

## WHAT IS THE EIGHTEENMILE CREEK AREA OF CONCERN (AOC) ?

Local, state and federal officials identified a section of Eighteenmile Creek as one of 42 "Areas of Concern" (AOC) in the Great Lakes Basin. Eighteenmile Creek received this designation because of poor water quality and contaminated sediments present throughout the watershed. Eighteenmile Creek's long history of use by major industries in the area, especially near the City of Lockport and Town of Newfane, has played a large role in the present condition of the creek.

## WHAT IS THE EIGHTEENMILE CREEK REMEDIAL ACTION PLAN (RAP) ?

A RAP is an integrated, whole ecosystem approach to remediating impaired water bodies. The RAP first identifies use impairments, their causes, and contaminant sources, using existing studies and data. Next, existing cleanup and regulatory programs which apply to the water body are identified. A coordinated cleanup strategy is then developed to eliminate the use impairments. The NYS Department of Environmental Conservation produced the Stage 1/2 RAP in 1997 in an effort to restore the integrity of the creek's ecosystem.

## WHAT IS THE EIGHTEENMILE CREEK REMEDIAL ADVISORY COMMITTEE (RAC) ?

The Eighteenmile Creek RAC is comprised of a group of local, state and federal stakeholders, representing industries, organizations and local communities with a vested interest in the health of Eighteenmile Creek. The RAC is responsible for implementing the RAP, monitoring restoration efforts, and assessing ongoing needs and conditions. After a brief hiatus, the RAC reconvened in 2005 and is currently making progress in moving the RAP forward.

# EIGHTEENMILE CREEK AREA OF CONCERN REPORT CARD 2008



## FOR MORE INFORMATION ABOUT THE EIGHTEENMILE CREEK AOC

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# REPORT CARD

The Eighteenmile Creek Area of Concern Report Card was created by the Eighteenmile Creek Remedial Advisory Committee (RAC). **The purpose of this Report Card is to give a brief overview of the health, improvements and current conditions of Eighteenmile Creek during 2008.** The Eighteenmile Creek Watershed includes – the main branch of Eighteenmile Creek, Gulf Creek Tributary, East Branch of Eighteenmile Creek (Red Creek), and augmented flow from the NYS Erie Barge Canal.

Scientific data and research that was referenced during the development of this Report Card can be found at the Area of Concern website:

[WWW.EIGHTEENMILERAP.COM](http://WWW.EIGHTEENMILERAP.COM)

This Report Card offers six “indicators” related to the management of the creek’s overall health. They are: 1) Water Quality; 2) Contamination; 3) Fish & Wildlife; 4) Public Access & Recreation; 5) Remedial Action Plan; and 6) Environmental Education & Public Involvement.

Each indicator has been further divided into several “sub-categories” to assess how specific concerns are being addressed. Each sub-category has been assigned a **letter grade** based upon past successes, current health and conditions, and trends over the past 12 years. The last column identifies action steps or immediate concerns to be addressed in order to meet restoration targets for the Area of Concern. This Report Card will be updated annually.

## EIGHTEENMILE CREEK BENEFICIAL USE IMPAIRMENTS

- 1) Fish & Wildlife Consumption - **Impaired**  
Delisting Targets → **Identified**
- 2) Degradation of Benthic Populations - **Impaired**  
Delisting Targets → **Identified**
- 3) Restrictions on Dredging Activities - **Impaired**  
Delisting Targets → **Identified**
- 4) Bird/Animal Reproductive Problems - **Likely**  
Delisting Targets → **Identified**
- 5) Fish Tumors/Other Deformities - **Under Review**  
Delisting Targets → **Identified**
- 6) Fish & Wildlife Populations - **Under Review**  
Delisting Targets → **Identified**

## TRENDS GRADING



- A** Excellent
- B** Good
- C** Fair
- D** Poor
- F** Failure

| CATEGORIES                 | GRADE   | SUCCESSES & IMPROVEMENTS | CURRENT CONDITIONS  | TREND  | NEXT STEPS |  |
|----------------------------|---|--------------------------|---|--|------------|--|
| WATER QUALITY              | Overall Water Quality in the Creek            | <b>C</b>                 | <ul style="list-style-type: none"> <li>NYSDEC is currently studying contaminant loadings to Lake Ontario.</li> <li>A Stressed Stream Analysis project assessing sediment/nutrient loading began in 2008.</li> <li>Annual “Clean-Sweeps” continue to be a success.</li> </ul>  | <ul style="list-style-type: none"> <li>The AOC is a Class B/C stream indicating that the primary use is contact recreation and fishing.</li> <li>NYSDEC monitors water quality via the Rotating Intensive Basin Study (RIBS) program and State Pollutant Discharge Elimination System (SPDES) program.</li> </ul>  | ↔          | <ul style="list-style-type: none"> <li>A citizen water quality campaign should be pursued.</li> <li>Contaminated sediments within the watershed must be identified.</li> <li>Annual “Clean-Sweep” events should continue to occur throughout the watershed.</li> <li>Unknown sources of water quality impairments must be identified.</li> </ul>                           |
|                            | Quality of Stormwater Entering the Creek      | <b>C</b>                 | <ul style="list-style-type: none"> <li>Floodplain data was updated by FEMA in 2008.</li> <li>Storm drains have been mapped in the Town of Newfane and drain markers have been placed.</li> <li>Storm water outfalls to the creek have been identified.</li> </ul>   | <ul style="list-style-type: none"> <li>Between 2003 and 2005, the mean storm event concentrations of phosphorus and total suspended solids were more than double than the mean concentrations during non-event conditions.</li> <li>13 Combined Sewer Overflows remain in Lockport.</li> </ul>   | ↔          | <ul style="list-style-type: none"> <li>All storm water outfalls should be sampled and monitored for illicit discharges to the creek.</li> <li>Remaining Combined Sewer Overflows require attention.</li> <li>Continue with the storm water education campaign.</li> </ul>  |
| CONTAMINATION              | Spills, Discharges & Leaching of Contaminants | <b>C</b>                 | <ul style="list-style-type: none"> <li>Funding has been acquired to update and enhance the current Pollutant Generator Database.</li> <li>NYSDEC continues to investigate and manage Inactive Hazardous Waste Sites that have the potential to negatively impact the creek.</li> </ul>  | <ul style="list-style-type: none"> <li>Lockport continues to improve quality of WWTP discharge.</li> <li>5 Inactive Hazardous Waste Sites still have the potential to negatively influence the AOC.</li> <li>Unknown nonpoint source discharges negatively impact the creek.</li> </ul>  | ↑          | <ul style="list-style-type: none"> <li>Assist farms in the watershed through the NYS Agricultural Environmental Management (AEM) program.</li> <li>Continue to remediate Inactive Hazardous Waste Sites and other sources of contamination.</li> <li>Eighteenmile Creek Corridor Site requires special attention to achieve a de-listing of the downstream AOC.</li> </ul> |
|                            | Contaminated Sediments in the Creek           | <b>D</b>                 | <ul style="list-style-type: none"> <li>The Eighteenmile Creek Corridor Site has been added to the NYS Superfund Registry.</li> <li>A Legacy Act sediment investigation project has commenced for the main branch of the creek.</li> <li>NYSDEC has focused on numerous potential sources of contamination in Lockport.</li> </ul> | <ul style="list-style-type: none"> <li>Sediments in the AOC exceed NYS standards for a variety of contaminants, including PCBs, lead, etc.</li> <li>Contaminated sediments within the watershed continue to influence the overall health of the AOC.</li> <li>A number of historic power generation structures in the creek act as “sinks” for contaminated sediment.</li> </ul> | ↑          | <ul style="list-style-type: none"> <li>Define clean-up objectives once problem is defined.</li> <li>Funding for a full scale feasibility study and remedial design phase must be secured.</li> <li>Utilize Legacy Act to remediate the present contamination.</li> <li>Continue to identify new funding sources for sediment related work in the watershed.</li> </ul>     |
| FISH & WILDLIFE            | Fish & Wildlife Diversity & Populations       | <b>B</b>                 | <ul style="list-style-type: none"> <li>A 2007 investigation indicates strong fish &amp; wildlife diversity and population structure.</li> <li>32,500 fish stocked by NYSDEC in 2008.</li> </ul>   | <ul style="list-style-type: none"> <li>Large concentrations of coho and chinook salmon and brown trout migrate from Lake Ontario each fall. The area supports substantial natural reproduction by bass, northern pike and black crappie.</li> </ul>  | ↔          | <ul style="list-style-type: none"> <li>Continue to support Olcott Harbor Pen Rearing Project.</li> <li>Monitor wetland bird and amphibian populations through the Marsh Monitoring Program.</li> <li>Contaminated sediments affecting fish &amp; wildlife require attention.</li> </ul>  |
|                            | Contaminant Levels in Fish & Wildlife         | <b>D</b>                 | <ul style="list-style-type: none"> <li>Fish contaminant study indicates high levels of PCBs in fish flesh.</li> <li>Fish tumor study indicates a low # of internal tumors which is consistent with control sites.</li> </ul>  | <ul style="list-style-type: none"> <li>Fish consumption advisories exist for the AOC and the upper watershed.</li> <li>Contaminated sediments within the AOC are extremely bio-available.</li> </ul>   | ↔          | <ul style="list-style-type: none"> <li>A Trophic Trace Food Web Study should be initiated to assess the potential human health and ecological risks due to bioaccumulation of sediment-associated contaminants.</li> <li>Remediate upstream sources and contaminated sediments.</li> </ul>   |
| PUBLIC ACCESS & RECREATION | Public Access to the Creek & Adjacent Areas   | <b>A</b>                 | <ul style="list-style-type: none"> <li>Fisherman’s Park was improved with additional angler access to the creek through the completion of the Phase II Habitat Restoration/Angler Access Project.</li> </ul>  | <ul style="list-style-type: none"> <li>The AOC is accessible for anglers and general recreation activities from Fisherman’s Park and Olcott Harbor.</li> <li>Majority of the AOC is secluded by a steep ravine.</li> </ul>   | ↔          | <ul style="list-style-type: none"> <li>Investigate the options for land acquisition and conservation easements for properties adjacent to the AOC.</li> <li>Access improvements are needed upstream of Burt Dam to accommodate canoe enthusiasts and other recreational users.</li> </ul>  |
|                            | Aesthetics of the Creek & Adjacent Areas      | <b>B</b>                 | <ul style="list-style-type: none"> <li>Scouts from the Towns of Lockport and Newfane participated in a “Clean-Sweep” of the AOC which yielded the collection of 16 lbs of trash.</li> <li>Anglers have begun to “Pitch In” and not leave large amounts of debris, as previously observed.</li> </ul>                              | <ul style="list-style-type: none"> <li>The Town of Newfane routinely monitors Fisherman’s park for litter and other debris.</li> <li>A large majority of the creek flow originates from the Lockport Waste Water Treatment Plant, causing an excess of submerged aquatic vegetation.</li> </ul>  | ↔          | <ul style="list-style-type: none"> <li>Continue with annual AOC “Clean-Sweep” events.</li> <li>Educate adjacent landowners in proper shoreline stewardship.</li> <li>Educate and encourage recreational users of the creek to “Pitch-In” and promote a healthy ecosystem.</li> <li>Continue storm water education and outreach to stakeholders.</li> </ul>                 |
| REMEDIAL ACTION PLAN       | RAP Management                                | <b>B</b>                 | <ul style="list-style-type: none"> <li>New York AOCs have begun to collaborate as a group to identify common challenges that exist and ways to overcome these challenges.</li> </ul>  | <ul style="list-style-type: none"> <li>EPA Region 2 has funded NCSWCD to manage the Eighteenmile RAP until 2011.</li> <li>EPA Region 2 will hold annual NY AOC meetings.</li> </ul>  | ↔          | <ul style="list-style-type: none"> <li>Regular Status Reports and updates should continue to be completed.</li> <li>Additional funding opportunities require identification.</li> </ul>  |
|                            | RAC Management                                | <b>B</b>                 | <ul style="list-style-type: none"> <li>Final delisting criteria has been developed for all Beneficial Use Impairments.</li> <li>The RAC continues to evaluate the status of beneficial uses of the creek.</li> </ul>  | <ul style="list-style-type: none"> <li>RAC is comprised of a group of original members and representatives from newer interests.</li> <li>RAC meets to discuss various aspects of the RAP and to explore new opportunities to de-list.</li> </ul>  | ↔          | <ul style="list-style-type: none"> <li>Determine the impairment status of all unknown Beneficial Uses.</li> <li>Complete a complete Stage II RAP document in 2009.</li> <li>The RAC should expand its membership to include representation from all townships within the watershed.</li> </ul>   |
| ENVIRONMENTAL EDUCATION    | Public Awareness                              | <b>A</b>                 | <ul style="list-style-type: none"> <li>The AOC was used as an “outside classroom” for a class of environmental management graduate students interested in local water quality issues.</li> <li>Ongoing events like the Newfane Environmental Field Days have educated scores of students.</li> </ul>                              | <ul style="list-style-type: none"> <li>The AOC is utilized as an educational tool for elementary, secondary and collegiate education activities.</li> <li>Despite a fish consumption advisory, the AOC is visited by 12,000 anglers annually.</li> </ul>   | ↑          | <ul style="list-style-type: none"> <li>Continue to engage the public utilizing educational tools like the AOC Report Card.</li> <li>Increased media attention regarding the state of local natural resources will assist in increased public awareness.</li> <li>Place education materials in highly used areas of the watershed.</li> </ul>                               |
|                            | Environmental Stewardship                     | <b>B</b>                 | <ul style="list-style-type: none"> <li>Scouts placed stormwater markers on catch basins in the Town of Newfane.</li> <li>The Marsh Monitoring Program has attracted volunteers interested in environmental issues.</li> </ul>   | <ul style="list-style-type: none"> <li>There is an increasing but still limited amount of participation from the public in regards to watershed issues and planning.</li> </ul>  | ↔          | <ul style="list-style-type: none"> <li>Partner with sportsmen clubs and local residents to promote additional water quality stewardship activities.</li> <li>Continue with annual stewardship and education events to keep youth interested in local water quality issues.</li> </ul>  |