

Shoreland Overlay Zoning

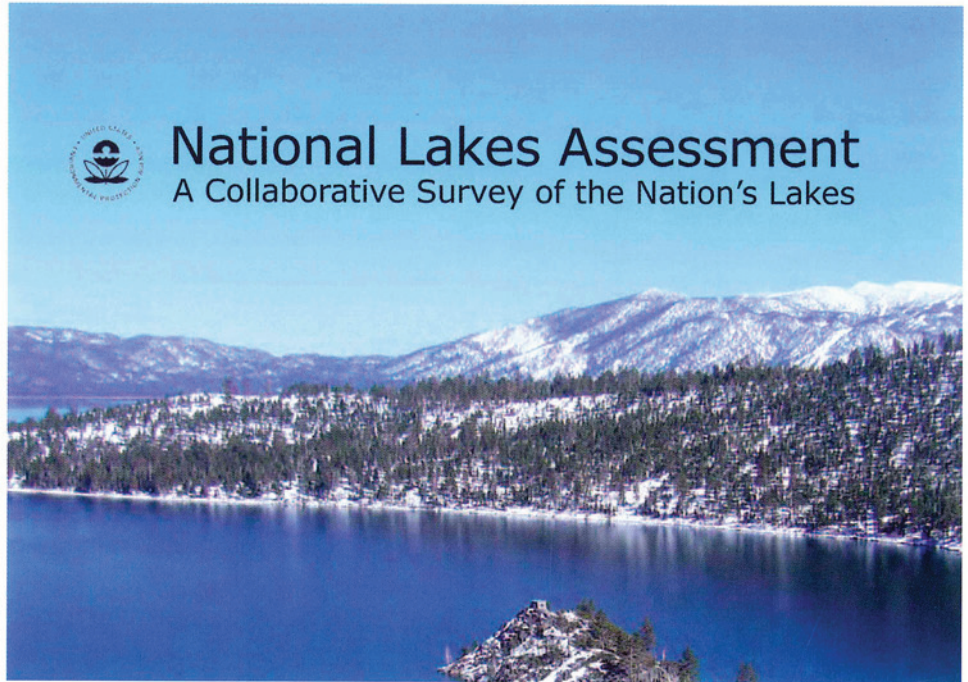
By: Tony Groves

Water Resources Practice Leader, Progressive AE

In a recent nationwide assessment conducted by the US Environmental Protection Agency, loss of shoreland habitat was found to be the greatest stressor of the nation's lakes (USEPA 2009). Lakes with poor shoreland habitat were three times more likely to be in poor biological condition. These findings underscore the need to promote restoration and preservation of natural shoreline areas. One way this might be accomplished is through the establishment of an overlay zoning district.

In an overlay zoning district, development must meet all the conditions of the underlying zoning district in addition to the provisions of the overlay district. Essentially, overlay zoning is the application of an additional set of regulations to an established zoning district. Overlay zoning can be used to ensure that uniform regulations are in place across several zoning districts or political jurisdictions where zoning rules may vary. Overlay zones can be used to protect areas with special characteristics such as floodplains, stream corridors, watersheds, and high risk erosion areas.

The sample regulation presented in this article is a "shoreland" overlay district for lakes. The intent of the regulation is to limit certain activities within shorelands adjacent to lakes to help prevent water quality problems. Shoreland regulations would only apply to new development; existing structures and situations would be nonconforming and allowed to continue. However, use of shoreland regulations in combination with a vigorous public education program for existing



nonconforming properties could be an effective approach to help protect and restore vital lake shorelands.

A key component of lake shoreland overlay regulations can be a requirement for a shoreline vegetative buffer. In addition to aesthetic appeal, vegetated buffers can enhance fish and wildlife habitat and help to protect water quality by controlling erosion and reducing runoff.

Shoreland regulations can be enacted either as a stand-alone ordinance or as a general provision of a zoning ordinance. The community's master plan should cite the need to preserve and protect lake shorelands to provide justification and legal support for a shorelands protection regulation.

A possible first step toward implementing shoreland regulations would be to review existing land use regulations in your community to see if shoreland regulations and issues are adequately addressed. If not, it would be wise to request assistance from a professional community planner or a municipal attorney to determine the best way to integrate shoreland regulations into your community's planning and zoning documents. The sample ordinance language included in this article was developed jointly by Progressive AE and LSL Planning, Inc. and may provide a good starting point to begin discussions with your local planning and zoning officials.



Land use planning and zoning in Michigan is largely in the hands of local units of governments such as townships. This “home rule” approach to planning and zoning allows many zoning decisions to be made locally. However, the resulting “fragmented authority” can present a major challenge to watershed management efforts, especially in watersheds with multiple political jurisdictions. Several states, such as Maine, Minnesota, and Wisconsin have adopted state-wide shoreland zoning regulations. These regulations establish uniform setbacks for homes and structures, restrictions on certain uses in shorelands, and require shoreland vegetation be preserved to the extent practical. Michigan’s Natural Rivers Program affords some of these protections to designated river stretches; however, in Michigan there are no state-wide shoreland regulations for lakes. Loss of shoreline habitat and the attendant adverse ecological impacts have been well documented (U.S.

Environmental Protection Agency 2009; U.S. Geological Survey 2006; Schindler et al. 2006; Merrell et al. 2009; Francis 2009). Given the importance of preserving natural shoreland habitat and cover, maybe it’s time for Michigan to consider statewide shoreland protection standards.

References

U.S. Environmental Protection Agency. 2009. National lakes assessment: A collaborative survey of the nation’s lakes. EPA 841-R-09-001. U.S. Environmental Protection Agency, Office of Water and Office of Research and Development, Washington D.C.

U.S. Geological Survey 2006. Evaluating the effects of nearshore development on Wisconsin lakes. Fact Sheet 2006-3033

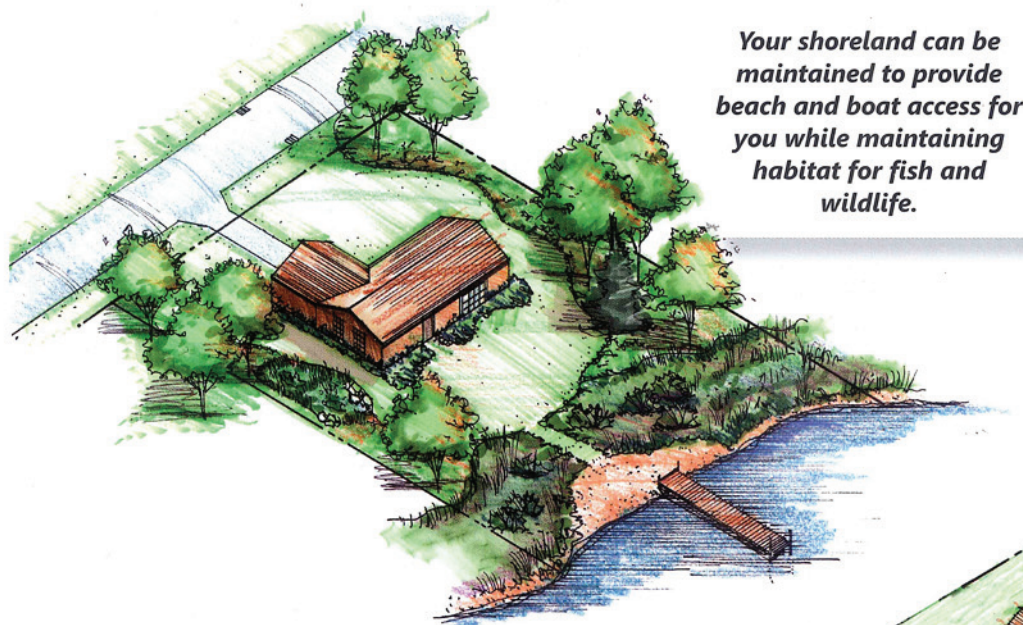
Schindler, D.E., S.I. Geib and M.R. Williams. 2000. Patterns of fish growth along a residential development gradient in north temperate lakes. *Ecosystems* 3:229-237.

Merrell, K., E.A. Howe, and S. Warren. 2009. Examining shorelines, littorally. *Lakeline*, 29(1): p. 8-13.

Francis, T.B. 2009. Urbanization vs. natural habitat. *Lakeline*, 29(1): p. 14-17.

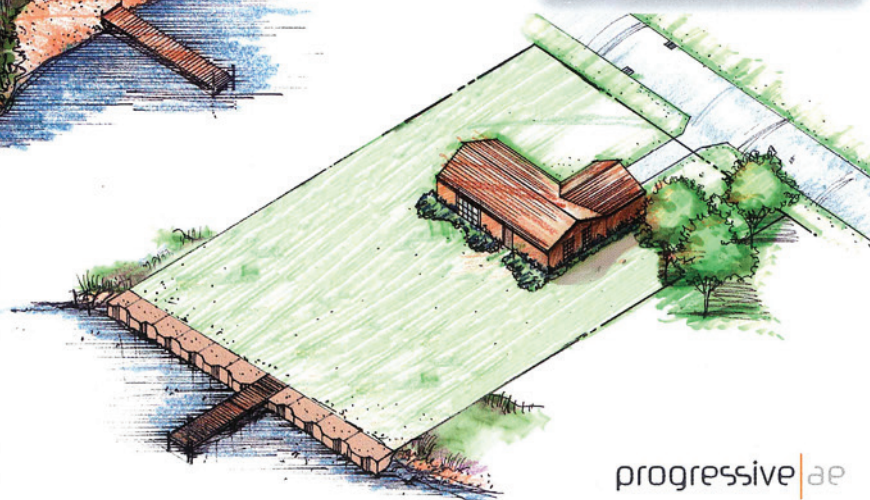
To find out more, visit:

- <http://water.epa.gov/type/lakes/shoreland.cfm>
- www.shoreline.msu.edu
- www.lowimpactdevelopment.org
- www.michiganlakeinfo.com



Your shoreland can be maintained to provide beach and boat access for you while maintaining habitat for fish and wildlife.

Failure to preserve some of the natural features of the shoreland will diminish the quality of your lake.



“The Wisconsin Department of Natural Resources has estimated that unbuffered developed sites contribute **five times** more runoff, **seven times** more phosphorus, and **eighteen times** more sediment to a lake than naturally forested sites.”

Source: EPA National Lakes Assessment Report.

progressive|ae

(Continued on page 10)

SAMPLE SHORELAND OVERLAY DISTRICT

SECTION 1 PURPOSE AND APPLICATION

- A. The purpose of this District is to recognize the unique physical, environmental, economic, and social attributes of lakes and shoreland properties in _____ Township, to ensure that the structures and uses in this District are compatible with and protect these unique attributes. Other specific purposes include the prevention of water pollution, preservation of wildlife habitat, protection from the negative effects of erosion and storm water runoff, conservation of natural beauty and open space, and management of development in sensitive shoreland areas.
- B. The Shoreland Overlay District is a supplemental District which applies to certain designated lands, as described in this Section and illustrated on the _____ Township Zoning Map, simultaneously with any of the other Zoning Districts established in this Ordinance, hereinafter referred to as the "underlying" Zoning District. The Shoreland Overlay District includes all lands located within five hundred (500) feet of the shoreline of the lakes in the township. In cases where a parcel is partially inside and partially outside of the Shoreland Overlay District, only those portions located within the Overlay District are required to comply with the requirements of this district.
- C. All other requirements, including parking, signs, and other similar provisions shall be as required by the underlying zone district, except that where specific requirements of the Shoreland Overlay District vary or conflict with the regulations contained in the underlying zoning district, the stricter shall govern.

SECTION 2 DEFINITIONS

For the purposes of this Chapter, the following definitions shall apply.

- A. **Lot Coverage** - The part or percent of a lot occupied by impervious surfaces, including, but not limited to, buildings or structures, paving, drives, patios, and decks.
- B. **Natural Vegetative Cover** - Natural vegetation, including bushes, shrubs, groundcover, and trees, on a lot. Lawn shall not qualify as natural vegetative cover.
- C. **Shoreline** - The ordinary high water mark on a lot or parcel of land.
- D. **Shoreline Vegetative Buffer** - The area along the shoreline maintained in natural or planted vegetation.
- E. **Structure** - Includes anything constructed or erected, which requires permanent location on the ground or attachment to something having such location. The term "building" shall mean the same.

SECTION 3 DEVELOPMENT REQUIREMENTS

- A. **Permitted Uses**: With the exception of uses and activities prohibited herein, the following uses of land and structures shall be permitted in the Shoreland Overlay District: Permitted Uses and Special Land Uses permitted in the underlying District, provided that Special Land Uses meet the requirements of Chapter * (Special Land Use chapter).
- B. **Prohibited Uses**: The following uses and activities shall be specifically prohibited in the Shoreland Overlay District:
 - 1. Confined Feedlots
 - 2. Slaughterhouses
 - 3. Gas Stations
 - 4. Auto Repair Shops, either major or minor repairs and including oil change establishments
 - 5. Auto Washes, either self service or automatic
 - 6. Hazardous Waste Storage Facilities
 - 7. Petroleum Storage Facilities
 - 8. Landfills, Salvage or Junkyards
 - 9. The construction of a canal, channel, or any artificial waterway
 - 10. Any other use not specifically permitted in the underlying Districts
- C. **Lot Area, Width, Yard, Building Area, Height, and Setback Requirements**
 - 1. Except as noted below, minimum requirements for lot area, lot width, yards, building area and building height shall conform to those required by the underlying District.
 - 2. The following additional requirements shall apply for structures within the Shoreland Overlay District.
 - a) As of the effective date of this Ordinance, all dwellings or other main buildings or accessory buildings shall be set back a minimum of twenty-five (25) feet, as measured from the shoreline.
 - b) No dwelling shall be constructed or placed on lands which are subject to flooding.
- D. **Shoreline Vegetative Buffer**
 - 1. A vegetative buffer bordering the lakes of the Township shall be maintained along the shoreline. Lawn shall not qualify as natural vegetative buffer under this section. The minimum width of the buffer, as measured from the shoreline, shall be twenty five (25) feet.
 - 2. Within the shoreline vegetative buffer, no more than an aggregate of twenty (20) feet for each one hundred (100)

SAMPLE SHORELAND OVERLAY DISTRICT

feet of shoreline may be cleared to afford lake access, provided that the clearing does not cause erosion or sedimentation. Since the intent of the vegetative buffer is water quality protection, the lake access area must be covered in lawn or other vegetative groundcover. Impervious materials such as asphalt or concrete shall not be used within the shoreline buffer area.

3. The Zoning Administrator may allow limited clearing of the vegetative buffer when required for construction of a permitted building or structure outside the vegetative buffer, provided that the land cleared is returned to a vegetative state of approximately the same quality as that which existed prior to clearing and is equally effective in retarding runoff, preventing erosion, and preserving natural beauty, and the functionality of the vegetative buffer.
4. These provisions shall not apply to the removal of exotic, noxious, dead, diseased, or dying vegetation or trees that are in danger of falling, causing damage to dwellings or other structures.
5. The shoreline vegetative buffer shall not be used for any motorized vehicular traffic, parking, or for storage of any kind, including junk, waste, or garbage, or for any other use not otherwise authorized by this Ordinance.

E. **Lot Coverage and Natural Vegetative Cover**

1. Notwithstanding the requirements of the underlying zoning district, lot coverage shall not exceed forty percent (40%).
2. At a minimum, lots shall maintain a minimum of thirty percent (30%) of the entire lot area in natural vegetative cover. To the extent practical, natural vegetative areas shall be maintained along lot lines, the shoreline, natural drainage courses, wetlands, and steep slopes. On lots bordering lakes, the Shoreline Vegetative Buffer required by this provision may be included as part of the Natural Vegetative Cover.
3. In the case of planned unit developments, site condominiums, and open space developments, each individual lot need not meet the requirements of this Section, provided that the total project or an individual phase of a project meets the requirements of this Section.

F. **General Design and Development Standards:** For all development in the Shoreland Overlay District, the following design and construction standards shall be followed:

1. Natural vegetation shall be maintained wherever possible.
2. Existing mature trees shall be maintained on site where feasible.
3. To the extent feasible, natural drainage areas should be protected from grading activity.
4. Grading shall be conducted to minimize undue compaction of site soils.
5. Buildings and structures shall be clustered as much as possible to retain open space and surrounding tree cover, and to minimize changes in topography.
6. The smallest practical area may be exposed at any one time during construction.
7. When land is exposed during development, the exposure shall be kept to the shortest practical period of time.
8. Appropriate measures shall be taken to ensure stormwater drainage will not adversely affect neighboring properties or the quality of area water resources. Where feasible, steps shall be taken to retain and infiltrate stormwater on site via bioretention facilities such as rain gardens, infiltration trenches, rain barrels, and other low impact development approaches.

SECTION 4 APPROVALS

A. Site plan approval, in accordance with the requirements of the Site Plan Review provisions of this Ordinance, shall be obtained for the following uses or buildings (including additions or extensions to these uses or buildings) that are located wholly or partially within the Shoreland Overlay District.

1. Any new or expanded Commercial establishment
2. Any new or expanded Industrial establishment
3. Multiple Family Residential Dwellings
4. For all development including single-family residential development, a site plan must show existing natural features such as trees, wetlands, steep slopes, the ordinary high water mark (if applicable); the placement of proposed structures; grading limits; areas where vegetation is proposed to be cleared; a calculation of lot coverage; areas of vegetative cover and the percent cover of vegetation; existing structures on the subject property and abutting parcels; and low impact development stormwater controls proposed to be used on the site.

B. Development within the Shoreland Overlay District must conform with all applicable County, State, and Federal, and Township statutes and ordinances including, but not limited to, Part 91, Soil Erosion and Sedimentation Control, of Michigan Act 451 of 1994. A building permit shall not be issued in the Shoreland Overlay District unless a copy of the soil erosion control permit required pursuant to Part 91 has been submitted to the Zoning Administrator.