Trail Creek Watershed

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.

Management Efforts in the Watershed

Trail Creek Watershed Management Plan

Year: 2006

Hydrologic Unit Code (HUC): Plan completed at the 10-digit level 0404000101

Plan Coordinator: Sanitary District of Michigan City

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Available at: http://www.emichigancity.com/cityhall/departments/sanitary/index.htm

Goal 1: Meet the State Water Quality Standard for E. coli of a monthly geometric mean of 125 cfu/100 ml and a maximum daily standard of 235 cfu/100 ml

Goal 2: Decrease sedimentation and dredging of the navigable channel.
Total Suspended Solid goal of 15 mg/l

Goal 3: Decrease nutrient loading in Trail Creek to the target concentrations (0.05 mg/l ortho-phosphorus, 0.05 mg/l total phosphorus, 0.25 to 0.1 mg/l nitrogen ammonia, 1.0 mg/l TKN, and 10 mg/l nitrate-nitrite)

Goal 4: Maintain a natural stream channel and flow

E. coli: In 2003, the Indiana Department of Environmental Management (IDEM) issued a detailed technical report regarding excessive E. coli levels in the Trail Creek Watershed. 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. Sampling results indicate that E. coli concentrations in the watershed exceed the Indiana state standard.

Impaired water quality from the Trail Creek Watershed has closed beaches in Washington Park and has resulted in the expenditure of federal funds to continually dredge the navigable waterways of Trail Creek. Contributions of E. coli from septic systems either in areas with unsuitable soils or failing septic tanks is an identified problem within the watershed. Unsuitable soils allow rapid movement of untreated biological waste from septic systems to enter the waterway before it is properly treated. Additionally pet waste and livestock were found to be of concern in the Trail Creek Watershed. Livestock production and access of livestock to the streams is a recognized source for E. coli. Several locations were identified as specific areas of concern within the east and west branches of the watershed where livestock were either allowed direct access to the stream or where manure was allowed to run off into the stream channel. Water quality sampling within these areas confirms higher E. coli levels near or adjacent to pasture lands where livestock have unlimited access to the streams.

PCBs and Mercury: A fish consumption advisory is in effect for sections of the Trail Creek Watershed due to PCBs and Mercury. Polychlorinated Biphenyl (PCB) belongs to a broad family of man-made organic chemicals known as chlorinated hydrocarbons. PCBs were used in hundreds of industrial and commercial applications until they were banned in 1979. Products from that period still contain PCB’s, which can be released into the environment from poorly maintained hazardous waste sites, illegal or improper dumping of PCB wastes, leaks or releases from electrical transformers containing PCBs, and disposal of PCB-containing consumer products into municipal or other landfills not designed to handle hazardous waste. Once in the environment, PCBs do not readily break down and therefore may remain for long periods of time cycling between air, water, and soil (EPA, 2010).
Trail Creek Land Use

Emergent herbaceous wetlands: 729 acres
Woody wetlands: 2,997 acres
Urban/recreational grasslands: 698 acres
Small grains: 43 acres
Row crops: 7,059 acres
Pasture/hay: 6,002 acres
Natural grasslands: 2,618 acres
Mixed forest: 1,806 acres
Evergreen forest: 4,027 acres
Deciduous forest: 1,661 acres
Commercial/transportation/industrial: 1,536 acres
High intensity residential: 2,815 acres
Low intensity residential: 487 acres
Open water: 2,815 acres

National Land Cover Dataset, 2003

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