

Brewster Chapter 172
Code of the Town of Brewster, Massachusetts
Wetland Regulations
1.01 - 9.15

DATES OF ADOPTION/ PROMULGATION

**BREWSTER WETLANDS PROTECTION BY-LAW
BREWSTER WETLANDS PROTECTION REGULATIONS**

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Brewster
Wetland Regulations
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PART I GENERAL PROVISIONS

1.01 Introduction and Purpose

(1) Introduction

These regulations are promulgated by the Town of Brewster Conservation Commission pursuant to the authority granted to it under Section 8 of the Town of Brewster Wetlands Protection By-law (hereinafter referred to as the By-law). These regulations shall complement the Wetlands Protection By-law, and shall have the force of law upon their effective date.

(2) Purpose

The By-law sets forth a public review and decision making process by which activities affecting areas Subject to Protection under the By-law are to be regulated in order to ensure the protection of the following interests:

- public water supply
- private water supply
- groundwater and groundwater quality
- water quality in the numerous ponds in the Town
- flood control
- erosion and sedimentation control
- storm damage prevention
- fisheries
- shellfish
- wildlife
- aesthetics
- agriculture
- aquaculture
- historic values

The purpose of these regulations is to define and clarify that process by establishing standard definitions and uniform procedures by which the Brewster Conservation Commission may carry out its responsibilities under the By-law.

1.02 Statement of Jurisdiction

(1) Area Subject to Protection Under the By-law

The following areas are subject to protection under the By-law:

- (a) beach
dune
flat
freshwater wetland
coastal wetland
marsh
meadow
bog
or swamp
- (b) Any land within 100 feet of any of the areas set forth in Section 1.02 (a) above;
- (c) Any lake,
pond
river
stream
estuary
or the ocean:
- (d) Any land under any of the water bodies set forth in Section 1.02 (c) above;
- (e) Any land subject to flooding or inundation by any of the following:
groundwater,
surface water,
tidal action,
or coastal storm flowage.

(2) Activities Subject to Regulation Under the By-law.

- (a) Any activity proposed or undertaken which will constitute removing, filling, altering, or building upon any area specified in Section 1.02 (1) is subject to regulation under the By-law and requires the filing of an Application for Permit.
- (b) Any subsurface sewage disposal system, where any component thereof is within any area specified in Section 1.02 (1), above. Because of the demonstrated potential for contamination of ground and surface waters from effluent from these systems, and for protection of the public health, safety, and welfare, and for the protection of the Federally designated sole-source aquifer upon which the residents of the Town of Brewster depend for all public and private drinking water supplies, no leaching facility of any such system shall be permitted within or under any area specified in Section 1.02(1) unless the applicant can demonstrate that there will be no alternation

of the ground or surface water within or under any area specified in Section 1.02(1) above, and that there will be no adverse impact upon any of the interests specified in the By-law, and subject to the provisions of Part V of these Regulations.

- (c) Any activity proposed or undertaken outside the areas specified in Section 1.02(1) above shall not be subject to regulation under the By-law unless, in the judgement of the Conservation Commission, said activity will result or has resulted in the removing, filling, altering, or building upon an area specified in Section 1.02(1) above. If the applicant wishes to have the Conservation Commission determine whether an activity may be subject to regulation under the By-law, he or she may do so by way of a Request for Determination of Applicability pursuant to Section 6.01 of these regulations.

1.03 General Provisions Concerning Burden of Proof and Burden of Going Forward

- (1) The Applicant shall have the burden of going forward with credible evidence from a competent source in support of all matters asserted by the applicant in accordance with his or her burden of proof pursuant to Section 1.03 (b) below;
- (2) The Applicant shall have the burden of proving by clear and convincing evidence that the work proposed in the Application for Permit will not harm the interests protected in the By-law. Failure to meet the Burden of Proof shall be cause for the Conservation Commission to deny the Application for Permit, along with any work or activity proposed therein.

1.04 Definitions

Activity means any form of draining, dumping, dredging, damming, discharging, excavating, filling or grading; the erection, reconstruction or expansion of any buildings or structures; the driving of pilings; the construction or improvement of roads and other ways; the changing of run-off characteristics; the intercepting or diverging of ground or surface water; the installation of drainage, sewage and water systems; the discharging of pollutants; the destruction of plant life; and any other changing of the physical characteristics of land, or of the physical or chemical characteristics of water.

Aesthetics means the natural scenery and appearance of any resource area visually accessible to the public.

Agriculture: Land in agricultural use means land presently and primarily used in the raising of animals including, but not limited to, dairy cattle, beef cattle, poultry, sheep, swine, horses, ponies, mules, goats, bees and fur-bearing animals, or land presently and primarily used in a related manner which is incidental thereto and represents a customary and

necessary use in raising such animals.

Additionally, land in agricultural use means land presently and primarily used in the raising of fruits, vegetables, berries, nuts, and other foods for human consumption, feed for animals, tobacco, flowers, sod, trees, nursery or greenhouse products, and ornamental plants and shrubs; or land presently and primarily used in raising forest products under a planned program to improve the quantity and quality of a continuous crop; or land presently and primarily used in a related manner which is incidental thereto and represents a customary and necessary use in raising such products.

Alter means to change the condition of any Area Subject to Protection Under the By-law. The term "alter" shall include, without limitation, the following actions when undertaken in Resource Areas Subject to Protection Under the By-law:

- (a) Removal, excavation, or dredging of soil, sand, gravel, or aggregate materials of any kind;
- (b) Changing of preexisting drainage characteristics, flushing characteristics, salinity distribution, sedimentation patterns, flow patterns or flood retention characteristics;
- (c) Drainage or other disturbance of water level or water table;
- (d) Dumping, discharging or filling with any material;
- (e) Placing of fill, or, removal of material;
- (f) Driving of piles, erection of buildings, or structures of any kind;
- (g) Placing of obstructions or objects in water;
- (h) Destruction of plant life, including cutting of trees;
- (i) Changing water temperature, biochemical oxygen demand, or, other physical or chemical characteristics of water;
- (j) Any activities, changes, or work which pollute in any way any body of water or groundwater.

Applicant means any person who files an Application for Permit on Request for Definition of Applicability, or on whose behalf such a notice is filed.

Aquaculture:

Land in aquacultural use means land presently and primarily used in the growing of aquatic organisms under controlled conditions, including one or more of the following uses: raising, breeding or producing a specified type of animal or vegetable life, including, but not limited to, finfish such as carp, catfish, black bass, flatfishes, herring, salmon, shad, smelt, sturgeon, striped bass, sunfishes, trout, whitefish, eel, tilapia; shellfish such as shrimp, crabs, lobster, crayfish, oysters, clams, periwinkles, scallops, mussels, squid; amphibians such as frogs; reptiles such as turtles; seaweeds such as Irish moss and dulse; and edible fresh water

plants.

Normal maintenance or improvement of land in aquacultural use means the following activities, when done in connection with the production of aquatic organisms as defined above: draining, flooding, heating, cooling, removing, filling, grading, compacting, raking, tilling, fertilizing, seeding, harvesting, filtering, rafting, culverting or applying chemicals in conformance with all state and federal laws; provided, however, that such activities are clearly intended to improve and maintain land in aquacultural use and that best available measures are utilized to ensure that there will be no adverse effect on wetlands outside the area in aquacultural use, and further provided that removing, filling, dredging or altering of a salt marsh is not to be considered normal maintenance or improvement of land in aquacultural use.

Area Subject to Protection Under the Act means any area specified in Section 1.02 (1). It is used synonymously with Resource Area, each one which is defined in greater detail in Parts II, III and IV.

Bank (coastal) is defined in Part II, Section 2.05.

Bank (inland) is defined in Part III, Section 3.01.

Beach (barrier) is defined in Part II, Section 2.04

Beach (coastal) is defined in Part II, Section 2.02

Beach (inland): a naturally occurring inland beach means an unvegetated bank as defined in Part III, Section 3.01

Best Available Measures means the most up-to-date technology or the best designs, measures or engineering practices that have been developed and that are commercially available.

Best Practical Measures means technologies, designs, measures or engineering practices that are in general use to protect similar interests.

Bordering means touching.

Boundary means the boundary of an Area Subject to Protection Under the Act. A description of the boundary of each area is found in the appropriate section of these regulations.

Certificate of Compliance means a written determination by the issuing authority that work or a portion thereof has been completed in accordance with a Permit.

Conditions means those requirements set forth in a written Permit issued by a conservation commission for the purpose of permitting, regulating or prohibiting any activity that removes, fills, dredges or alters an Area Subject to Protection Under the By-law.

Conservation Commission means that body comprised of members lawfully appointed

pursuant to G.L. c. 40 s. 8C.

Creek means the same as a stream.

Date of Issuance means the date a permit is mailed, as evidenced by a postmark, or the date it is hand delivered.

Date of Receipt means the date of delivery to an office, home or usual place of business by mail or hand delivery.

Determination

- (a) a Determination of Applicability means a written finding by a conservation commission or the Department as to whether a site or the work proposed thereon is subject to the jurisdiction of the By-law.
- (b) a Determination of Significance means a written finding by the conservation commission, after a public hearing, that the area on which the proposed work is to be done, or which the proposed work will alter, is significant to one or more of the interests identified in the By-law.
- (c) a Notice of Non-Significance means a written finding by the conservation commission, after a public hearing, that the area on which the proposed work is to be done, or which the proposed work will alter, is not significant to any of the interests of the By-law.

Development is synonymous with activity as defined by the Brewster Wetland Regulations.

Dredge means to deepen, widen or excavate, either temporarily or permanently.

Dune means coastal dune, as defined in Part II, Section 2.03.

Estuary means:

- (a) any area where fresh and salt water mix and tidal effects are evident; or
- (b) any partially enclosed coastal body of water where the tide meets the current of any stream or river.

Extension Permit means a written extension of time within which the authorized work shall be completed.

Fill means to deposit any material so as to raise an elevation, either temporarily or permanently.

Flat (tidal) is defined in Part II, Section 2.02.

Flood Control means the prevention or reduction of flooding and flood damage.

Freshwater Wetlands are defined in Part III.

Ground Water Supply means water below the earth's surface in the zone of saturation.

Interests Identified in the By-law means those interests specified in Section I of the By-law and Section 1.01 (2) of these regulations.

Issuing Authority means the conservation commission.

Lake means any open body of fresh water with a surface area of 10 acres or more, and shall include great ponds.

Land Containing Shellfish is defined in Part II, Section 2.08.

Land Subject to Coastal Storm Flowage means land subject to any inundation caused by coastal storms up to and including that caused by the 100 year storm, surge of record or storm record, whichever is greater.

Land Subject to Flooding is defined in Part III, Section 3.04.

Land Subject to Tidal Action means land subject to the periodic rise and fall of a coastal water body, including spring tides.

Land Under Salt Ponds is defined in Part II, Section 2.07.

Land Under Water Bodies and Waterways means, the bottom of, or land under the surface of the ocean or any estuary, creek, river, stream, pond or lake. Land under the ocean and estuaries is further defined in Part II, Section 2.01; land under inland water bodies is further defined in Part III, Section 3.03.

Majority means more than half of the members of the conservation commission then in office.

Marsh is defined in Part II, Section 2.06 and Part III, Section 3.02.

Meadow (or Wet Meadow) is defined in Part III, Section 3.02.

MEPA means the Massachusetts Environmental Policy Act, G.L. c. 30, §62-62H, and the regulations promulgated pursuant thereto, 301 CMR 10.00, et. seq.

Notice of Intent means the written notice filed by any person intending to remove, fill,

dredge or alter an Area Subject to Protection under the Massachusetts Wetlands Protection Act, M.G. L. c. 131 40.

Ocean means the Atlantic Ocean and all contiguous water subject to tidal action.

Order means an Order of Conditions, Superseding Order or Final Order, whichever is applicable, issued pursuant to M.G.L. c. 131 s 40.

Order of Conditions means the document issued by a Conservation Commission containing conditions which regulate or prohibit an activity under M.G.L. c. 131, s 40.

Owner of Land Abutting the Activity means the owner of land sharing a common boundary or corner with the site of the proposed activity in any direction, including land located directly across a street, way, creek, river, stream, brook or canal.

Party to any proceeding means the applicant, the Conservation Commission and pursuant to Section 1.05 may include the owner of the site, any abutter, any person aggrieved, any ten residents of the city or town where the land is located and any ten persons pursuant to G.L. c. 30A, s 10A.

Person Aggrieved means any person who, because of an act or failure to act by the issuing authority, may suffer an injury in fact which is different either in kind or magnitude from that suffered by the general public and which is within the scope of the interests identified in the By-law facts to allow the Conservation Commission to determine whether or not the person is in fact aggrieved.

Plans means such data, maps, engineering drawings, calculations, specifications, schedules and other materials, if any, deemed necessary by the issuing authority to describe the site and/or the work, to determine the applicability of the Act or to determine the impact of the proposed work upon the interests identified in the Act.

Pond (coastal) means Salt Pond as defined in Part II, Section 2.07.

Pond (inland) means any open body of fresh water, either naturally occurring or man-made by impoundment, which is never without standing water due to natural causes, except during periods of extended drought. For purposes of this definition, extended drought shall mean any period of four or more months during which the average rainfall for each month is 50% or less of the ten year average for that same month. Basins or lagoons which are part of wastewater treatment plants shall not be considered ponds, nor shall swimming pools or other impervious man-made retention basins.

Prevention of Pollution means the prevention or reduction of contamination of surface or ground water.

Private Water Supply means any source or volume of surface or ground water demonstrated

to be in any private use or shown to have potential for private use.

Protection of Fisheries means protection of the capacity of an Area Subject to Protection under the By-law to prevent or reduce contamination or damage to fish and (2) to serve as their habitat and nutrient source. Fish includes all species of fresh and salt water finfish and shellfish.

Protection of Land Containing Shellfish means protection of the capacity of an Area Subject to Protection Under the By-law to prevent or reduce contamination or damage to shellfish and (2) to serve as their habitat and nutrient source.

Protection of Wildlife means the protection of any plant or animal species listed as endangered, Threatened, or Special Concern, or on the Watch List by the Massachusetts Natural Heritage Program; listed as Federally Endangered or Federally Threatened by the U.S. Fish and Wildlife Service; deemed locally threatened in writing by the Brewster Conservation Commission; and means protection of the ability of any resource area to provide food, breeding habitat, or escape cover any species falling within the definition of Wildlife set forth in these Regulations.

Protection of Historic Values means the protection of areas subject to protection under the By-law which are known or are determined in writing by the Conservation Commission to be likely to contain sites of archaeological significance, including but not limited to middens, burial sites, or historic and prehistoric structures and artifacts.

Public Water supply means any source or volume of surface or ground water demonstrated to be in public use or approved for water supply pursuant to G.L. c. 111, s 160 by the Division of Water Supply of the DEP or shown to have a potential for public use.

Remove means to take away any type of material, thereby changing an elevation, either temporarily or permanently.

Request for Determination of Applicability means a written request made by any person to a Conservation Commission for a determination as to whether a site or work thereon is subject to the By-law.

Resource Area means any of the areas specified in Part II, Section 2.01 through 2.09 and Part III, Sections 3.01 through 3.04. It is used synonymously with Area Subject to Protection Under the By-law, each one of which is enumerated in Section 1.02 (1) of this part.

River means a natural flowing body of water that empties to any ocean, lake or other river and which flows throughout the year.

Salt Marsh is defined in Part II, Section 2.06.

Significant means plays a role. A resource area is significant to an interest identified in the Act when it plays a role in the provision or protection, as appropriate, of that interest.

Spring Tides means those tides which occur with the new and full moons, and which are perceptibly higher and lower than other tides.

Storm Damage Prevention means the prevention of damage caused by water from storms, including, but not limited to, erosion and sedimentation, damage to vegetation, property or buildings, or damage caused by flooding, waterborne debris or waterborne ice.

Stream means a body of running water, including brooks and creeks, which moves in a definite channel in the ground due to a hydraulic gradient. A portion of a stream may flow through a culvert or beneath a bridge. Such a body of running water which does not flow throughout the year (i.e. which is intermittent) is a stream.

Vegetated Wetlands is defined in Part III, Section 3.02.

Visually Accessible to the Public is synonymous with visible to the public.

Work means the same as activity.

Wildlife means any non-domesticated mammal, bird, reptile, amphibian, fish, mollusk, arthropod, or other invertebrate, other than a species of the Class Insecta which has been determined by the Commonwealth of Massachusetts or any agency thereof to be a pest whose protection under the provisions of the By-law would be a risk to man.

1.05 Procedures

- (1) Time Periods. All Time Periods of ten days or less specified in the By-law and these regulations shall be computed using business days only. In the case of a determination or Order such period shall commence on the first day after the date of issuance and shall end at the close of business on the tenth business day thereafter. All other time periods specified in the By-law and these regulations shall be computed on the basis of calendar days, unless the last day falls on a Saturday, Sunday or legal holiday, in which case the last day shall be the next business day following.
- (2) Actions by Conservation Commissions. Where the By-law states that a particular action (except receipt of a request or notice) is to be taken by the Conservation Commission, that action is to be taken by more than half the members present at a meeting of at least a quorum. A quorum is defined as a majority of the members then in office.

Where the By-law states that a permit or notification shall be issued by the Conservation Commission, that action is to be taken by a majority of the members

then in office, who need not convene as a body in order to sign said permit or notification, provided they met pursuant to the open meeting law, G.L. c. 39, ss 23A-23C, when voting on the matter.

Where the By-law states that the Conservation Commission is to receive a request or notice, Conservation Commission means a member of the Conservation Commission or an individual designated by the Conservation Commission to receive such request or notice.

(3) Determination of Applicability

(a) Requests for Determination of Applicability

1. Any person who desires a determination as to whether the By-law apply to land, or to work that may affect an Area Subject to Protection Under the By-law, may submit to the Conservation Commission by certified mail or hand delivery a Request for a Determination of Applicability, Form 1 of Section 6.01.
2. Any person who proposes to perform work within the Buffer Zone shall submit to the Conservation Commission either a Notice of Intent for such work or a Request for a Determination of Applicability. Said request shall include sufficient information, as required on Form 1, to enable the conservation commission to find and view the area and to determine whether the proposed work will alter an Area Subject to Protection Under the By-law.
3. A Request for a Determination of Applicability shall include certification that the Conservation Commission and the owner of the area subject to the request, if the person making the request is not the owner, has been notified that a determination is being requested under the By-law.

(b) Determination of Applicability

1. Within 21 days after date of receipt of the Request for a Determination of Applicability, the Conservation Commission shall hold a public meeting on the Request for a Determination of Applicability, Form 2 of Section 6.01. Notice of the time and place of the public meeting at which the determination will be made shall be given by the Conservation Commission at the expense of the person making the request not less than ten (10) days prior to such meeting, by publication in a newspaper of general circulation in the city or town in which the land is located, and by mailing a notice to the person making the request, the owner, the board of health, the

planning board, the board of appeals, the board of selectmen, and the building inspector. Notice shall also be given in accordance with the open meeting law, G.L. c. 39, s 23B, and shall be given to abutters in accordance with the By-law. Said determination shall be signed by a majority of the Conservation Commission, and copies thereof shall be sent by the conservation commission to the person making the request and to the owner within 21 days of the close of the public hearing or any continuances thereof.

Said determination shall be valid for one year from date of issuance.

2. The Conservation Commission shall find that the By-law applies to the land, or a portion thereof, if it is an Area Subject to Protection Under the By-law as defined in Section 1.02 (1) above. The Conservation Commission shall find that the By-law applies to the work or the portion thereof, if it is an Activity Subject to Regulation Under the By-law as defined in Section 1.02 (1) above.
3. The Application for Permit shall be filed in the event of a positive determination, and all of the procedures set forth in Section 1.05 (4) shall apply.

(4) Applications for Permits

- (a) Any person who proposes to do work that will remove, fill, dredge or alter any Area Subject to Protection Under the By-law shall submit an Application for Permit on Form 3 of Section 6.01 and other application materials in accordance with the submittal requirements set forth in the General Instruction for Completing Applications for Permits provided in Section 1.06.
- (b) Upon receipt of the application materials referred to in subsection (4) (a) above the Conservation Commission shall issue a file number. the designation of a file number shall not imply that the plans and supporting documents have been judged adequate for the issuance of a Permit but only that copies of the minimum submittal requirements contained in the General Instructions have been filed.
- (c) In the event that only a portion of a proposed project or activity lies within an Area Subject to Protection Under the Act and the remainder of the project or activity lies outside those areas, all aspects of the project must be described in the detail called for by the General Instructions and Forms 3 and 4; provided, also that in such circumstances the Notice of Intent shall also contain a description and calculation of peak flow and estimated water quality characteristics of discharge from a point source (both closed and

open channel) when the point of discharge falls within an Area Subject to Protection under the By-law.

(5) Public Hearings by Conservation Commissions

- (a) A public hearing shall be held by the conservation commission within 21 days of receipt of the minimum submittal requirements set forth in the General Instructions for Completing Application for Permits (form 3) and shall be advertised in accordance with the By-law and the requirements of the open meeting law, M.G.L. c. 39 s23B.
- (b) Public hearings may be continued as follows:
 - 1. without the consent of the applicant to a date certain announced at the hearing, either for receipt of additional information offered by the applicant or others or for information required of the applicant deemed necessary by the Conservation Commission in its discretion.
 - 2. with the consent of the applicant, to an agreed-upon date, which shall be announced at the hearing; or
 - 3. with the consent of the applicant for a period not to exceed 21 days after the submission of a specified piece of information or the occurrence of a specified action. The date, time and place of said continued hearing shall be publicized in accordance with the By-law, and notice shall be sent to any person at the hearing who so requests in writing.

(6) Permits Regulating the Work

- (a) Within 21 days of the close of the public hearing or any continuance thereof, the Conservation Commission shall either:
 - 1. make a determination that the area on which the work is proposed to be done, or which the proposed work will remove, fill, dredge or alter, is not significant to any of the interests identified in the Act, and shall so notify the applicant and the Department on Form 6 of Section 6.01; or
 - 2. make a determination that the area on which the work is proposed to be done, or which the proposed work will remove, fill, dredge, or alter, is significant to one or more of the interests identified in the By-law and shall issue a Permit for the protection of said interest (s), on Form 5 of Section 6.01.

- (b) The Permit shall impose such conditions as are necessary for the protection of those areas found to be significant to one or more of the interests identified in the By-law. The Permit shall prohibit any work or any portion thereof that cannot be conditioned to meet said standards.

The Permit shall impose conditions upon work or the portion thereof that will in the judgement of the Conservation Commission, result in the filling, dredging, altering or building within or upon an area subject to protection under the By-law. The Permit shall impose conditions setting limits on the quantity and quality of discharge from a point source (both closed and open channel) when said limits are necessary to protect the interests identified in the By-law.

- (c) If the Conservation Commission finds that the information submitted by the applicant is not sufficient to describe the site, the work or the effect of the work on the interests identified in the By-law, it may issue a Permit prohibiting the work. The Permit shall specify the information which is lacking and why it is necessary.
- (d) A Permit shall be valid for three years from the date of its issuance.
- (e) The Permit shall be signed by a majority of the Conservation Commission and shall be mailed or hand delivered to the applicant or his agent or attorney.
- (f) A copy of the plans describing the work and the Permit shall be kept on file by the Conservation Commission and shall be available to the public at reasonable hours.
- (g) Prior to the commencement of any work permitted or required by the Permit, the Permit shall be recorded in the Registry of Deeds or the Land Court for the district in which the land is located, within the chain of title of the affected property. In the case of recorded land, the permit shall also be noted in the Registry's Grantor Index under the name of the owner of the land upon which the proposed work is to be done. In the case of the registered land, the Permit shall also be noted on the Land Court Certificate of Title of the owner of the land upon which the proposed work is to be done. Certification of recording shall be sent to the issuing authority on the form at the end of Form 5. If the work is undertaken without the applicant first recording the Permit, the issuing authority may issue an Enforcement Order or may itself record the Permit.

(7) Extensions of Permits for Work

- (a) The issuing authority may extend a Permit for one period of up to one year,

which will be made on Form 7 of Section 6.01. The request for an extension shall be made to the Conservation Commission at least thirty days prior to the expiration of the Permit.

- (b) The issuing authority may deny the request for an extension and require the filing of a new Application for Permit for the remaining work in the following circumstances:
 - 1. where no work has begun on the project, except where such failure is due to an unavoidable delay, such as appeals, in the obtaining of other necessary permits;
 - 2. where new information, not available at the time the Permit was issued, has become available and indicates that the Permit is not adequate to protect the interests identified in the By-law;
 - 3. where incomplete work is causing damage to the interests identified in the By-law; or
 - 4. where work has been done in violation of the Permit or these regulations.
- (c) If issued by the Conservation Commission, the Extension Permit shall be signed by a Majority of the commission.
- (d) The Extension Permit shall be recorded in the Land Court or the Registry of Deeds, whichever is appropriate. Certification of recording shall be sent to the issuing authority on the form at the end of Form 7. If work is undertaken without the applicant so recording the Extension Permit, the Conservation Commission may issue an Enforcement Order (Form 9, Section 6.01) or may itself record the Extension Permit.

(8) Certificate of Compliance

- (a) Upon written request by the applicant, a Certificate of Compliance shall be issued by the Conservation Commission within 21 days of receipt thereof, and shall certify on Form 8 of Section 6.01 that the activity or portions thereof described in the Application for Permit and plans has been completed in compliance with the Permit. If issued by the Conservation Commission, the Certificate of Compliance shall be signed by a majority of the Commission.
- (b) Prior to the issuance of a Certificate of Compliance, a site inspection shall be

made by the Conservation Commission in the presence of the applicant or the applicant's agent.

- (c) If the Conservation Commission determines, after review and inspection, that the work has not been done in compliance with the Permit, it may refuse to issue a Certificate of Compliance. Such refusal shall be issued within 21 days of receipt of a request for a Certificate of Compliance, shall be in writing and shall specify the reasons for denial.
- (d) If a project has been completed in accordance with plans stamped by a registered professional engineer, architect, landscape architect or land surveyor, a written statement by such a professional person certifying substantial compliance with the plans and setting forth what deviation, if any, exists for the plans approved in the Permit shall accompany the request for a Certificate of Compliance.
- (e) If the Permit contains conditions which continue past the completion of the work, such as maintenance or monitoring, the Certificate of
- (f)
- (g) Compliance shall specify which, if any, of such conditions shall continue. The Certificate shall also specify to what portions of the work it applies, if it does not apply to all the work regulated by the Permit.
- (f) The Certificate of Compliance shall be recorded in the Land Court or Registry of Deeds, whichever is appropriate. Certification of recording shall be sent to the issuing authority on the form at the end of Form 8. Upon failure of the applicant to so record, the issuing authority may do so.

1.06 Emergencies

- (1) Any person requesting permission to do an emergency project shall specify why the project is necessary for the protection of the health or safety of the citizens of the Commonwealth and what agency of the Commonwealth or subdivision thereof is to perform the project or has ordered the project to be performed. If the project is certified to be an emergency by the Conservation Commission, its agents or employees, the certification shall include a description of work which is to be allowed and shall not include work beyond that necessary to abate the emergency. A site inspection shall be made prior to certification.
- (2) An emergency certification shall be issued only for the protection of public health or safety or for the protection of any interests specified in the By-law.

- (3) The time limitation for performance of emergency work shall not exceed 21 days.

1.07 Severability

The invalidity of any section or provision of the By-law or of these regulations shall not invalidate any other section or provision thereof, nor shall it invalidate any permit which previously has been issued.

If any Court of the Commonwealth shall invalidate any provision of the By-law or of these regulations, the Conservation Commission shall promulgate additional regulations, or present to the next Town Meeting after such invalidation, amendments to the By-law or regulations which are designated to comply with any Court decision invalidating such provision or regulation, as the case may be.

1.08 Effective Date

The effective date of these regulations shall be May 27, 1986 and the provisions of these regulations shall apply to all work performed after the date.

PART II. REGULATIONS FOR COASTAL WETLANDS

2.01 Land Under the Ocean

(1) Preamble

Land under the ocean is likely to be significant to the protection of wildlife, marine fisheries and, where there are shellfish, to protection of land containing shellfish. Near shore areas of land under the ocean are likely to be significant to storm damage prevention and flood control.

Land under the ocean provides feeding areas, spawning and nursery grounds and shelter for many coastal organisms related to marine fisheries.

Near shore areas of land under the ocean help reduce storm damage and flooding by diminishing and buffering the high energy effects of storms. Submerged bars dissipate storm wave energy. Such areas provide a source of sediment for seasonal rebuilding of coastal beaches and dunes.

When a proposed project involves the dredging, removing, filling or altering of a

near shore area of land under the ocean, the Conservation Commission shall presume that the area is significant to the interests specified above.

When a proposed project involves the dredging, removing, filling or altering of land under the ocean beyond the near shore area, the Conservation Commission shall presume that such land is significant to protection of marine fisheries and, where there are shellfish, to the protection of land containing shellfish and that it is not significant to storm damage prevention or flood control.

These presumptions may be overcome upon a clean showing that the area or land does not play a role in the protection of wildlife, marine fisheries, land containing shellfish, storm damage prevention or flood control, as appropriate, and if the Conservation Commission makes a written determination to such effect.

When near shore areas of land under the ocean are significant to storm damage prevention or flood control, the bottom topography of such land is critical to the protection of those interests.

When near shore areas or other land under the ocean is significant to the protection of marine fisheries, the following factors are critical to the protection of such interests:

- (a) water circulation,
- (b) distribution of sediment grain size
- (c) water quality, and
- (d) finfish habitat.

(2) Definitions

- (a) "Land Under the Ocean" means land extending from the mean low water line seaward to the boundary of the municipality's jurisdiction.
- (b) "Near shore Areas" of land under the ocean means that land extending from the mean low water line to the seaward limit of the municipality's jurisdiction.

When Land Under the Ocean or Near shore Areas of Land Under the Ocean are Found to be Significant to the Protection of Wildlife, Marine Fisheries, Storm Damage Prevention or Flood Control, the Following Regulation Shall Apply:

- (3) Improvement dredging for navigational purposes affecting land under the ocean shall be designated and carried out using the best available measures so as to minimize adverse effects on such interests caused by changes in:

- (a) bottom topography which will result in increased flooding or erosion caused by an increase in the height or velocity of waves impacting the shore;
 - (b) sediment transport processes which will increase flood or erosion hazards by affecting the natural replenishment of beaches;
 - (c) water circulation which will result in an adverse change in flushing rate, temperature, or turbidity levels; or
 - (d) marine productivity which will result from the suspension or transport of pollutants, the smothering of bottom organisms, the accumulation of pollutants by organisms, or the destruction of habitat or nutrient source areas.
- (4) Maintenance dredging for navigational purposes affecting land under the ocean shall be designed and carried out using the best available measures so as to minimize adverse effects on such interests caused by changes in marine productivity which will result from the suspension or transport of pollutants, increases in turbidity, the smothering of bottom organisms, the accumulation of pollutants by organisms, or the destruction of habitat or nutrient source areas.
- (5) Projects not included in Section 2.01 (3) or 2.01 (4) which affect near shore areas of land under the ocean shall not cause adverse effects by altering the bottom topography so as to increase storm damage or erosion of coastal beaches, coastal banks, coastal dunes, or salt marshes.
- (6) Projects not included in 2.01 (3) which affect land under the ocean shall be designed and constructed, so as to cause no adverse effects on wildlife, marine fisheries or shellfish caused by:
- (a) alterations in water circulation;
 - (b) destruction of eelgrass (*Zostera marina*) beds;
 - (c) alterations in the distribution of sediment grain size; or
 - (d) changes in water quality, including, but not limited to, other than natural fluctuations in the level of dissolved oxygen, temperature or turbidity, or the addition of pollutants.

2.02 Coastal Beaches

(1) Preamble

Coastal beaches, which are defined to include tidal flats, are significant to wildlife, storm damage prevention and flood control. In addition, tidal flats are likely to be significant to the protection of wildlife, marine fisheries, and where there are

shellfish, to land containing shellfish.

Coastal beaches dissipate wave energy by their gentle slope, their permeability and their granular nature, which permit changes in beach form in response to changes in wave conditions.

Coastal beaches serve as a sediment source for dunes and subtidal areas. Steep storm waves cause beach sediment to move offshore, resulting in a gentler beach slope and greater energy dissipation. Less steep waves cause an onshore return of beach sediment, where it will be available to provide protection against future storm waves.

A coastal beach at any point serves as a sediment source for coastal areas downdrift from that point. The oblique approach of waves moves beach sediment alongshore in the general direction of wave action. Thus, the coastal beach is a body of sediment which is moving along the shore.

Coastal beaches serve the purposes of storm damage prevention and flood control by dissipating wave energy, by reducing the height of storm waves, and by providing sediment to supply other coastal features, including coastal dunes, land under the ocean and other coastal beaches. Interruptions of these natural processes by manmade structures reduce the ability of the coastal beach to perform these functions.

Tidal flats are likely to be significant to the protection of marine fisheries because they provide habitats for marine organisms, such as polychaete worms and mollusks, which in turn are food sources for fisheries.

Tidal flats are also sites where organic and inorganic materials may become entrapped and then returned to the photosynthetic zone of the water column to support algae and other primary producers of the marine food web, together with the various forms of wildlife which feed on these organisms.

Land within 100 feet of a coastal beach or tidal flat is likely to be significant to the protection and maintenance of coastal beaches and flats, and therefore to the protection of the interests which these resource areas serve to protect.

When a proposed project involves the building upon or within, the dredging, filling, removing, or altering of a coastal beach or of land within 100 feet of a coastal beach, the Conservation Commission shall presume that the coastal beach is significant to the interests specified above. This presumption may be overcome only upon a clear showing that a coastal beach does not play a role in storm damage prevention or flood control, or that tidal flats do not play a role in the protection of land containing shellfish, and if the issuing authority makes a written determination to such effect.

When coastal beaches are determined to be significant to storm damage prevention or flood control, the following characteristics are critical to the protection of those interests:

- (a) volume (quantity of sediments) and form, and
- (b) the ability to respond to wave action.

When coastal beaches are significant to the protection of marine fisheries, the following characteristics are critical to the protection of those interests:

- 1. distribution of sediment grain size,
- 2. water circulation
- 3. water quality, and
- 4. relief and elevation.

(2) Definitions

- (a) "Coastal Beach" means unconsolidated sediment subject to wave, tidal and coastal storm action which forms the gently sloping shore of a body of salt water and includes gently sloping shore of a body of salt water and includes tidal flats. Coastal beaches extend from the mean low water line landward to the dune line, coastal bank line or the seaward edge of existing man-made structures, when these structures replace one of the above lines, whichever is closest to the ocean.
- (b) "Tidal Flat" means any nearby level part of a coastal beach which usually extends from the mean low water line landward to the more steeply sloping face of the coastal beach or which may be separated from the beach by land under the ocean.

- (3) No activity, other than maintenance of an already existing structure, which will result in the building within or upon, removing, filling, or altering of coastal beaches or tidal flats, or of any land within 50 feet of any coastal beach or tidal flat, shall be permitted by the Conservation Commission, except for activity which is allowed under a variance from these regulations granted pursuant to Section 5.01.

2.03 Coastal Dunes

(1) Preamble

All coastal dunes are likely to be significant to storm damage prevention and flood control, and all coastal dunes on barrier beaches and the coastal dune closest to the coastal beach in any area are per se significant to storm damage prevention and flood control.

Coastal dunes aid in storm damage prevention and flood control by supplying sand to coastal beaches. Coastal dunes protect inland coastal areas from storm damage and flooding by storm waves and storm elevated sea levels because such dunes are higher than the coastal beaches which they border. In order to protect this function, coastal dune volume must be maintained while allowing the coastal dune shape to conform to natural wind and water flow patterns.

Vegetation cover contributes to the growth and stability of coastal dunes by providing conditions favorable to sand deposition.

On retreating shorelines, the ability of the coastal dunes bordering the coastal beach to move landward at the rate of shoreline retreat allows these dunes to maintain their form and volume, which in turn promotes their function of protecting against storm damage or flooding.

Land within 100 feet of a coastal dune is likely to be significant to the protection and maintenance of coastal dunes, and therefore to the protection of the interest which these resource areas serve to protect.

When a proposed project involves the dredging, filling, removal or alteration of a coastal dune or of land within 100 feet of a coastal dune, the Conservation Commission shall presume that the area is significant to the interests of storm damage prevention and flood control. This presumption may be overcome only upon a clear showing that a coastal dune does not play a role in storm damage prevention or flood control, and if the Conservation Commission makes a written determination to that effect.

When a coastal dune is significant to storm damage prevention or flood control, the following characteristics are critical to the protection of those interest(s):

- (a) the ability of the dune to erode in response to coastal beach conditions;
- (b) dune volume;
- (c) dune form, which must be allowed to be changed by wind and natural water flow;
- (d) vegetative cover; and
- (e) the ability of the dune to move landward or laterally.

(2) Definition

"Coastal Dune" means any natural hill, mound or ridge of sediment landward of a coastal beach deposited by wind action or storm overwash. Coastal dune also means sediment deposited by artificial means and serving the purpose of storm damage prevention or flood control.

- (3) No activity, other than the maintenance of an already existing structure, which will result in the building within or upon, removing, filling, or altering of a coastal dune or of any land within 50 feet of any coastal dune shall be permitted by the Conservation Commission, except for activity which is allowed under a variance from these regulations granted pursuant to Section 5.01.
- (4) Any activity which is allowed under a variance granted pursuant to Section 5.01 of these regulations on a coastal dune or within 100 feet of a coastal dune shall not have an adverse effect on the coastal dune by:
 - (a) affecting the ability of waves to remove sand from the dune;
 - (b) disturbing the vegetative cover so as to destabilize the dune;
 - (c) causing any modification of the dune form that would increase the potential for storm or flood damage;
 - (d) interfering with the landward or lateral movement of the dune; or
 - (e) causing removal of sand from the dune artificially.
- (5) The following projects may be permitted, provided that they adhere to the provisions of Section 2.03 (4):
 - (a) pedestrian walkways, designed to minimize the disturbance to the vegetative cover;
 - (b) fencing and other devices designed to increase dune development; and
 - (c) plantings compatible with the natural vegetative cover.

2.04 Barrier Beaches

- (1) Preamble.

Barrier beaches are significant to wildlife, storm damage prevention and flood control and are likely to be significant to the protection of marine fisheries and, where there are shellfish, the protection of land containing shellfish.

Barrier beaches protect landward areas because they provide a buffer to storm waves and to sea levels elevated by storms. Barrier beaches protect from wave action such highly productive wetlands as salt marshes, estuaries, lagoons, salt ponds and fresh water marshes and ponds, which are in turn important to marine fisheries.

Barrier beaches are maintained by the along shore movement of beach sediment caused by wave action. The coastal dunes and tidal flats on a barrier of beach consist of sediment supplied by wind action, storm wave overwash and tidal inlet deposition. Barrier beaches in Massachusetts undergo a landward migration caused by the landward movement of sediment by wind, storm wave migration and tidal current processes. The continuation of these processes maintains the volume of the landform which is necessary to carry out the storm and flood buffer function.

When a proposed project involves removal, filling, dredging or altering of a barrier beach, the issuing authority shall presume that the barrier beach, including all of its coastal dunes, is significant to the interest(s) specified above. This presumption may be overcome only upon a clear showing that a barrier beach, including all of its coastal dunes, does not play a role in storm damage, flood control, or the protection of marine fisheries, or land containing shellfish and if the issuing authority makes a written determination to such effect.

When a barrier beach is significant to storm damage prevention and flood control, the characteristics of coastal beaches, tidal flats and coastal dunes listed in Section 2.03 (1) and 2.04 (1) and their ability to respond to wave action, including storm overwash sediment transport, are critical to the protection of the interest specified above.

(2) Definition.

"Barrier Beach" means a narrow low-lying strip of land generally consisting of coastal beaches and coastal dunes extending roughly parallel to the trend of the coast. It is separated from the mainland by a narrow body of fresh, brackish or saline water or marsh system. A barrier beach may be jointed to the mainland at one or both ends.

(3) The provisions of Section 2.02 (3) (coastal beaches) and 2.04 (3) through 2.04 (5) (coastal dunes) shall apply to the coastal beaches and to all coastal dunes which make up a barrier beach.

2.05 Coastal Banks

(1) Preamble.

Coastal banks are likely to be significant to storm damage prevention and flood control. Coastal banks that supply sediment to coastal beaches, coastal dunes and barrier beaches are per se significant to storm damage prevention and flood control.

Coastal banks that, because of their height, provide a buffer to upland areas from storm waters are significant to storm damage prevention and flood control.

Coastal banks composed of unconsolidated sediment and exposed to vigorous wave action serve as a major continuous source of sediment for beaches, dunes, and barrier beaches (as well as other land forms caused by coastal processes). The supply of sediment is removed from banks by wave action, and this removal takes place in response to beach and sea conditions. It is a naturally occurring process necessary to the continued existence of coastal beaches, coastal dunes and barrier beaches which, in turn, dissipate storm wave energy, thus protection structures of coastal wetlands landward of them from storm damage and flooding.

Coastal banks, because of their height and stability, may act as a buffer or natural wall, which protects upland areas from storm damage and flooding, while erosion caused by wave action is an integral part of shoreline processes and furnishes important sediment to downdrift landforms, erosion of a coastal bank by wind and rain runoff, which plays only a minor role in beach nourishment, should not be increased unnecessarily. Therefore, disturbances to a coastal bank which reduce its natural resistance to wind and rain erosion cause cuts and gullies in the bank, increase the risk of its collapse, increase the danger to structures at the top of the bank and decrease its value as a buffer.

Bank Vegetation tends to stabilize the bank and reduce the rate of erosion due to wind and rain runoff. Pedestrian and vehicular traffic damages the protective vegetation and frequently leads to gully erosion or deep "blowouts" on unconsolidated banks. Therefore, any project permitted on a coastal bank should incorporate, when appropriate, elevated walkways.

A particular coastal bank may serve both as a sediment source and as a buffer, or it may serve only one role.

When a proposed project involves dredging, removing, filling or altering a coastal bank on land within 100 feet of a coastal bank, the conservation commission shall presume that the area is significant to storm damage prevention and flood control. This presumption may be overcome only upon a clear showing that a coastal bank does not play a role in storm damage prevention or flood control and if the issuing authority makes a written determination to that effect.

When conservation commission determines that a coastal bank is significant to storm damage prevention or flood control because it is a vertical buffer to storm waters, the stability of the bank, i.e., the natural resistance of the bank to erosion

cause by wind and rain runoff, is critical to the protection of that interest(s).

(2) Definition.

"Coastal Bank" means the seaward face or side of any elevated landform, other than a coastal dune, which lies at the landward edge of a coastal beach, land subject to tidal action, or other wetland.

No activity, other than the maintenance of an already existing structure, which will result in the building within or upon, removing, filling, or altering of a coastal bank or of any land within 50 feet of any coastal bank shall be permitted by the conservation commission, except for activity which is allowed under a variance from the regulations granted pursuant to Section 5.01.

(3) Any activity which is allowed under a variance granted pursuant to Section 5.01 of these regulations on a coastal bank or within 100 feet of a coastal bank shall comply with the following regulations:

(a) No new bulkhead, revetment, seawall, groin or other coastal engineering structure shall be permitted on a coastal bank except that a coastal engineering structure may be permitted when required, to prevent storm damage to buildings constructed prior to the effective date of these regulations, or constructed pursuant to a Notice of Intent filed prior to the effective date of these regulations, including reconstructions of such buildings subsequent to the effective date of these regulations, provided that the following requirements are met:

1. a coastal engineering structure or a modification thereto shall be designed and constructed so as to minimize, using best available measures, adverse effects on adjacent or nearby coastal beaches due to changes in wave action, and
2. the applicant demonstrates that no method of protecting the building other than the proposed coastal engineering structure is feasible.
3. protective planting designed to reduce erosion may be permitted.

(b) Any project on a coastal bank or within 100 feet landward of the top of a coastal bank, other than a structure permitted by Section 2.05 (3) (a), shall not have an adverse effect due to wave action or the movement of sediment from the coastal bank to coastal beaches or land subject to tidal action.

(c) The Permit and the Certificate of Compliance for any new building within 100 feet landward of the top of a coastal bank permitted by the conservation commission under this By-law shall contain the specific condition: Section

2.05 of the Wetlands Regulation, promulgated under the Brewster Wetlands Protection By-law, requires that no coastal engineering structure, such as a bulkhead, revetment, or seawall shall be permitted on an eroding bank at any time in the future to protect the project allowed by this Permit.

When a coastal bank is determined to be significant to storm damage prevention or flood control because it is a vertical buffer to storm waters, the following regulations shall apply:

- (d) Any project on such a coastal bank or within 100 feet landward of the top of such coastal bank shall have no adverse effects on the stability of the coastal bank.

2.06 Salt Marshes

(1) Preamble.

Salt marshes are significant to protection of wildlife, marine fisheries, where there are shellfish, to protection of land containing shellfish, and prevention of pollution and are likely to be significant to storm damage prevention and ground water supply.

A salt marsh produces large amounts of organic matter. A significant portion of this material is exported as detritus and dissolved organics to estuarine and coastal waters, where it provides the basis for a large food web that supports many marine organisms, including finfish and shellfish. Salt marshes also provide a spawning and nursery habitat for several important estuarine forage finfish.

Salt marsh plants and substrate remove pollutants from surrounding waters. The network of salt marsh vegetation roots and rhizomes binds sediments together.

The sediments absorb chlorinated hydrocarbons and heavy metals such as lead, copper, and iron. The marsh also retains nitrogen and phosphorous compounds, which in large amounts can lead to algal blooms in coastal waters.

The underlying peat also serves as a barrier between fresh ground water landward of the salt marsh and the ocean, thus helping to maintain the level of such ground water.

Salt marsh cord grass and underlying peat are resistant to erosion and dissipate wave energy, thereby providing a buffer that reduces wave damage.

Land within 100 feet of a salt marsh is likely to be significant to the protection and maintenance of salt marshes, and therefore to the protection of the interest which these resource areas serve to protect.

When a proposed project involves the dredging, filling, removing or altering of a salt marsh, or land within 100 feet of a salt marsh, the conservation commission shall presume that such area is significant to the interests specified above. This presumption may be overcome only upon a clear showing that a salt marsh does not apply a role in the protection of marine fisheries, prevention of pollution, ground water supply, or storm damage prevention, and if the issuing authority makes a written determination to such effect.

When a salt marsh is significant to one or more of the interests specified above, the following characteristics are critical to the protection of such interest(s):

- (a) the growth, composition and distribution of salt marsh vegetation, (protection of marine fisheries, prevention of pollution, storm damage prevention);
- (b) the flow and level of tidal and fresh water (protection of marine fisheries, prevention of pollution); and
- (c) the presence and depth of peat (ground water supply, prevention of pollution, storm damage prevention).

(2) Definitions

- (a) "Salt Marsh" means a coastal wetland that extends landward up to the highest Spring Tide line of the year, and is characterized by a plant community consisting of 50% or more of any of the following species: Salt marsh cord grass (*Spartina alterniflora*); Salt meadow cord grass (*Spartina patens*); Spike grass (*Distichlis spicata*); Sea Lavender (*Limonium nashii*); Seaside Plantago (*Plantago juncooides*); Aster (*Aster subulatus*); Seaside Goldenrod (*Solidago sempervirens*); Salt Bush (*Atriplex patula*); Sea-Blite (*Suaeda maritima*); Black-grass (*Juncus gerardi*); Sump hire (*Salicornia europaea*); Glasswort (*S. begelovii*); Reed (*Phragmites australis*); Saltmarsh Bulrush (*Scirpus robustus*); or Cattails (*Typha spp.*).
- (b) "Spring Tide" means the tide of the greatest amplitude during the approximately 14 day tidal cycle. It occurs at or near the time when the gravitational forces of the sun and moon are in phase (new and full moons).
- (c) No activity, other than the maintenance of an already existing structure, which will result in the building within or upon, removing, filling, or altering of a salt marsh on land within 50 feet of any salt marsh shall be permitted by the conservation commission, except for activity which is allowed under a variance from these regulations granted pursuant to Section 5.01.

- (3) Any activity which is allowed under a variance granted pursuant to Section 5.01 of these regulations on a salt marsh or within 100 feet of a salt marsh shall comply with the following regulations:
- (a) A proposed project in a salt marsh, on lands within 100 feet of a salt marsh, or in a body of water adjacent to a salt marsh shall not destroy any portion of the salt marsh and shall not have an adverse effect on the productivity of the salt marsh. Alterations in growth, distribution and composition of salt marsh vegetation shall be considered in evaluating adverse effects on productivity.
 - (b) Notwithstanding the provisions of Section 2.05 (3) (a), a small project within a salt marsh, such as an elevated walkway or other structure which has no adverse effects other than blocking sunlight from the underlying vegetation for a portion of each day, may be permitted if such a project complies with all other applicable requirements of these regulations.
 - (c) Notwithstanding the provisions of Section 2.06 (2) and (3) a project which will restore or rehabilitate a salt marsh, or create a salt marsh, may be permitted; provided, however, that the section shall not be construed to allow the alteration of one salt marsh on a given site by (or contingent upon) the creation of another.

2.07 Land Under Salt Pond and Land Within 100 Feet of the Bank of Salt Ponds

- (1) Preamble.

Land under salt ponds is significant to the protection of marine fisheries and wildlife, and, where there are shellfish, to the protection of land containing shellfish.

Land under salt ponds provides an excellent habitat for marine fisheries. The high productivity of plants in salt ponds provides food for shellfish, crustaceans and larval and juvenile fish. Salt ponds also provide spawning areas for shellfish and nursery areas for crabs and fish.

Land within 100 feet of the bank of a salt pond is likely to be significant to the protection and maintenance of land under salt ponds, and therefore to the protection of the interest which these resource areas serve to protect.

When a proposed project involves the dredging, filling, removing or altering of land under a salt pond or land within 100 feet of the bank of a salt pond, the conservation commission shall presume that such land is significant to the protection of marine fisheries and, where there are shellfish, to the protection of land containing shellfish.

This presumption may be overcome only upon a clear showing that land under a salt pond does not play a role in the protection of marine fisheries or land containing shellfish, and if the conservation commission makes a written determination to such effect.

When land under a salt pond is significant to the protection of marine fisheries, the following factors are critical to the protection of that interest:

- (a) water circulation,
- (b) distribution of sediment grain size,
- (c) freshwater inflow,
- (d) productivity of plants, and
- (e) water quality.

(2) Definition.

"Salt Pond" means a shallow enclosed or semi-enclosed body of saline water that may be partially or totally restricted by barrier beach formation. Salt ponds may receive freshwater from small streams emptying into their upper reaches and/or springs in the salt pond itself.

(3) No activity, other than the maintenance of an already existing structure, which will result in the building within or upon, removing, filling, or altering of land under a salt pond or land within 50 feet of the bank of a salt pond shall be permitted by the Conservation Commission, except for activity which is allowed under a variance from these regulations granted pursuant to Section 5.01.

(4) Any activity which is allowed under a variance granted pursuant to Section 5.01 of these regulations on land under a salt pond or land within 100 feet of the bank of a salt pond shall comply with the following regulations:

- (a) Any project on land under a salt pond, on lands within 100 feet of the mean high water line of a salt pond, or on land under a body of water adjacent to a salt pond shall not have an adverse effect on the marine fisheries or shellfish habitat of such a salt pond caused by:
 - 1. alterations of water circulation;
 - 2. alterations in the distribution of sediment grain size and the relief or elevation of the bottom topography;
 - 3. modifications in the flow of fresh water and/or salt water;
 - 4. alterations in the productivity of plants, or;
 - 5. alterations in water quality, including, but not limited to, other than normal fluctuations in the level of dissolved oxygen, nutrients, temperature or turbidity, or the addition of pollutants.

- (5) Notwithstanding the provisions of 2.07 (3) and (4), activities specifically designed and intended to maintain the depth and the opening of the salt pond to the ocean in order to maintain or enhance the marine fisheries or for the specific purpose of fisheries management, may be permitted.

2.08 Land Containing Shellfish

(1) Preamble.

Land containing shellfish is found within certain of the resource areas under the jurisdiction of the By-law. Shellfish are also specifically one of the interests of the By-law. The purpose of this section is to identify those resource areas likely to contain shellfish and to establish regulations for projects which will affect such land.

Land containing shellfish is significant to the protection of marine fisheries as well as to the protection of the interest of land containing shellfish.

Shellfish are a valuable renewable resource. The maintenance of productive shellfish beds not only assures the continuance of shellfish themselves, but also plays a direct role in supporting fish stocks by providing a major food source. The young shellfish in the planktonic larval stage that are produced in large quantities during spring and summer are an important source of food for the young stages of marine fishes and many crustaceans.

When a resource area is found to be significant to the protection of and containing shellfish, and is, therefore, also significant to marine fisheries the following factors are critical to the protection of those interests:

- (a) shellfish,
- (b) water quality,
- (c) water circulation, and
- (d) the natural relief, evaluation or distribution of sediment grain size of such land.

(2) Definitions.

- (a) "Land containing shellfish" means land under the ocean, tidal flats, salt marshes and land under salt ponds when any such land contains shellfish.
- (b) "Shellfish" means the following species: Bay scallop (Aegopecten irradians); Blue mussel (Mytilus edulis); Ocean quohog (Artica islandica); Oyster (Crassostrea virginica); Quohog (Mercenaria merceneria); Razor clam (Ensis directus); Sea clam (Spisula solidissima); Sea Scallop (Placopecten magellanicus); Soft shell clam (Mya arenaria); Lobster (Homarus

americanus); Grass shrimp (Palaemonetes, sp.); Sand shrimp (Crangon septemspinosus); Blue crab (Callinectes sapidus); Green crab (Carcinus maenas); Fiddler crab (Uca sp.); Rock crab (Cancer irroratus); and Freshwater mussel (Andonata implicata) and (Elliptio complanata).

- (3) Except as provided in Section 2.08 (4) and (5) below, any project on land containing shellfish shall not adversely affect such land or marine fisheries by a change in the productivity of such land caused by:
 - (a) alterations of water circulation,
 - (b) alterations in relief elevations,
 - (c) the compacting of sediment by vehicular traffic,
 - (d) alterations in the distribution of sediment grain size,
 - (e) alterations in natural drainage from adjacent land, or,
 - (f) changes in water quality, including, but not limited to, other than natural fluctuations in the levels of salinity, dissolved oxygen, nutrients, temperature or turbidity, or the addition of pollutants.
- (4) Except in Areas of Critical Environmental Concern, the Conservation Commission may, after consultation with the Shellfish Constable, permit the shellfish to be moved from such area under the guidelines of, and to a suitable location approved by, DMF, in order to permit a proposed project on such land. Any such project shall not be commenced until after the moving and replanting of the shellfish has commenced.
- (5) Notwithstanding Section 2.08 (3), projects approved by DMF that are specifically intended to increase the productivity of land containing shellfish may be permitted in the discretion of the Conservation Commission. Aquaculture projects approved by the appropriate local and state authority may also be permitted, within the discretion of the Conservation Commission.

2.09 Banks of or Land Under the Ocean, Ponds, Streams, Rivers, Lakes, or Creeks that Underline an Anadromous/Catadromous Fish Run ("Fish Run")

- (1) Preamble.

The banks of and land under the ocean, ponds, streams, rivers, lakes or creeks that underlie an anadromous/catadromous fish run are significant to protection of marine fisheries and wildlife land within 100 feet of such banks is likely to be significant to the protection and maintenance of these banks, and therefore to the protection of the interests which these resource areas serve to protect.

Anadromous and catadromous fish ("the fish") are renewable protein resources that provide recreational, aesthetic and commercial benefits. In addition, throughout

their life cycle such fish are important components of freshwater, estuarine, and marine environments and are food sources for other organisms.

The spawning migrations of such fish also provide a direct link between marine and freshwater ecosystems. This link plays a role in maintaining the productivity of fisheries. When a proposed project involves the dredging, filling, removing or altering of a bank of fish run, or land under the ocean, or under a pond, stream, river, lake or creek which is a fish run, or of any land within 100 feet of these areas, the Conservation Commission shall presume that such bank or land is significant to the protection of marine fisheries. This presumption may be overcome only upon a clear showing that such bank or land does not play a role in the protection of marine fisheries, and if the Conservation Commission makes a written determination to that effect.

When such a bank of a fish run, or land under the ocean or under a pond, stream, river, lake or creek which is a fish run is significant to the protection of marine fisheries, the following factors are critical to the protection of such interests:

- (a) the fish,
- (b) accessibility of spawning areas,
- (c) the volume or rate of the flow of water within spawning areas and migratory routes, and
- (d) spawning and nursery grounds.

(2) Definitions.

- (a) "Anadromous Fish" means fish that enter fresh water from the ocean to spawn, such as alewives, shad and salmon.
- (b) "Catadromous Fish" means fish that enter salt water from fresh water to spawn, such as eels.
- (c) "Andromous/Catadromous Fish Run" means that area within estuaries, ponds, streams, creeks, rivers, lakes or coastal waters, which is spawning or feeding ground or passageway for anadromous or catadromous fish. Such fish runs shall include those areas which have historically served as fish runs and are either being restored or are planned to be restored at the time the Application for Permit is filed.

(3) No activity, other than the maintenance of an already existing structure, which will result in the building within or upon, removing, filling, or altering of the bank of a fish run, land under a fish run, or land within 50 feet of the bank of a fish run shall be permitted by the Conservation Commission, except for activity which is allowed under a variance granted pursuant to Section 5.01.

- (4) Any activity which is allowed under a variance granted pursuant to Section 5.01 of these regulations on the bank of a fish run, land under a fish run, or land within 50 feet of the bank of a fish run shall comply with the following regulations:
- (a) Any project on such land or bank shall not have an adverse effect on the anadromous or catadromous fish run by:
1. impeding or obstructing the migration of the fish; or by causing mortality to adult or juvenile fish; or
 2. changing the volume or rate of flow of water within the fish run; or
 3. impairing the capacity of spawning or nursery habitats necessary to sustain the various life stages of the fish.
- (b) Dredging, disposal of dredge material or filling in a fish run shall be prohibited.

PART III REGULATIONS FOR INLAND WETLANDS

3.01 Inland Banks (Naturally Occurring Banks and Beaches)

(1) Preamble.

Banks are likely to be significant to wildlife, public or private water supply, to ground water supply, to flood control, to storm damage prevention, to the prevention of pollution and to the protection of fisheries. Where Banks are composed of concrete, asphalt or other artificial impervious material, said Banks are likely to be significant to flood control and storm damage prevention.

Banks are areas where ground water discharges to the surface and where, under some circumstances, surface water recharges the ground water.

Where Banks are partially or totally vegetated, the vegetation serves to maintain the Banks' stability, which in turn protects water quality by reducing erosion and siltation.

Banks may also provide shade that moderates water temperatures, as well as providing breeding habitat, escape cover and food, all of which are significant to the protection of fisheries. Banks which drop off quickly or overhang the water's edge often contain numerous undercuts which are favorite hiding spots for important game species such as largemouth bass (*Micropterus salmoides*).

Banks act to confine floodwaters during the most frequent storms, preventing the spread of water to adjacent land. Because Banks confine water during such storms to an established channel they maintain water temperatures and depths necessary for the protection of fisheries. The maintenance of cool water temperatures during warm weather is critical to the survival of important game species such as brook trout (*Salvelinus fontinalis*), rainbow trout (*Salvelinus gairdneri*), and brown trout (*Salmo trutta*). An alteration of a Bank that permits water to frequently and consistently spread over a larger and more shallow area increases the amount of property which is routinely flooded, as well as elevating water temperature and reducing fish habitat within the main channel, particularly during warm weather.

Land within 100 feet of a bank is likely to be significant to the protection and maintenance of the bank, and therefore to the protection of the interests which these resource areas serve to protect.

- (2) Definition, Critical Characteristics and Boundary
 - (a) A Bank is the portion of the land surface which normally abuts and confines a water body. A Bank may be partially or totally vegetated or it may be comprised of exposed soil, gravel or stone.
 - (b) The physical characteristics of a Bank, as well as its location, as described in the foregoing subsection (2) (a) are critical to the protection of the interests specified in Section 3.01 (1).
 - (c) The upper boundary of a Bank is the first significant break in the slope or the mean annual flood level, whichever is higher. The lower boundary of a Bank is the mean annual low flow level.
- (3) No activity, other than the maintenance of an already existing structure, which will result in the building within or upon, removing, filling, or altering of a bank, on land within 50 feet of any bank, shall be permitted by the Conservation Commission, except for activity which is allowed under a variance from these regulations granted pursuant to Section 5.01.
- (4) Any activity which is allowed under a variance granted pursuant to Section 5.01 of these regulations on a Bank or on land within 100 feet of a Bank shall comply with the following regulations:
 - (a) Any proposed work on a Bank or within 100 feet of a Bank shall not impair the following:
 - 1. the physical stability of the Bank;
 - 2. the water carrying capacity of the existing channel within the Bank;
 - 3. ground water and surface water quality;

4. the capacity of the Bank to provide breeding habitat, escape cover and food for fisheries.

3.02 Vegetated Wetlands (Wet Meadows, Marshes, Swamps and Bogs)

(1) Preamble

Vegetated Wetlands are likely to be significant to wildlife, public or private water supply, to ground water supply, to flood control, to storm damage prevention, to prevention of pollution, to the protection of fisheries, and to the protection of shellfish.

The plant communities, soils and associated low, flat topography of Vegetated Wetlands remove or detain sediments, nutrients (such as nitrogen and phosphorous) and toxic substances (such as heavy metal compounds) that occur in run-off and flood waters.

Some nutrients and toxic substances are detained for years in plant root systems or in the soil. Others are held by plants during the growing season and released as the plants decay in the fall and winter. This latter phenomenon delays the impacts of nutrients and toxins until the cold weather period, when such impacts are less likely to reduce water quality.

Vegetated Wetlands are areas where ground water discharges to the surface and where, under some circumstances, surface water discharges to the ground water.

The profusion of vegetation and the low, flat topography of Vegetated Wetlands slow down and reduce the passage of flood waters during periods of peak flows by providing temporary flood water storage, and by facilitating water removal through evaporation and transpiration. This reduces downstream flood crests and resulting damage to private and public property. During dry periods the water retained in Vegetated Wetlands is essential to maintenance of base flow levels in rivers and streams, which in turn is important to the protection of water quality and water supplies.

Wetland vegetation provides shade that moderates water temperatures important to fish life. Wetlands flooded by adjacent water bodies and waterways provides food, breeding habitat and cover for fish. Fish populations in the larval stage are particularly dependent upon food provided by over-bank flooding which occurs during peak flow periods (extreme storms), because most river and stream channels do not provide quantities of the microscopic plant and animal life required.

Wetland vegetation supports a wide variety of insects, reptiles, amphibians, mammals and birds which are a source of food for important game fish. Bluegills (*Lepomis macrochirus*), pumpkinseeds (*Lepomis gibbosus*), yellow perch (*Perca*

flavescens), rock bass (*Ambloplites rupestris*) and all trout species feed upon nonaquatic insects. Largemouth bass (*Micropterus salmoides*), chain pickerel (*Esox niger*) and northern pike (*Esox lucius*) feed upon small mammals, snakes, nonaquatic insects, birds and amphibians. These Wetlands are also important to the protection of rare and endangered wildlife species.

Vegetated Wetlands, together with land within 100 feet of a vegetated wetland, serve to moderate and alleviate thermal shock and pollution resulting from runoff from impervious surfaces which may be detrimental to wildlife, fisheries, and shellfish downstream of the vegetated wetland.

The maintenance of base flows by vegetated wetlands is likely to be significant to the maintenance of a proper salinity ratio in estuarine areas downstream of the vegetated wetland. A proper salinity ratio, in turn, is essential to the ability of shellfish to spawn successfully, and to therefore provide for the continuing procreation of shellfisheries.

Land within 100 feet of a Vegetated Wetland is likely to be significant to the protection and maintenance of vegetated wetlands, and therefore to the protection of the interests which these resource areas serve to protect.

(2) Definition, Critical Characteristics and Boundary

- (a) Vegetated Wetlands are freshwater wetlands. The types of freshwater wetlands are wet meadows, marshes, swamps and bogs. They are areas where the topography is low and flat, and where the soils are annually saturated. The ground and surface water regime and the vegetational community which occur in each type of freshwater wetland are specified in Section 3.02 (2) (c), below.
- (b) The physical characteristics of Vegetated Wetlands, as described in the foregoing subsection (2) (a), are critical to the protection of the interests specified in Section 3.02 (1) above.
- (c) The boundary of Vegetated Wetlands is the line within which 50 percent or more of the vegetational community consists of the wetland plant species identified in Section 3.02 (2) (c) (1) through 3.02 (2) (c) (4), below:
 - 1. The term "bogs" as used in this section shall mean areas where standing or slowly running water is near or at the surface during a normal growing season and where a vegetational community has a significant portion of the ground or water surface covered with sphagnum moss (Sphagnum spp.) and where the vegetational community is made up of a significant portion of one or more of, but not limited to nor necessarily including all, of the following plants

or groups of plants: aster (Aster nemoralis), azaleas (Rhododendron canadense and R. viscosum), black spruce (Picea mariana), bog cotton (Eriophorum), cranberry (Vaccinium macrocarpon), high-bush blueberry (Vaccinium corymbosum), larch (Larix laricina), laurels (Kalmia augustifolia and K. polifolia), leatherleaf (Chamaedaphne calyculata), orchids (Arethusa, Calopogon, Pogonia), pitcher plants (Sarracenia purpurea), sedges (Cyperaceae), sundews (Drosera), sweet gale (Myrica gale), white cedar (Chamaecyparis thyoides).

2. The term "swamps", as used in this section, shall mean areas where ground water is at or near the surface of the ground for a significant part of the growing season or where runoff water from surface drainage frequently collects above the soil surface, and where a significant part of the vegetational community is made up of, but not limited to nor necessarily include all of the following plants or groups of plants: alders (Alnus), ashes (Fraxinus), azaleas (Rhododendron canadense and R. viscosum), black alder (Ilex verticillata), black spruce (Picea mariana), button bush (Cephalanthus occidentalis), American or white elm (Ulmus americana), white Hellebore (Veratrum viride), hemlock (Tsuga canadensis), highbush blueberry (Vaccinium corymbosum), larch (Larix laricina), cowslip (Caltha palustris), poison sumac (Toxicodendron vernix), red maple (Acer rubrum), skunk cabbage (Symplocarpus foetidus), sphagnum mosses (Sphagnum), spicebush (Lindera benzoin), black gum tupelo (Nyssa sylvatica), sweet pepper bush (Clethra alnifolia), white cedar (Chamaecyparis thyoides), willow (Salicaceae).
3. The term "wet meadows," as used in this section where ground water is at the surface for a significant part of the growing season and near the surface throughout the year and where a significant part of the vegetational community is composed of various grasses, sedges and rushes; made up of, but not limited to nor necessarily including all, of the following plants or groups of plants: blue flag (Iris), vervain (Verbena), thoroughwort (Eupatorium), dock (Rumex), false loosestrife (Ludwigia), hydrophilic grasses (Poaceae), loosestrife (Lythrum), marsh fern (Dryopteris thelypteris), rushes (Juncaceae), sedges (Cyperaceae), sensitive fern (Onoclea sensibilis), smartweed (Polygonum).
4. The term "marshes," as used in this section, shall mean areas where a vegetational community exists in standing or running water during the growing season and where a significant part of the vegetational community is composed of, but not limited to nor necessarily

including all, of the following plants or groups of plants: arums (Araceae), bladderworts (Utricularia), bur reeds (Sparganiaceae), button Bush (Cephalanthus occidentalis), cattails (Typha), duck weeds (Lemnaceae), eelgrass (Vallisneria), frog bits (Hydrocharitaceae), horsetails (Equisetaceae), hydrophilic grasses (Poaceae), leatherleaf (Chamaedaphne calyculata), pickerel weeds (Pontederiaceae), pipeworts (Eriocaulon), pond weeds (Potamogeton), rushes (Juncaceae), sedges (Cyperaceae), smartweeds (Polygonum), sweet gale (Myrica gale), water milfoil (Haloragaceae), water lilies (Nymphaeaceae), water startworts (Callitrichaceae), water willow (Decodon verticillatus).

- (3) No activity, other than the maintenance of an already existing structure, which will result in the building within or upon, removing, filling, or altering of a vegetated wetland, or of land within 50 feet of a vegetated wetland, shall be permitted by the Conservation Commission, except for activity which is allowed under a variance from these regulations granted pursuant to Section 5.01.
- (4) Any activity which is allowed under a variance granted pursuant to Section 5.01 of these regulations upon or within 50 feet of a vegetated wetland shall not impair in any way the vegetated wetland's ability to perform any of the functions set forth in Section 3.02 (1).

3.03 Land Under Water Bodies (under any Creek, River, Stream, Pond or Lake, and Flats)

(1) Preamble

Land Under Water Bodies and Waterways is likely to be significant to wildlife, public and private water supply, to ground water supply, to flood control, to storm damage prevention, to prevention of pollution and to the protection of fisheries.

Where Land under Water Bodies and Waterways is composed of previous material, such land represents a point of exchange between surface and ground water.

The physical nature of Land Under Water Bodies and Waterways is highly variable, ranging from deep organic and fine sedimentary deposits to rocks and bedrock. The organic soil and sediments play an important role in the process of detaining and removing dissolved and particulate nutrients (such as nitrogen and phosphorous) from the surface water above. They also serve as traps for toxic substances (such as heavy metal compounds).

Land Under Water Bodies and Waterways, in conjunction with banks, serves to confine floodwater within a definite channel during the most frequent storms.

Filling within this channel blocks flows which in turn causes backwater and overbank flooding during such storms. An alteration of Land Under Water Bodies and Waterways that causes water to frequently spread out over a larger area at a lower depth increases the amount of property which is routinely flooded. Additionally, it results in an elevation of water temperature and a decrease in habitat in the main channel, both of which are detrimental to fisheries, particularly during periods of warm weather and low flows.

Land under rivers, streams and creeks that is composed of gravel allows the circulation of cold, well oxygenated water necessary for the survival of important game fish species such as brook trout (*Salvelinus fontinalis*), rainbow trout (*Salvelinus gairdneri*), brown trout (*Salmo trutta*) and Atlantic salmon (*Salmon salar*). River, stream, and creek bottoms with a diverse structure composed of gravel, large and small boulders and rock outcrops provides escape cover and resting areas for the above mentioned game fish species (salmonids). Such bottom type also provides areas for the production of aquatic insects essential to fisheries.

Land under ponds and lakes is vital to a large assortment of warm water fish during spawning periods. Species such as largemouth bass (*Micropterus salmoides*), smallmouth bass (*Micropterus dolomieu*), blue gills (*Lepomis macrochirus*), pumpkinseeds (*Lepomis gibbosus*), black crappie (*Pomoxis nigromaculatus*) and rock bass (*Ambloplites rupestris*) build nests on the lake and bottom substrates within which they shed and fertilize their eggs.

Land within 100 feet of any bank abutting land under a water body is likely to be significant to the protection and maintenance of land under a body of water, and therefore to the protection of the interests which these waterbodies serve to protect.

(2) Definition, Critical Characteristics and Boundaries

- (a) Land Under Water Bodies is the land beneath any creek, river, stream, pond or lake. Said land may be composed of organic muck or peat, fine sediments, rocks or bedrock.
- (b) The physical characteristics and location of Land Under Water Bodies and Waterways specified in the foregoing subsection (2) (a) are critical to the protection of the interests specified in Section 3.03 (1) above.
- (c) The Boundary of Land Under Water Bodies is the mean annual low water level.

(3) No activity, other than the maintenance of an already existing structure, which will result in the building within or upon, removing, filling, or altering of land under a waterbody shall be permitted by the Conservation Commission, except for activity which is allowed under a variance from these regulation granted pursuant to Section

5.01.

- (4) Any activity which is allowed under a variance granted pursuant to Section 5.01 of these regulations on land under a waterbody shall comply with the following regulations
 - (a) Any proposed work upon land under a waterbody shall not impair the following:
 - 1. The water carrying capacity within the defined channel, which is provided by said land in conjunction with the banks;
 - 2. Ground and surface quality; and
 - 3. The capacity of said land to provide breeding habitat, escape cover and food for fisheries.

3.04 Land Subject to Flooding (both Bordering and Isolated Areas)

(1) Preamble

(a) Bordering Land Subject to Flooding:

Bordering Land Subject to Flooding is an area which floods from a rise in a bordering waterway or water body. Such areas are likely to be significant to flood control and storm damage prevention.

Bordering Land Subject to Flooding provides a temporary storage area for flood water which has overtopped the bank of the main channel of a creek, river or stream or the basin of a pond or lake. During periods of peak run-off, flood waters are both retained (i.e., slowly released through evaporation and percolation) and detained (slowly released through surface discharge) by Bordering Land Subject to Flooding. Over time, incremental filling of these areas causes increases in the extent and level of flooding by eliminating flood storage volume or by restricting flows, thereby causing increases in damage to public and private properties.

(b) Isolated Land Subject to Flooding:

Isolated Land Subject to Flooding is an isolated depression or a closed basin which serves as a ponding area for run-off or high ground water which has risen above the ground surface. Such areas are likely to be locally significant to flood control and storm damage prevention. In addition, where such areas are underlain by pervious material they are likely to be significant to public or private water supply and to ground water supply.

Where such areas are underlain by pervious material covered by a mat of organic peat and muck, they are also likely to be significant to the prevention of pollution. Isolated land subject to flooding provides important breeding habitat for amphibians and some rare plants. Isolated Land Subject to Flooding provides a temporary storage area where run-off and high ground water pond and slowly evaporate or percolate into the substrate. Flooding causes lateral displacement of the ponded water onto contiguous properties, which may in turn result in damage to said properties.

Isolated Land Subject to Flooding, where it is underlain by pervious material, provides a point of exchange between ground and surface waters. Contaminants introduced into said area, such as septic system discharges and road salts, find easy access into the ground water and neighboring wells. Where these conditions occur and a mat of organic peat or mulch covers the substrate of the area, said mat serves to detain and remove contaminants which might otherwise enter the ground water and neighboring wells.

(2) Definitions, Critical Characteristics and Boundaries

(a) Bordering Land Subject to Flooding

1. Bordering Land Subject to Flooding is an area with low, flat topography adjacent to and inundated by flood waters rising from creeks, rivers, streams, ponds or lakes. It extends from the banks of these waterways and water bodies; where a bordering vegetated wetland occurs, it extends from said wetland.
2. The topography and location of Bordering Land Subject to Flooding specified in the foregoing subsection (2) (a) are critical to the protection of the interests specified in Section 3.04 (1) (a) above.
3. The boundary of Bordering Land Subject to Flooding is the estimated maximum lateral extent of flood water which will theoretically result from the statistical 100 year frequency storm. Said boundary shall be that determined by reference to the most recently available flood profile data prepared for the community within which the work is proposed under the National Flood Insurance Program (NFIP, currently administrated by the Federal Emergency Management Agency, successor to the U.S. Department of Housing and Urban Development). Said boundary, so determined, shall be presumed accurate. This presumption may be overcome only by credible evidence from a registered professional engineer or other professional competent in such matters.

Where NFIP Profile data is unavailable, the boundary of Bordering

Land Subject to Flooding shall be the maximum lateral extent of flood water which has been observed or recorded.

(b) Isolated Land Subject to Flooding:

1. Isolated Land Subject to Flooding is an isolated depression or closed basin without an inlet or an outlet. It is an area which at least once a year confines standing water.

Isolated Land Subject to Flooding may be underlain by pervious material, which in turn may be covered by a mat of organic peat or muck.

2. The characteristics specified in the foregoing subsection (2) (b) (1) are critical to the protection of the interests specified in Section 3.04 above.
3. The boundary of Isolated Land Subject to Flooding is the perimeter of the largest observed or recorded volume of water confined in said area.

- (3) No activity, other than the maintenance of an already existing structure, which will result in the building within or upon, removing, filling, or altering of land subject to flooding shall be permitted by the Conservation Commission, except for activity which is allowed under a variance from these regulations granted pursuant to Section 5.01.

- (4) Any activity which is allowed under a variance granted pursuant to Section 5.01 of these regulation on land subject to flooding shall not result in the following:

- (a) Flood damage due to filling which causes lateral displacement of water that would otherwise be confined within said area.
- (b) An adverse effect on public and private water supply or ground water supply where said area is underlain by pervious material.
- (c) An adverse effect on the capacity of said area to prevent pollution of the ground water, where the area is underlain by pervious material which in turn is covered by a mat of organic peat and muck.

PART IV. CATEGORICAL PERMISSION FOR MOSQUITO CONTROL PROJECTS
AND PROJECTS AND ACTIVITY AFFECTING EXISTING CRANBERRY BOGS

4.01 Activities Affecting Cranberry Bogs

- (1) Pursuant to Section 2 of the By-law, the Conservation Commission categorically gives permission for work on land which is being used as of the effective date of these regulations as bogs in actual agricultural use or on land to be used in a related manner which is incidental thereto and represents a customary and necessary use in raising such products, provided it is carried out in accordance with the following general conditions and any additional conditions deemed necessary by the Conservation Commission:
 - (a) all fertilizers, pesticides, herbicides and other such materials shall be used in accordance with all applicable state and federal laws and regulations governing their use as well as any such municipal regulations; and
 - (b) all activities shall be undertaken in such a manner as to prevent erosion and siltation of adjacent water bodies and wetlands as specified by the U.S.D.A. Soil Conservation Service, "Guidelines for Soil and Water Conservation"; and
 - (c) there shall be no contamination or pollution of any adjacent of contiguous water body, creek, stream, pond, lake, or the ocean. any violation of this general condition shall be cause to revoke permission for operation of the bog under the By-law and require an Application for a Permit, any other provision of the law notwithstanding.
- (2) The permission granted in Section 4.01 (a) shall only apply to existing bogs in actual production at the effective date of these regulations. Abandoned bogs, or bogs upon which renovation is proposed, shall be subject to all other provisions of these regulations.

4.02 Mosquito Control Projects

- (1) Pursuant to Section 2 of the By-law, the Conservation Commission categorically give permission for mosquito control projects performed pursuant to the provisions of Clause 36 of M.G. L.c. 50 s5, of M.G.L.c. 252, or of any special act, provided that adequate notice, oral or written, has been given to the Conservation Commission at least 24 hours prior to the commencement of any work other than normal maintenance and control.

4.03 Other Categorical Permission

- (1) There shall be no other categorical permission granted by the Conservation

Commission except by amendment to this part of these regulations, and in accordance with the provisions of the By-law.

PART V. VARIANCES *

5.01 Variances

The Conservation Commission may, in its discretion, grant variances for the operation of one or more of these regulations pursuant to this Section. Such variances are intended to be granted only in rare and unusual cases, and shall be granted only in accordance with the provisions of this section.

A variance may be granted only for the following reasons and upon the following conditions:

- a) **1) mitigating measures are proposed that will allow the project to be conditioned so that it contributes to the protection of the resource values identified in the Wetlands Bylaw; and**
2) the Conservation Commission finds no reasonable alternative for such a project within the proposed site; and
3) there will be no adverse impact from the proposed project; or
- b) **that the project is necessary to accommodate an overriding public interest or that it is necessary to avoid a decision that so restricts the use of property that it constitutes an unconstitutional taking without compensation.**

Provisions:

Any project proponent seeking a variance must demonstrate that the project results in no adverse impacts to interests defined under the Brewster Wetlands ByLaw and that no feasible alternatives exist. To demonstrate there are no feasible alternatives and that the proposed project will result in no adverse impact to wetland resources, an alternatives analysis must be submitted as part of the variance request. The purpose of the alternatives analysis is to locate activities so that impacts to resources are minimized or avoided. Therefore, the alternatives analysis should focus on the assessment of impacts from alternatives considered.

Guidelines

The scope of alternatives to be considered will be commensurate with the type and size of the proposed project.

The Alternatives Analysis must include the following:

- 1. a brief clear description of the project including the type, size and proposed use of projects, and project objective**
- 2. a summary of alternatives to the proposed Project**
- 3. a summary of potential environmental benefits of the Project**
- 4. a summary of potential environmental impacts of the Project**
- 5. a list of any mitigation measures for the Project**
- 6. a timetable, approximate cost, and the methods and timing of construction of the**

Project

Alternatives to the Project:

Alternatives should be considered in terms of the proposed use and objectives of the Project. The analysis of alternatives should highlight potential differences of environmental impacts. This includes both short-term and long-term impacts as well as cumulative impacts.

The following are examples of the scope of alternatives for various projects.

- 1. Single family house project – The scope of alternatives will be limited to the lot for which work is proposed.**
- 2. Residential Subdivisions – The scope of alternatives will be limited to the original parcel and the subdivided parcels, and adjacent parcels, and any other land that can be reasonably obtained.**
- 3. Commercial Development – The scope of alternatives are lots that can accommodate the project purpose, appropriately zoned, available for sale, within the town at the time of application, or if no such lot exists, a lot located in the market area that meets all other specifications.
piers, etc.**

***Amended on 3/4/03**

6.01 Forms

The following forms, together with any requirements for the submission of Applications for Permits or Requests for Determination of Applicability which the Conservation Commission may promulgate in writing, are incorporated by reference and are expressly made a part of these Regulations.

7.01 General Regulations for Aesthetic Interests in all Resource Areas *

A1. The height, scale, dimensions and design of any structure shall not alter or diminish the natural beauty and appearance of a resource area visible to the public. The placement of buildings, structures, fences, walls, or parking facilities shall not detract from the resource area's scenic qualities and shall blend with the natural landscape. In land under the jurisdiction of the Conservation Commission, building sites shall not be located at the crest of a hill, and foundations shall be located to reflect the natural terrain of a resource area.

A2. Any development visually accessible to the public shall be designed to preserve distinctive features of the site including tree canopy, stone walls, vegetated buffers, and scenic views, and shall limit the visibility of new development from a resource area visible to the public. The structure shall be architecturally integrated with and shall blend with the surrounding environment and landforms using natural building materials, such as wood siding and trim, natural color tones, and a scale of the structure which is consistent with the surrounding environment.

***Amended on July 15, 2003.**

8:01 General Regulations for Historic Value Interests in all Resource Areas.*

Historic Value Interests have long been interpreted by the Brewster Conservation Commission to include archaeological resources and the intent of regulations H1 and H2 is to codify this long-standing practice.

H1 Where development is proposed on or adjacent to known archaeological sites or sites with high archaeological sensitivity as identified by the Massachusetts Historical Commission or the Local Historical Commission during the review process, it shall be configured to maintain and/or enhance such resources where possible. A predevelopment investigation of such sites shall be required early in the site planning process to serve as a guide for layout of the development. Archaeological sites determined eligible for listing on the National Register of Historic Places shall be preserved and protected from disturbance.

H2. Sites listed as "Areas of Primary or Secondary Areas of Sensitivity" on the Town of Brewster Archaeological Resources Map on file at the Brewster Conservation Commission shall provide a Project Notification Form and a copy of the Notice of Intent to the Massachusetts Historical Commission prior to submitting a Notice of Intent to the Brewster Conservation Commission.

***Amended on July 15, 2003.**

Part IX. Docks and Piers [Amended November 12, 2013]

9.01 Preamble:

The Brewster Conservation Commission recognizes the necessity to balance desires of waterfront property owners to use a dock to access fresh water bodies with potential impacts to plant and wildlife habitat, water quality, and aesthetics of a shared public viewshed. Docks should be designed to minimize the overall size wherever possible. The Conservation Commission will not permit docks designed to accommodate vessels that are not feasible or allowed in the body of water where the dock is proposed.

Applicants shall attempt to create shared docks whenever possible. Shared docks may be given more flexibility in dimensional requirements to accommodate multiple waterfront users.

The Conservation Commission strongly recommends the use of electric motors to eliminate water quality

impacts, for the protection of fin-fish and other wildlife habitat, and for the protection of the drinking water supply.

9.02 Definition: For the purpose of this regulation, the word, "dock" shall include any portion of the structure, including, but not limited to ramp, deck, pier, and/or floats.

9.03 Permitting: An average water depth and average edge of water shall be estimated using documented water level data from the previous three years during the months of June through August. The average water depth estimation and edge of water shall be provided with the Notice of Intent.

9.04 Seasonal Docks: The Commission requires docks be seasonal and temporary in nature unless an overriding rationale can be made for a permanent structure on a case by case basis.

9.05 Permitted dimensions: up to 25 feet in overall length from the edge of the bordering vegetated wetland or top of bank, whichever is closer to the pond. No dock shall exceed an overall width of 4 feet. The maximum square footage of any dock shall not exceed 100 square feet. Docks shall be elevated a minimum of 3 feet over the bank or vegetated wetland. The distance between the decking shall be a minimum of 3/8 inch. Orientation of the dock should be North/South wherever possible to allow the penetration of sunlight under the structure. Docks which have an East/West orientation shall have a grated or transparent surface to allow light penetration. Docks should not include handrails unless a compelling safety issue necessitates railings.

9.06 Required depth below watercrafts: A minimum of 1-foot must be maintained between pond bottom and the lowest point of any proposed watercraft. Docks should be designed to allow for a minimum 1-foot of distance between the watercraft and the bottom during average water depth. Provisions should be made for mooring vessels away from docks at times of low water. Docks should achieve a terminal depth of 2.5 feet at the above mentioned average water depth within 25 feet from the average edge of water.

9.07 Dinghy docks: In shallow water areas, where conventional docks cannot meet the required water depth, dinghy docks may be allowable. The maximum allowable length of a dinghy dock is 10 feet and the maximum allowable width is 5 feet. All other dock guidelines apply.

9.08 Plant and Wildlife Impacts: All dock proposals should be accompanied by a survey of submerged aquatic vegetation, emergent aquatic vegetation, wetland vegetation, and shellfish in the proposed location of a dock. The survey should document existing species and provide an assessment of potential impacts from the dock. The survey shall be conducted by a knowledgeable professional approved by the Conservation Commission.

9.09 Building materials: Aluminum is the preferred construction material due to its lightweight and non-leaching characteristics. Rot-resistant plastic/wood composite alternatives are also a preferred option. Untreated, rot-resistant wood such as white cedar is an acceptable alternative as well. Chromated copper arsenate (CCA) chemically treated woods are prohibited within the jurisdiction of the Conservation Commission because of data showing adverse impacts of chromium, copper, and arsenic leaching into the aquatic environment.

9.10 Moorings: If moorings are necessary, they shall have as short a scope as possible, so that anchor chains do not scour the bottom of the pond.

9.11 Utilities: No utilities are allowed on docks. Lighting of the structure is not permitted.

9.12 Hazardous Materials: Storage of gasoline, oil, grease, pollutants or other hazardous materials on the dock is prohibited.

9.13 Use: All seasonal components shall be stored and secured at an approved upland site. The seasonal dock shall be removed before November 30 of each year, and shall not be reinstalled until after May 15.

9.14 Identification: The dock and ramp shall be labeled (using 3" numbers in a contrasting color) with the owner's name and street address.

9.15 Variance: No activity, other than the maintenance of an already existing structure, which will result in a dock that does not meet the standards set forth in 9.03 - 9.14 shall be permitted by the Conservation Commission, except for an activity which is allowed under a variance from these regulations granted pursuant to Section 5.01.