## Watershed Plan for the North Chili Tributary of Black Creek, O-117-19-7

## **Table of Contents**

|                   |  | Page             |  |  |
|-------------------|--|------------------|--|--|
| I.                | Introduction   |                  |  |  |
|                   | A. Background  | 1                |  |  |
|                   | 1. Drainage Concerns   | 1                |  |  |
|                   | a. Summary   | 1                |  |  |
|                   | b. List of Areas of Concern  | 1                |  |  |
|                   | 2. Water Quality Concerns  | 2                |  |  |
|                   | a. Citizen Concerns about Water Quality                                  | 2<br>2<br>2<br>4 |  |  |
|                   | b. Government Concerns about Water Quality                               | 2                |  |  |
|                   | B. Watershed Plan Purpose  | 4                |  |  |
|                   | C. Plan Development Participants and Contributors                        | 4                |  |  |
| II.               | Goals  | 9                |  |  |
|                   | A. Drainage Goals and Strategies   | 9                |  |  |
|                   | B. Water Quality Goal  | 9                |  |  |
| III.The Watershed |  | 11               |  |  |
|                   | A. Watershed Description   | 11               |  |  |
|                   | 1. Environmental Maps  | 11               |  |  |
|                   | 2. Groundwater Resources   | 11               |  |  |
|                   | B. Description of Major Land Uses, Locations and Percentage of Imperviou | sness 11         |  |  |
|                   | 1. Land Use Maps   | 11               |  |  |
|                   | 2. Undeveloped/Agriculture   | 11               |  |  |
|                   | 3. Percentage of Impervious Surfaces                                     | 12               |  |  |
| IV                | Water Infrastructure Existing Conditions and Problems                    | 23               |  |  |
|                   | A. Sanitary Sewer Management   | 23               |  |  |
|                   | 1. Unauthorized Stormwater Connections to Sanitary Sewers                | 23               |  |  |
|                   | 2. Infiltration and Inflow (I/I)   | 24               |  |  |
|                   | 3. Sanitary Sewer Lines  | 24               |  |  |
|                   | B. Onsite Wastewater Management  |                  |  |  |
|                   | 1. Davis Road  | 25               |  |  |
|                   | 2. King Road   | 25               |  |  |
|                   | 3. Union Street  | 25               |  |  |
|                   | 4. Paul Road   | 27               |  |  |
|                   | C. Stormwater Runoff Management  | 27               |  |  |

| V. | An | aly | sis of Potential Actions   | 29 |
|----|----|-----|--|----|
|    | A. | Sto | ormwater Management Alternatives   | 29 |
|    |    | 1.  | Regional Planning and Development  | 29 |
|    |    |     | a. Location  | 29 |
|    |    |     | b. Capacity  | 29 |
|    |    |     | c. Costs   | 30 |
|    |    |     | d. Funding Strategy  | 30 |
|    |    | 2.  | Onsite Stormwater Management for New Development                           | 30 |
|    |    | 3.  | Stormwater Management Facility Maintenance                                 | 30 |
|    |    |     | a. Stormwater Wetlands   | 31 |
|    |    |     | b. Storm Sewers  | 32 |
|    |    |     | c. Open Channels   | 32 |
|    |    |     | d. Water Quality Inlets  | 33 |
|    |    | 4.  | Installation or Modification of Stormwater Facilities in Areas of Existing |    |
|    |    |     | Development  | 33 |
|    |    | 5.  | Elimination of Inflow  | 33 |
|    |    | 6.  | Elimination of Infiltration  | 33 |
|    | B. | Otl | her Recommendations  | 34 |
|    |    | 1.  | Educational Opportunities  | 34 |
|    |    |     | a. Educational Methods   | 34 |
|    |    |     | b. Sources of Information and Phone Numbers                                | 35 |
|    |    | 2.  |  | 40 |
|    |    |     |  | 40 |
|    |    |     | b. Health and Acreage of Existing Natural Wetlands and Constructed         |    |
|    |    |     | $\mathcal{E}$  | 40 |
|    |    |     |  | 41 |
|    |    |     | J1 1   | 41 |
|    |    |     | 1 / 1  | 41 |
|    |    |     |  | 41 |
|    |    | 3.  | Regulatory Changes   | 42 |
|    |    |     | a. Preservation of Natural Vegetation in Stream Corridors                  | 42 |
|    |    |     | b. Preservation of Natural Wetlands  | 42 |
|    |    |     | c. Preparation of Stormwater Pollution Prevention Plans for Construction   |    |
|    |    |     | Projects as Part of the Town Development Review Process                    | 43 |
|    |    |     | d. Water Quality Fee in Place of Onsite Stormwater Management              | 44 |
|    |    |     | 1  | 44 |
|    |    |     |  | 44 |
|    |    |     |  | 45 |
|    |    | 4.  | Other Potential Actions  | 46 |
|    |    |     |  | 46 |
|    |    |     | b. Involvement of Representatives of the Towns of Riga and Ogden on the    |    |
|    |    |     | Existing Watershed Planning Team   | 47 |
|    |    |     | c. Repair or Replacement of Failing Onsite Sewage Disposal (Septic)        |    |
|    |    |     | <b>5</b>   | 48 |
|    |    |     | d. Storm Sewer Construction  | 48 |

|     | e. Extension of Sanitary Sewer Lines                                     | 49       |  |  |  |  |
|-----|--|----------|--|--|--|--|
|     | f. Elimination of Commercial Floor Drains Discharging to Stormwater      |          |  |  |  |  |
|     | Systems; Ensuring Proper Use of Oil/Water Separators                     | 50       |  |  |  |  |
|     | g. Hubbard Park Tributary Improvement                                    | 51       |  |  |  |  |
|     | h. Improved Maintenance of Roadside Ditches                              | 51       |  |  |  |  |
|     | i. Prepare a Watershed Plan for the Entire Black Creek Watershed         | 52       |  |  |  |  |
| VI  | Recommendations  | 53       |  |  |  |  |
| , _ | A. Process for Making Recommendations                                    | 53       |  |  |  |  |
|     | B. Recommendations   | 53       |  |  |  |  |
| VI  | I. Implementation Strategy   | 55       |  |  |  |  |
| VI  | II. Public Involvement   | 67       |  |  |  |  |
|     | A. Public Involvement Need and Purpose                                   | 67       |  |  |  |  |
|     | 1. Need for Public Involvement   | 67       |  |  |  |  |
|     | 2. Public Involvement Purpose  | 67       |  |  |  |  |
|     | B. Public Involvement Strategies   | 67       |  |  |  |  |
|     | 1. Public Meeting  | 67       |  |  |  |  |
|     | 2. Response Summary  | 67       |  |  |  |  |
| IX  | Appendices   |          |  |  |  |  |
|     | A. Excerpts from Monroe County Pure Waters Sewer Use Law                 | A-1      |  |  |  |  |
|     | B. Operation and Maintenance Inspection Report for Stormwater Management |          |  |  |  |  |
|     | Facilities   | B-1      |  |  |  |  |
|     | C. Public Information Meeting Response Summary                           | C-1      |  |  |  |  |
|     | D. State Environmental Quality Review                                    | D-1      |  |  |  |  |
|     |  |          |  |  |  |  |
|     | Maps   |          |  |  |  |  |
| - • | Watershed Location   | v<br>vii |  |  |  |  |
|     | Watershed Boundary   |          |  |  |  |  |
|     | New York State Designated Wetlands                                       |          |  |  |  |  |
|     | Federal Wetlands   |          |  |  |  |  |
|     | Topography: North  |          |  |  |  |  |
|     | Topography: South  |          |  |  |  |  |
|     | Hydric and Potentially Hydric Soils Existing Land Use                    |          |  |  |  |  |
|     | Existing Land Use  |          |  |  |  |  |
|     | Waste Sites  | 21       |  |  |  |  |
| 10. | Sanitary Sewers  | 22       |  |  |  |  |

## Figure

| 1.  | Relationship Between Impervious Cover and Stream Quality; Definitions for Terms Used in Figure 1                | 6  |
|-----|---|----|
|     | Tables  |    |
| 1.  | 1997 Chili Land Use and Potential Build Out Land Use Based on Existing Zoning and Impervious Surfaces Estimates | 13 |
| 2.  | Union Processing Discharge #1, Biochemical Oxygen Demand and Flow Data, 1997                                    | 26 |
|     | Union Processing, Discharge #3, 1997 Flow Data in Gallons Per Day   | 27 |
| 4.  | Educational Opportunities   | 36 |
| 5.  | 2001000 01 20000000000 1100001000   | 37 |
| 6.  | Annual Report Topics  | 46 |
|     | Recommendations   | 54 |
|     | Onsite Stormwater Management for New Development  | 56 |
|     | Elimination of Inflow   | 57 |
|     | Elimination of Infiltration   | 58 |
|     | . Education on General Water Quality Topics   | 59 |
|     | Intensive Education on Recommended Actions  | 60 |
| 13. | Monitoring of Adherence to Erosion and Sediment Control Plans at Construction                                   |    |
|     | Sites   | 61 |
|     | . Monitoring of Failing Onsite Sewage Disposal Systems  | 62 |
| 15. | Elimination of Commercial Floor Drains Discharging to Stormwater Systems;                                       |    |
|     | Ensuring Proper Use of Oil/Water Separators   | 63 |
|     | . Hubbard Park Tributary Improvement  | 64 |
| 17. | Preparation of a Watershed Plan for the Entire Black Creek Watershed  | 65 |
| 1/. | reparation of a watershed Flan for the Entire Black Creek watershed   | 03 |