

Optional Shoreland Zoning Standards For Greater Protection of Maine's Great Ponds

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**An Evaluation of Ways to Protect or Improve
Lake Water Quality by Addressing Development
Impacts**

**Maine Department of Environmental Protection Report
to the Maine Legislature**



January 31, 2008

E. Recommendations

1. Increase outreach to property owners on ways to minimize lake impacts due to runoff from their property. This should include an evaluation and refinement of the Department's current LakeSmart Program. The evaluation should include input from lake partners around the state and from other related state programs, including the Yardscaping program administered by the Board of Pesticides Control.
2. Develop a set of standards that unpaved roads should meet to ensure that they are not significant sources of nonpoint source pollution to lakes.
3. Identify lake watersheds where the Department should increase its effort to get problem sites fixed using a combination of incentives, including 319 grant funding; technical assistance; education and outreach; and compliance and enforcement action.
4. Develop guidance for municipalities on how to implement a road impact fee program. Enabling legislation should be enacted to give municipalities clear authority to assess the road impact fee and to use a portion of it to conduct periodic road inspections.
5. The Shoreland Zoning Program should adopt a set of optional standards for increasing protection, or promoting restoration of, lake water quality. Optional standards should include, but not be limited to:
 - Adopt a phosphorus control ordinance, similar to state stormwater law requirements, that would apply to smaller projects that do not need state approval;
 - Require that the code enforcement officer inspect a site to ensure compliance with local code requirements at least three times: before construction; during construction and after construction is completed;
 - Adopt a buffer restoration ordinance that applies to structural improvements on a property, and to sites requiring restoration due to land use violations;
 - Adopt road standards that address runoff /drainage concerns;
 - Require a road impact fee for private roads that extend into lake shoreland zones that do not meet the Department's standards (see #4 above). Enabling legislation should be adopted to allow towns to assess this impact fee and establish an account to cover inspection and evaluation costs, as well as to create a fund to cover road improvement work.

19 Optional Standards Based on Report Recommendations and DEP LakeSmart Standards



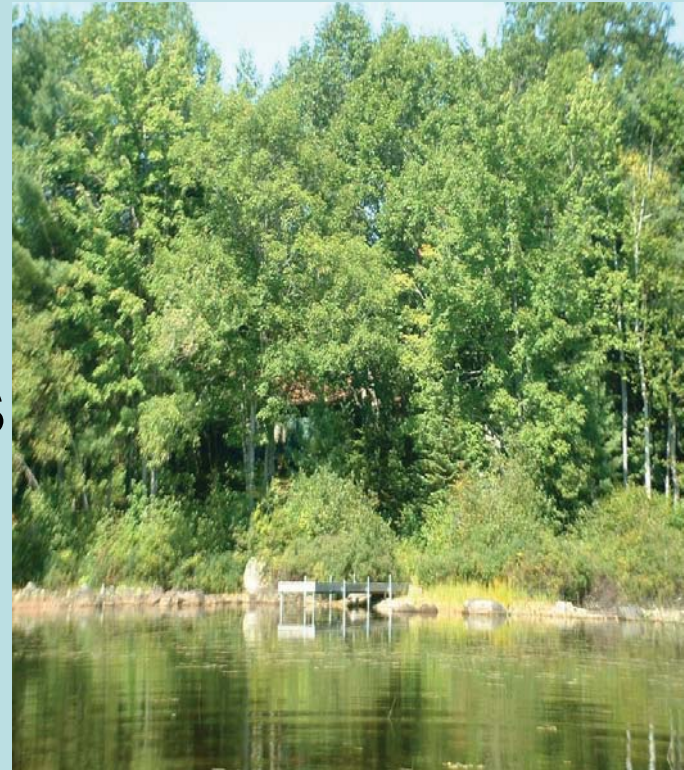
Buffers

- 100 Foot Wide Undisturbed Buffer
- 6 foot wide winding path allowed
- Tree and limb removal only if safety hazard with CEO approval
- Pruning Prohibited

Beyond 100 foot Buffer

Natural Vegetation must remain intact
except:

- For 30 feet around structure
- Utilities
- Driveway and parking areas



All New Lot Development In Shoreland Zone / Watershed Requires

- The Application of Phosphorous Control Methodology



Resource Protection Zone

- Structures, timber harvesting road building prohibited
- Removal of dead trees and branches only with approval of CEO

Gravel Roads

A gravel road curves through a forest of tall, thin trees. In the background, a body of water is visible through the trees. The road is unpaved and appears to be made of gravel or dirt.

- Cannot cause direct or indirect discharge into great pond or tributaries
- Must achieve minimum score using DEP road evaluation tool


Section 2. Road Base and Surface Areas

					SCORE																										
	0 None	1 Some	2 Most	3 All	Stations	Average																									
1. Road constructed <u>above</u> original ground level to facilitate drainage/structural integrity of road base materials.					<table border="1"><tr><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td></tr></table>																										
2. Gravel road surface is at least 4 to 6 inches, is compacted, and is composed of a firmly packed aggregate. <i>(Refer to page 8 and 9 of the Camp Road Manual for testing procedure)</i>					<table border="1"><tr><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td></tr></table>																										
3. Gravel road surface provides good traction and is not highly erodible and dusty (too many fines).					<table border="1"><tr><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td></tr></table>																										
4. Level or low slope road surfaces are crowned to shed water at ½ inch of rise per foot of road width, or contain alternative drainage structures, such as waterbars, or are otherwise designed to direct stormwater as sheet flow off of the road surface (insloped /outsloped). <i>(Refer to page 11 and 12 of the Camp Road Manual for information on Determining Road Crown)</i>					<table border="1"><tr><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td></tr></table>																										
5. Steep sloped road surfaces are crowned to shed water at ¾ inch of rise per foot of road width, or contain alternative drainage structures or are otherwise designed to direct stormwater as sheet flow off of the road surface or are paved. <i>(Refer to page 11 and 12 of the Camp Road Manual for information on Determining Road Crown)</i>					<table border="1"><tr><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td></tr></table>																										
6. Stormwater flow from the road surface is directed to stable ditches, a vegetated buffer or stable vegetated areas (that are not wetlands) of at least 50 feet in width between the road and a waterbody.					<table border="1"><tr><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td></tr></table>																										

Earthmoving in excess of 2 cubic Yards Requires:

- Supervision by DEP Certified Contractor





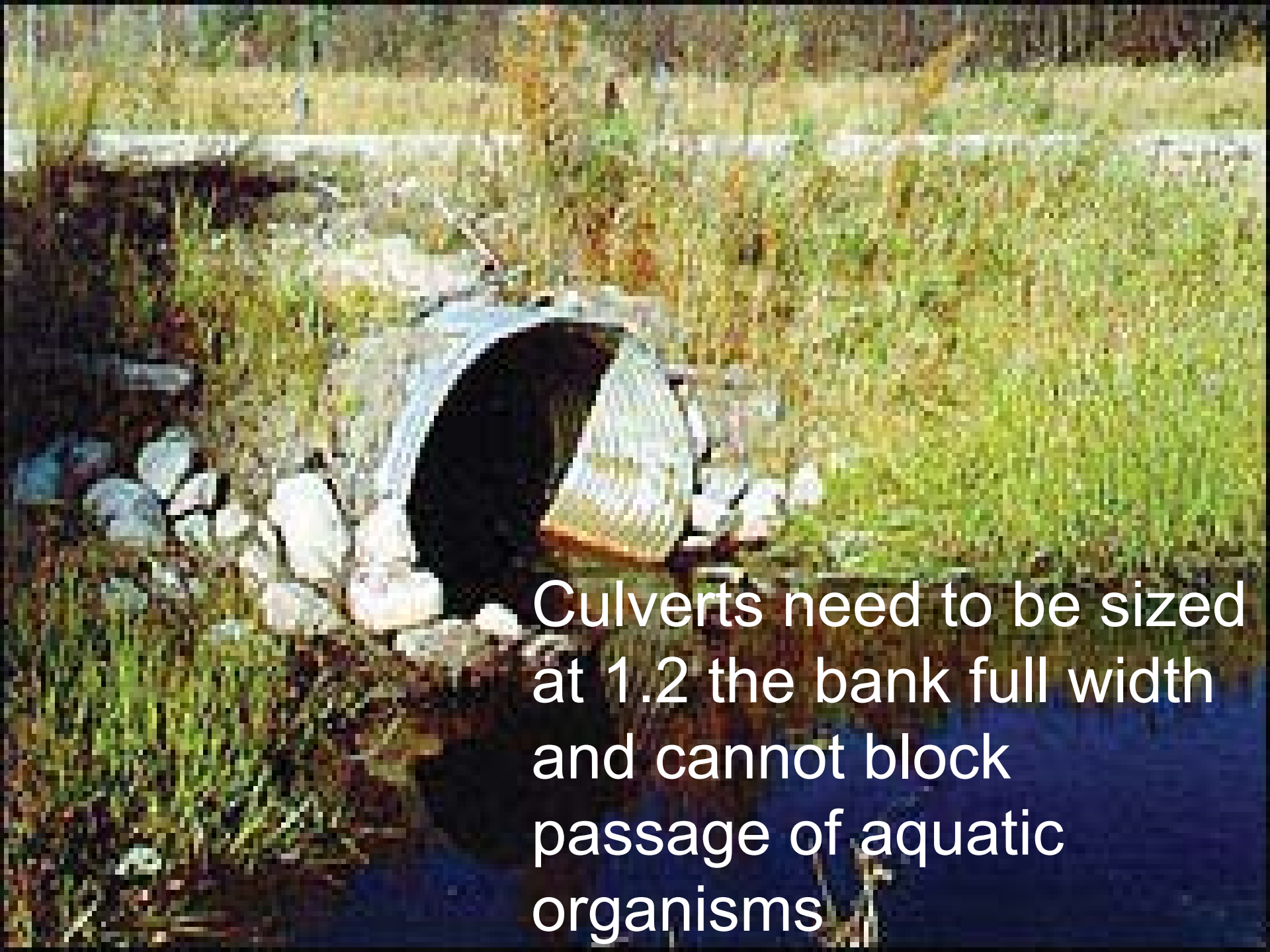
Roof Runoff Must
Not cause erosion
and must be
infiltrated or treated

CEO must approve boundaries of disturbance activities and must inspect during and after construction



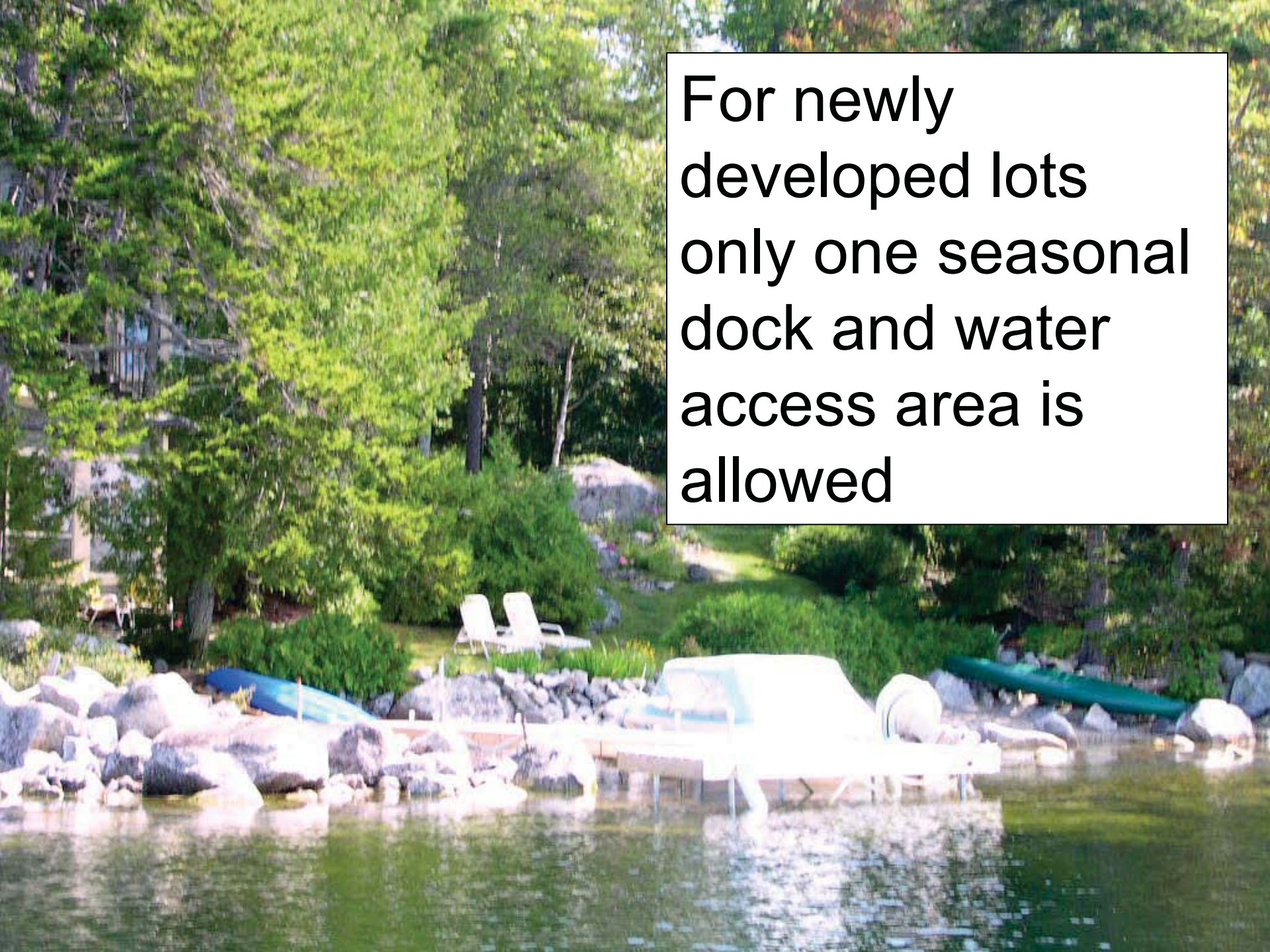
New Roads and Driveways must maintain natural hydrology and be designed to shed water into vegetated buffer areas





Culverts need to be sized at 1.2 the bank full width and cannot block passage of aquatic organisms

For newly developed lots only one seasonal dock and water access area is allowed





All footpaths need to be stabilized with non-erodible materials

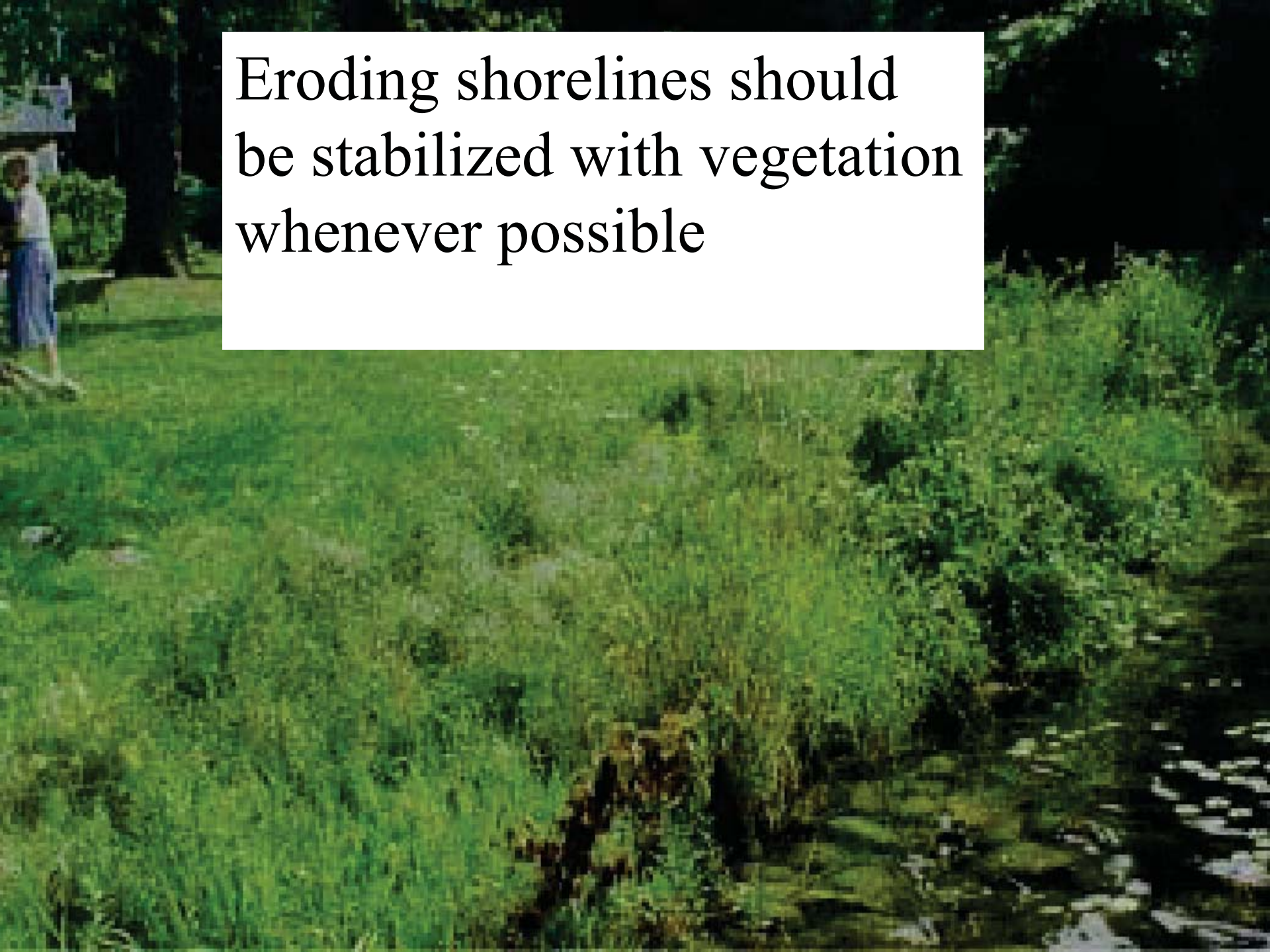
Steps should
be designed to
Infiltrate
stormwater





Parking areas shall only be the minimum size necessary for motor vehicles registered to the landowner/renter but not larger than 3 spaces

Eroding shorelines should be stabilized with vegetation whenever possible





Only Non Phosphorus Fertilizer
can be used unless NPK is
required as a result of a soil test

Pesticides application in the Shoreland zone can only be done by Licensed applicators



**Think
First....**

Must Use
Integrated Pest
Management



**Spray
Last!**

BMPs to protect water quality must be installed in areas where livestock are kept in the shoreland zone

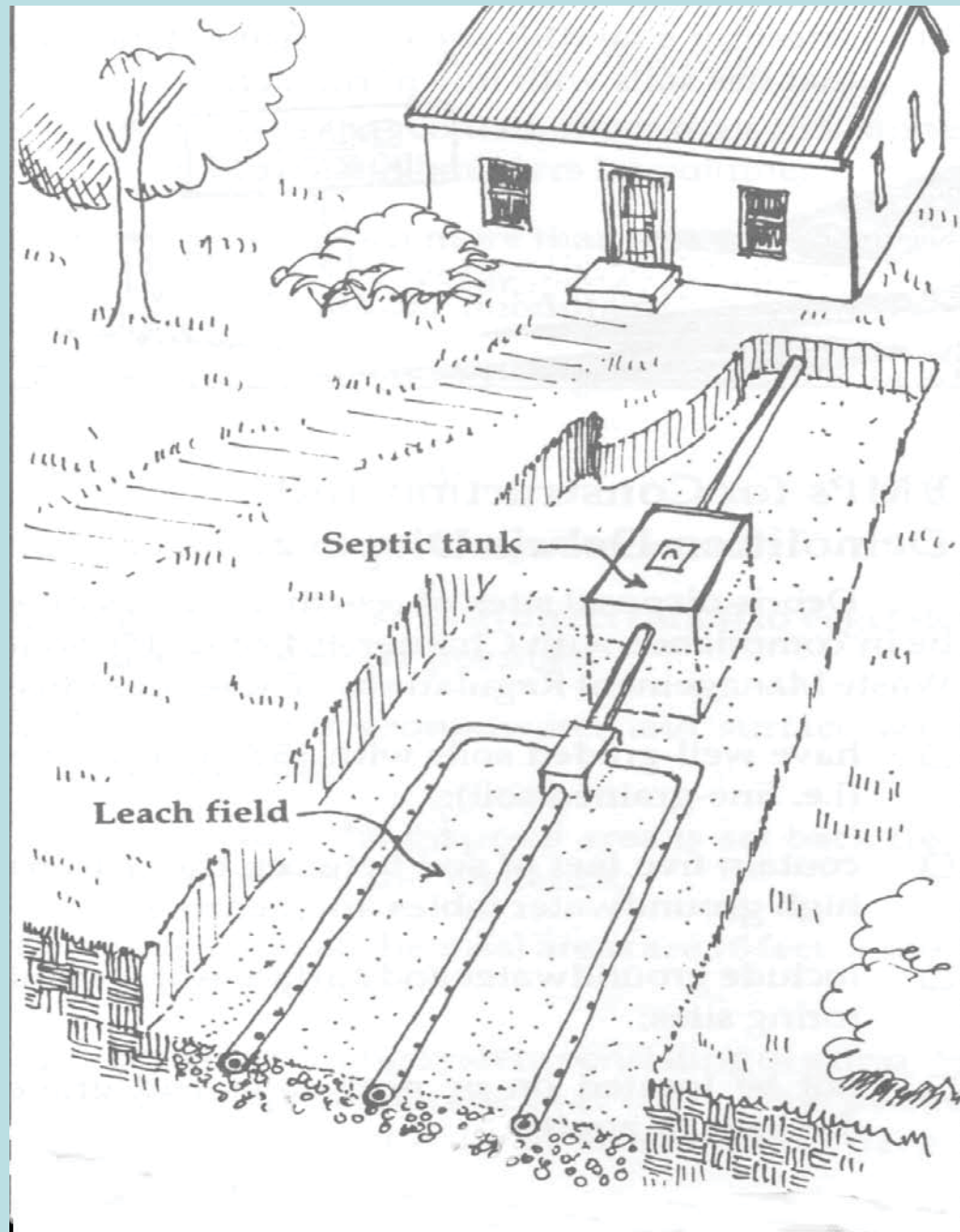


- Runoff must be directed away from septic systems

- Leach field must be kept free of Woody vegetation

- Tank Pumped regularly

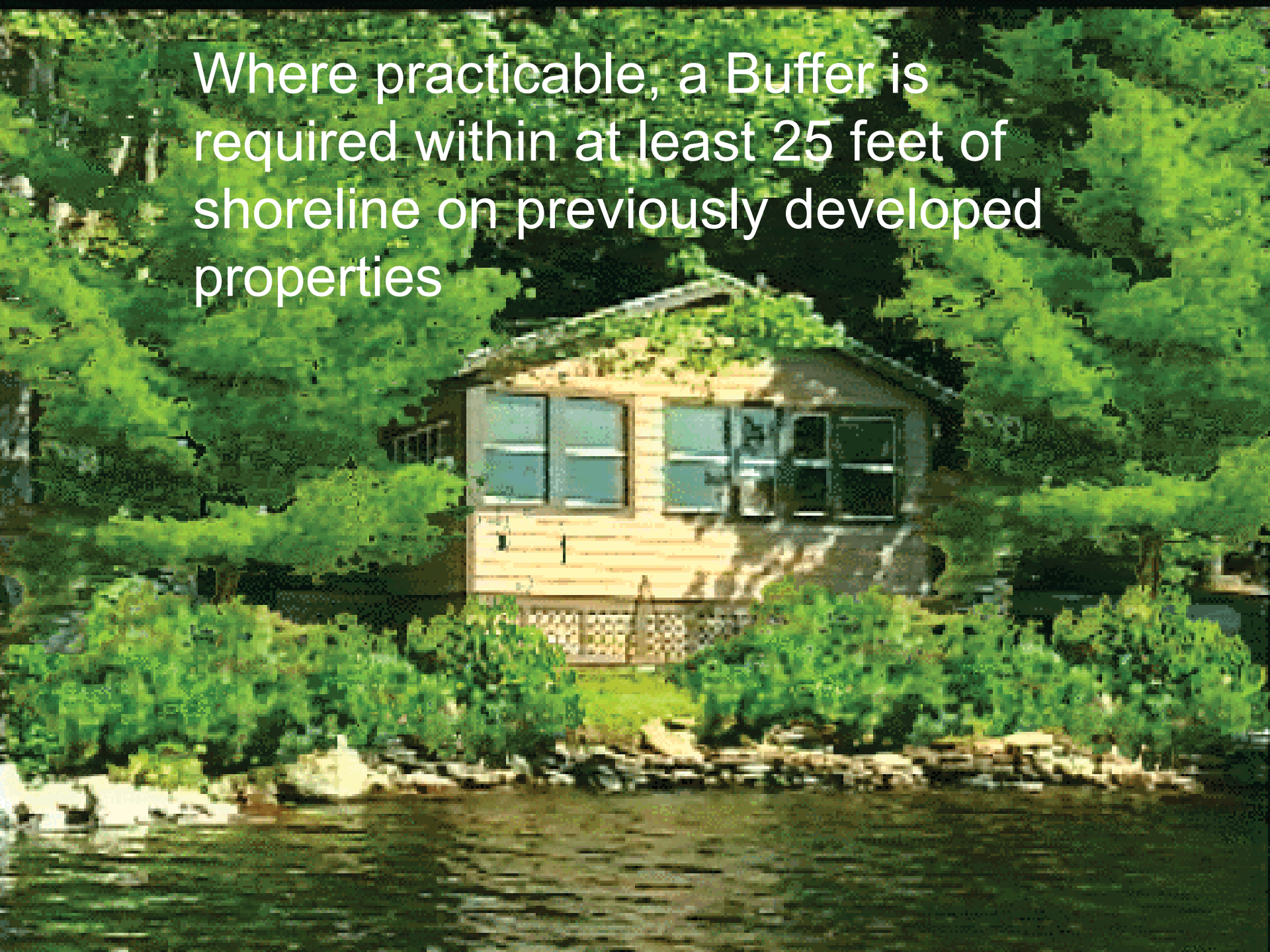
- Pumping records can be requested



CEO needs to maintain photo or video documentation of shore frontage areas to ensure compliance



Where practicable, a Buffer is required within at least 25 feet of shoreline on previously developed properties





Municipalities That Adopt:

standards 1-6 and four other standards,
considered **Bronze** municipality

an additional three standards to those
above, considered a **Silver** municipality

an additional six standards to those above,
considered a **Gold** municipality



