



*Shellfish Aquaculture
Lease Program
in
Peconic Bay
and
Gardiners Bay*

Project Title:

Draft Scoping Document

Prepared for:

Suffolk County Department of Planning

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Prepared by:

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SUFFOLK COUNTY DEPARTMENT OF PLANNING

DRAFT SCOPING DOCUMENT

SHELLFISH AQUACULTURE LEASE PROGRAM IN PECONIC BAY AND GARDINERS BAY

APRIL 2007

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**Suffolk County Aquaculture Lease Program
Advisory Committee
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**DRAFT DGEIS SCOPING DOCUMENT
SHELLFISH AQUACULTURE LEASE PROGRAM IN PECONIC AND
GARDINERS BAYS**

OVERVIEW

In accordance with the State Environmental Quality Review Act (SEQRA) and its implementing regulations (6NYCRR Part 617), Suffolk County, as Lead Agency, is preparing a Draft Generic Environmental Impact Statement (DGEIS) to evaluate the potential impacts of establishing a Shellfish Aquaculture Lease Program in Peconic and Gardiners Bays. This document identifies the issues that are to be addressed in the Draft Generic Environmental Impact Statement.

As set forth in 6 NYCRR Part 617.8(a), the objectives of scoping are to:

- Focus the GEIS on potentially significant adverse impacts
- Eliminate consideration of those impacts that are irrelevant or nonsignificant

The end product of scoping is a final written scope or “scoping document.” The scoping document is essentially an outline of all issues that will be considered in the DGEIS.

As set forth in 6 NYCRR Part 617.8(f), the final written scope should include:

- “(1) a brief description of the proposed action;
- (2) the potentially significant adverse impacts identified both in the positive declaration and as a result of consultation with the other involved agencies and the public, including an identification of those particular aspect(s) of the environmental setting that may be impacted;
- (3) the extent and quality of information needed for the preparer to adequately address each impact, including an identification of relevant existing information, and required new information, including the required methodology(ies) for obtaining new information;
- (4) an initial identification of mitigation measures;
- (5) the reasonable alternative to be considered;
- (6) an identification of the information/data that should be included in an appendix rather than the body of the draft EIS; and
- (7) those prominent issues that were raised during scoping and determined to be not relevant or not environmentally significant or that have been adequately addressed in a prior environmental review.”

BRIEF DESCRIPTION OF THE PROPOSED ACTION

Pursuant to New York Environmental Conservation Law 13-0302 (“2004 Leasing Law”) that State of New York ceded to Suffolk County underwater lands in Gardiners and

Peconic Bays seaward of 1,000 feet from the high water mark for the purposes of shellfish cultivation (“Shellfish Aquaculture Planning Area boundary”) provided the various conditions and requirements as set forth in this law are met. Pursuant to this law, the following areas, which Suffolk County will define, cannot be leased:

1. “underwater lands where bay scallops are produced regularly and harvested on a commercial basis”
2. “underwater lands where there is an indicated presence of shellfish in sufficient quantity and quality and so located as to support significant hand raking and/or tonging harvesting”
3. “underwater lands where the leasing will result in a significant reduction of established commercial finfish or crustacean fisheries”

Other areas, based on an analysis of existing conditions and uses, are also likely to be excluded from leasing. Thus, Suffolk County will identify the boundaries of a “Shellfish Cultivation Zone” within which underwater lands could potentially be leased.

The 2004 Leasing Law also requires that the county adopt regulations governing: applications for leases; notices to be given; the form and term of leases; standards for the approval or denial of leases; administration of leases; the transfer or renewal of leases; marking grounds and testing; fees; recording of leases; bonds; and other matters as are appropriate to the leasing program. These regulations will be developed by Suffolk County.

If no leases for shellfish aquaculture are executed by December 31, 2010, the authority of Suffolk County to issue such leases shall terminate and the County will forfeit any of its title to the underwater lands.

Suffolk County is preparing a *Shellfish Aquaculture Lease Management Program Report* to:

- Fulfill the requirements of the 2004 Leasing Law;
- Establish a framework for the leasing of underwater lands for shellfish aquaculture that minimizes environmental impacts and user conflicts while supporting the growth of shellfish aquaculture and the environmental, economic and natural resource benefits it provides; and,
- Develop the local laws, regulations and administrative procedures necessary to implement a shellfish aquaculture lease program.

This report will provide the framework and information needed for the Suffolk County Legislature and the Suffolk County Executive to enact the local law and regulations for the *Shellfish Aquaculture Lease Program in Peconic and Gardiners Bays* that will enable Suffolk County to issue shellfish aquaculture leases.

The implementation of the *Shellfish Aquaculture Lease Program in Peconic and Gardiners Bays* is expected to yield the following benefits:

- Provide people with the opportunity to obtain access to underwater lands for raising shellfish.
- Encourage private investment in aquaculture businesses and the establishment of shellfish farms at secure locations that do not pose conflicts with commercial fishermen and other bay uses.
- Expand the marine-based economy and create related job opportunities.
- Augment the spawning potential of native shellfish populations and exert a positive influence on water quality by helping to control nutrient cycling and to prevent noxious plankton blooms as a result of the increase in the number of shellfish.
- Provide other potential positive impacts related to the establishment of aquaculture leases such as: bottom structures providing more suitable substrate for both flora and fauna; commensal relationships between commercial fishing activities and culture activities; and providing additional opportunity for commercial fisherman to maintain their economic viability.

POTENTIALLY SIGNIFICANT ADVERSE IMPACTS

Based on a preliminary review of the proposed action, and as identified in the Positive Declaration, the following potentially adverse impacts have been identified:

- Underwater land use: Leasing will increase the availability of underwater land for shellfish aquaculture, but will result in limitations or restrictions being placed on the general public access to the underwater lands that are leased.
- Water quality: The increase in the abundance of hard clams, oysters and other bivalve mollusks associated with shellfish aquaculture activities will increase the abundance of filter feeders in Peconic and Gardiners Bays. An increase in abundance of suspension feeding bivalves can adversely impact phytoplankton abundance; change the phytoplankton species composition; alter nutrient dynamics; impact the carrying capacity of the bays; and affect nitrogen cycling.
- Natural Resources: Sea turtles are seasonally present in Peconic and Gardiners Bays and shellfish aquaculture activities may reduce the extent of their feeding areas as well as affect the availability of their prey.
- Navigation: The leasing of underwater lands for shellfish aquaculture may require the placement of buoys or other water surface markers to identify the location of shellfish leases or the presence of shellfish aquaculture structures. Certain types of aquaculture activities such as rafts, upwellers, and longlines, may be on or near the surface and may pose an obstacle to the passage of commercial and recreational vessels.

- Fishing: Shellfish aquaculture structures, either on or off-bottom, may limit the amount, type or location of commercial finfishing (notably bottom trawling, gill netting and pound traps), crustacean (the potting of lobsters and crabs), and whelk fisheries and shellfishing (the raking and tonging of hard clams and oysters, and the dredging of bay scallops) as well as recreational finfishing.
- Socio-economic conditions: The leasing of underwater lands for shellfish culture will increase the production of shellfish which may have an economic impact on the prices paid to wild harvest shellfishermen. Areas that are leased may preclude or limit the harvest of various species of wild shellfish, crustaceans, whelk or conch and finfish.
- Bottom sediments: The shellfish that are grown on shellfish leases will remove suspended matter from the water column and deposit it as feces or pseudofeces on the bottom which could represent a potentially significant change in energy availability to biological consumers and alter the characteristics of the sediment. Sediment characteristics and sedimentation may also be impacted by the harvesting of shellfish and the placement of structures for shellfish aquaculture.
- Shellfish diseases: Shellfish that are used for shellfish aquaculture may carry shellfish diseases and the conditions under which the shellfish are cultured may facilitate the transmission of shellfish diseases.
- Benthic communities: The placement of structures or shellfish on the bottom and the harvest of shellfish from the leases will likely impact both benthic flora and fauna assemblages. The cultivation of shellfish may alter the diversity and abundance of benthic communities normally found in the lease areas.
- Local Waterfront Revitalization Program (LWRP): The proposed action must address all approved Local Waterfront Revitalization Programs whose jurisdictional boundaries intersect with the Shellfish Aquaculture Planning Area.
- Submerged Aquatic Vegetation: The proposed action should address the potential impacts on submerged aquatic vegetation (SAV) beds that exist currently and historic areas where SAV restoration may be possible.
- Essential Fish Habitat: The proposed action should address the potential impacts of aquaculture activities on finfish resources and essential fish habitat for the large number of fish species found in the estuary. The estuary provides important juvenile fish habitat for species such as winter flounder, weakfish, bluefish, scup, blackfish, summer flounder, puffers and butterfish. This document should consider all life stages of fish and key spawning areas.

THE EXTENT AND QUALITY OF INFORMATION NEEDED TO ADEQUATELY ASSESS EACH IMPACT

Significant information is available on the environmental characteristics and features of Peconic and Gardiners Bays including wetlands, water quality, natural resources, and sediments, and there are also a number of ongoing studies, such as the Peconic Estuary Program Benthic Mapping Project, that will provide relevant information. The Peconic Estuary Program undertook a number of studies on the various aspects of the Peconic Estuary and has an extensive collection of reports (<http://peconicestuary.org/Reports.html#Anchor-Peconi-64198>). The Suffolk County Department of Health Services also has an extensive database on oceanographic parameters. It is believed that other governmental agencies, notably the New York State Department of Environmental Conservation, have information that will be useful in assessing existing conditions and the impacts of the proposed action. Interviews will be conducted with fishermen and other knowledgeable individuals to obtain additional information. The scientific literature contains extensive information on the impacts of shellfish aquaculture on the environment and on the biology of key species.

As per 6 NYCRR Part 617.9 (6), the GEIS will:

- Identify the nature and relevance of unavailable or uncertain information;
- Provide a summary of existing credible scientific evidence, if available; and
- Assess the likelihood of occurrence, even if the probability of occurrence is low, and the consequence of the potential impact, using theoretical approaches or research methods generally accepted in the scientific community.

As per 6 NYCRR Part 617.9(7), the DGEIS may incorporate by reference all or portions of other documents that contain information relevant to the statement. The referenced documents will be made available for inspection by the public. Referenced documents will be briefly described and the date of preparation provided.

INITIAL IDENTIFICATION OF MITIGATION MEASURES

The 2004 Leasing Law sets forth various requirements that will reduce the impacts of the Shellfish Leasing Program, specifically that the following areas cannot be located in the Shellfish Cultivation Zone:

- “underwater lands within one thousand feet of the high water mark,”
- “underwater lands where bay scallops are produced regularly and harvested on a commercial basis,”
- “underwater lands where there is an indicated presence of shellfish in sufficient quantity and quality and so located as to support significant hand raking and/or “tonging harvesting,” and
- “underwater lands where leasing will result in a significant reduction of established commercial finfish or crustacean fisheries.”

Other mitigation measures to be considered include:

- Limiting the size of aquaculture leases
- Limiting the number of aquaculture leases in a particular area
- Limiting the number of cultivated shellfish in a particular area
- Limiting the types of aquaculture activities
- Limiting the means by which shellfish may be harvested
- Plot or gear rotation system
- Transient gear aquaculture system

REASONABLE ALTERNATIVES

There are only two alternatives, either Suffolk County establishes an aquaculture lease program or it does not (no action). If it is determined by the County to establish a program, two possible alternatives for implementation are being considered: A) a minimum lease program based on the conversion of existing temporary marine assignments into the leasing program and leasing portions of existing oyster grant areas for aquaculture of shellfish species other than oysters; and B) implementation of the program through variations in the way that a shellfish leasing program could be structured. The scale and scope of the leasing for shellfish aquaculture will be determined as part of the Generic Environmental Impact Statement process and the preparation of the *Shellfish Aquaculture Lease Program Report*.

Under the No Action alternative, Suffolk County would not comply with the 2004 Leasing Law and would thus be unable to issue leases for the aquaculture of shellfish in the Peconic and Gardiners Bays.

INFORMATION TO BE INCLUDED IN APPENDICES

The following information is anticipated to be included in appendices:

- Full Environmental Assessment Form
- Positive Declaration
- Final Scoping Outline
- Pertinent documents such as the 2004 Leasing Law
- Analytical methods used to determine the Shellfish Aquaculture Planning Area and Cultivation Zone
- Data

**PROMINENT ISSUES RAISED AND DETERMINED TO BE NOT RELEVANT,
ENVIRONMENTALLY SIGNIFICANT, OR ALREADY ADEQUATELY
ADDRESSED**

Currently, there are no issues that have been raised and determined to be not relevant, environmentally significant or have been adequately addressed in a prior environmental review.

PUBLIC COMMENTS ON THE DRAFT SCOPE

A public scoping hearing, at which time individuals and organizations may provide oral or written comments, will be held on May 3, 2007 at 7:00 pm at Suffolk County Community College, Eastern Campus; Shinnecock Building, Room 101; 121 Speonk-Riverhead Road; Riverhead, NY 11901. The lead agency will receive comments on the draft scope until Thursday, May 17, 2007. Following the close of the comment period, a final written scope will be prepared which will be provided to all involved agencies and any individual that has expressed an interest in writing to the lead agency within 60 days of its receipt of a draft scope.

**CONTENTS OF THE DRAFT GENERIC ENVIRONMENTAL IMPACT
STATEMENT (DGEIS)**

Cover Sheet

- Proposed action and location
- Name, address, telephone number of the lead agency and its contact person
- Name, address, telephone number of the preparer and its contact person
- Date of the DGEIS submission, revision date(s), acceptance date, public hearing date, and DGEIS comment period

Table of Contents

Executive Summary

- Brief description of New York State 2004 Leasing Law and the proposed action
- Project purpose, need, and benefits
- Location
- List of interested and involved agencies
- Brief description of anticipated impacts and proposed mitigation
- Brief description of project alternatives

Section 1. Introduction

- Brief description of New York State 2004 Leasing Law
- Brief description of the proposed action

- Project purpose, need, and benefits
- Project sponsor
- Location
- State Environmental Quality Review Act (SEQRA)
- Implementation timeline

Section 2. Description of the Proposed Action

1. Location
2. Background History
3. New York State 2004 Leasing law
 - Stipulations
 - Implementation timeline
4. Prior studies
 - Peconic Estuary Program related studies
 - Peconic Bays Aquaculture Advisory Committee Final Report
 - Suffolk County Planning Department *Survey Plan For Shellfish Cultivation Leasing in Peconic and Gardiners Bay* (2003) and *Policy Guidance For Suffolk County On Shellfish Cultivation In Peconic and Gardiners Bay* (2002)
5. Existing plans and area designations
 - Significant Coastal Fish and Wildlife Habitats
 - Peconic Estuary Program Comprehensive Conservation and Management Plan
 - Local Waterfront Revitalization Plans
6. Components of leasing program
 - Where shellfish leasing will occur
 - How shellfish leasing will be undertaken
 - Laws and regulations
7. Purpose and need
8. Project review and approvals
 - a. NYS Department of Environmental Conservation
 - Water Quality Certification
 - Protection of Waters (possibly for anchors/structures on the bottom)
 - Tidal Wetlands (in areas less than 6' feet deep at Mean Low Water)
 - On/off bottom culture permits
 - State Pollution Discharge Elimination System (SPDES)
 - b. NYS Department of State
 - Coastal Consistency
 - c. State Environmental Quality Review (SEQRA)
 - d. US Army Corps of Engineers
 - Section 10 Rivers and Harbors
 - Section 404 Clean Water Act
 - Section 103 Marine Protection, Research and Sanctuaries Act of 1972
 - Part 48D – General Aquaculture Permit
 - Nationwide Permits
 - e. US Coast Guard

- Aids to Navigation
 - f. National Marine Fisheries Service
 - Essential fish habitat
 - g. Local
9. Types of aquaculture activities
- a. On-bottom
 - b. Off-bottom

Section 3. Underwater and Surface Water Uses

1. Jurisdictions
 - Town
 - State
 - County
2. Ownership of underwater lands
 - Oyster grants
3. Temporary Marine Area Use Assignments
4. Overview of historical and current finfish, crustacean, whelk (conch) and shellfish fishing activities

Section 4. Environmental Setting, Impacts and Mitigation

This section will describe the relevant components of the environmental setting and identify and describe potentially significant adverse impacts. Practical mitigation measures that would avoid or minimize the adverse impacts will be discussed.

A. Natural Resources

Existing conditions/setting

1. General overview of natural resources of Peconic Estuary (based on existing information and interviews)
 - a. Benthos
 - Sediments characteristics
 - Faunal assemblages
 - Keystone, and other important species
 - Shellfish abundance/distribution from previous studies and ground truthing where applicable,
 - Benthic-pelagic coupling
 - b. Water Column
 - Water classification
 - Shellfish harvest classification
 - Finfish
 - c. Water Quality
 - Turbidity

- Nutrients
- Chlorophyll *a*
- Salinity and temperature
- Dissolved oxygen
- d. SAV, e.g., Common Eelgrass (*Zostera marina*) and Widgeon Grass (*Ruppia maritima*) beds – both current and historic beds
- e. Circulation, currents and wave action
- f. Critical Natural Resource Areas
- g. Rare, threatened and endangered species (turtles and marine mammals)
- h. Migratory waterfowl and other bird populations
- i. Carrying capacity and “build-out”

Impacts

1. Pathogens/disease
2. Harvest of shellfish (all types of harvest gear, hand harvest vs. mechanical (dry dredges, hydraulic, etc.)) must be evaluated in the reharvest of cultivated product
3. Placement of on-bottom structures on sediment characteristics, benthic fauna
4. Sedimentation, scouring
5. Changes in the phytoplankton composition, nutrient cycling
6. Displacement and attraction of species
7. Suspended sediment/turbidity
8. Carrying capacity/phytoplankton depletion/nutrients
9. Enhanced recruitment
10. Site impacts, down-drift impacts
11. Accidental release of shellfish
12. Genetic changes

Mitigation

1. Limit lease number
2. Limit lease size
3. Type of lease
4. Limit biomass of shellfish
5. Restrict harvest methods
6. Establish buffers around leases and environmental resources
7. Require environmental monitoring plans
8. Require performance bonds
9. Require disease testing of shellfish
10. Transient gear aquaculture system
11. Plot rotation

B. Socio-economic and cultural impacts

Existing conditions/setting

1. Commercial fishing

- a. Types of activities
 - dragging and trawling
 - pound nets
 - scalloping
 - hard clamming
 - oystering
 - lobstering
 - whelks
 - gill nets
 - pin hooking
 - crabbing
 - party/charter boat fishery
 - gill netting
- b. Landings and values
- c. Characteristics of commercial fishermen
 - numbers
 - nature of activities (seasons and location)
 - employment (full/part time employment and average income)
- 2. Oyster grants, temporary assignments and existing aquaculture
- 3. Recreational finfishing
- 4. Commercial and recreational boating
- 5. Other maritime uses (waterfowling)
- 6. Parks and heritage areas

Impacts

1. Loss of harvest area
2. Loss of maritime traditions
3. Changes in employment opportunities/incomes
4. Value of fishery resources

Mitigation

1. Performance standards
2. Limit acreage/area
3. Limit lease size
4. Mark lease areas

C. Transportation

Existing conditions/setting

1. Boating activities
2. Navigation

Impacts

1. Hazards to navigation

2. Restrictions on use

Mitigation

1. Standards for marking
2. Notification
3. Limit placement of structures
4. Require buffers

D. Visual

Existing conditions/setting

1. Buoys and structures on surface

Impacts

1. Loss of aesthetic values/qualities

Mitigation

1. Visual buffers and setbacks from critical viewsheds

E. Use and Conservation of Energy

It is believed that the proposed action will not impact the use and conservation of energy.

F. Solid Waste Management

While shellfish aquaculture operation may generate some solid waste, it is not expected to have a significant impact on solid waste management.

G. Acquisition of Land

It is believed that the proposed action will not impact the acquisition of land.

F. Groundwater Resources

It is believed that the proposed action will not impact groundwater resources.

Section 5. Alternatives

Alternative 1 – Suffolk County institutes a shellfish aquaculture leasing program.

- A. Minimum lease program based on conversion of existing temporary marine area use assignments into a leasing program and leasing areas of existing oyster grants for aquaculture of species other than oysters.
- B. Implementation of the program through variations in the way that a shellfish leasing program could be structured, e.g., the range of lease sizes and durations; the types of shellfish aquaculture techniques; the locations for certain activities; the shellfish species or combination of shellfish species raised; and so forth. It is not possible to identify the full range of variations at this time. Therefore, the various alternatives will be identified and considered as part of the analysis of the impacts of shellfish aquaculture and, in particular, as a way to mitigate identified impacts.

Alternative 2 - No action: Suffolk County does not institute a shellfish aquaculture leasing program.

Section 6. Cumulative and Growth Inducing Impacts

1. The DGEIS will describe and assess how the adoption and implementation of the *Shellfish Aquaculture Lease Program in Peconic and Gardiners Bays* will affect the existing level of aquaculture, fishing/shellfishing.
2. The DGEIS will describe and assess the need for shore side facilities to store and maintain gear, dock boats, and process shellfish as a result of the adoption and implementation of the *Shellfish Aquaculture Lease Program in Peconic and Gardiners Bays*.

Section 7 Unavoidable adverse impacts

1. The DGEIS will summarize any significant adverse impacts and proposed mitigation measures identified in the evaluation of the *Shellfish Aquaculture Lease Management Program Report*.

Section 8 Irreversible and Irretrievable Commitment of Resources

1. The DGEIS will evaluate if the adoption and implementation of the *Shellfish Aquaculture Lease Program in Peconic and Gardiners Bays* would result in any irreversible and irretrievable commitments of resources.

Section 9. References

Appendices (tentative)

Full Environmental Assessment Form
Positive Declaration
Final Scoping Outline

Pertinent Documents

2004 Leasing Law

Methodologies

Figures (tentative)

Shellfish cultivation planning area

Shellfish cultivation zone

Suffolk County lease areas

Oyster grants and temporary marine assignments

SAV, e.g., Common Eelgrass (*Zostera marina*) and Widgeon Grass (*Ruppia maritima*)
beds

Bay scallop harvest areas

Hard clam harvest areas

Pound nets, dragging and potting areas

Landings data