## Lake Boon Shoreline Stabilization Guidance Stow Conservation Commission Approved June 27, 2006

**A. Introduction:** This document is intended to provide guidance for homeowners who are seeking to stabilize the lake front shorelines. This document provides guidance on how the Commission will interpret existing regulations and under what circumstances waivers of the required 35-foot undisturbed buffer are likely to be granted. Applicants are encouraged to consult with the Conservation Commission prior to filing for major projects.

## **B. Existing Regulatory Framework:**

### 1. Wetlands Protection Act and Regulations

<u>a. Banks</u>: Banks are presumed to be significant to public and private water supply, ground water supply, flood control, storm damage prevention, prevention of pollution and to the protection of fisheries and wildlife habitat

Performance Standards for Banks:

Any proposed work on a Bank shall not impair:

- -the physical stability of the Bank
- -the water carrying capacity of the existing channel within the Bank
- -ground water and surface water quality
- -the capacity of the Bank to provide breeding habitat, escape cover and food for fisheries
- -the capacity of the Bank to provide important wildlife habitat function *Except:* A project... on a single lot... that alters up to 10% or 50'(whichever is less) of the length of the bank found to be significant to the protection of wildlife shall not be deemed to impair its capacity to provide important wildlife habitat functions. Additional alterations ... may be permitted if they will have no adverse effects on wildlife habitat as determined by [a wildlife habitat evaluation as described in the regulations]

<u>b. Land Under Water:</u> Land under water is presumed significant to public and private water supply, ground water supply, flood control, storm damage prevention, prevention of pollution and protection of fisheries and wildlife habitat

Performance Standards for Land Under Water

Any work within land under water shall not impair the following:

- -the water carrying capacity within the defined channel...
- -ground and surface water quality
- -The capacity of the land to provide breeding habitat, escape cover and food for fisheries
- -The capacity of the land to provide important wildlife habitat functions. *Except* that a project on a single lot that alters 10% or 5000 sq. ft. (whichever is less) of land in this resource area shall not be deemed to impair its capacity to provide important wildlife habitat function.

#### 2. Town of Stow Wetlands Bylaw

a. Undisturbed vegetative buffer of naturally occurring plant materials shall be left adjacent to all wetlands, water bodies and watercourses to a minimum width of 35'...

Waivers are allowed from the bylaws and regulations "when, in the opinion of the Commission, such action is in the public interest and is consistent with the intent and purpose of the Bylaw." Requests for waivers must be submitted on "Form W"

Waivers are more likely to be granted when work meets standards in this guidance

### **C.** Categories of Work

- 1. Simple repairs to existing shoreline stabilization measures
  - -Repair defined as no change in length/footprint or change in materials
  - -will generally be approved with proper erosion controls
- 2. Replacement of failing stabilization measures
  - -replacement means no appreciable change in length/footprint, but a change in materials
  - -smooth vertical walls should be replaced by structures that provide for greater dissipation of wave energy. Vertical walls of the type pictured below will generally not be

permitted.



- 3. New or Expanded shoreline stabilization structures on developed lots as of the date of this policy.
  - -Applicant must demonstrate that existing measures are failing and that natural, vegetative stabilization measures (e.g. dense planting of shoreline) are not adequate
  - -Wherever feasible, Commission prefers to review and approve measures that stabilize the shoreline and are not in contact with the water, leaving a natural bank, particularly in low wave energy locations. See examples below:









- -Shoreline stabilization should be limited to the minimum length needed to create an area sufficient to provide safe, usable access to the lake. Walls should be the minimum height needed to stabilize the shoreline, significant fill will not be permitted.
- -In approving new/expanded shoreline stabilization, the Commission will need to approve a waiver of the 35' buffer requirement. In approving such waivers, the Commission will generally require that portions of the shoreline remain naturally vegetated as a condition of approval and may also require maintenance or planting of a 35' strip of natural vegetation behind the bank as shown below (bottom right).
- -Greater alteration requires a wildlife habitat evaluation by a certified professional.





# 4. Shoreline stabilization on undeveloped lots as the date of this policy

The sections of the lake with undeveloped shorelines are presumed to have significant habitat value. No waivers will generally be granted from the 35' buffer requirement on these lots, except to create a single meandering path to the water and a floating seasonal dock.

