Easy Do's and Don'ts for Lakeshore Users

Excerpted from A Guidebook for Lake Associations, written by and for lake associations in the state of Minnesota. The full text is available. Other guides of interest on the site include A Citizen's Guide to Lake Protection and Protecting Our Waters: Shoreland Best Management Practices.

Please note that the MNDNR is the Minnesota DNR, and that regulations applicable in Minnesota may or may not apply here in Michigan. Most of the information is valuable so it was printed here unchanged. Visit the Michigan DNR website for rules and regulations in our state.

Land Use/ Land Area	Do's and Don'ts	Reason
1. Site disturbance, yardwork, clearing, landscaping	**Do** keep site disturbance to a minimum, especially removal of natural vegetation and exposure of bare soil.	Site disturbance dramatically increases surface runoff and erosion that contributes phosphorus to lakes.
	Do seed and mulch bare soil within two weeks of clearing and install hay bales downslope of cleared areas.	Hay bales trap sediments and the phosphorus they carry.
	Do leave naturally vegetated areas (buffer strips) along lake shores, streambeds, road ditches, intermittent streams. Leave at least 25 feet of undisturbed buffer, with more on poor soils or steep slopes.	Buffer strips intercept runoff and filter sediment and phosphorus from water before they reach the lake or stream.
	Do plant deep-rooted, woody vegetation along lake shores, streambeds, road ditches.	Plant roots stabilize shoreline, prevent erosion, and take up nutrients carried by water before they reach the lake.
	Do preserve natural topography and natural drainage systems.	Natural drainage systems evolve over years and effectively control sediment and phosphorus.
	Do use fertilizer sparingly and in multiple applications. Hay mulch is preferable.	Solid, inorganic fertilizers are readily dissolved by water and transported in runoff.
	Don't use herbicides and pesticides in excess on your garden and lawn. Avoid their use if possible.	Many of these products are toxic and can get into the water.
	Don't put leaves, branches or any kind of organic matter into the lake.	Plant debris adds phosphorus and other nutrients directly to the lake.
2. Shore frontage	**Do** leave existing rocks in place along shore. Add rip rap if erosion control is necessary (MNDNR permit necessary).	Large rocks are the most effective buffer against erosion because they diffuse wave action.
	Do minimize shoreline alteration,	Shorelines are generally stable due

	such as removal of vegetation, construciton of piers, breakwaters, etc. (Shoreline alteration requires MNDNR permit.)	to years of wind, wave, and ice action. Alteration of the natural shoreline destabilizes the shoreline, increases erosion, and impairs fish and wildlife habitat.
3. Tree cutting, forestry	**Do** leave trees along the shoreline or streamfront. Consult shoreland zoning laws before cutting- harvesting limitations may apply.	Trees and natural cover best protect against shoreline erosion and sedimentation of lakes. Trees take years to grow and only minutes to cut down.
4. Septic systems	**Do** check sludge level in septic tank every year. Pump when sludge fills half of the tank (average is every 2-3 years for year- round residents, 5-6 years for seasonal residents).	Septic systems must be maintained if they are to function properly. If settled solids are not removed from the tank, they will wash into and clog the leachfield.
	Do organize neighborhood septic tank pumping.	Pumpers usually reduce the price for large volume jobs.
	Do conserve water and give the septic system time to "rest" after heavy use.	The less water you use, the better your septic system will work.
	Don't flush strong cleaning agents (drain cleaner, bleach) into your septic system.	Septic tanks are living systems. Strong cleaners kill the microorganisms that break down the waste.
	Don't flush cigarette butts, paper towels, etc., down the toilet.	These items fill up the septic tank quickly and cannot be broken down by microorganisms.
	Don't install or use an in-sink garbage disposal.	Ground up garbage overburdens your septic tank and slows its functions.
	Don't use commercial products that claim to clean your septic tank without pumping.	These products can cause clogging of your leachfield and may contain chemicals that can contaminate groundwater.
	Don'tput paint or chemicals into the septic system.	These hazardous products kill microorganisms in the septic tank and contaminate drinking and lake water.
5. Detergents	**Do** use nonphosphate detergents. (Products to use are available from some lake associations.)	Phosphate detergents add more phosphorus to the lake and, thus, contribute to algal growth.
	Don't wash cars near lakes, streams, or drainage ditches.	Runoff containing phosphorus will put phosphorus directly into the water. Runoff should be diverted to vegetated surfaces and allowed to seep into the ground, where phosphorus can be removed.
6. Surface runoff from developed areas (driveways,	**Do** prevent water from running directly into lakes and streams. Detain in depressions or divert flow	Flowing water contains sediment and phosphorus. Detaining or dispersing water allows it to filter into the soil,

roofs, lawns)	to flat, wooded areas.	where sediment and phosphorus are filtered out.
7. Roads	**Do** plant vegetative buffer strips along roads and stabilize road ditches by seeding or rip rapping.	Plants slow runoff from roads and help to remove sediment and phosphorus before they reach lakes or streams.
	Don't allow water to run directly off roads into lakes or streams.	Water running off roads contains sediment, phosphorus, and pollutants from cars.
8. Structures (houses, decks, sheds)	**Don't** belong close to the water. All structures must meet the required setback from the water.	State shoreland zoning statute requires setback from shore because shoreline disturbance dramatically increases sedimentation of the lake.
9. Sand beaches	**Don't** build new beaches. (New beaches require MNDNR permit.)	Sand contains phosphorus. Sand which is not stabilized by vegetation washes into the lake, where it accelerates filling of the lake and provides poor bottom habitat for fish and wildlife.
10. Fill/dredge	**Don't** fill or dredge unless necessary. Both activities require a permit from MNDNR.	Fill and dredge stir up sediment and impair natural habitat.
11. Storage of hazardous materials	**Do** store hazardous materials in a contained area.	Containment prevents contamination of water supplies and lake waters by undetected leaks.
	Don't dispose of paint thinners or chemical products on the ground.	These products cannot be removed by soil and can contaminate groundwater and lake water.