

**WAREHAM WETLAND PROTECTIVE BY-LAW**  
**DIVISION VI**  
**ARTICLE I**

**I. Purpose**

The purpose of this bylaw is to protect the wetlands, water resources, and adjoining land areas in Wareham by controlling activities deemed by the Conservation Commission likely to have a significant or cumulative effect upon resource area values, including but not limited to the following: public or private water supply, groundwater, flood control, erosion and sedimentation control, storm damage prevention including coastal storm flowage, water quality, water pollution control, fisheries, shellfish, land containing shellfish, wildlife habitat, rare species habitat including rare plant species, aesthetics, agriculture, aquaculture, and recreation values, deemed important to the community (collectively, the “resource area values protected by this bylaw”). This bylaw is intended to utilize the Home Rule authority of this municipality to protect additional resource areas, for additional standards and procedures stricter than those of the Wetlands Protection Act (G.L.Ch. 131, §40) and Regulations thereunder (310 CMR 10.00)

**II. Jurisdiction**

Except as permitted by the Conservation Commission or as provided in this bylaw, no person shall commence to remove, fill, dredge, build upon, degrade, discharge into, or otherwise alter the following resource areas: any freshwater or coastal wetlands; marshes; wet meadows; bogs; swamps; vernal pools; banks; reservoirs; lakes; ponds of any size; intermittent streams; creeks; beaches; dunes; estuaries; the ocean; lands under water bodies; lands containing shellfish; lands within one-hundred feet of any of the aforementioned resource areas (buffer zone resource area), rivers and riverfront areas, lands subject to flooding or inundation by groundwater or surface water; lands subject to tidal action, coastal storm flowage, or flooding; (collectively the “resource areas protected by this bylaw”). Said resource areas shall be protected whether or not they border surface waters.

**III. Conditional Exceptions**

1. The application and permit required by this bylaw shall not be required for maintaining, repairing, or replacing, but not substantially changing or enlarging, an existing and lawfully located structure or facility used in the service of the public to provide, gas, water, sewer, telephone, telegraph, or other telecommunication services, provided that written notice has been given to the Commission prior to commencement of work, and provided that the work conforms to performance standards and design specifications in regulations adopted by the Commission.

2. The application and permit required by this bylaw shall not be required for normal road maintenance activities, i.e.; cleaning catch basins, road repair, street sweeping, etc., performed by the Wareham Municipal Maintenance Dept., or its agents.
3. The application and permit required by this bylaw shall not be required for work performed for normal maintenance or improvement of land which is in agricultural use.
4. The application and permit required by this bylaw shall not be required for emergency projects necessary for the protection of the health and safety of the public, provided that:
  - A. the work is to be performed by or has been ordered to be performed by an agency of the Commonwealth or a political subdivision thereof;
  - B. advance notice, oral or written, has been given to the Commission prior to commencement of work or within 24 hours after commencement;
  - C. the Commission or its agent certifies the work as an emergency project;
  - D. the work is performed only for the time and place certified by the Commission for the limited purposes necessary to abate the emergency;
  - E. within 21 days of commencement of an emergency project a permit application shall be filed with the Commission for review as provided by this bylaw.

Upon failure to meet these and other requirements of the Commission, the Commission may, after notice and a public hearing, revoke or modify an emergency project approval and order restoration and mitigation measures.

5. Other than stated in this section, the exceptions provided in the Wetlands Protection Act (G.L. Ch. 131, §40) and Regulations (310 CMR 10.00) shall not apply under this bylaw.

#### **IV. Applications for Permits (Notices of Intent) and Requests for Determination**

1. The Commission may accept as the permit application and plans under this bylaw the Notice of Intent and plans filed under the Wetlands Protection Act (G.L. Ch. 131, §40) and Regulations (310 CMR 10.00).
2. Written application shall be filed with the Commission to perform activities affecting resource areas protected by this bylaw. The permit application shall include such information and plans as are deemed necessary by the Commission to describe proposed activities and their effects on the resource areas protected by this bylaw. No activities shall commence without receiving and complying with a permit issued pursuant to this bylaw.
3. Any person desiring to know whether or not a proposed activity or an area is subject to this bylaw may in writing request a determination from the

Commission. Such a Request for Determination (RFD) shall include information and plans as are deemed necessary by the Commission.

4. At the time of the permit application or RFD, or application for Certificate of Compliance, the applicant shall pay a filing fee specified in the regulations of the Commission. The fee is in addition to that required by the Wetland Protection Act (G.L. Ch. 131, §40) and the Regulations promulgated thereunder at 310 CMR 10.00, *et seq.* The fee shall be deposited into a dedicated account, for use only for wetlands protection activities, from which the Commission may withdraw funds without further appropriation.
  - A. Upon receipt of a permit application or RFD, or at any point during the hearing process, the Commission is authorized to require an applicant to pay a fee for the reasonable costs and expenses borne by the Commission for specific expert engineering and other consultant services deemed necessary by the Commission to come to a final decision on the application. This fee is called the “consultant fee.” The specific consultant services may include, but are not limited to, performing or verifying the accuracy of resource area survey and delineation; analyzing resource area functions and values, including wildlife habitat evaluations, hydrogeologic and drainage analysis; and researching environmental or land use law.
  - B. The exercise of discretion by the Commission in making its determination to require the payment of a consultant fee shall be based upon its reasonable finding that additional information acquirable only through outside consultants would be necessary for the making of an objective decision.
  - C. Where specific conditions, arising from the land or the nature of the proposal, necessitates the assistance of outside consultants, the Conservation Commission may engage such consultant services to assist the Commission in analyzing the project to ensure compliance with the Massachusetts Wetlands Protection Act (G.L. Ch. 131, §40), this by-law, their respective regulations, good design principals, and best available practices. In these instances the Commission will require the applicant to pay a review fee consisting of the reasonable costs to be incurred by the Commission for these services (The provisions for this language, G.L. Ch. 44, Sec. 53G, were adopted at the October 21, 2002 Town Meeting). The project shall not be segmented to avoid being subject to the consultant fee.
  - D. Funds received by the Commission pursuant to this section shall be deposited with the Town Treasurer who shall establish a special individual account for this purpose. Expenditures from this special account may be made at the direction of the Commission. Expenditures from this account

shall be made only in connection with the review of a specific project or projects for which a review fee has been, or will be collected from the applicant. Failure of an applicant to pay all review fees shall be grounds for denial of the application or permit.

- E. Review fees may only be spent for services rendered in connection with the specific project for which they were collected. Accrued interest may also be spent for this purpose. At the completion of the Commission's review of a project, any excess amount of funds in the account, including any interest, attributable to a specific project, shall be repaid to the applicant or the applicant's successor in interest. The applicant must submit a written request for these funds. Upon request, a final report for said account shall be made available to the applicant, or the applicant's successor in interest. For the purpose of this regulation, any person or entity claiming to be an applicant's successor in interest shall provide the Commission with the documentation establishing such succession in interest.
- F. Any applicant may take an administrative appeal from the selection of the outside consultant to the Board of Selectmen, providing that such appeal is taken within 14 days of notification of the Commission's appointment of the consultant. The grounds for such an appeal shall be limited to the claims that the selected consultant has a conflict of interest or does not possess the minimum required qualifications as may be set by the Commission. Minimum qualifications may be changed at the Commission's discretion depending upon the complexity and/or importance of the proposed project. The required time limit for action upon an application by the Commission shall be extended by the duration of the administrative appeal. In the event that no decision is made by the Board of Selectmen within one month following the filing of the appeal, the selection made by the Commission shall stand.
- G. The Commission may waive the filing fee, consultant fee, and costs and expenses for a permit application or RFD filed by a government agency.

## **V. Notice and Hearings**

- 1. Any person filing a permit application with the Commission at the same time shall give written notice thereof, by certified mail (return receipt requested) or hand delivered, to all abutters at their mailing addresses shown on the most recent applicable tax list of the assessors, including owners of land directly opposite on any public or private street or way within 100 feet of the property line of the applicant, including any in another municipality or across a body of water. The notice to abutters shall have enclosed a copy of the permit application or request, with plans, or shall state where copies may be examined and obtained by abutters.

An affidavit of the person providing such notice, with a copy of the notice mailed or delivered, shall be filed with the Commission.

2. Any person filing a Request for Determination of Applicability with the Commission at the same time shall give written notice thereof, by certified mail (return receipt requested) or hand delivered, to all direct abutters at their mailing addresses shown on the most recent applicable tax list of the assessors. The notice to abutters shall have enclosed a copy of the permit application or request, with plans, or shall state where copies may be examined and obtained by abutters. An affidavit of the person providing such notice, with a copy of the notice mailed or delivered, shall be filed with the Commission.
  - A. When a person requesting a determination is other than the owner, the request shall be sent by the person requesting the determination to the owner.
  - B. When a person requesting a determination is other than the owner, the notice of the hearing, and the determination itself shall be sent by the Commission to the owner as well as to the person making the request.
3. The Commission shall conduct a public hearing on any permit application or RFD, with written notice given at the expense of the applicant, five business days prior to the hearing, in a newspaper of general circulation in the municipality.
4. The Commission shall commence the public hearing within 21 days from receipt of a completed permit application or RFD unless an extension is authorized in writing by the applicant.
5. The Commission shall issue its permit or determination in writing within 21 days of the close of the public hearing thereon unless an extension is authorized in writing by the applicant.
6. The Commission in an appropriate case may combine its hearing under this bylaw with the hearing conducted under the Wetlands Protection Act (G.L. Ch.131, §40) and Regulations (310 CMR 10.00).
7. The Commission shall have authority to continue the hearing to a certain date announced at the hearing, for reasons stated at the hearing, which may include receipt of additional information from the applicant, or others, deemed necessary by the Commission, in its discretion, to come to a final decision on an application.

#### **VI. Permits and Conditions (Orders of Conditions)**

1. If the Commission, after a public hearing, determines that the activities which are subject to the permit application or the land and water uses which will result therefrom are likely to have a significant individual or cumulative effect upon the

resource area values protected by this bylaw, the Commission, within 21 days of the close of the hearing, shall issue or deny a permit for the activities requested. If it issues a permit, the Commission shall impose conditions which the Commission deems necessary or desirable to protect those values, and all activities shall be done in accordance with those conditions. The Commission may take into account the cumulative adverse effects of loss, degradation, isolation, and replication of protected resource areas throughout the community and the watershed, resulting from past activities, permitted and exempt, and foreseeable future activities.

2. The Commission is empowered to deny a permit for failure to meet the requirements of this bylaw; for failure to submit necessary information and plans requested by the Commission; for failure to meet the design specifications, performance standards; for failure to avoid or prevent unacceptable significant or cumulative effects upon the resource area values protected by this bylaw; and where no conditions are adequate to protect those values.
3. Lands within 200 feet of rivers, and lands within 100 feet of other resource areas, except the buffer zone resource area, lands subject to flooding or inundation by groundwater or surface water and lands subject to tidal action, coastal storm flowage or flooding, are presumed important to the protection of these resources because activities undertaken in close proximity to resource areas have a high likelihood of adverse impact upon the wetland or other resource, either immediately, as a consequence of construction, or over time, as a consequence of daily operation or existence of the activities. These adverse impacts from construction and use can include, without limitation, erosion, siltation, loss of groundwater recharge, poor water quality, and loss of wildlife habitat. The Commission therefore may require that the applicant maintain a strip of continuous, undisturbed vegetative cover within the 200-foot [or 100 foot] area, unless the applicant convinces the Commission that the area or part of it may be disturbed without harm to the values protected by the bylaw.
  - A. In the review of areas within 200 feet of rivers and streams, no permit issued hereunder shall permit any activities unless the applicant, in addition to meeting the otherwise applicable requirements of this bylaw, has proved by a preponderance of the evidence that (1) there is no practicable alternative to the proposed project with less adverse effects, and that (2) such activities, including proposed mitigation measures, will have no significant adverse impact on the areas or values protected by this bylaw. The Commission shall regard as practicable an alternative which is reasonably available and capable of being done after taking into consideration the proposed property use, overall project purpose (e.g., residential, institutional, commercial, or industrial purpose), logistics, existing technology, costs of the alternatives, and overall project costs.
4. To prevent wetlands loss, the Commission shall require applicants to avoid

wetlands alteration wherever feasible; shall minimize wetlands alteration; and, where alteration is unavoidable, shall require full mitigation. The Commission may authorize or require replication of wetlands as a form of mitigation, but only with adequate security, professional design, and monitoring to assure success, because of the high likelihood of failure of replication.

5. No person shall install a newly constructed septic system within one hundred fifty feet of any wetland as defined in Massachusetts General Laws, Chapter 131, section 40. A variance to this setback may be granted based upon findings of the Wareham Board of Health determining that such a variance is appropriate, but said variance shall not allow the system to be within 100 feet of any wetland, as defined by G.L. Ch. 131, s40, to be in accordance with previous Town meeting vote (Article 76 of April 25, 1988 Annual Town Meeting; Approved by the Attorney General July 28, 1988). Any existing system which is replaced must be located in conformity with this section except where lot size would not allow sufficient distance from such a setback, or where other setback requirements could not be met. In such exceptions, the repaired system would have to be placed as far from said wetlands as would be reasonably possible under then regulations.
6. A permit shall expire three years from the date of issuance. Notwithstanding the above, the Commission in its discretion may issue a permit expiring five years from the date of issuance for recurring or continuous maintenance work, provided that annual notification of time and location of work is given to the Commission. Any permit may be renewed once for an additional one year period, provided that a request for a renewal is received in writing by the Commission prior to expiration. Notwithstanding the above, a permit may contain requirements which shall be enforceable for a stated number of years, indefinitely, or until permanent protection is in place, and shall apply to all owners of the land.
7. For good cause the Commission may revoke or modify a permit or determination issued under this bylaw after notice to the holder of the permit or determination, notice to the public, abutters, and a public hearing.
8. The Commission in an appropriate case may combine the permit or determination issued under this bylaw with the Order of Conditions or Determination of Applicability issued under the Wetlands Protection Act (G.L. Ch. 131, §40) and Regulations (310 CMR 10.00).
9. No work proposed in any permit application shall be undertaken until the permit issued by the Commission with respect to such work has been recorded in the Plymouth County Registry of Deeds or, if the land affected is registered land, in the registry section of the Plymouth County Land Court, and until the holder of the permit certifies in writing to the Commission that the permit has been recorded.

## **VII. Definitions**

1. The following definitions shall apply in the interpretation and implementation of this bylaw.

The term “aesthetics” shall include, without limitation, the relevant qualities to be protected under the bylaw which are due to those natural and natively scenic impressions of our shores, ponds, lakes, streams, rivers, and the lands bordering them.

The term “alter” shall include, without limitation, the following activities when undertaken to, upon, within or affecting resource areas protected by this bylaw:

- 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, or water table;
- D. Dumping, discharging, or filling with any material which may degrade water quality;
- E. Placing of fill, or removal of material, which would alter elevation;
- F. Driving of piles, erection, or repair 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 temperature, biochemical oxygen demand, or other physical, biological, or chemical characteristics of any waters;
- J. Any activities, changes, or work which may cause or tend to contribute to pollution of any body of water or groundwater; or
- K. Incremental activities which have, or may have, a cumulative adverse impact on the resource areas protected by this bylaw.

The term “bank” shall include the land area which normally abuts and confines a water body; the lower boundary being the mean annual low flow level, and the upper boundary being the first observable break in the slope or the mean annual flood level, whichever is higher.

The term “erosion and sedimentation control” shall include both the ability of the Wetland Resource Area to perform these functions and the responsibility of the project applicant to propose a design that incorporates these controls into the plan to prevent damage to the resource area, buffer zone or abutting properties from erosion/sedimentation and water displacement caused by the project. Furthermore, each proposed project must be designed to prevent damage to the resource area due to scouring, propeller wash/shear, re-suspension of sediments



and from increased wave energy. Projects shall be designed to cause no adverse effect on significant shellfish habitat and/or eelgrass beds.

The term “freshwater wetlands” shall include, without limitation, those areas within which saturated or inundated conditions exist other than salt marshes.

The term “Order of Conditions” means the permit to fill, dredge, remove or alter an area subject to protection under the Massachusetts Wetlands Protection Act. The Commission in an appropriate case may issue as the permit under this bylaw the Order of Conditions issued under the Wetlands Protection Act (G.L. Ch. 131 §40) and Regulations (310 CMR 10.00).

The term “person” shall include any individual, group of individuals, association, partnership, corporation, company, business organization, trust, estate, the Commonwealth or political subdivision thereof to the extent subject to town bylaws, administrative agency, public or quasi-public corporation or body, this municipality, and any other legal entity, its legal representatives, agents, or assigns.

The term “rare species” shall include, without limitation, all vertebrate and invertebrate animal and plant species listed as endangered, threatened, or of special concern by the Massachusetts Division of Fisheries and Wildlife, regardless of whether the site in which they occur has been previously identified by the Division.

The term “recreation” shall include, without limitation, the purposes for which the resource areas are used by the public such as navigation, fishing, hunting, shellfishing, swimming, water skiing, diving, walking, etc. A project must be designed so as to not impair the ability of the resource area to provide for these and other normal and customary public recreation uses.

The term “significant shellfish habitat” shall include those areas of Lands Containing Shellfish designated and mapped as significant shellfish habitat for commercial or recreational use by the Massachusetts Division of Marine Fisheries.

The term “vernal pool” shall include a confined basin depression which, at least in most years, holds water for a minimum of two continuous months during the spring and/or summer, and which is free of adult fish populations regardless of whether the Site has been certified by the Massachusetts Division of Fisheries and Wildlife.

1. Except as otherwise provided in this bylaw or in regulations of the Commission, the definitions of terms in this bylaw shall be as set forth in the Wetlands Protection Act (G.L. Ch. 131, §40) and Regulations (310 CMR 10.00).

## **VIII. Security**

As part of a permit issued under this bylaw, in addition to any security required by any other municipal or state board, agency, or official, the Commission may require that the performance and observance of the conditions imposed thereunder (including conditions requiring mitigation work) be secured wholly or in part by one or more of the methods described below:

1. By a proper bond or deposit of money or negotiable securities or other undertaking of financial responsibility sufficient in the opinion of the Commission, to be released in whole or in part upon issuance of a Certificate of Compliance for work performed pursuant to the permit.
2. By accepting a conservation restriction, easement, or other covenant enforceable in a court of law, executed and duly recorded by the owner of record, running with the land to the benefit of this municipality whereby the permit conditions shall be performed and observed before any lot may be conveyed other than by mortgage deed. This method shall be used only with the consent of the applicant.

## **IX. Enforcement**

1. No person shall remove, fill, dredge, build upon, degrade, or otherwise alter resource areas protected by this bylaw, or cause, suffer or allow such activity, or leave in place unauthorized fill, or otherwise fail to restore illegally altered land to its original condition, or fail to comply with a permit or an enforcement order issued pursuant to this bylaw.
2. The Commission, its agents, officers, and employees shall have authority to enter upon privately owned land for the purpose of performing their duties under this bylaw and may make or cause to be made such examinations, surveys, or sampling as the Commission deems necessary, subject to the constitutions and laws of the United States and the Commonwealth.
3. The Commission shall have authority to enforce this bylaw, its regulations and permits issued thereunder by violation notices, administrative orders, and civil and criminal court actions. Any person who violates provisions of this bylaw may be ordered to restore the property to its original condition and take other action deemed necessary to remedy such violations, or may be fined, or both.
4. Upon request of the Commission, the selectboard and the town counsel shall take legal action for enforcement under civil law. Upon request of the Commission, the chief of police shall take legal action for enforcement under criminal law.

5. Municipal boards and officers, including any police officer or other office having police powers, shall have authority to assist the Commission in enforcement.
6. Any person who violates any provision of this bylaw, regulations, permits, or administrative orders issued thereunder, shall be punished by a fine of not more than \$300.

Each day or portion thereof during which a violation continues, or unauthorized fill or other alteration remains in place, shall constitute a separate offense, and each provision of the bylaw, regulations, permits, or administrative orders violated shall constitute a separate offense.

7. As an alternative to criminal prosecution in a specific case, the Conservation Administrator and any Town of Wareham Police Officer may issue citations under the non-criminal disposition procedure set forth in G.L. Ch. 40, §21D, which has been adopted by the Town in Division VIII of the general bylaws by Article 6 of the October 19, 1987, Town Meeting and approved by the Attorney General on December 28, 1987.

The fines for violation of the provisions of this bylaw, permits, or administrative orders issued thereunder, pursuant to G.L. Ch. 40, §21D shall be up to \$300.00 per offense.

## **X. Burden of Proof**

The applicant for a permit shall have the burden of proving by a preponderance of the credible evidence that the work proposed in the permit application will not have unacceptable significant or cumulative effect upon the resource area values protected by this bylaw. Failure to provide adequate evidence to the Commission supporting this burden shall be sufficient cause for the Commission to deny a permit or grant a permit with conditions.

## **XI. Appeals**

A decision of the Commission shall be reviewable in the Superior Court in accordance with G.L. Ch. 249, §4.

## **XII. Relation to the Wetlands Protection Act**

This bylaw is adopted under the Home Rule Amendment of the Massachusetts Constitution and the Home Rule statutes, independent of the Wetlands Protection Act (G.L. Ch. 131, §40) and Regulations (310 CMR 10.00) thereunder.

### **XIII. Severability**

The invalidity of any section or provision of this bylaw shall not invalidate any other section or provision thereof, nor shall it invalidate any permit or determination which previously has been issued.

### **XIV. Regulations**

After public notice and hearing, the Commission shall promulgate rules and regulations to effectuate the purposes of this By-Law effective when voted and filed with the Town Clerk. Failure by the Commission to promulgate such rules and regulations or a legal declaration of their invalidity by a court of law shall not act to suspend or invalidate the effect of this By-Law. These Regulations shall be limited to administrative matters, including but not limited to procedures governing the amount and filing of fees, and the submittal requirements for applications. (Article 6 of the April 26, 2004 Town Meeting; Approved by Attorney General June 29, 2004)

### **XV. Inland Structures**

#### **A. Introduction**

Inland, non-tidal freshwater, waterways and water bodies serve a variety of functions. Inland water bodies, in conjunction with banks, serve to confine floodwater within a definite channel or basin during the most frequent storms. These areas also provide significant habitat to a variety of plant and animal species.

The plant community composition and structure, hydrologic regime, topography, soil composition, and water quality of land under water bodies and waterways provide important food, shelter, and migratory and over wintering areas, and breeding areas for wildlife. Waterfowl and some mammals eat certain submerged rooted vegetation. Some amphibians, as well as some invertebrate species eaten by vertebrate wildlife attach their eggs to such vegetation. Some aquatic vegetation protruding out of the water is also used for nesting, and many species use dead vegetation resting on land under water but protruding above the surface for feeding and basking. Land under ponds and lakes are vital to a large assortment of warm water fish during spawning periods. Soil composition is also important for hibernation for animals, which burrow their tunnels under water. Hydrologic regime, topography, and water quality not only affect vegetation, but also determine which species feed in the area.

The physical nature of land under waterways and water bodies is variable ranging from deep organic and fine sedimentary deposits to rocks and bedrock. The organic soils and sediments play an important role in the process of detaining and removing dissolved and particulate nutrients, such as nitrogen and phosphorus from the surface water above. They also serve as traps for toxic substances such as heavy metal compounds.

The Towns fresh water bodies are also important for various recreational activities enjoyed by many including swimming, boating, fishing, bird watching, etc.

In order to prevent adverse impacts to these resource areas, any new dock structure proposed on any inland, non-tidal, freshwater waterway or water body shall adhere to the following standards:

B. Design specifications for inland dock structures

1. Docks shall not extend out into a waterway or waterbody more than 40' from the edge of the waterway or waterbody.
2. Docks shall not be more than 4' wide.

Exceptions to the standard size criteria may be permitted by the Conservation Commission if sufficient information can be presented to demonstrate a need for deviations from these standards.

3. Pressure treated building materials, if used, shall be non-leaching materials. The use of creosote or CCA treated materials is prohibited. Alternative materials such as aluminum, pvc, etc., approved by the Conservation Commission may be used.
4. Seasonal structures shall be stored in an upland area in the off-season. Proposed storage area shall be identified by the applicant and approved by the Conservation Commission during the review process. A fixed or permanent structure may be permitted by the Conservation Commission if sufficient information can be presented to demonstrate the need for such a structure and that it meets all other criteria required by this by-law.
5. Consideration shall be given for the ability of the dock to allow light penetration through to the bottom. Structures shall be constructed in such a way so as to minimize shading effects of the proposed structure to the maximum extent feasible. If deck planking is to be used then planks shall not be more than 6" wide and spaced at least ½" apart. Other alternative deck materials such as aluminum, vinyl, or fiberglass grating may also be used to allow greater light penetration. Height of the structure above the water shall also be to the maximum extent feasible to allow for angular light penetration.
6. Floating docks - A new floating dock system shall be permitted if it meets the following criteria. The bottom of the support floats for the dock are at least 12" above the bottom substrate and that the deck is at least 12" above the surface of the water. Styrofoam flotation material is prohibited. The proposed dock meets all other applicable requirements of this by-law.
7. There shall be no storage of hazardous materials on the dock structure.
8. The site plan required for the construction of a new fixed freshwater dock structure shall be prepared and stamped by a registered

professional engineer. Site plans for proposed seasonal docks will not have to be prepared by a professional engineer. In either case, site plans will have to provide adequate detail in terms of scale of the proposed structure and associated site, materials to be used, proposed location, water depths in the location of the proposed structure, property lines, and cross section detail of the proposed structure.

9. The applicant shall supply the following additional information as part of their plan and application:

For seasonal structures, the winter storage location for the structure and the methodology to be used for removing and installing the structure.

For all structures:

- a. Information regarding the number, type, and size of watercraft that will utilize the proposed dock structure. This information shall include draft of the watercraft, including engine, and engine horsepower.
  - b. Other resource areas that the structure might alter or that the structure might have to cross before getting to the open water, i.e. bordering vegetated wetland, beach.
10. Watercraft shall have a minimum of 12" of water between the lowest member of the vessel, including engine, and the bottom substrate. Mean pond levels shall be considered when determining clearances.
  11. Proposed projects determined to adversely impact endangered species habitat shall not be permitted.
  12. An Order of Conditions issued under this by-law is subject to all applicable Federal, State, and local ordinances and regulations including but not limited to a valid Chapter 91 License issued under the Public Waterfront Act for those structures proposed within Great Ponds within the Town. A Great Pond shall mean any naturally existing pond of 10 acres or more in size. (Article 34 of the October 31, 2007 Town Meeting; Approved by Attorney General February 22, 2008)

## **XVI. Coastal Structures**

### **A. Introduction**

The construction maintenance and use of docks and piers are likely to have a significant or cumulative effect on the resource area values of storm damage prevention, shellfish, shellfish habitat, preventing pollution, water quality, wildlife habitat, recreation, and aesthetics. Further docks destroyed by storms pose a threat to nearby properties by increasing water borne debris.

Turbulence and prop dredging generated by boat traffic around docks and piers significantly increases turbidity levels in surrounding waters. High turbidity levels attenuate the sunlight necessary for photosynthetic processes responsible for the primary productivity and oxygen regeneration of the water. The suspended sediments settle on shellfish beds, smothering existing shellfish and altering the quality of the sand bottom essential for spat settlement. Re-suspension of bottom sediments causes redistribution of sediments, alteration in sediment grain size distribution and causes changes in bottom topography relief, elevation and grade, including creation of depressions in the bottom. Re-suspension of sediments into depressions creates deep pockets of sediment which may not be able to physically support shellfish or which may become anoxic and therefore may not support shellfish. Re-suspension of sediments during the period of shellfish larval settlement hinders or prevents the effective settlement of shellfish larvae. Boat traffic generated from docks in areas where water depth is not adequate will add to this disruption. Construction of docks and subsequent boat activity causes re-suspension of nutrient laden sediment particles which may cause a release of sediment bound nutrients to the water column resulting in a bloom of vegetation, release of nutrients to the water column leads to eutrophication and anoxic bottom conditions. Anoxic sediments and anoxic bottom conditions create adverse impacts on benthic resources, including shellfish and fisheries.

While dock construction is typically the least environmentally destructive method of crossing a marsh, it may adversely affect the physical characteristics and functional value of the marsh. Marsh plants provide the major energy flow (detritus food chain) between the autotrophic and heterotrophic levels in a marsh estuarine system. Many species of sport and commercial fish and shellfish are dependent upon this system. Plants adapted to high ambient light intensity, such as marsh grasses, are ill adapted to the shaded conditions created by a dock. Shading may result in the reduction of plant biomass (decreased plant height, population density, leaf thickness) or alteration of species composition. Reductions in plant density result in the loss of sediment normally trapped by roots and culms. Tidal washout of sediment could result in localized depressions, which would trap water. Evaporation of this trapped water would elevate salt concentrations in these depressions. High sediment salt levels effectively preclude re-colonization by original vegetation. Localized tidal washout may lead to further vegetative regression, extension, and disruption of natural communities in the area. Propeller turbulence near or in areas of submerged aquatic vegetation, such as eel grass, or salt marsh damages vegetation, thereby increasing the rate at which organic detritus is produced. If this organic detritus does not completely decompose aerobically, then anoxic bottom conditions will ensue, which will adversely impact shellfish and fisheries.

Cumulative impacts of the construction, maintenance and use of docks threaten to decrease the productivity of the marsh ecosystem, to reduce its ability to absorb storm wave energy, and to reduce its contribution to groundwater and surface water quality. Docks and piers when placed in land containing shellfish have an adverse impact on the resource area value of aquaculture. The

placement length and size of the floats can interfere with the harvesting of quahogs and scallops. Docks depending on their length can have an adverse impact on recreation by interfering with recreational boating activities. Not properly designed, docks can interfere with inter-tidal lateral access for recreational fishing and fowling. Any proposal that affects navigation is likely to have a significant or cumulative adverse effect on recreation. Depending on their height, length compatibility with surrounding environs and overall visibility, docks can create an adverse impact to the aesthetics of the area.

In order to prevent impacts to resource areas and interests protected under this by-law any dock or pier proposed within a coastal, or tidal, waterway shall adhere to the following standards:

#### B. Plan Requirements

The following information shall be included on the plans submitted with the Notice of Intent application:

1. A description of all materials to be used for the project and the methodology of construction, including the method of pile installation, the type of precautions that will be used to insure that the barge does not ground, and that other equipment will not adversely impact resource areas.
2. Identification of seasonal float storage locations on the site. A statement shall be included in the NOI indicating the location to be used for winter storage, and the methodology to be used for hauling seasonal floats.
3. Soundings within 75' of the proposed structure in sufficient density to allow the determination of water depths and elevation changes in the vicinity of the proposed pier and floats. Depths shall be measured from the top surface of the soft sediments.
4. Data shall be supplied to the Commission showing the time and date of the depth survey, the existing weather conditions, the state of the tide and the actual depths measured from the surface to the bottom. MLW and MHW shall be indicated on the plan and all information shall be derived from NGVD datum. An explanation of the calculations used must be included in the narrative.
5. Eel grass within 75' of the proposed structure. A site-specific survey shall be conducted to determine the presence or absence of eel grass, *Zostera marina*, in the project locus. The survey shall be conducted during the appropriate time of year, from July 1<sup>st</sup> – Nov 15<sup>th</sup>. Information relative to the date the study was conducted shall be included in the application.
6. Navigational channels within 100' of the proposed structure.
7. The location of any designated shellfish grants, relay areas, or designated recreational shellfish areas within 100' of the proposed structure.



8. The location of any other structures such as moorings, other piers, seawalls, etc., within 75' of the proposed structure shall be indicated on the plan.
9. The plan shall be stamped by a registered professional engineer.
10. Site locus shall be indicated on the plan.
11. Cross sectional details of proposed structures shall be submitted.
12. All wetland resource areas within 100' of the proposed project i.e.: coastal beach, salt marsh, coastal bank, shall be identified and clearly labeled on the site plan.
13. FEMA flood zone designations for the subject site.
14. Designation indicating if the site is estimated habitat of rare and endangered species according to the MA Natural Heritage and Endangered Species Program.
15. Title block information.
16. Map and lot, lot size, ownership information for the subject parcel.
17. Benchmark - Information to include the location of the benchmark and the elevation of the benchmark.
18. North arrow.

C. Design specifications for Coastal Residential dock and pier structures

The following design specifications and requirements shall be adhered to when designing a coastal residential dock or pier structure:

1. The deck of the pier shall not have a width of greater than 4' of passable area, measured from inside of piling to inside of piling.
2. Deck spacing - deck planks shall be at least  $\frac{3}{4}$ " apart with planks being no wider than 6".
3. Floats - Floats for the structure shall not exceed 300 sq feet in size and shall have a rectangular shape so as not to shade large areas of the bottom. The floats shall be constructed in such a way to allow for the penetration of light through to the bottom. A minimum water depth of at least 24" at mean low tide shall exist between the bottom of the float and the bottom. The type of flotation material shall be described. The use of Styrofoam flotation material is prohibited
4. Float storage- Seasonal floats shall not be stored in salt marsh, on coastal beaches, or coastal banks but rather in an upland area approved by the Conservation Commission.
5. Pressure treated building materials, if used shall be non-leaching materials. The use of creosote or CCA treated materials is prohibited. Alternative materials such as aluminum, fiberglass, etc., approved by the Conservation Commission may be used.
6. Information shall be submitted to the Commission detailing the proposed number, type, and style of the proposed watercraft to be used at the site. This information shall include the draft of the watercraft, including engine, at its maximum weight carrying capacity. There

shall be a minimum of 24" of water between the lowest draft point of the watercraft to be used at the dock, including engine, and the bottom. Draft information shall be calculated based on max vessel load from the manufacturer.

7. Maximum length - Docks or piers shall not exceed 200 ft in total length beyond Mean High Water (MHW).
8. Eel Grass - In order to adequately prevent the disruption of eel grass beds no part of the dock or pier, or float system, shall be constructed in, above, or within 50' of eel grass beds.
9. Shellfish habitat evaluation. Piers shall not be allowed to be constructed within significant shellfish habitat as determined by the DMF and/or the Wareham Shellfish Constable. The absence of shellfish may not mean that productive shellfish habitat does not exist.
10. Salt marshes - In order to minimize the destruction of salt marsh the maximum width of salt marsh to be traversed as part of a pier proposal shall be 75'. The height of the deck above the salt marsh shall be 4-6' above the peat substrate.
11. Pile spacing - Piles shall be spaced as far apart as possible so as to reduce the number of piling sets to be installed. Piling sets shall not be closer than 15' apart except where it is deemed necessary by the Conservation Commission to adequately protect wetland resource areas.
12. No pier project shall be allowed that would adversely impact endangered species or endangered species habitat.
13. There shall be no storage of hazardous materials on the structure.
14. An Order of Conditions issued under this by-law is subject to all applicable federal, state, and local ordinances and regulations including but not limited to a valid Chapter 91 License issued under the Public Waterfront Act.
15. Standards 1 and 3 shall not apply to commercial structures proposed in areas zoned for such uses. These projects shall be considered by the Conservation Commission on a case-by-case basis.
16. For site review purposes the proposed location of the pier shall be marked in the field as follows:

A stake shall be placed at the site to identify the centerline location of the landward end of the proposed structure. The stake shall be labeled "Pier Centerline Landward End". A floating buoy shall be placed in the water to mark the furthest seaward end, including any floats, of the proposed structure. These markers shall be put in place at the time of the filing of the Notice of Intent.

(Article 35 of the October 31, 2007 Town Meeting; Approved by Attorney General February 22, 2008)

## **Section XVII. Buffer Zone**

### **A. Residential Construction**

A 30-foot No Activity Zone shall be required for all new residential structures in developments of three units or less, additions, accessory structures (including, but not limited to, garages, sheds, and pools), associated construction (including, but not limited to, driveways and septic systems), and site work (including, but not limited to, landscaping and grading) within the Buffer Zone. In the event that there are multiple resource areas at a given site with associated Buffer Zone, the 30-Foot No Activity Zone shall be measured from the boundary of the resource area closest to the work.

Developments of four or more residential units shall be subject to the requirements for commercial/industrial development in Subsection B.

### **B. Commercial/Industrial Development and Residential Construction of Four Units or More**

A 50-foot No Activity Zone shall be required for all new commercial and industrial developments (including, but not limited to, strip malls, office buildings, retail stores, automotive uses, warehouses, and industrial buildings), and developments of four or more residential units, that will alter 2500 square feet or more of Buffer Zone. In the event that there are multiple resource areas at a given site with associated Buffer Zone, the 50-foot No Activity Zone shall be measured from the boundary of the resource area closest to the work. For commercial/industrial developments and developments of four or more residential units that will alter less than 2500 square feet of Buffer Zone, the Conservation Commission may permit a No Activity Zone less than 50 feet in width, but not less than 30 feet in width.

### **C. Exceptions**

1. The Conservation Commission may waive or reduce the No Activity Zone requirements listed above for the redevelopment of sites that are currently paved or altered with other impervious surfaces within Buffer Zone.
2. The Conservation Commission may waive or reduce the No Activity Zone requirements listed above for projects involving work necessary to access buildable upland (including access roads, driveways, and utilities) as long as there is no other means of accessing said buildable upland, and said work meets all the other requirements of the Massachusetts Wetlands Protection Act and this By-law.

3. The Conservation Commission may waive or reduce the No Activity Zone requirements listed above if in its judgment such a reduction is necessary to accommodate a project that will have an overall benefit to the public and/or to the environment (such as a sewer expansion project, or a wildlife enhancement project).
4. The No Activity Zone requirements set forth in this Section shall not apply to any structures or site work that is defined as the normal maintenance or improvement of Land In Agricultural Use under 310 CMR 10.04, "Agriculture".
5. The No Activity Zone requirements set forth in this Section shall not apply to projects requiring Chapter 91 Licenses, to freshwater dock projects, to repairs of existing Chapter 91 Licensed structures, or to other coastal engineering structures deemed by the Conservation Commission to be necessary to protect the interests of the Massachusetts Wetlands Protection Act and this By-law.
6. The No Activity Zone requirements set forth in this Section shall not apply to projects involving the repair, but not expansion of, existing and lawfully located buildings and structures, including roads, culverts, utilities, septic systems, or storm water drainage structures.