



Senate Natural Resources Committee  
12/2/15

RE: HB 4604 – Installation of Tile Drainage Exemption

The Michigan Environmental Council opposes House Bill 4604, as passed by the House. House Bill (HB) 4604 would no longer require individuals to obtain a soil erosion and sedimentation permit for installation of drainage tiles on agricultural lands. The installation of drainage tile involves shifting large amount of dirt to bury the tiles at the sought after depth, with the trench for the tiles having to be wider than the tiles. The risk of causing erosion during this installation is too high to be left to the determination of the installer, and should be assessed by a third party during the permitting process.

To make installing drainage tile easier is to create even more direct pipelines for dissolved nutrients and sediments to enter into the waters of the state. The effluent water leaving the pipes of a tile drain system generally contains high levels of many dissolved nutrients and sediments. These nutrients and sediments then enter abutting waterways, untreated. Many of these nutrients, such as phosphorus and nitrogen, over-stimulate aquatic plant growth and lead to eutrophication or harmful algal blooms.

Nitrate is the biggest water quality concern related to tile drainage. Because nitrate is very soluble, it flows easily through the soil and into tile lines, which are one of the main sources of nitrate in streams and rivers in the Midwest. Elevated nitrate levels can cause an increase in plant growth which can decrease oxygen levels resulting in the decline in the populations of oxygen dependent organisms. In addition to having adverse ecological effects, high levels of nitrogen, in the form of nitrates, can also be extremely harmful to human health. Nitrates can interfere with the ability of our red blood cells to carry oxygen, with infants having the highest risk of nitrate poisoning. These nitrate discharges put those most vulnerable in our society at risk of brain damage and death.

Dissolved phosphorus also has a direct path to the Great Lakes through tile drainage. Phosphorus discharges directly relate to the harmful algal blooms that are seen in Lake Erie and the Saginaw Bay, and installing standard drain tile increases the likelihood of these harmful discharges of nutrients. With the need to reduce discharges to Lake Erie by 40%, as well as taking steps to protect the other Great Lakes from these harmful blooms, all sectors, including agricultural need to take steps to reduce nutrient runoff, not make it easier.

The tile drainage exemption of 4604 is also concerning due to its erosion effects downstream from the tile. Though a drain tile may help prevent some erosion from occurring on farm fields, the amount of water that flows unimpeded through these tiles causes significant erosion in ditches and stream banks and harms the waters of our state. The state's new water strategy includes provisions stating that the effects of tile drainage need to be fully examined in order to protect the future of our water resources.

This law could jeopardize one of the world's most important freshwater resources – the Great Lakes – as well as the citizens of Michigan. We oppose the bill as introduced, and would be supportive of changing the bill to remove the exemption for installation of drain tiles.

Sincerely,

A handwritten signature in cursive script that reads "Sean Hammond".

Sean Hammond  
Michigan Environmental Council

Jennifer McKay  
Tip of the Mitt Watershed Council