

Respondent:

Todd Haines
District Manager,
Division Of Wildlife, District #5
1076 Old Springfield Pk,
Xenia OH 45385
todd.haines@dnr.state.oh.us
937-372-9261

Question From Summit Or From Audience Cards	Response
Are the penalties for discharging into the watershed significant enough to defer such conduct?	While in most cases the maximum fine for a stream litter violation, ORC 1531.29, may be enough to defer an offender, our challenge is getting the courts to impose the maximum fine. The maximum fine is \$500 for the first offense and \$1000 for each subsequent offense. If the offender is a corporation the maximum fines increase to \$3000 and \$5000 respectively. Should the discharge result in a wild animal kill a civil claim is submitted to the offender, the cost of which can be substantial.
How much do geese droppings contribute to excess nutrients in the lake?	Goose droppings have very little impact on the nutrient loading of Grand Lake St. Mary's relative to sources such as animal concentration areas (feedlots) and agricultural/ rural land. A study conducted in 1981 by the U.S. Army Corps of Engineers estimated waterfowl droppings (including geese) accounted for 0.6% of the Phosphorus loading in Grand Lake St. Marys as compared to 22.6% from animal concentration areas, and 62.9% from agricultural/ rural land.
Does a lower level of water have a negative impact on water quality, fishing and oxygen levels?	In general, a shallow lake such as Grand Lake St. Marys would benefit from having high lake levels as opposed to low lake levels. When the lake is high (i.e. at spillway elevation or higher), it is much easier for anglers in boats to get access to their favorite fishing spots along shorelines or in channels. All things being equal, greater water depth provides more habitat for fish. Increased water depth provides a larger volume of water that can lessen the risks of potentially low oxygen levels. Also, increased water depth and the associated increased volume can act to "dilute" a given quantity of excess nutrients delivered from the watershed. Although these general benefits of high water levels are clear, it is impossible to quantify the impacts to fishing or water quality if lake levels were actively lowered.
What is the level of oxygen in the lake. Has there been any test for oxygen? If the lake is so degraded why do we allow swimming or other activities?	Grand Lake St. Marys is the water supply for the St. Marys State Fish Hatchery. For years, the fish hatchery staff has routinely measured dissolved oxygen levels in the lake from April through September. Dissolved oxygen concentrations in Grand Lake St. Marys fluctuate both seasonally and daily. One of the basic physical properties of water is that cold water holds more dissolved oxygen than warm water. Although spring and fall dissolved oxygen levels are much higher than summer levels, summer oxygen levels are usually adequate to support fish life. However, severely low oxygen levels have been observed numerous times during the summer.

	<p>Excessive nutrient input to the lake causes an overabundance of algae. During daylight hours, photosynthetic activity by these microscopic plants produces large amounts of oxygen. During night time, however, algae (just like all green plants) use up oxygen. As a result, dangerously low dissolved oxygen levels have been documented in the early morning hours on some summer days, both in the main lake and in selected channels.</p> <p>In cooperation with the Ohio Department of Health, and as required by Ohio Revised Code Sections 1541.032 and 3701.18, the Ohio Department of Natural Resources, Division of Parks & Recreation collects samples and tests the water at the state park beaches to protect the bathing public from risks of contracting waterborne diseases from exposure to contaminated waters. If necessary, the Director of Health notifies the state park to post advisory signs indicating bacteria levels in the water tested present a health risk to swimmers.</p>
<p>Are we losing wetlands along the lake due to development? How many wetland acres are left?</p>	<p>Any development that impacts wetlands needs to go through the Section 404 Corps of Engineers permit process. Through this process, wetland acres impacted by development are replaced in the same watershed, the end result being a “no net loss” of wetland acres.</p> <p>There are currently 803 acres of wetlands in the Grand Lake St. Marys watershed, the majority of which are located along or near the lake. The Division of Wildlife along with conservation groups including Pheasants Forever, Ducks Unlimited, and local sportsman’s clubs are continuously putting efforts into protecting, restoring, and creating new wetlands in the watershed.</p>
<p>Do the boat races cause erosion and mixing of nutrients?</p>	<p>We assume that the question pertains to the Governor’s Cup Regatta held each year in August. For 2 days, approximately 80 speed boats compete over a 1-mile long oval course in proximity to Celina on the west end of the lake. Much of the shoreline in proximity to the race area is already protected by concrete and rip rap. Grand Lake St. Marys is approximately 9 miles long by up to almost 3 miles wide. As compared to the 2-day boat races, natural wind-induced wave action causes the majority of shoreline erosion and nutrient mixing throughout the lake</p>
<p>Explain the effects of the high nitrate level of the fish in the St. Marys and Wabash? It was on T.V.</p>	<p>We are not familiar with a TV story that dealt with nitrate levels in the St. Marys and Wabash rivers. However, in 1999 the Ohio Environmental Protection Agency (OEPA) evaluated the water quality and biological health of the Ohio portion of the Wabash River and its tributaries (including tributaries to Grand Lake St. Marys). Results are available at http://www.epa.state.oh.us/dsw/documents/wabash2001_infographic.pdf, including the following: “High nutrient levels in most small streams prohibited normal aquatic life to live in them. Poor water quality created toxic conditions at many sites in the basin. The lack of good habitat made these conditions worse.”</p>