commissioners and board or committee, and the area of the ground is not in their opinion of unreasonable extent, the said commissioners and board or committee shall direct the clerk of the said county, if his fees have been paid by the applicant, as hereinafter provided, to sell the land so applied for at public auction to the highest bidder at a sum not less, however, than two dollars and fifty cents per acre or fractional part thereof. Notice of the said sale shall be given by the said clerk by posting in the county courthouse aforesaid and in the post office at Greenport aforesaid, at least ten days before the said sale, which shall take place at the county courthouse aforesaid. The fees of said county clerk for filing and recording such application and posting and serving the notice thereof shall be three dollars, to be paid by the applicant upon filing such application. The fees of said county clerk for posting the notice of sale and conducting said sale and making a report thereof to the said commissioners and board or committee shall be seven dollars, to be paid by the applicant on notice from the county clerk that objections to his application have been filed as aforesaid. Upon the making of the said sale as aforesaid, and the payment to the said clerk by the purchaser of the amount of his bid, a deed for the land so sold shall be executed as hereinbefore provided, and delivered to the purchaser. From the purchase price received by him the said clerk shall deduct and return to the applicant the sum of seven dollars advanced by him, and shall immediately pay to each of said commissioners the sum of fifty cents per acre, and the balance to the treasurer of the county of Suffolk. At all hearings before the said commissioners and said board of supervisors, or any committee thereof, as herein provided, the said commissioners, board or committee may subpoena witnesses and administer oaths as in courts of law. All lands applied for before January first, nineteen hundred and six, on which a deposit of one dollar per acre was made, and all lands applied for after January first, nineteen hundred and six, in the manner hereinbefore provided, to which no objections are filed, shall be granted by the commissioners of shell fisheries under the provisions of this law as it existed before this amendment, provided, however, that no such lands shall be granted, if in the opinion of the commissioners of shell fisheries, they are clam, shell or scallop grounds.

§ 8. Prior to the delivery of any such deed as aforesaid, the said board or its committee shall cause the engineer of shell fisheries to make a survey of the land described in the said deed, and to locate and delineate the said land upon the official map hereinbefore provided for. Upon receipt of the said deed, the grantee shall at once cause the grounds therein conveyed to be plainly marked out by stakes, buoys, ranges or monuments, which stakes and buoys shall be continued by the said grantees and his legal representatives, and the right to use and occupy said grounds for said purposes shall be and remain in said grantee and his legal representatives; provided that if the grantee or holder of said grounds does not actually use and occupy them for the purposes named in good faith within three years after the time of receiving such grounds, or does not record any grant or assignment thereof, as hereinbefore provided, the said board of supervisors may

Appendix B: Laws of 1884, Chapter 385 as amended

present a petition to the supreme court for an order that the said grounds revert to the said county, and that all stakes and buoys marking the same be removed, such petition to be presented upon notice to all persons in interest and the amount and manner of payment of the costs of the proceedings to be fixed by the court.

§ 9. Any owner of grounds granted for the purposes of oyster culture as aforesaid, may surrender the said grounds by delivering to the clerk of the said county a good and sufficient deed or release of the same, duly executed and acknowledged by such owner; provided that such release and recording thereof is made without charge or expense to the county and is approved by the said board of supervisors, and that such premises so released are at the time unencumbered.

§ 10. The board of supervisors of Suffolk county shall have the power, and it shall be their duty to divide the said land among the towns of Southold, Riverhead, Southampton, East Hampton and Shelter Island for the purposes of jurisdiction and taxation only, and to establish the boundary lines in such bays between said towns, but any such action by said board of supervisors shall in no way affect the title to the lands under water in said bays; and after such boundary lines shall have been established and defined, it shall be the duty of the school commissioner for the district, including the said towns, to set off for the purpose of taxation for school purposes, so much of the land under water within said boundary lines of the several towns adjoining the said bays as shall be contiguous to the school districts now existing in said towns.

§ 11. Any person who shall wilfully deposit or assist in depositing any starfish or periwinkle in any of the waters hereinbefore referred to, or who shall dump mud or other material, except that used in making oyster beds, on any ground granted as hereinbefore provided; and any person who wilfully injure, remove or displace any monument, signal, beacon, boundary post, or buoy, legally placed in said waters for the purpose of designating, locating, surveying or mapping any such grounds; and any person other than the owner, the engineer of shell fisheries, or the authorized representative of the said commissioners or board of supervisors, who shall stake out or inclose any grounds in the said waters for the purpose of planting or cultivating oysters thereon, shall be guilty of a misdemeanor.

§ 12. All provisions of the forest, fish and game law, of the penal code or of any other general statute of this state for the purpose of protecting oysters, oyster grounds or the oyster industry, shall be applicable to the lands and waters hereinbefore described as if the said provisions were herein set forth at length.

LAWS OF 1969, CHAPTER 990

Suffolk County - Lands Under Waters of Gardiner's and Peconic Bays - Cession for Shellfish Cultivation

CHAPTER 990

An Act to cede lands under water of Gardiner's and Peconic bays to Suffolk county, and in relation to the management of such lands for the cultivation of shellfish.

Approved and effective May 26, 1969.

Passed on home rule request. See Const. art. IX, § 2(b) (2), and McKinney's Legislative Law § 44.

The People of the State of New York, represented in Senate and Assembly, do enact as follows:

Section 1. Legislative finding and determination. By chapter three hundred eight-five of the laws of eighteen hundred eighty-four, entitled "An act to cede lands under water of Gardiner's and Peconic bays to Suffolk county, Long Island, for the cultivation of shell-fish," as last amended by chapter one hundred ninety-one of the laws of nineteen hundred twenty-three, the people of the state ceded to Suffolk county for the purposes of oyster culture lands under the waters of Gardiner's and Peconic bays and the tributaries thereof between the westerly shore of Great Peconic bay and an easterly line running from the most easterly point of Plum island to Goff point at the entrance of Napeague harbor. The commissioners of shell fisheries provided for in said law, as amended, have not functioned for several years and the offices are vacant. Other shellfish than oysters are being harvested and constitute an important asset to the economy of the area generally. The business of cultivating oysters has declined and one of the results has been the forfeiture of lands, formerly sold by the commissioners of shell fisheries, through tax sales and non-user. Markers and buoys formerly marking the corners of parcels of land under the waters have not been maintained. The public generally, the taxing authorities, baymen and, in many cases, even the actual owners of land under water are not certain of location, status or title. It is in the best interest of the state generally and those of the area in question particularly that the lands under said waters should be surveyed and managed to promote the cultivation of shellfish. It is the intent of this act to accomplish that purpose.

§2. Ratification of titles. The sale of lands under said waters by the commissioners of shell fisheries, subsequently held and used by the grantees, their heirs, successors and assigns, in accordance with the provisions of chapter three hundred eighty-five of the laws of eighteen hundred eighty-four, as amended, on which all taxes and assessments have been paid, is hereby ratified and confirmed. All other lands under said waters which, pursuant to said laws, have escheated or reverted to the state, are hereby ceded to Suffolk county for the purpose of the cultivation of shellfish, subject to existing valid grants and easements; provided, however, that nothing in this act shall interfere with the right of the commissioner of general services to grant lands and easements under water to owners of adjacent uplands, pursuant to the provisions of the public lands law, or of the legislature to make such grants without regard to upland ownership and to grant franchises to utilities, municipalities and governmental, educational or scientific bodies for cables, outfalls, ecological studies and experimentation with controlled marine life. If, hereafter, such of said lands as are now in private ownership escheat or revert to the state, they are hereby as of such time ceded to Suffolk county for the purpose of the cultivation of shellfish.

§3. Survey and mapping. Before leasing or using the lands hereby ceded to it, Suffolk county shall cause an accurate survey to be made of such lands, and a map or maps to be prepared therefrom. Such survey

Appendix C: Laws of 1969, Chapter 990

shall determine the location of and such map or maps shall show (a) the boundary lines through said waters of the several towns involved, (b) the ordinary high water mark and a line one thousand feet therefrom, (c) the location of existing grants, easements, franchises and cable lines, (d) areas where the federal government permits fish traps to be located, (e) lands under water presently privately owned for the purpose of the cultivation of oysters, (f) areas where bay scallops are produced regularly and harvested on a commercial basis, (g) structures on the land, publicly or privately owned, and aids to navigation installed and maintained by the federal government which are useful for taking ranges and determining points on the surface of the waters of said bays and (h) proposed plots for leasing and points for the location of buoys from which the boundaries of said plots can be readily determined.

Should any dispute arise as to the boundary between any towns, it shall be resolved by the county executive of Suffolk county with the approval of the legislative body thereof.

§4. Leases. Suffolk county may lease lands under water ceded to it by the state for the purpose of shellfish cultivation, except such lands as are within one thousand feet of the high water mark or where bay scallops are produced regularly and harvested on a commercial basis. Leases shall be made to persons resident in Suffolk county one year or more prior to application, for plots containing not less than fifty acres and for a term of ten years. Before a lease is made, a notice of availability shall be posed conspicuously for at least two months in the marine fisheries office of the department of conservation, in the offices of the county clerk, the department of public works and the clerks of the towns in which all or any parts of the lands proposed to be leased are situate. Such notice shall state the time when and the place where bids will be received, and that descriptions of the land available may be seen at and obtained from all offices where notice is posted and at the office of the county executive. Such notice shall also be published in the official newspapers of the county. Letting shall be at public auction. The county may reject any and all bids.

§5. Regulations. The county shall, by local law, before leasing any of such lands, adopt regulations governing (a) applications for leases, (b) notices to be given, (c) the form and terms of leases, (d) the transfer or renewal of leases, (e) re-surveying and re-mapping where significant change occurs in the high water mark or where there are changes in range markers or navigation aids, (f) the placing and maintenance of marker buoys, (g) fees to be charged for filing applications and supplying maps and copies of documents, and (h) such other matters as are appropriate, including the use of lands not leased.

The regulations may provide that before delivery of any lease of such lands by the county, the lessee shall post a bond in an amount equal to the total rent for the ten year period which shall provide that upon the failure of the lessee to pay the annual rental within ninety days of the due date the bond shall forfeit to the county and the lease thereupon be terminated.

Notwithstanding any of the provisions of this section the department of conservation shall (a) regulate and control the use of certain types of vessels and equipment for harvesting shellfish, requirements for re-seeding, and the right to enter upon such leased lands for re-seeding or making shellfish population surveys, and (b) enforce all laws relating to such lands under water which have been or shall be designated, surveyed and mapped out pursuant to law as oyster beds or shellfish grounds.

§6. Duties of the county clerk. The special libers presently required to be kept by the county clerk for recording deeds of oysterlands shall be supplemented by special libers for recording deeds, leases, franchises, easements and agreements affecting lands under water, and henceforth all documents affecting such lands shall be recorded in such libers and appropriately indexed.

§7. Summary proceedings. Upon failure of the lessee to pay the rental on any date due under the terms of the lease or upon revocation as provided for in the regulations promulgated pursuant to section five

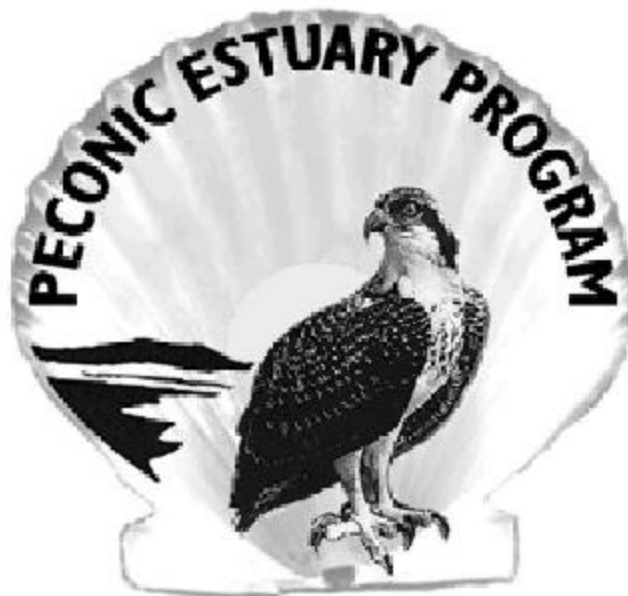
of this act, the county may, after written notice to the lessee declare the lease canceled as of the date set forth in such notice, and may immediately thereafter evict the lessee from such lands. The provisions of article seven of the real property actions and proceedings shall apply and govern the procedure in such case.

§8. Disposition of fees and rents; payments in lieu of taxes. All fees and rents received shall be paid into the general funds of the county. The officer charged by the county with the responsibility for collecting and accounting for such fees and rents shall annually, not later than April first, report the amount received for the twelve month period ending the last day of the preceding February, properly distributed by the several towns involved, apportioning, if necessary, in the case of rent or fees received for any plot partly in more than one town, and file such report with the county treasurer, the county executive, the clerk of the county legislative body and the supervisors of the several towns within which such lands are situate. Not later than fifteen days after receiving such report the county treasurer shall pay to the supervisors of each of said several towns, for general town purposes, seventy-five per cent of the amount collected from fees and the rent of such lands under water within the respective towns for the preceding year reported upon.

§9. Effect of other laws. Any provisions of chapter three hundred eighty-five of the laws of eighteen hundred eighty-four, as amended, or section three hundred two of the conservation law, or any other general or special law to the contrary notwithstanding, this act shall be controlling, but all provisions of such laws, specific, general or special, not inconsistent herewith shall remain in full force and effect.

§10. This act shall take effect immediately.

Comprehensive Conservation and Management Plan





HLR-10 Develop an Aquaculture Plan for the Peconic Estuary.

Addresses Habitat and Living Resources Management Objectives 1, 2, 5, 6, 7, and 8.

Historically, the Peconic Estuary has supported successful shellfish aquaculture. Aquaculture activities can vary widely in scale and therefore, in the potential impacts they may have on the environment. In an estuarine system such as the Peconic Estuary, which is relatively shallow and fairly enclosed, especially west of Shelter Island, it is important to determine the amount and type of aquaculture that should be permitted without causing adverse impacts to the entire estuary or to local embayments. An estuary-wide aquaculture plan could be used to develop guidelines and criteria for aquaculture operations, identify suitable areas where aquaculturing can be employed, develop monitoring protocols, and control the commercial culture of non-indigenous and imported species.

The NYSDEC has responsibility for developing and enforcing State-wide aquaculture policy, however, Suffolk County has been given certain specific rights to develop such policies in the Peconic Estuary. An overall plan has not yet been developed, but could be facilitated through input from the PEP and other interested groups. For this reason, it is important to begin to develop a comprehensive aquaculture policy for the Peconic Estuary Program by sponsoring a workshop to which all interested parties are invited so that all of the concerns can be discussed and incorporated into the estuary-wide aquaculture plan. At this workshop, the development of guidelines or criteria for aquaculture can be initiated based on the different kinds of operations which currently exist and which may be proposed for this body of water. These criteria will include scale of operation, methods of culturing, amount and type of inputs into the environment, genotypes and species used, location, and amount and type of artificial structure to be used.

Depending on the nature, scale, and intensity of the operation, aquaculture activities in natural waters can have a significant impact on local water quality, living resources, and habitats. For example, small-scale shellfish culturing, which is a common type of culturing that exists in the Peconic Estuary, is probably associated with lesser impacts to the estuary than large-scale fish farms. Shellfish culturing can also be beneficial to water quality through their filtering of particles, however, they should not be located in naturally productive shellfish or finfish areas (*e.g.*, eelgrass beds, finfish spawning/nursery areas, etc.). In order to ensure that neither water quality nor the natural communities of organisms will be adversely impacted, aquaculture sites should be carefully selected, the use of culture stocks should be regulated, and water quality monitoring should be conducted for a variety of parameters.

Location of Facilities

The habitat, food sources, and general health and behavior of species such as sea turtles and marine mammals, and habitats that are important to the recruitment of natural stocks of finfish and shellfish could be impacted by aquaculture facilities. Based on existing information on the ways in which species of concern use the estuary system, it should be possible to identify embayments or other areas where large-scale culturing or grow-out operations and associated activities may be detrimental to these species and therefore, avoided. For example, one concern is the potential impact of culturing operations, such as fish pens, on the interaction between spider crabs populations and sea turtles. Kemp's ridley sea turtles feed primarily on spider crabs. If either spider crabs or sea turtles are attracted to aquaculture operations, there is a potential for adverse interactions between the cultured organisms, the structure or materials of the operation, and the species of concern. Conversely, if



spider crabs are driven from an area by the presence of aquaculture activities, this could potentially have either an adverse or positive impact on the turtles. Seals are another concern. Seals may be attracted to fish pens because of the proximity to their haul-out areas and because of their attraction to concentrations of finfish. If this happens, there is the potential for adverse interactions between the structure and materials associated with the aquaculture and these animals. To date, there have been no known or reported takes of marine mammals at the net pens located off Plum Island; whereas at net pens off the coast of Washington and British Columbia there have been major incidents. The impacts of the presence of net pens off Plum Island are not known on the population dynamics of marine mammals. The CNRAs identified by the PEP need to be surveyed to assess potential impacts to marine organisms and habitats from existing and future aquaculture activities.

Culture Stocks

Research has been done on the genetic differences between local populations and stocks of the same species. Often, local populations are better adapted to local conditions and prey species which makes them better able to function in the local ecosystem. In order to minimize concerns about the impact of culture stocks on natural waters and maximize their successful culture, all aquaculture operations should try to use culture stock taken from the Peconic Estuary rather than from other areas of the country. This is the case for certain shellfish seeding operations. Other stock may be necessary if the Peconic Estuary System stock is not available. However, a State importation permit is required of all products used for aquaculture that are brought in from another State. Shellfish stock only from certain locations north of New York are acceptable for importation into New York.

Another concern about importing organisms into the Peconic Estuary System for the purpose of culturing them commercially is the parasites or diseases that may be brought in with them. These pests may be transmitted to wild populations if not detected in the cultured animals soon enough. As part of developing an aquaculture plan for the entire system, a plan of action for dealing with unforeseen outbreaks should be developed. NYSDEC should maintain the policy of not allowing the importation of southern shellfish.

The transplanting of shellfish into Peconic Estuary waters for cleansing presents a similar concern. New York's shellfish transplant program has been administered by the NYSDEC Bureau of Marine Resources, Shellfisheries Section since 1964. The primary goals of the transplant program are to protect public health and provide a long-term opportunity for utilization of shellfish resources which are presently unusable due to coliform contamination (see **Chapter 5**). In this program, shellfish are placed in certified waters for cleansing and reharvested after 21 days. Some of these transfers are carried out within the estuary itself, but a large segment of the New York transplant program involves the transfer of hard clams from Raritan Bay in New York Harbor to the clean near shore waters of the Peconic Estuary System. It is generally believed that the potential difference between shellfish in both bodies of water in terms of genetics, disease, or parasites is negligible; therefore, no monitoring of the harvested shellfish is done. Also, there have been no reported diseases or parasites in hard clams in New York waters. With the occurrence of oyster diseases such as *Perkinsus marina* (dermo) and *Haplosporidium nelsoni* (MSX) in other waters, however, it may be useful to monitor for these and other known parasites in oysters in order to determine if they may be transferred to the Peconic Estuary should a transplant program for oysters commence (although dermo has already been documented in the Peconics [summer 1997] and MSX may already exist there as well).



Non-Indigenous Species

There are many documented cases of non-indigenous species (finfish, shellfish, and other invertebrates) introduced into natural waters for culturing and subsequently released either accidentally or intentionally beyond the culturing facility (though, there are no documented cases in New York). In many of these cases, the species quickly outcompete and outnumber indigenous populations, causing irreparable damage to the local ecosystem. There are already non-indigenous species in the Peconic Estuary System (*e.g.*, the marine macroalga *Codium fragile*) whose impact on the environment is unknown. The NYSDEC does not permit the importation or introduction of non-indigenous species for aquaculture whether they are proposed to be maintained in an upland facility or in marine waters. It is important that NYSDEC continue to prohibit the introduction of exotic species and require indigenous genotypes for aquaculture. If non-indigenous species are maintained on land in tanks, measures should be taken to prevent the introduction of these species into the wild as well as into surface water discharges containing waste or disease.

Monitoring

Reduction of water quality associated with culturing, particularly that of large-scale finfish culture, has been documented in other areas throughout the world. In order to maintain high water quality in the Peconic Estuary, ambient monitoring (by the permittee or by others) should be implemented when aquaculture permits are granted. Examples of water quality parameters which have been incorporated in these permits include dissolved oxygen, nitrogen compounds, total suspended solids, and chemicals found in conjunction with food for the cultured organisms (*e.g.*, antibiotics). Biological parameters which are measured include chlorophyll a, changes in adjacent benthic populations and interactions with turtles, marine mammals, finfish, and large mobile epifauna (*e.g.*, crabs, whelks). A protocol for monitoring of aquaculture sites should be matched to the scale, location and type of culturing operation (*e.g.*, finfish vs. shellfish). For example, the one net pen finfish operation off Plum Island does have a water and sediment quality monitoring program and a marine mammal and avian reporting requirement. This net pen operation also conducts daily monitoring of dissolved oxygen inside and outside the pens to ensure good water quality for the caged farm fish. Complementary monitoring by an independent agency or entity could be conducted if funded.

Steps

- HLR-10.1
Priority** Assist in the development and implementation of an estuary-wide aquaculture plan. Include criteria regarding scale, location, assessment, monitoring, and methodologies of shellfish and finfish aquaculture which would be ecologically beneficial and would help sustain aquaculture as a beneficial estuarine use when performed in a manner that is sensitive to the natural conditions, productivity and ecology of the Peconic Estuary.
- HLR- 10.2** Identify suitable areas for shellfish and finfish aquaculture activities that are compatible with the water quality and habitat protection objectives in the CCMP to ensure that a balance is maintained between cultivated and wild stocks, and include in the estuary-wide aquaculture plan.
- HLR- 10.3** Investigate the need to require monitoring of imported cultured organisms and intrastate transplant of shellfish for disease and parasites and determine if a requirement should be established to certify that they are disease free.

Appendix D: Peconic Estuary Program CCMP - Recommendations Pertaining to Aquaculture

Peconic Estuary Program CCMP



- HLR- 10.4 Continue to support the prohibition of commercial culture or introduction of non-indigenous species in New York’s waters and require that all aquaculture operations in the estuary use indigenous genotypes.
- HLR-10.5 Develop water quality and natural resource monitoring protocols for existing and future shellfish and finfish aquaculture projects

Responsible Entities

- HLR-10.1 Organize workshop: Suffolk County Planning Department; SCDHS (co-leads); NYSDEC; PEP Natural Resources Subcommittee; NYSDOS; NY Sea Grant; NYSOGS; USACE; EPA; NOAA/NMFS; Suffolk County; Towns of East Hampton, Southampton, Southold, Shelter Island, and Riverhead; villages; Cornell Cooperative Extension; fish farmers; other groups; and individuals interested in aquaculture; Aquaculture Plan: Suffolk County with input from PEP and other stakeholders (NYSDEC, Long Island Sound Study, and New York-New Jersey Harbor Estuary Program)
- HLR-10.2 Suffolk County Planning Department, SCDHS, NYSDEC (co-leads), NYSDOS, USACE, USFWS, PEP-Natural Resources Subcommittee, and Suffolk County Planning Department
- HLR-10.3 Monitoring assessment: NYSDEC (lead); Disease and parasite screening: PEP; NYSDEC; NYSDOS; NYSOGS; USACE; EPA; NOAA/NMFS; Suffolk County; Towns of East Hampton, Southampton, Southold, Shelter Island, and Riverhead; villages; Cornell Cooperative Extension; other groups; and individuals interested in aquaculture (co-leads)
- HLR-10.4 NYSDEC (lead) to implement legislation and NYS legislature
- HLR-10.5 SCDHS, NYSDEC (co-leads), USACE, NYSDOS, NYSOGS, USFWS, PEP, NOAA, and fish farmers (permittees)

Benthic Mapping in the Peconic Estuary

The Peconic Estuary Program Natural Resources Subcommittee identified a large data-gap for the natural resources of the Peconic underwater lands. In direct response, the Peconic Estuary Program, The Nature Conservancy, Suffolk County, and New York State have contracted the State University of New York at Stony Brook to produce benthic habitat maps of portions of the Peconic Estuary. These benthic habitat maps are created using high-resolution remote sensing systems and groundtruthing. The maps will show sediment characteristics, bathymetry, shellfish beds, and submerged aquatic vegetation. The project is currently focusing on the underwater areas of the Peconic Estuary Critical Natural Resource Areas (CNRAs; areas of particular ecological significance designated by the Peconic Estuary Program), including portions of Flanders Bay, Orient Harbor, Northwest Harbor, Gardiners Bay and around Shelter Island and Robins Island.

As of Spring 2002, side scan sonar has been used to map five of the six sites chosen for the first phase of the benthic mapping project. These sites are in the process of being groundtruthed, including intensive ecological analyses. Additional sites have been chosen as this project expands, with the goal of eventually mapping the entire estuary.

The Peconic Estuary Program, The Nature Conservancy, Suffolk County, and New York State have collectively funded this project at \$225,0000 and an additional \$90,000 in funding is anticipated in the near future. It is estimated that an additional \$500,000 will be needed to map the entire Peconic Estuary.

Mapping of the estuary seafloor will increase our knowledge of benthic communities and shallow water habitats, which ultimately can be used to manage and protect finfish, shellfish, and other benthic communities. The benthic mapping survey could facilitate the implementation of numerous programs including CNRA management initiatives and aquaculture programs, as well as aid in further defining Essential Fish Habitat areas (designating Essential Fish Habitat is a Magnuson-Stevens Act mandate for Federally-managed species).

FINAL REPORT

Peconic Bays Aquaculture Advisory Committee

01 April 2002

Appendix E: Peconic Bays Aquaculture Advisory Committee Final Report

The Nature Conservancy wishes to thank the members of the committee for their critical input and dedication in the many months of work that preceded the release of this Final Report. A special appreciation is extended to William M. Wise from the Marine Sciences Research Center at Stony Brook University who chaired the committee and wrote the Final Report.

TABLE OF CONTENTS

EXECUTIVE SUMMARY i

ISSUES AND RECOMMENDATIONS i

INTRODUCTION 1

BACKGROUND 3

DISCUSSION ISSUES 4

COMMERCIAL AQUACULTURE MANAGEMENT SYSTEM 5

FURTHER ISSUES 12

CONFLICTING OR AMBIGUOUS AUTHORITIES OVER
AQUACULTURE IN THE PBS 13

CONCLUSION 14

Table 1 15

Appendix 1 16

Executive Summary

The present aquaculture industry in the Peconics and Gardiner's Bays of Long Island uses underwater lands granted to private growers by Suffolk County in the late 19th and early 20th centuries and other underwater lands made available to growers more recently, on a temporary basis, by New York State. A decline in Long Island's wild shellfish industry has prompted renewed interest in private commercial culture of shellfish. The extent to which the waters and underwater lands of the Peconics and Gardiner's Bays can and should be made available for private, commercial shellfish culture is a subject of active public debate. This debate encompasses legal and administrative issues associated, primarily, with the County-granted lands, technical and scientific issues related to the environmental impacts of aquaculture, and socioeconomic issues that often surface in any attempt to accommodate disparate, sometimes conflicting human activities that are natural resource-dependent. In July 2001, The Nature Conservancy of Long Island formed The Peconic Bays Aquaculture Advisory Committee to study and make recommendations on salient issues in this debate. This is the final report of that committee, whose principal recommendations are summarized below.

Issues and Recommendations

Issue: Species of shellfish allowed in commercial shellfish culture.

Recommendation: Allow culture only of shellfish species native to the Peconics/Gardiner's Bays.

Issue: Aquaculture-related movement of live shellfish and shell material as a vehicle for the introduction of marine animal disease organisms or unwanted pests, predators, etc.

Recommendation: Minimize the reliance on importation of adult broodstock, seed, and other materials from outside the Peconics/Gardiner's Bays.

Recommendation: For those importations that are necessary, require screening, as per current regulations promulgated by the New York State Department of Environmental Conservation, for disease-causing organisms known to affect or be associated with that species.

Recommendation: Develop a disease or nuisance marine animal screening program co-funded by the state and the aquaculture industry but which imposes a minimum financial burden on the industry.

Issue: The form of legal conveyance to be used to provide the aquaculture industry with appropriate access to marine waters and underwater lands.

Recommendation: Commercial aquaculture operations should be provided access to selected areas of the bays through time-limited, renewable leases.

Issue: Where should leases for private, commercial aquaculture be allowed?

Recommendation: The bays should be surveyed and mapped to document the distribution of selected environmental parameters, as well as human uses and activities other than aquaculture. Table 1 presents a suggested list of environmental parameters and human activities.

Recommendation: Use the information from the surveying/mapping to designate areas of the Peconics/Gardiner's Bays as presumptively appropriate for commercial shellfish aquaculture, employing criteria similar to those listed in the Table 1. Lease proposals should be confined to these areas.

Appendix E: Peconic Bays Aquaculture Advisory Committee Final Report

Issue: The scale/size of commercial aquaculture that should be allowed.

Recommendation: Two categories of aquaculture leases are recommended. Leases for off-bottom culture activities should not exceed ten (10) acres. Leases for on-bottom culture operations, typically in deeper water and further from shore, should not exceed fifty (50) acres.

Issue: Limiting the acreage under lease.

Recommendation: Limit the aggregate footprint of all 50-acre leases to no more than ten (10) percent of the total area designated as open to leasing.

Recommendation: Limit the aggregate footprint of all leases active at any one time to no more than fifty (50) percent of the total potentially leasable acreage.

Recommendation: Establish 1500 foot buffers between leases and between all leases and non-leased lands.

Issue: Single ownership of multiple leases.

Recommendation: No more than one ten-acre and one fifty-acre should be leased to the same person.

Issue: Lease duration.

Recommendation: Leases should be made for an initial ten (10) year period and reviewed after the first five (5) years. Failure to work a lease should be grounds for negating the lease. Leases should be renewable based on lessee performance vis-à-vis lease stipulations.

Issue: Securing and retaining a lease.

Recommendation: Require a lease cultivation plan from all applicants, indicating the species to be cultured, culture methods, quantities of animals to be raised, etc. Allow public review and comment on lease proposals.

Recommendation: Require lessees to submit annual (confidential) reports describing the farm's operation and performance.

Issue: Restrictions on methods of harvest on leased ground.

Recommendation: Initially, prohibit use of hydraulic dredges and/or patent tongs on leased bottom, pending outcome of further assessments (see below). Allow use of other mechanical harvesting (oyster dredges that do not penetrate the sediments) gear on leases.

Recommendation: Convene a panel(s) of experts to fully assess 1) the likely environmental impacts of use of harvesting equipment that significantly penetrates the seafloor (i.e., hydraulic dredges and patent tongs) should this equipment be allowed on leased bottom and 2) the degree of market competition between wild-caught and cultured shellfish harvested from Peconic/Gardiner's Bays and how this would be affected by use of hydraulic dredges and/or patent tongs on leased bottom.

Issue: Does the lessee have rights to naturally-produced shellfish existing on a lease at the time it is made or that subsequently settle on the leased bottom? The committee did not reach consensus on how this issue should be resolved.

Issue: Allow individual and/or corporate ownership of leases.

Recommendation: Convene a panel with the requisite expertise in legal, financial, and insurance issues to fully assess and make recommendations on this matter.

Introduction

This report makes specific recommendations on management measures to promote the development of commercial aquaculture in the Peconic Bays System (PBS), here defined to include the lands beneath Peconic and Gardiner's Bays and associated tributaries located between the North and South Forks of Long Island's "tail" and lying westward of a line drawn from the easterly Point of Plum Island to Goff Point (Chapter 990, Laws of 1969). Within this general area, the report's recommendations apply more specifically to waters and underwater lands that are presently under the aegis of Suffolk County and/or New York State, which total nearly 111,000 acres, and *not* to areas under the control of individual towns or townships. Also excluded are lands previously granted by Suffolk County to private individuals for the purposes of oyster culture (pursuant to Chapter 385, Laws of 1884 and amendments), except, *potentially*, any such lands that revert to County or State control because of failure to pay taxes and that may be made available again for shellfish cultivation. Should, however, a municipality wish to promote commercial shellfish culture in its waters, the report's recommendations would provide a useful starting point. Several municipalities undertake aquaculture operations in town waters of PBS as part of efforts to enhance wild populations of shellfish in those waters. Again, these town programs are not the immediate subject of this report, but some of the report's recommendations may be relevant to the programs.

The report was prepared by the Peconic Bays Aquaculture Advisory Committee, an *ad hoc* group brought together under the aegis of The Nature Conservancy of Long Island. In July, 2001, the Conservancy assembled a small number of individuals who were representative of groups, agencies, and organizations with an interest in the use and management of the natural marine resources of the PBS. The specific objective was to help resolve the future of commercial aquaculture in the system so that the industry could develop and grow, but in a way that other user groups felt was balanced, equitable, and did not unacceptably infringe on their uses of and interests in the area. This, of course, is not an issue limited to the PBS; balancing the needs of commercial aquaculture with those of other users of the marine environment is a thorny and consuming aspect of aquaculture planning and management everywhere in the United States and in other parts of the world. The issue has come to recent prominence in the PBS because of controversy surrounding the recent purchase by one company of cultivation rights on granted lands in the PBS. The company then harvested shellfish by mechanical means from large tracts of long-fallow oyster grant lands. A list of members of the Peconic Bays Aquaculture Advisory Committee is found at the end of the report.

Benefits other than increased economic activity might result from an expanded aquaculture industry in the PBS. There is strong evidence that wild populations of commercially important bivalve molluscan shellfish are, in many parts of these bays, at low levels of abundance compared to earlier periods. However, the picture is varied; waters east of Shelter Island have recently experienced good sets of hard clams (*Mercenaria mercenaria*). Some scientists believe that the decline in shellfish populations in the PBS, and in some other bay systems in New York's Marine District, reflects a disruption in the ecological connection between the benthic (bottom-related) and pelagic (water column) components of these ecosystems. Increasing the number of shellfish in the system, such as through an expanded aquaculture industry, might serve to reestablish this benthic-pelagic connection and return the ecosystem to an earlier, healthier condition. At the same

Appendix E: Peconic Bays Aquaculture Advisory Committee Final Report

time, it should be recognized that aquaculture has come under increased scrutiny in the past decade as a source of water quality and environmental impairment. Many of the concerns about the environmental impact of aquaculture activities can be effectively addressed through appropriate site selection, the use of production technologies and systems that place minimal stress on the ambient environment, and the use of best management and husbandry practices in the production operation. Ensuring these safeguards would be a necessary component of any aquaculture management program in the PBS.

The PBS supports a wide variety of human uses, of which commercial aquaculture is but one. There is an active whelk fishery throughout most of the system; the waters east of Shelter Island are heavily used by commercial trawlers, lobstermen, clambers, and scallopers. Recreational boating and fishing are extensive in the PBS. An expanded commercial aquaculture industry will have inescapable impacts on these other activities and pursuits. The challenge and the responsibility of a creditable aquaculture development plan will be to channel and shape growth in commercial aquaculture in ways that are most complimentary to these other uses and to keep displacement and negative impacts on these uses to a minimum.

The Committee's work was undertaken in an atmosphere of increased societal interest in aquaculture development in the PBS. The Peconic Estuary Program Comprehensive Conservation and Management Plan, adopted in 2001, provides an overall framework for managing the region's interdependent human activities and natural coastal resources. That plan's Recommended Action HLR 10 calls for the development of an aquaculture plan for the system and identifies suggested steps in the plan's formulation. Additionally, coincident with but independent of the committee's origins, the Suffolk County Legislature created the Suffolk County Aquaculture Committee, charging it with making recommendations on issues associated with underwater lands previously granted by the County for oyster cultivation, outstanding taxes due on those properties, and the role of Suffolk County in managing these lands. As the two committees went to work, they kept each other informed of their progress. A member of the committee also provided staff support to the Suffolk County Aquaculture Committee and was the principal means of interchange; additionally, the chair of this committee gave a verbal briefing to the County committee on its progress and the preliminary recommendations of its draft report.

The report deals with practical, knowledge-based measures on how to approach and handle several of the most salient issues involving commercial aquaculture in the PBS. Not every issue, problem, contention, or management concern is covered. Moreover, the time and resources available to this *ad hoc* committee were not adequate to exhaustively assess and decide upon all aspects of even those issues deemed most critical by the group. The report does not comment on any of the legal or political issues affecting the future of commercial aquaculture in the PBS, nor on how these issues have been addressed historically. For example, the question of which level of government has or should have the authority to promote/manage commercial aquaculture in the area is not within the purview of the committee and is not discussed here. The committee expects that the report's findings, conclusions, and recommendations will be useful to any agency or organization charged with or interested in the management and regulation of commercial aquaculture in the PBS. The assessments and recommendations of this report should be viewed as a starting point for further, more detailed development of a management framework for the aquaculture industry of the Peconics.

The committee recognizes that some individuals feel that the marine waters and underlying lands of New York's Marine District are held in trust by different levels of government and that the permanent or semi-permanent use on an exclusive or semi-exclusive basis of these areas by private individuals is wrong. However, aquaculture, including aquaculture in the PBS, is the subject of several sections of state law that leave no doubt that the New York State Legislature has found aquaculture to be an acceptable use of marine waters, when undertaken in conformity with pertinent laws and regulations. Thus, the issue for the committee was not whether aquaculture should be allowed in the PBS but what kind and scale of aquaculture should be allowed and promoted.

In its meetings, the committee operated on the basis of consensus. To arrive at a widely-accepted approach to aquaculture development in the PBS will mean building consensus between individuals and groups espousing views that are, at times, widely divergent. This was the case, in microcosm, around the committee's discussion table. As issues were taken up, an attempt was made to develop a common understanding of the issue and to reach agreement on how that issue should be handled in an aquaculture management program. Compromise and accommodation were at times necessary to reach consensus. Not every member is enthusiastic about every recommendation, but, together, the group believes the recommendations in aggregate provide a reasonable and reasoned approach to managing aspects of the future of commercial aquaculture in the PBS.

The committee produced a draft report in early February, 2002. The Nature Conservancy distributed the draft report widely to groups, organizations, government agencies, aquaculturists and others for review and comment. Comments were received via email, postage mail, and at a public information meeting held at the County Center in Riverhead, New York on March 18, 2002. Subsequent to this meeting, the committee met to decide what revisions to make in the draft report based on the comments received. The present report is the result. The audience for this report is any person or organization interested in its subject matter. More specifically, aquaculturists, baymen, environmental resource managers in government, elected officials, environmental groups and organizations, other stakeholder groups, and the general public should find the report informative and of use.

Background

The cultivation of marine animals, particularly shellfish, is an historic practice in the waters of the PBS. Cultivation of oysters in the area began in the latter decades of the 19th Century and grew to a substantial industry by the middle of the 20th Century. This industry relied upon seed (juvenile) oysters harvested from beds in Connecticut and planted onto underwater lands in the PBS for grow-out. As the Connecticut seed beds began to fail in the 1960's, the oyster industry in the PBS went into a decline from which it has not recovered. Current shellfish culture in the PBS involves primarily the transplantation of hard clams from public uncertified waters of Raritan Bay to privately-held grounds (oyster grant lands and Temporary Marine Area Use Assignments) in the PBS. Smaller amounts of oysters are also produced from privately-held beds. Approximately 8% of underwater lands in the PBS are held under private oyster grants whose title is undisputed.

Appendix E: Peconic Bays Aquaculture Advisory Committee Final Report

Additional lands are under temporary use assignments to private individuals and/or companies from the New York State Department of Environmental Conservation. Presently, there are twenty-one (21) Temporary Marine Area Use Assignment Permits issued for aquaculture activities in the PBS which total 105 acres. Only a small fraction of the privately-held underwater lands (oyster grants) are being actively cultivated; most of these properties are fallow. Production of oysters and clams from privately-held underwater lands and those under temporary assignment constitutes more than 90% of the average annual production of these species from the PBS.

The Peconic Bays System has also supported the lifestyles and activities of wild harvest fishermen for generations. Many baymen participate in a number of different wild fisheries in an annual cycle dictated by natural, seasonal changes in the presence and availability of finfish and shellfish and the regulatory opening and closing of harvest seasons for different species. In recent years, some baymen have become part- or full-time aquaculturists, as declines in the abundances of wild fishery stocks have plunged, fishing restrictions have tightened, and opportunities to make a decent living catching and selling from wild stocks have been curtailed. The occurrence of the brown tide devastated bay scallop populations in the PBS and forced many baymen to pursue other fisheries and opportunities to augment their income on the water. Other baymen continue to see aquaculture, or aquaculture practiced in certain ways, as a real or potential threat to their livelihood. This threat is variably perceived as a competition for space, a competition for markets, or a competition for government support and consideration.

In no other coastal region of New York State is there a stronger and more intimate connection between human communities and the marine environment than that found on the East End of Long Island. Events and decisions affecting marine resources impact a large fraction of the region's population. Discussions and decisions about how to manage and regulate commercial aquaculture are important ones on the East End and should be approached with openness, fairness, respect for differing views and interests, and a discernment of fact from assertion, allegation, and belief. This was the spirit in which the Peconic Bays Aquaculture Advisory Committee conducted its discussions and the committee believes this is reflected in its findings, conclusions, and recommendations.

Discussion Issues

The committee identified a number of issues that are critical to determining whether and to what extent commercial aquaculture expands in the PBS. The group did not attempt to address every issue that might impinge on this overall objective and there are aspects of the issues that were taken up that it did not fully address and/or resolve. The committee expects that its findings and recommendations will serve as the foundation for more detailed future discussions on how the ideas developed here can be effectively acted upon and implemented.

These are the issues that the committee considered :

- species of animals and genotypes
- methods of harvest

- methods of cultivation
- scale of operations
- locations for aquaculture
- amount/type of artificial structure allowable
- monitoring/enforcement/compliance requirements
- baseline mapping/surveying needs
- management mechanisms best suited to controlling these above issues

The views and recommendations of the committee on how these issues should be addressed are presented below in the context of a described *Commercial Aquaculture Management System* for the PBS. The committee feels that, if aquaculture promotion is to occur in the PBS, it should be undertaken in a carefully managed and controlled way, following the elements of a plan such as are laid out below. This system provides a general framework as well as a number of specific recommendations on critical aspects of the location, design, and operation of commercial farms. The goal of the *Commercial Aquaculture Management System* is to provide opportunity for the maximum number of participants to engage in commercial aquaculture in the PBS that is economically viable while avoiding and/or minimizing potential conflicts and impacts with recreational and commercial harvesters, other user groups, and the environment.

Commercial Aquaculture Management System

1. Species of Animals/Genotypes Under Culture & Translocation Issues

The committee confined its attention to the commercial culture of shellfish and this report does not address the culture of marine finfish. Historically, commercial aquaculture in PBS has involved primarily molluscan shellfish. State law defines, “shellfish,” as all species of clams, oysters, mussels, and scallops. These bivalve mollusks are the species that have been cultured in the PBS in the past and will likely form the primary focus of future aquaculture operations in the area.

Non-native species

The culture of shellfish for commercial purposes in the PBS should be restricted to species of molluscan shellfish that are native to these waters. The translocation and introduction of non-native organisms to marine and freshwater ecosystems is an environmental issue of international scope and magnitude. These introductions can have devastating ecological consequences. The current practice of the New York State Department of Environmental Conservation (DEC) is to ban the importation into the state of non-native species of marine animals or plants. This policy makes sense and should be continued. In the future, should technological developments result in the development of genotypes of non-native species that are guaranteed to be reproductively sterile, this blanket prohibition might be reevaluated. For the purposes of a commercial culture operation, some non-native shellfish species may offer considerable economic potential.

Allowable genotypes

The term, “genotype,” refers to the genetic makeup of an individual or a group of individuals in a population. There is a certain amount of natural genotypic variability in a species, which may be expressed as variability in the appearance, behavior, or other detectable aspects of the affected individuals (phenotypic variability). For thousands of years, farmers, ranchers, and animal breeders have used interbreeding techniques based on genotypic variation to produce dozens of chicken breeds, dogs ranging in size from Great Danes to Chihuahuas, and super milk cows that Elsie would find amazing. Current biotechnology techniques can produce these results in a single generation, as opposed to the multiple generations required earlier. One well-known unusual, but completely natural genotype of the hard clam is the “*notata*” clam, possessed of distinct shell markings that make it easily recognizable among a group of phenotypically normal hard clams. Rhode Island banned the use of *notata* clams in hard clam aquaculture operations because of a fear that they would out compete normal hard clams and, over time, shift the *notata*/normal clam balance in the wild stocks of hard clams in state’s coastal waters. There is little scientific evidence to support this concern and the committee sees no compelling reason to prohibit or restrict the use of *notata* hard clams in the PBS commercial aquaculture.

Translocation of native shellfish species and the spread of diseases

All wild populations of animals and plants experience diseases and, at times, disease outbreaks can decimate these populations. The virulence and extent of a disease outbreak depends on a variety of factors, including the presence in the environment of other stress factors that may increase the susceptibility of the population to disease. Marine species under culture are also subject to disease outbreaks; the typically high densities in which cultured animals are held can increase their vulnerability to infection or infestation. The intentional movement of marine animals from one place to another along the coast is, clearly, a potential mechanism for the introduction of diseased animals, and thus disease organisms, into heretofore healthy waters. Most states have very strict laws, regulations, or policies limiting the importation of live marine animals into state waters and New York State is no exception. DEC practice presently prohibits the importation into New York of live marine shellfish originating in all coastal waters south of New York along the East Coast. Many of the coastal waters south of New York have chronic shellfish disease problems. Preventing importation of shell stock from these areas helps reduce the possible transmission of these diseases into New York waters, but it does not eliminate it. Some of these diseases have been periodically affecting wild and cultured shellfish populations in New York waters for years. Imports of native shellfish species to New York are only allowed from waters between New York and Maine, with some exceptions due to past disease problems.

While transshipment and movement of shellfish can be a vector for the spread of shellfish disease, these movements have historically been an integral part of shellfish aquaculture, commercial and public, in the PBS and in other parts of New York’s Marine District. The environmental needs of shellfish evolve as they grow and culturists have always moved their stock around to better satisfy these needs, securing faster-growing shellfish with lower mortalities. To prohibit any and all such movements in the interests of maximum disease transmission prevention would be self-defeating.

A balance is needed. It is the committee's view that inter-regional movement of shell stock is a contributing factor in the spread of shellfish parasites and disease. To the greatest extent possible, shellfish aquaculture in the PBS should be undertaken using indigenous (native) species and without relying on importation of breeding or seed stocks. Any movement or transport of shell stock or shell into the PBS, including intra-state movement within the Marine District, should be accompanied by strict screening of shipments for parasites and diseases known to impact that species.

To screen interstate shipment of shellfish and/shells, most states in the Northeast, including New York, have a proactive shellfish disease testing program in partnership with shellfish pathologists and a university or private laboratory. All shipments from waters north of New York must come from source facilities that have passed stringent screening for the presence of etiologic agents of shellfish disease and the shipments themselves may be spot-checked for these agents. A Shellfish Importation Permit must be obtained from DEC prior to receipt or import of shellfish from outside the State for cultivation purposes, pursuant to Part 48, 6 NYCRR. DEC is responsible for regulating the transfer of shellfish into the State in order to minimize the potential introduction of shellfish diseases, parasites, pests, predators, and other pathogens associated with these introductions. Currently, New York ships shellfish samples to the University of Connecticut for testing, as New York has limited capabilities and expertise in marine animal pathology. New York State has recently established a Marine Disease and Pathology Research Consortium and laboratory at the Marine Sciences Research Center of Stony Brook University and this unit will provide an in-state capability for shellfish importation disease inspections, along with a variety of other services and capabilities in marine animal disease issues.

Should the aquaculture industry expand in the PBS or elsewhere in the Marine District, the issue of how to more effectively enforce shellfish transshipment and other regulations will have to be considered. At present, DEC has limited staffing within its Bureau of Marine Resources to oversee shellfish transshipment disease certifications. The committee recommends that these certifications not be provided free-of-charge to the industry, but that there be some sharing of costs between the industry and the state (DEC). Other states require an annual pathology report to be on file from the culture operation that is the source of the shellfish being shipped, in lieu of separate certifications for each purchase or shipment from the same grower. The Committee recommends that the state develop the ability to conduct shellfish health and disease screening in a way that imposes a minimum burden on the industry.

2. An Aquaculture Leasing Program Plan

The core of a commercial aquaculture management system for the PBS would be an underwater lands leasing program run by a cognizant state or county agency. Leasing provides secure access to underwater lands for a specified period of time, both critically important to culturists, and retains for the leasing agency the ability to stipulate terms and conditions of the lease and to periodically review whether these are being met in the instance of a lease renewal. Other mechanisms to provide prospective culturists with access to underwater lands and surface waters do not meet these concerns as well as does leasing. In the view of many, the historic practice (in the PBS) of granting lands (i.e., transferring cultivation rights to these lands) to private individuals for the purpose of aquaculture alienates too much of the public trust and interest in the use of these properties. The failure of past grantee holders of these lands to keep them in productive use in the PBS is a major source of the current controversy over commercial aquaculture on the East End.

Appendix E: Peconic Bays Aquaculture Advisory Committee Final Report

The small acreage (5-acre maximum) and short duration (1 year) of DEC's Temporary Marine Area Use Assignment program are probably inadequate to warrant the kind of long-term planning and investment that a substantial commercial aquaculture venture requires. Comparatively, a lease-based aquaculture development program offers the management authority a greater level of control, both in terms of specifying how a culture operation must be run and ensuring that it is run in that way. Periodic lease renewals would provide occasions for public involvement and comment on whether the lessee was complying with the terms of the lease and/or whether changes in natural conditions at the lease site might warrant changing the lease stipulations.

Suggested elements of an aquaculture leasing program are described below.

Defining what areas of the PBS should be made available for commercial aquaculture through leasing

An exact figure of the total acreage potentially available for aquaculture leasing in the PBS is not extant and this amount could change if currently granted oyster lands are returned to County control for back taxes and some or all of these lands are then put into a leasing program. Under the most expansive definition of what might be leasable, the total area potentially available may approximate 100,000 acres. However, the committee recommends an approach to the identification of leasable areas that would reduce this figure considerably.

Under present law, areas in the PBS within a thousand feet of the shoreline and/or where bays scallops are, "...produced regularly and harvested on a commercial basis," may not be leased for private aquaculture. The statute containing this proscription also mandates that a survey of the PBS be accomplished to delineate other areas within the system that, presumably, should not be leased or where leasing should only be done with extra forethought and precaution. The challenge to those identifying what areas should be put out for aquaculture leases is to balance the need of prospective culturists for access to areas that are suitable for aquaculture with the need to protect the historic access of other users groups to areas of these bays of importance to them. The committee's recommendations on what areas of the PBS to include in the leasing program are contained in Table 1.

The committee recommends that the PBS be surveyed and a general map prepared using the criteria shown on Table 1. This would be a substantial undertaking and was well beyond the capabilities and timetable of the committee. Such a survey would need to be repeated periodically and the map(s) updated to reflect changes in the distribution of submerged aquatic vegetation and wild stocks of molluscan shellfish resource species (bay scallop, hard clam, oyster, mussel) and changes in the pattern of other human activities in the system. The committee recommends that this review and update be done every 5-10 years. The surveying/mapping activity must be conducted with the full and active participation of both the aquaculture industry and the other user groups potentially affected by an expanded aquaculture industry in the PBS. The body of extant data on molluscan shellfish abundance and distribution in the PBS is currently inadequate to identify all areas of the system that might be defined as, "naturally productive of shellfish." To be useful, this term must be defined in some quantitative way in terms of the density or productivity of shellfish populations in the area. The committee highlights the need for this determination to be made based on the best

scientific and technical information at hand, supplemented by input from the public and/or potentially affected stakeholders, e.g., wild harvest fishermen.

Information on this map(s) could be used by the aquaculture leasing authority to identify areas of the PBS where leasing should not occur and where it could proceed in a way that minimized or avoided interactions with other users of the marine environment. Seasonal leases, use of “transient” or removable/easily transportable culture equipment, and use of culture areas as potential shellfish spawner sanctuaries are just three of a multitude of ways in which the leasing authority could manage an aquaculture leasing program, or a specific lease, so as to minimize conflicts with other users. Specific leasing proposals in the leasing area should still go through an evaluation and assessment process that provides opportunity for public involvement and comment. The committee notes the intense use of waters east of Shelter Island by a variety of wild harvest fisheries; finding potentially leasable grounds in this part of the PBS, grounds that do not run afoul of the exclusion areas noted on Table 1, will be particularly difficult.

The scale of culture operations and the types and sizes of leases

The term, “scale of culture operations,” can variously refer to the physical size (footprint in acres) of an individual aquaculture farm, the number and/or density of animals in culture, and the extent to which multiple farms are under single individual or corporate ownership. The committee discussed the term primarily in the first sense, addressing the issue of whether there should be an upper limit placed on the physical size of aquaculture farms in the PBS. Concerns have been raised by baymen’s groups, boaters, and some environmental groups in the PBS that a proliferation of very large aquaculture farms could easily crowd out other users of the water surface and bottomlands of the system. A concentration of large farms might also raise greater environmental issues than a series of smaller plots. Representatives of oyster grant holders and the hard clam transplant program, which involves more than 80 baymen, felt that these concerns were not well-founded. From the perspective of the culturist, the size of the area under cultivation that is necessary to be economically viable is not readily separable from other aspects of the culture operation. Two acres might be adequate to grow species A using one production technology; many more acres might be needed to economically cultivate species B using a different production system. In many production systems, economies of scale argue for larger as opposed to smaller operations.

Among wild harvest fishermen, the prospect of large aquaculture operations, especially large operations that are under the management and control of corporations whose owners are not in the region and may have little sensitivity to the impact of their activities on local communities and other users of the PBS, is disquieting. Their concern extends as much to the ability of these farms to corner and manipulate markets for marine animal products as it does to competition for space on the water surface or bay bottoms of the region.

Until being amended in 1996, state law provided that aquaculture leases on state-owned underwater lands in the Marine District be a *minimum* of 50 acres. Presently, smaller acreages can be made available, although the 50-acre minimum remains in the state law governing lands potentially leasable by Suffolk County for shellfish culture in the PBS. As noted above, different types of shellfish aquaculture have different environmental and production requirements. Very intensive systems where large numbers of animals are grown in high densities in floating racks or

Appendix E: Peconic Bays Aquaculture Advisory Committee Final Report

trays can be successfully conducted within a small footprint. More extensive culture involving the planting of larger shellfish on open bay bottom, typically in deeper water, requires a much larger area. In the committee's view, the leasing program should accommodate this reality. The committee recommends that the leasing program issue two types of leases. Leases for off-bottom culture of shellfish in certain designated areas would not exceed 10 acres. Leases of up to 50 acres would be issued for on-bottom culture of shellfish. To secure a lease, the lease applicant would be required to submit a cultivation plan indicating the species to be cultured, culture methods, quantities of animals to be planted, etc.. Prior to the issuance of any leases, the leasing authority would identify general areas within the PBS that would be designated for off-bottom and on-bottom leases, using the lease area identification criteria in Table 1. Once these areas had been designated, lease proposals of the above two types would be entertained. The committee recommends that lessee's be required to submit annual activity reports to the leasing authority. These reports would describe critical aspects of the farm's operation and performance during the previous year. These reports would be confidential.

Restrictions on leasing in the designated leasing areas

The committee recommends that no more than 10% of the total area within the PBS identified as leasable by the leasing authority could be occupied by 50-acre leases. Additionally, no more than 50% of the total leasable bottom in the PBS should be under lease at any one time. Buffer zones should be established between individual leases so as to reduce potential impacts to navigation and public enjoyment of the leasing area. The committee suggests that the leasing area include a 1500' buffer around its perimeter to effectively separate leasing areas from areas of naturally productive shellfish or submerged aquatic vegetation beds, from areas of other human activity, and from other leaseholdings.

Restrictions on issuing multiple leases

The committee recommends that no individual be issued more than 1 10-acre off-bottom and 1 50-acre on-bottom culture lease, making for 60 total allowable acres under lease.

Lease duration

Leases should be issued for an initial 10-year period and reviewed after the first 5 years. If the review reveals that the lease was not actively farmed at any time in the previous 5 years, the lease may be negated. Leases are renewable after 10 years based on leaseholder performance and adherence to lease stipulations.

Restrictions on methods of cultivation and harvest

For the committee, this topic boiled down to whether or not hydraulic dredging should be allowed on commercial aquaculture leased grounds in the PBS. Proponents of the use of hydraulic dredging argue that the gear is necessary for some types of shellfish aquaculture if the farm is to be economically viable. Hydraulic dredging is currently used on oyster grant lands and no evidence was presented to the committee that suggested it was causing significant degradation to the environment of the PBS. Opponents of the equipment argue that its use significantly changes bottom sediment

texture, injects large volumes of resuspended sediments into the water column with deleterious environmental impacts, and its efficiency is so great that culturists using hydraulic dredges are capable of manipulating local supplies of shellfish in the market, putting wild harvest shellfishermen at a market disadvantage. Concerns were also expressed about the ability of the leasing authority to effectively police the use of hydraulic dredges by multiple leaseholders to avoid accidental or intentional transgressions with the dredge outside the lease area. However, the afore-mentioned buffers between lease and around leasing areas should reduce the number of such incidents.

The evidence from scientific assessments of the relative environmental impacts of hydraulic vs. “dry” (mechanical) dredges did not reveal that the impacts of hydraulic dredging were any more severe or persistent than those created by dry dredges. On the contrary, evidence was presented to the committee that rate of shell breakage and damage in hand harvesting operations of soft-shell clams was higher than with either hydraulic or dry dredges. Hydraulic dredges are likely to be used in the foreseeable future only for harvesting hard clams from large (50-acre) leases in the deeper waters of the center of the bays comprising the PBS. In most instances, only a portion (20%) of the total lease would be dredged in any single year. Given this, and the above restrictions on the number of 50-acre leases that would be allowed at any one time, the volume of bottom sediments likely to be resuspended by hydraulic dredging on leased aquaculture lands pales in comparison to the volume of such sediments typically resuspended in a coastal storm.

The committee was not able to fully resolve the issue of the extent to which the harvesting efficiency of hydraulic dredges would give aquaculturists an ability to affect the market price for shellfish to the detriment of hand diggers. Both aquaculturists and hand diggers sell to the same local shellfish markets, but many culture operations market their product nationally and internationally, as well. Clearly, culturists have little incentive to flood the regional market with clams, as this may drop the price for everybody.

In the time allowed, and with the resources available to it, the committee could not thoroughly investigate, document, and make a judgment on the likely environmental impacts of using hydraulic dredges (or any other mechanical harvesting apparatus that penetrates the bottom) on leased aquaculture bottom in the Peconic Bays System. Such an assessment is a necessary precursor to a decision to allow such gear to be used on leased bottom and under what, if any, specific regulations. Similarly, assessing in a meaningful and defensible way the extent to which expanded aquaculture production through the use of efficient harvesting gear (e.g., hydraulic dredges) would impact the overall marketing economics of both wild-harvested and cultured shellfish from the region proved beyond the scope and capabilities of the committee. Therefore, it is the recommendation of the committee that one or another of the governmental agencies associated with the general issue of aquaculture development in the PBS convene a special study group(s) to more fully assess these issues. This study group should be comprised of individuals whose training and background would most contribute to an informed, fact-based assessment and a recommendation(s) that is founded to the fullest degree on knowledge and understanding produced thereby. To the greatest extent possible, this assessment(s) should be based on how aquaculture lease-related dredging is likely to occur in the PBS (i.e., number of leases, area to be dredged over specific time periods, location of leased areas, bottom sediment types involved, likely size/power of dredges, etc.). This assessment(s) will be a significant undertaking; to be successful it must be adequately supported by the sponsoring agency or agencies.

Appendix E: Peconic Bays Aquaculture Advisory Committee Final Report

The committee recommends that no aquaculture leases be made in the PBS involving mechanical dredging of infaunal molluscan shellfish (i.e., employing hydraulic dredges or patent tongs) until the assessments(s) called for above is completed and the study group(s) has produced a report and recommendation. Use of mechanical harvesting gear that does not significantly penetrate the seafloor should be allowed on leased bottom.

Further Issues

The committee discussed but came to no resolution on two other issues. It recommends further exploration and discussion of these.

Harvest Rights to Wild Shellfish on Leased Grounds

It is clearly appropriate to allow the lessee exclusive rights to harvest shellfish placed on the leased ground as part of routine culture activities conducted under the lease. An issue arises, however, regarding the ownership and/or harvesting rights to naturally-produced shellfish that might be present on the leased ground at the start of the lease or that set and grow on this ground once the lease is in effect. The committee came to no agreement on whether or not the lessee would have rights to these shellfish in either instance. It is the present policy of DEC that naturally-produced shellfish found on Temporary Marine Area Use Assignments are the property of the people of the State of New York and the assignment holder has no inherent right to these animals. Some on the committee felt that the lessee should have exclusive right only to those shellfish that are actually planted or placed onto the leased bottom by the lessee. Others felt that, in addition to these animals, shellfish that set on the leased ground because of bottom preparations undertaken by the lessee should also be considered harvestable under the lease.

Awarding Leases to Individuals or Corporations

In its draft report, the committee recommended that leases for commercial aquaculture in the PBS be made only to individuals and not to corporations. This recommendation was grounded in a concern that the complexion of aquaculture in the region not take or evolve to the form of aquatic agribusiness, as aquaculture has in some other sections of the United States. It was generally agreed that the scale and ownership of the industry should remain relatively small and local, respectively. Many wild harvest fishermen fear the prospect of multiple leases bought up by a small number of aggrandizing large corporations whose ownership has few and only shallow roots in our East End communities. However, comments received on this recommendation pointed out that not all corporations are large, not all are aggrandizing, and not all are run by remote owners. Most small businesses in our society are incorporated. This is done for a variety of legitimate and understandable reasons, often having to do with tax and/or insurance liabilities attendant to the firm's operation. The committee finds this response sufficiently persuasive that we have rescinded our earlier recommendation. We suggest that the question of individual/corporate ownership of aquaculture leases in the PBS be further assessed by a group with greater access to the necessary legal, financial, and insurance expertise.

Conflicting or Ambiguous Authorities Over Aquaculture in the PBS

During the committee's discussions, questions were raised about the relative authorities of New York State and Suffolk County to regulate commercial aquaculture on state-owned lands or lands previously ceded by the state to Suffolk County in PBS in light of the authorities that are conveyed to towns with approved Local Waterfront Revitalization Plans (LWRP's), part of the State's Coastal Management Plan and its several policies. State-issued permits in waters affected by a LWRP (for example, an aquaculture permit) must be consistent with the policies of the State or an approved LWRP. The circumstance was raised wherein a specific town's approved LWRP may contain policies that are restrictive of the further development of commercial aquaculture, more restrictive than that adopted by some future designated PBS aquaculture leasing authority (either Suffolk County or New York State). What would eventuate if an applicant sought a lease on state/county underwater lands nominally within the area covered by the LWRP? Does the full authority of a LWRP, in fact, extend to state-owned or county-controlled underwater lands within the administrative boundary of the LWRP? Given that there are five towns in the PBS area and three villages there is a possibility of 8 separate LWRP's, each treating commercial aquaculture differently. In this scenario, is the possibility of a unified and consistent approach to issues of aquaculture development in PBS made more difficult, if not impossible? The committee was not able to resolve this issue in the time it had available. It is raised here for the future.

Conclusion

The committee believes the above *Aquaculture Management System* offers a structured approach to directing the future of commercial aquaculture in the PBS. Our suggested approach responds to the potential of aquaculture to contribute to the economic and social well-being of East End residents and their communities. At the same time, the committee notes that governmental promotion of commercial aquaculture needs to be handled in a way that imposes the minimum impact on other users of these beautiful bays and on the marine environment itself. This report is not a complete prescription of how all this should be accomplished. It lays out a mixture of general goals and specific recommendations for actions to meet those goals. Should Suffolk County, New York State, or the assembled or individual East End townships decide to move more directly to resolve the issues currently confounding the development of commercial aquaculture in the Peconic Bays, the committee would welcome the opportunity to discuss the contents of this report in greater detail.

Table 1. Peconic Bays System Leasing Area Criteria

Not Recommended for Leasing

3. Oyster grant lands that have been ratified & confirmed, subject to payment of taxes to Suffolk County
4. Areas documented to be naturally productive of shellfish
5. Areas containing submerged, rooted aquatic vegetation
6. Areas occupied and permitted by DEC and/or U.S. Army Corps of Engineers for pound and trap nets
7. Officially designated navigation channels
8. Areas where bay scallops are now harvested commercially or have been harvested commercially sometime in the past twenty (20) years, including Northwest Harbor and Orient Harbor
9. Areas of active commercial or heavy recreational fishing activity that are not compatible with shellfish aquaculture operations
10. Endangered species/marine mammal habitats
11. Underwater cable and/or utility easements

Consider for Leasing; Tailor Leasing Stipulations to Minimize User Group Conflicts

1. “Decommissioned” oyster grant lands
2. Unused, nearshore areas (limited “off-bottom” culture, only)
3. Areas not demonstrating natural shellfish productivity in past 10 years
4. Areas of light to moderate recreational fishing activity or compatible commercial fishing activity
5. Natural resource management areas/critical environmental areas (e.g., NYS DOS-designated Significant Coastal Fish & Wildlife Habitats)

Appendix 1. Members, Peconic Bays Aquaculture Advisory Committee

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Debra Barnes, NYS Department of Environmental Conservation

William Blanchard, Peconic Bay Prime, Temporary Use Assignment

Ian Burluik, Eastern Light Seafood

Robert Cerrato, Marine Sciences Research Center, Stony Brook University

DeWitt Davies, Suffolk County Planning Department

Wayne Grothe, The Nature Conservancy

Steve Kenny, Southampton Town Council

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Gregg Rivara, Cornell Cooperative Extension of Suffolk County

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Laurie Zaleski, North Fork Environmental Council

Jackey Zeneski, Oyster Grant Holder, Temporary Use Assignment, Miss Tillies Seafood.

Appendix E: Peconic Bays Aquaculture Advisory Committee Final Report

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