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CREP Prioritization: Mapping Sediment Loading Risk in the Saginaw Bay Basin

Background

Michigan State University Extension (MSUE) is collaborating with the State of Michigan and local stakeholders to re-establish the Conservation Reserve Enhancement Program (CREP) in Michigan. To aid in prioritizing lands eligible for CREP enrollment, the Institute of Water Research (IWR) at MSU developed township-scale maps of sediment loading risk for the Saginaw Bay basin. This book organizes those maps at the township scale.

Data -

The maps are based upon data from the United States Geological Survey's (USGS) SPAtially Referenced Regression On Watershed attributes (SPARROW) model*. The model uses observations, land use characteristics, and statistical relationships, among other variables, to estimate pollutant loads to streams and rivers. The data in this map book represents incremental sediment load contribution for each small catchment in the basin (see image at right), i.e. the amount of sediment load that originated in a particular area (not the total, accumulated amount moving through the stream in that area).

Contacts ·

Please direct questions about MSUE's project to: **Sarah Fronczak** Environmental Management Educator Michigan State University Extension <u>froncza3@msu.edu</u>

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Please use the URL below to learn more about the SPARROW model, and direct questions about the maps to: **Glenn O'Neil** Environmental Scientist Institute of Water Research - Michigan State University <u>oneilg@msu.edu</u>



* https://www.sciencebase.gov/catalog/item/5cbf5150e4b09b8c0b700df3

https://www.canr.msu.edu/outreach/

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Crystal Township





Day Township 46 Richland Home Belvidere ⁻erris E McBrides Rd Douglass 66 Stanton 1. Stanton E Stanton Rd Evergreen Sidney Source: Es 1, Maxar, GeoEye, Earlistar Geographics, GN ES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community Sediment Loading Risk 0 1 2 Miles Day Township low T Saginaw Bay Basin Data Sources moderate Counties State of Michigan: Counties, Townships & Cities high USGS: Sediment Loading Risk **Rivers and Streams** very high Map produced by the Institute of Water Research -Townships & Cities Michigan State University



Ferris Township





Home Township





Richland Township



