The Lake Michigan Coastal Program supports coordination and partnerships among local, state, and federal agencies and local organizations for the protection and sustainable use of natural and cultural resources in the Lake Michigan region. The Little Calumet-Galien Watershed, encompassing the entire area below, is the focus of the coastal program's Nonpoint Source Pollution control efforts.
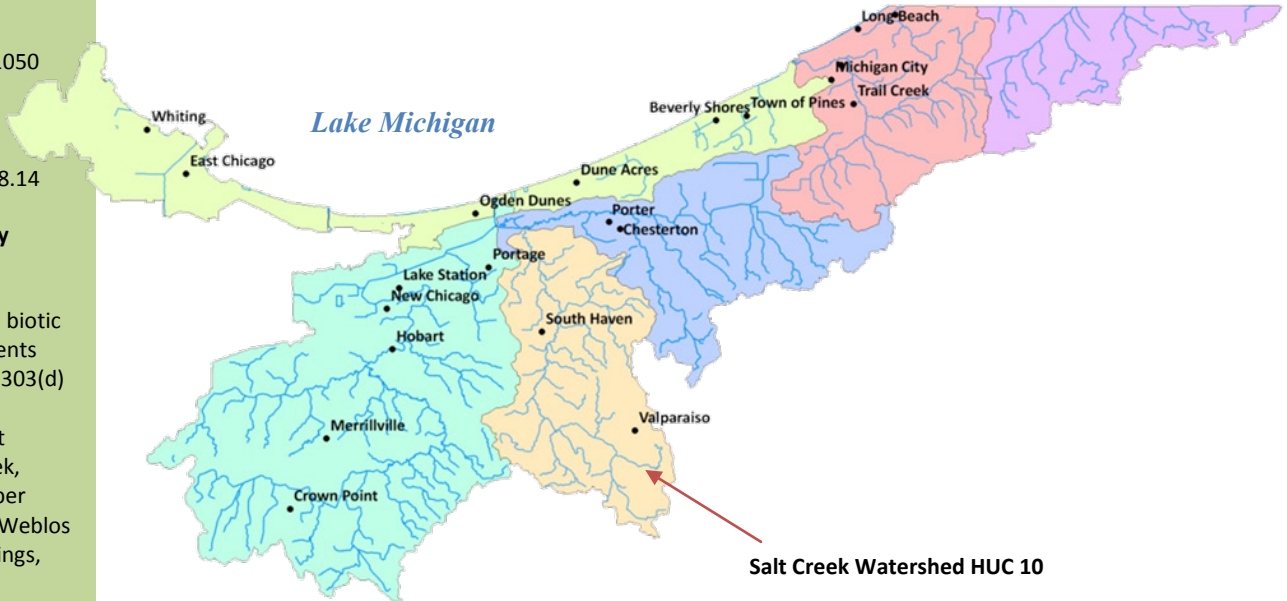
County: Porter

Watershed ID:
HUC 10 – 04040001050

Acres: 49,557

Waterway Miles: 98.14

Impaired Waterway Miles: 45.69, 47%

Impairments: Ecoli, biotic communities, nutrients Source: IDEM 2008 303(d)

Major Streams: Salt Creek, Squirrel Creek, Robbins Ditch, Pepper Creek, Block Ditch, Weblos Trail, Butternut Springs, Beauty Creek

Salt Creek Watershed HUC 10

Management Efforts in the Watershed

Salt Creek Watershed Management Plan
Year: 2008
Hydrologic Unit Code (HUC): Plan completed at the 11-digit level. 04040001050
Plan Coordinator: Save the Dunes Conservation Fund: Water Resources Division
Contact Information:
Water Program Director, 444 Barker Rd. Michigan City, IN 46360
Phone: 219-879-3564 Fax: 219-872-4875 Email: water@savedunes.org
Available at: http://www.city.hobart.in.us/16111065145437387/site/default.asp

Goal 1: Reduce nitrate by 65%, phosphorus by 66%, and sediment loading 33% by 2028.

**Goal 2**: Reduce pathogen (E. coli) concentrations by 86% by 2028.

Goal 3: Improve stakeholder and public involvement.

Goal 4: Improve biotic communities so that the density and diversity of EPT (Ephemeroptera, Plecoptera, Trichoptera) taxa improves by one scoring metric level.

E.Coli: As part of the Salt Creek Watershed Management Plan assessments were completed to determine if the watershed was impaired for E.coli. E.coli is a bacteria associated with the intestinal tract of warm-blooded animals. The presence of E.coli in water is a strong indication of the presence of sewage or animal waste contamination. Sources of E. coli can be, but are not limited to, runoff from animal pastures and livestock pens, poorly functioning septic systems, runoff from areas with high concentrations of pet waste, combined sewer systems (a sewer receiving both intercepted surface runoff and municipal sewage), illicit discharges, and natural wildlife. Most sites in the watershed exceeded the Indiana standard for E.coli with 67% of stream assessments failing to meet the standard. Mitigation activities identified in the plan include reducing agriculture sources of E.coli, reducing the occurrence of combined sewer overflows (CSOs), educating the public on septic system problems and prevention, and encouraging and educating the public to properly dispose of pet waste.

Biotic Communities: Biotic community assessments of the Salt Creek Watershed indicated poorly rated aquatic life communities. Biotic communities are all the interacting organisms living together in the same habitat. Macroinvertebrates, or animals without backbones, make up much of the aquatic biotic community in rivers and streams. Aquatic macroinvertebrates are important indicators of environmental change because they can indicate water quality. Samples of macroinvertebrates from the watershed were used to calculate an index of biotic integrity, which is used to determine water quality from the macroinvertebrates sampled. Most sites rated as moderately to severely impaired for aquatic life during the assessments. Overall, the macroinvertebrate communities reflect the elevated nutrient and E. coli concentrations and relatively poor habitat present throughout the watershed. Mitigation activities identified in the plan to improve biotic communities include restoring and managing stream bank and riparian habitat to reduce erosion, restoring natural hydrology, increasing turbulence and reducing water temperatures, and working with departments of transportation to reduce road salt impacts.

Conductivity: Conductivity is a measure of the ability of water to pass an electrical current and is useful as a general measure of water quality. Significant changes in conductivity indicate that a discharge or some other source of pollution has entered a stream. Conductivity measurements were relatively low at most sites throughout the watershed; however, several test sites exhibited conductivity concentrations in excess of the state standards during at least one sampling event.
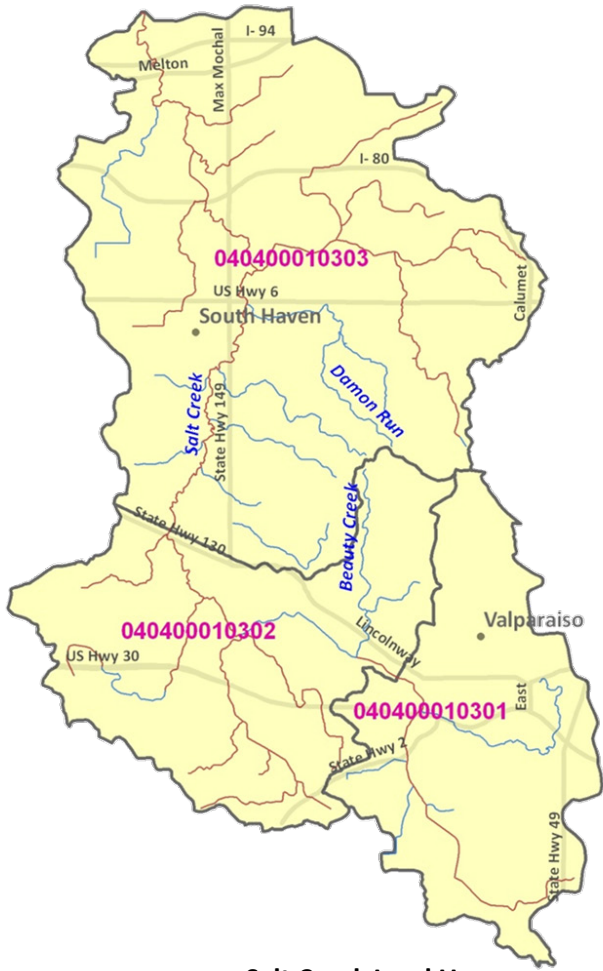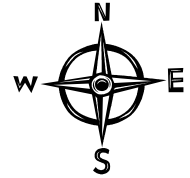
Hydrologic Unit Code: 12

Sagers Lake
- 040400010301

Clark Ditch
- 040400010302

Squirrel Creek
- 040400010303

State listed impaired waterways

Waterways

Salt Creek Land Use

Land Use	Acres
Emergent wetlands	1,011
Woody wetlands	2,723
Urban/recreational grasslands	1,748
Small grains	29
Row crops	11,426
Pasture/hay	8,663
Natural grasslands	2,086
Mixed forest	287
Evergreen forest	3,496
Deciduous forest	8,322
Commerical/transportation/industrial	1,473
High intensity residential	2,681
Low intensity residential	4,696
Open water	833

Acres
National Land Cover Dataset , 2003

Indiana Lake Michigan Coastal Program
coastal@dnr.IN.gov
http://www.in.gov/dnr/lakemich/

DNR
Indiana Department of Natural Resources