

Eighteenmile Creek Remedial Action Plan (RAP)

Draft Impairment Assessment

April 1, 1996



What is a Remedial Action Plan

Remedial Action Plans (RAPs) are part of a program developed under the jurisdiction of the U.S. and Canadian federal governments, the Province of Ontario and eight U.S. states including New York to improve water quality in designated areas of concern in the Great Lakes. These areas of concern are waters in the Great Lakes Basin where pollution problems have led to impairment of beneficial uses of the waterbody (for example: restrictions on swimming, drinking the water or fish consumption) or local environmental standards are not being met. The International Joint Commission (IJC) between the United States and Canada has designated 43 areas of concern, one of which is Eighteenmile Creek. A RAP is an integrated whole ecosystem approach to remediating impaired water bodies.

Why is there a RAP

The Eighteenmile Creek area of concern is located in the Town of Newfane, Niagara County in western New York. The Creek flows from the south, draining approximately 9000 acres and discharges into Lake Ontario approximately 18 miles East of the mouth of the Niagara River.

The Eighteenmile Creek area of concern extends from the mouth of the creek to the farthest point upstream at which backwater conditions exist during Lake Ontario's highest monthly average lake level. This point is located just downstream of a dam in the hamlet of Burt. It is approximately two miles upstream of the mouth of the creek.

Eighteenmile Creek has a long history of industrial use. When the Erie Barge Canal started operation, the City of Lockport became a major transportation and industrial hub in western New York State. The combination of the shipping traffic and the availability of hydro power from the canal descending the Niagara Escarpment spawned numerous industries in the city. The city has been home to textile and saw mills, chemical manufacturers, foundries and metal fabricators, auto parts manufacturing, manufactured gas production and a host of other industries. This historic development in the watershed has contributed to the condition of the creek.

What is the the RAP Process

The process for the development of the Eighteenmile Creek RAP is as follows:

- Assess the impairments - Identify the impairments to beneficial uses of the creek.
- Identify the causes of the impairments - Identify the substances or physical conditions that are causing the use impairments.
- Identify sources of pollutants - Identify sources of substances and physical disturbances found to be causing the impairments.
- Develop remedial actions - Develop a coordinated plan of actions that will eliminate the impairments. Emphasis is placed on using existing programs and funding sources in the planning.

Draft Impairment Summary For Eighteenmile Creek

Restrictions on Fish and Wildlife Consumption: Impaired

Are there warnings about eating fish from the creek?

The State Health Department advises not to eat any fish caught in Eighteenmile Creek. This is because these fish contain PCBs at levels above state and federal guidelines.

Restrictions on Drinking Water Consumption: Not impaired

Has pollution in the creek resulted in restrictions on its use for drinking water?

The creek is not used for drinking water. The adjacent communities are either connected to the Niagara County Water District or utilize other sources for public water supply.

Beach Closings: Not impaired

Has pollution in the creek caused public beach closings? There are no public beaches on the creek. Krull Park beach, on Lake Ontario near the outlet of the creek, has not been closed due to water quality for over 20 years.

Tainting of Fish and Wildlife Flavor: Not impaired

Is the flavor of fish and wildlife affected by chemicals from the creek? There have been no reports of fish tainting to DEC and the chemicals known to cause this problem were not detected in a recent sampling of the creek water.

Degradation of Fish and Wildlife Populations: Unknown

Are pollution or physical disturbances in the creek causing smaller or less diverse populations of fish, birds and animals? Fish and wildlife habitat in the wetland above the Rt. 18 bridge is productive, however, no year round fish and wildlife population surveys have been conducted.

Degradation of Phytoplankton and Zooplankton Populations: Unknown

Has pollution hurt the population of microscopic plants and animals in the water? There is no data on the populations of these organisms.

Loss of Wildlife Habitat: Not impaired

Has development caused significant loss of wildlife habitat? While the Olcott Harbor area in Eighteenmile Creek has seen considerable development the area above the Rt 18 bridge contains valuable fish and wildlife habitat.

Fish Tumors and Other Deformities: Unknown

Is pollution causing tumors or deformities in fish? Adequate data is not available to determine if fish tumors and deformities are a problem in the creek.

Bird or Animal Deformities or Reproductive Problems: Likely Impaired

Is pollution in the creek causing bird or animal deformities or reproductive problems? While there is no information about the frequency of bird or animal deformities or reproductive problems, chemical contaminant levels in adult fish from the creek make them likely.

Degradation of the Benthos: Impaired

Are chemicals harming bottom dwelling organisms in the creek? Sediment contamination and toxicity testing data and surveys of the benthic organisms in the creek show that the benthic population is moderately impaired.

Restrictions on Dredging Activities: Impaired

Is sediment contamination interfering with dredging operations in the creek? Restrictions were placed in 1988 on dredging of certain areas in the harbor due to contaminated sediments.

Added Cost to Agriculture or Industry: Not impaired

Does water from the creek require treatment before it can be used for irrigation, livestock or industrial use? There is no agricultural or industrial use of creek water in the area of concern.

Eutrophication or Undesirable Algae: Not impaired

Are nutrients in the water (i.e. phosphorus or nitrogen) causing excessive algae or aquatic plant growth? There are no indications of algae blooms or excessive algae growth in the area of concern. There is considerable growth of duckweed along the creek but this does not indicate eutrophication.

Degradation of Aesthetics: Not impaired

Does water pollution hurt the aesthetics of the creek? No water quality problems that affect the aesthetics of the creek have been noted.

How Can You Help with the Eighteenmile Creek RAP

The Eighteenmile Creek RAP is being developed by the New York State Department of Environmental Conservation. A group of concerned citizens, industries and government agencies have formed a Citizens Advisory Committee (CAC) to work with the DEC on the development of the RAP.

The Eighteenmile Creek CAC needs strong input from the public to succeed. The public can provide essential information with regard to the past and present uses and problems with the creek and provide needed input into the planning for future use and remedial activities to be undertaken.

For more information on the Eighteenmile Creek RAP or if you would like to become involved in its development, please contact NYS Department of Environmental Conservation, Region 9 at (716) 851-7070.