Summary of Reports and Monitoring Activities Ongoing or Completed in the Black and Oatka Creek Watersheds

Draft: Completed 9/18/09

GENESEE/FINGER LAKES
Regional Planning Council

Introduction

The following summary has been created in an effort to inform the Watershed Plan Project Advisory Committees in both the Black Creek and Oatka Creek watersheds with regard to completed and ongoing reports and studies that may affect the watershed planning process in either watershed. While it has been created with the intent of assisting Project Advisory Committee members with the process of deliberating upon the need for third-party consultant selection, it is further anticipated that it will inform other components of the watershed planning process in both watersheds.

The summary includes a list of all reports known by Genesee/Finger Lakes Regional Planning Council (G/FLRPC) staff that address the subjects of water quality or natural within either watershed.

Documents are listed in order of date of publication and have been organized in the following manner:

- Reports covering the geography of both the Black Creek and Oatka Creek watersheds
- Reports covering Black Creek watershed only
- Reports covering Oatka Creek watershed only

Annotations included after each document were derived from executive summaries when available.

In addition to a summary of known documents, a page has been included to account for any water quality or natural resource monitoring, inventorying or reporting actions that are either underway or anticipated to take place within either watershed.

This summary is considered to be a working draft; it is open to revision and addition. Project Advisory Committee members from both watersheds are encouraged to add to it throughout the duration of the project. Changes may be brought to the attention of Brian Slack at any point in time.

This document was prepared for the New York State Department of State Division of Coastal Resources with funds under Title 11 of the Environmental Protection Fund

Reports covering the geography of both the Black Creek and Oatka Creek watersheds

NYSDEC. Genesee County Stressed Segment Analysis. 1981.

Brief of monitoring data of the Black, Oatka and several tributaries therein.

Genesee/Finger Lakes Regional Planning Council. Genesee River Basin Action Strategy. 2004.

The Genesee River Basin Action Strategy is based on the general format developed for Watershed Restoration and Protection Action Strategies (WRAPS), first implemented for the Susquehanna and Chemung River Basins in 2001. Like the WRAPS, the Action Strategy is intended to be a concise, action-oriented document that compiles currently available information about the state of the watershed and ongoing assessment, outreach and implementation activities in a "State of the Basin" report. Such a report proposes environmental and natural resource priorities or goals in the Basin, along with measurable objectives as a strategy for achieving those goals. The process seeks to bring together all appropriate agencies and stakeholders to focus support in the form of grant dollars, technical assistance, and other resources to address the priority water quality and natural resource needs in that watershed.

Under the authority of Section 516(e) of the Water Resources Development Act (WRDA) of 1996, as amended, the United States Army Corps of Engineers agreed to assist the G/FLRPC, along with State and local watershed managers, with their evaluation, prioritization and implementation of alternatives for soil conservation and non-point source pollution prevention in the Genesee River Basin. The Genesee River Basin Sediment Transport Model is a major component of this collaborative process.

Genesee/Finger Lakes Regional Planning Council, LU Engineers. Controlling Sediment in the Black and Oatka Creek Watersheds, Task II: Identification and Analysis of the Riparian Corridor in the Black and Oatka Creek Watersheds. 2005.

Site inventory data were reviewed from previous stream inventories and assessments completed by Wyoming, Genesee and Monroe County Soil and Water Conservation District Staff for Black and Oatka Creeks. Previous inventories rated sites along the stream channels for bank condition, stream condition, erosion and sedimentation potential. An initial list of high-erosion potential sites was generated from these previous inventories. Additional sites were suggested by SWCD staff. An initial list of 41 candidate sites was developed from SWCD staff suggestions and from the stream inventories. A meeting was held with SWCD staff from Genesee and Wyoming Counties, G/FLRPC staff, and Lu Engineers where the list was further refined. Some sites were eliminated from the list due to inaccessibility or inability to obtain property owner approval for an on-site visit.

Several sites with high erosion/sedimentation potential were selected for preliminary onsite reconnaissance and further evaluation. Reconnaissance visits consisted of a site walkover and visual assessment of stream condition, erosion/sedimentation issues noted at the site, and an initial evaluation of potential site remediation or restoration methods.

Genesee/Finger Lakes Regional Planning Council. Controlling Sediment in the Black and Oatka Creek Watersheds, Task III: Municipal Law Review and Analysis. 2006.

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This report provides individual summaries of findings of a local law review and analysis for each of the 28 towns and villages in the two watersheds. It includes the findings of a comprehensive review and assessment of municipal local laws with specific regard to erosion and sediment control and other nonpoint source water quality issues. It utilized an assessment form which covered the following subject areas: development; waterways/wetlands; forestry/agriculture; recreation; onsite wastewater; roads and bridges.

New York State Department of Environmental Conservation. Division of Water. The 1996 Priority Waterbodies List for the Genesee River Basin. 1996.

This report provides an overall assessment of water quality conditions throughout the Genesee River Basin.

New York State Department of Environmental Conservation. Division of Water. The 2001 Genesee River Basin Waterbody Inventory and Priority Waterbodies List. 2003.

This report provides an overall assessment of water quality conditions throughout the Genesee River Basin.

New York State Department of Environmental Conservation. Division of Water. Bureau of Water Assessment and Management. Rotating Integrated Basin Studies Water Quality Assessment Program – The Genesee River Drainage Basin, Sampling Years 1999 – 2000. 2004.

In 1999 and 2000, the rivers and streams of the Genesee River basin were sampled as part of the Rotating Integrated Basin Studies portion (RIBS) of the Statewide Waters Monitoring Program. Results obtained through this water quality monitoring effort are contained in this report. The RIBS program objectives are to provide: an assessment of the water quality of the rivers of the state by means of a comprehensive and integrated multi-media sampling program; an analysis of long-term water quality trends; the characterization of naturally occurring or background conditions; and the establishment of baseline conditions for measuring the effectiveness of site-specific restoration and protection activities.

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Reports covering Black Creek watershed only

Autin, Whitney, Mark Noll and James Zollweg. Black Creek Watershed State of the Basin Report. SUNY College at Brockport, 2003.

The State of the Basin Report is an environmental inventory of the natural and human resources of the Black Creek Watershed. The report characterizes the watershed with respect to its physical features and cultural characteristics, identifies valuable resources within the watershed, analyzes current water quality and quantity conditions and identifies critical issues facing the watershed in the future. This report includes a geographical description of the watershed, uses of land and water from the 1970's to the present and water quality and water quantity summaries from available data. A summary of problems and risks that can affect the future of the Black Creek Watershed is presented for public consideration. Water quality risks include point sources discharges, agricultural sources of pollution and nonpoint sources from developed areas. Water quantity risks are associated with flooding and low flow conditions; it is recognized that water quantity issues may have relevance to water quality issues.

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Reports covering Oatka Creek watershed only

Tatakis, T. Watershed Evaluation and Management for Lakes LeRoy and LaGrange. 1990.

G/FLRPC does not have a copy of this document.

Sutton, W. Biological Monitoring of Oatka Creek in Upstate NY. (in cooperation with the DEC) 1995.

Aquatic macroinvertebrate populations reflect the water quality of the stream they inhabit. It is possible to monitor for changes in water quality by repeated evaluation of those populations over time. The purpose of this study was to establish a baseline for future biological monitoring of Oatka Creek and its principal tributary, Spring Creek. Three sites on Oatka and one on Spring Creek were sampled in the spring and fall of 1992 and 1993 using the NYSDEC standard method for biological monitoring with traveling kick samples. Organisms in each 100 macroinvertebrate subsample were identified to the species level wherever possible. For each sample the Hilsenhoff Biotic Index, EPT value, Percent Model Affinity and Species Richness were determined. Water quality at the three sites in Oatka Creek fell into the nonimpacted to slightly impacted ranges. The indices indicated a slight, but definite, decline in the water quality between the site closest to the Spring Creek inflow downstream to the Scottsville site. Comparison of these results with previous macroinvertebrate studies on Oatka shows no apparent change in water quality. Water quality in Spring Creek was classified as non- to slightly impacted by the Hilsenhoff Biotic Index criterion, but the other three indices indicate classifications ranging from slightly to severely impacted. In view of these inconclusive results, additional sampling is called for.

Sutton, W. Biological Stream Assessment of Spring Creek. (in cooperation with the DEC) 1995.

The NYSDEC uses Spring Creek water to operate the Caledonia Fish Hatchery. There had been complaints of degraded water and fishing quality downstream from the hatchery. A wastewater treatment facility was installed in 1992 to reduce organic loading of Spring Creek during hatchery cleaning operations. In 1994, to evaluate the effectiveness of the treatment facility in reducing the impact of the cleaning operations on the stream, a macroinvertebrate survey was conducted at five sites (three above and two below the hatchery outfall), using the standard DEC traveling kick-sampling method. Although the quantitative biotic indices showed no evidence of adverse impact by the hatchery effluent, the relative abundance of blackfly larvae and leeches at the first station below the hatchery was attributed to enrichment by organic particulates from the harchery.

Sutton, W. A 1997 Five Year Follow-up Biological Monitoring Assessment of Oatka and Spring Creeks in Upstate NY. (in cooperation with the DEC) 1999.

A baseline biological survey of Oatka Creek and its tributary Spring Creek was conducted in 1992 and 1993. This biomonitoring assessment in the Spring and Fall of 1997 compares the New York State Department of Environmental Conservation expected index values for flowing waters with those found in the baseline survey. That comparison shows no deterioration in water quality.

Sutton, W. A 1997 Five Year Follow up Biological Monitoring Assessment of Oatka and Spring Creeks in Upstate New York. (in cooperation with the DEC) 1999.

G/FLRPC does not have a copy of this document.

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Dowling, Carolyn Magdalyn Renz, Andrew Hunt and Robert Poreda. The Geochemistry of Oatka Creek, New York State. Department of Earth and Environmental Sciences University of Rochester. 2001.

This investigation on Oatka Creek was initiated by the growing concern of local residents about the condition of their watershed. The purposes of this study are to characterize the geochemistry of Oatka Creek, determine any regional geologic effects on the water chemistry, and observe any anthropogenic effects on Oatka Creek and its watershed. In 1998, 1999, and 2000, aqueous and sediment samples from Oatka Creek were collected and analyzed. Major ions and trace elements in the surface waters were measured to determine the surface water chemistry of the creek. Sediment extraction experiments were performed to clarify the role of cation exchange and adsorption/desorption reactions in controlling the trace metal concentrations in the surface waters.

The weathering products of bedrock geology influence the chemistry of the water. A combination of natural sources and anthropogenic inputs will contribute to the dissolved trace metal concentrations in the water. As shown by the data, the sediments of Oatka Creek are a sink for trace metals from anthropogenic and natural sources.

Sutton, W. A 2002 Ten Year Follow-up Biological Monitoring Assessment of Oatka and Spring Creeks in Upstate New York. (in cooperation with the DEC) 2002.

A baseline biological survey of Oatka Creek and its tributary Spring Creek was conducted in 1992 and 1993 and a five year follow-up in the Spring and Fall of 1997. This biomonitoring assessment in the Spring of 2002 compares the NYSDEC expected biotic index values for flowing waters with those found in two previous studies. That comparison shows no deterioration in water quality.

It was observed that if only the Percent Model Affinity community parameter had been used in the ten year study of Oatka Creek, the conclusion about water quality would have been the same.

Tatakis, Timothy A. The Oatka Creek Watershed State of the Basin Report. Department of Biology: Monroe Community College, 2002.

This report summarizes information pertaining to the Oatka Creek Watershed including sections on the watershed ecosystem, stream water quality, and the potential effects of humans. Section 1 of the report introduces the reader to a variety of the characteristics of the Oatka Creek watershed.Section 2 of the report includes water flow rates recorded for many years at the USGS monitoring stations at Warsaw and Garbutt. A study of trace metals and geochemistry of Oatka Creek waters and sediments was completed in Dec. 2001. The trace metal data provide a database that can be used in future efforts to detect inputs of trace metals into Oatka Creek. Living organisms that have been studied in various parts of Oatka Creek include bacteria, macroinvertebrates, and fish. Watershed uses and potential impacts of human activities are the major emphasis of Section 3 of the report.

Makarewicz, Joseph C. and Theodore W. Lewis. Segment Analysis of Oatka Creek: The Location of Sources of Pollution, Wyoming and Genesee Counties. Dept. of Environmental Science and Biology: SUNY College at Brockport, 2004.

The Soil and Water Conservation Districts of Wyoming and Genesee Counties contracted with the Water Quality Laboratory at SUNY Brockport to systematically identify, during baseline and hydro-meteorological events, the sources of nutrients, soils and salts within the Oatka Creek watershed. Evidence is provided based on 188 samples taken during eight sampling days that suggest the location and the intensity and soil loss from nonpoint and point sources are suggested.

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Summary of Other Ongoing or Anticipated Monitoring Actions

- **Stream Segment Analysis for Oatka Creek, Monroe County | Funded by a portion of Monroe County's allocation of 2008 FL/LOWPA Special Projects grant dollars.**

This has been described as a three event 15 samples per event stressed segment project to complete SUNY Brockport's work conducted in 2004. To be initiatiated 2009 – 2010. Primary contact: Charlie Knauf, Monroe County Department of Health.

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