

Road Salt Impacts on the Tidal Chesapeake Bay



Photo Credit: Lloyd Fox, Baltimore Sun

- Over 550,000 tons of road salt were used on Maryland roadways in the winter of 2013-2014. Such high amounts have the potential to cause minor, short term increases in salt concentrations within the tidal waters of the Chesapeake Bay. However, salinity within the Bay fluctuates seasonally so most aquatic plants and animals within the Bay are adapted to and not harmed by changing salt levels.
- Any increases in salt concentrations from road salt are usually brief due to the turnover of water volume that occurs within the Bay from natural flushing into the Atlantic Ocean and freshwater flows from the Susquehanna River.
- Road salt can add nutrients and toxins to the Bay because as much as 2% to 5% of road salt consists of other elements, including phosphorus, nitrogen, copper, and cyanide (0.01% added as an anti-caking agent).
 - Salt within soils may also inhibit the ability of bacteria to break down nitrogen, which can increase nitrogen concentrations entering nearby waters.
- Road salt can also have harmful effects on plants and animals within streams and non-tidal waters in the Bay's watershed
 - More information on salt's effects on streams and freshwater areas can be found at:
 - <http://www.dnr.state.md.us/streams/pdfs/RoadSalt2013.pdf>
- To track salt concentrations within waterways in your area, and for water quality data throughout Maryland, please visit DNR's "Eyes on the Bay" website:
 - www.eyesonthebay.net
- You can also track the health of freshwater rivers and streams near you at Maryland's "StreamHealth" website:
 - <http://www.streamhealth.maryland.gov/>
- Additional information:
 - Effects of road salt on the environment and ways to minimize use:
 - <http://www.mde.state.md.us/programs/Marylander/Pages/roadSalt.aspx>
 - http://www.mde.state.md.us/assets/document/WINTER_2.pdf
 - <http://www.mdsg.umd.edu/news/road-deicers-could-be-making-region-too-salty>
 - <http://chesapeakestormwater.net/2009/01/winter-road-salt-and-the-chesapeake-bay/>
 - State Highway Administration salt management plan and usage data:
 - http://roads.maryland.gov/oom/statewide_salt_management_plan.pdf
 - http://roads.maryland.gov/OC/Snow_Fact_Sheet.pdf