GREENING OUR WATERSHEDS

REVITALIZATION STRATEGIES FOR ETOBICOKE AND MIMICO CREEKS

Including
The Etobicoke-Mimico Report Card

May, 2002

PREPARED BY THE ETOBICOKE AND MIMICO CREEK WATERSHEDS TASK FORCE







November 22, 2001

Mr. Dick O'Brien, Chair The Toronto and Region Conservation Authority 5 Shoreham Drive Toronto, ON M3N 1S4



Dear Dick:

At its final meeting held on November 22, 2001, the Etobicoke and Mimico Creek Watersheds Task Force approved the final draft of its report titled, "Greening our Watersheds: Revitalization Strategies for the Etobicoke and Mimico Creek Watersheds, including the Etobicoke-Mimico Report Card". It also resolved that:

"THAT the Etobicoke and Mimico Creek Watersheds Task Force express its thanks to The Toronto and Region Conservation Authority (TRCA), the municipalities and the many organizations and individuals who have contributed;

"THAT the task force forward, with great pleasure, the final report to TRCA for consideration, with a request that the report be reviewed;

"THAT The TRCA be asked to sign The Etobicoke-Mimico Pledge;

"AND FURTHER THAT The TRCA be requested to establish the Etobicoke-Mimico Coalition as soon as possible in order to implement the recommendations contained in "Greening Our Watersheds: Revitalization Strategies for the Etobicoke and Mimico Creek Watersheds, including the Etobicoke-Mimico Report Card".

I would like to add to the Task Force's resolution, my personal thanks for the support of the Conservation Authority and staff. I would also like to thank you for your personal contribution and all of the other people who so generously gave of their time and abilities. I believe that the final draft and all the contributions of the Working Groups are excellent and will serve not just to direct our further work in these watersheds, but also as a guide for TRCA Task Forces to come. While our report marks the completion of one kind of work, the real task of regenerating our watersheds has only just begun.

Yours very truly,

John Hirsch, Co-Chair

Etobicoke and Mimico Creek Watersheds Task Force



TABLE OF CONTENTS

| PREFACEi | | | | |
|-----------------------|----------------|---|--|--|
| EXECUTIVE SUMMARY i i | | | | |
| CHAP | ΓER 1: | DEVELOPING GREENING OUR WATERSHEDS | | |
| | 1.1 | The Etobicoke and Mimico Creek Watersheds Task Force | | |
| | 1.2 | Part of a bigger picture | | |
| | 1.3 | Watersheds and ecosystems | | |
| | 1.4 | Background information and resources | | |
| | 1.5 | Vision | | |
| | 1.6 | Management strategies | | |
| | 1.7 | Report Card | | |
| | 1.8 | About the watersheds | | |
| CHAPTER 2: | | THE LAND | | |
| | 2.1 | The Land is shaped | | |
| | 2.2 | The Etobicoke and Mimico Creek watersheds take shape | | |
| | 2.3 | Soil Genesis: The mother-lode of terrestrial life in the watersheds | | |
| | 2.4 | Forest cover | | |
| | 2.5 | Landforms. 17 2.5.1 Plains. 18 2.5.2 The Brampton Esker. 18 | | |
| | 2.5.3 2.5.4 | Valley and stream corridors | | |
| | 2.6 | The Land and the people | | |
| CHAPTER 3: | | THE FIRST NATIONS | | |
| | 3.1 | Pre-contact habitation of the Etobicoke and Mimico Creek watersheds | | |
| | 3.2 | Turmoil in transition: contact between the First Nations and the Second Nations43 3.2.1 The arrival of the Mississaugas | | |
| | 3.3 | The beginning of agricultural settlement | | |



Table of Contents

| CHAPTER 4: | | THE SECOND NATIONS |
|------------|---------|--|
| | 4.1 | The settlement of the Etobicoke and Mimico Creek watersheds |
| 4.2 | The eco | slogical legacy of early settlement |
| | 4.3 | Early response to the loss of the "bounty of the land" |
| | 4.4 | Effects of early urbanization |
| | 4.5 | The twentieth century and the beginning of the new millennium |
| | 4.6 | From healthy ecosystem to "ecological slum" in 200 years |
| CHAPTER 5: | | CONSERVATION65 |
| | 5.1 | The drive for conservation in Ontario |
| | 5.2 | Approaches to protecting natural resources |
| | 5.3 | Natural resource management |
| | 5.4 | The conservation authority movement in Ontario and the beginning of conservation planning |
| | 5.5 | Watershed-based planning begins in the Etobicoke and Mimico Creek watersheds 79 5.5.1 The Etobicoke River Conservation Authority |
| | | 5.5.2 The Etobicoke-Mimico Conservation Authority |
| | 5.6 | The Toronto and Region Conservation Authority |
| | | 5.6.1 The era of engineering |
| | | 5.6.1a Plan for Flood Control and Water Conservation (1959) 82 |
| | | 5.6.1b Plan for Ancillary Conservation Measures (1962) |
| | | 5.6.1c Pollution Control and Recreation in the Metro Toronto Region (1963) 84 |
| | | 5.6.1d Study of Mimico Creek Watershed (1963) |
| | | 5.6.1e The Waterfront Plan for the Metro Toronto Planning Area (1963) 86 |
| | | 5.6.1f Sustainability of Conservation Lands for Family and Group. |
| | | Camping (1968) |
| | | 5.6.2 Focus on resource management |
| | | 5.6.3 The return to watershed-based planning and conservation "by the people" 87 |
| | | 5.6.4 A vision for the TRCA in the new millennium |
| | | 5.6.5 Conservation authorities influencing government policy |
| | 5.7 | Planning for the Etobicoke and Mimico Creek watersheds in the 21st century 89 |
| CHAPTER 6: | | NATURAL SYSTEM MANAGEMENT STRATEGIES |
| | 6.1 | Terrestrial Strategy. 95 |
| | | 6.1.1 Quantity |
| | | 6.1.2 Distribution. 105 |
| | | 6.1.3 Matrix Influence |
| | | 6.1.4 Size and Shape |
| | | 6.1.5 Connectivity |
| | | 6.1.6 Biodiversity |
| | | • |
| | 6.2 | Aquatic Strategy. 123 |
| | | 6.2.1 Fish Communities. 123 |
| | | 6.2.2 Benthic Invertebrate Communities |
| | | 6.2.3 Riparian Zone |
| | 6.3 | Water Quality Strategy |
| | | 6.3.1 Water Contact Recreation |
| | | 6.3.2 Conventional Pollutants and Unnatural Debris |
| | | 6.3.3 Heavy Metals and Organic Contaminants |
| | 6.4 | Water Quantity Strategy |
| | | 6.4.1 Stream Flow |



Table of Contents

| CHAPTER 7: | HUMAN INFLUENCES MANAGEMENT STRATEGIES |
|-------------------------------------|--|
| 7.1 | City and Countryside Management Strategy1677.1.1 Form and Limits.1697.1.2 Infrastructure.1777.1.3 Stormwater.1817.1.4 Sustainable Practices.193 |
| 7.2 | Recreation Strategy.2077.2.1 Publicly Accessible Open Space.2077.2.2 Trails.2167.2.3 Golf Courses.219 |
| 7.3 | Human Heritage Management Strategy.2237.3.1 Human Heritage Features and Resources.2267.3.2 Sense of Identity.231 |
| CHAPTER 8: | WORKING TOGETHER MANAGEMENT STRATEGIES |
| 8.1 | Outreach Management Strategy. 239 8.1.1 Communication. 239 8.1.2 Awareness. 243 8.1.3 Education. 247 |
| 8.2 | Funding Management Strategy |
| | 8.2.1Resident and Business.2518.2.2Community and Government.2538.2.3Corporate.257 |
| 8.3 | Stewardship Management Strategy.2598.3.1 Backyard Practices.2598.3.2 Community Action.2718.3.3 Watersheds Coalition.280 |
| CHAPTER 9: 9.1 9.2 9.3 | PRIORITIES FOR GREENING OUR WATERSHEDS. Applying the principle of conservation to Etobicoke and Mimico Creeks. Creation of a Watersheds Coalition. Priorities for action. 286 9.3.1 Improving water management. 286 9.3.2 Promoting sustainable communities. 286 9.3.3 Securing natural heritage lands. 287 9.3.4 Improving awareness of natural and human heritage. 287 9.3.5 Protecting and regenerating natural habitats. 288 By the year 2025. 288 |
| GLOSSARY REFERENCES ACKNOWLED | Review of the 1947 Etobicoke Valley Report. 289 AND ADDITIONAL READING. 301 GEMENTS. 307 ORY. inside back cover |



Respect Protect Regenerate



Preface by David Crombie

The Toronto Field Naturalists Club once published a book called Toronto the Green. The title highlighted the importance of our ravines, river valleys and waterfront habitats to wildlife and humans alike- a critical part of a healthy city region.

Unfortunately, many parts of that ecosystem, including the Etobicoke and Mimico Creek watersheds, are more grey than green. They have been seriously damaged by centuries of human activities. That is why I am delighted to introduce report *Greening Our Watersheds: Revitalization Strategies for Etobicoke and Mimico Creeks* to you. It provides a practical and comprehensive strategy to restore health to the lands and waters, woods and wetlands of two of the most degraded watersheds in the Greater Toronto Area.

Greening Our Watersheds truly represents an ecosystem approach, with its careful synthesis of information and ideas embracing human heritage, fish and wildlife, water management, urban form, countryside stewardship, recreation and education. It presents historical perspectives to help us understand current conditions, and sets visionary targets for desired improvements to be made over the next 24 years.

This report is also remarkable for the cooperation and hard work it represents. Created by a dedicated, multi-stakeholder task force, these pages reflect countless hours of research, analysis and debate. The resulting consensus is a good indication that there will be further collaboration so necessary to implement the recommendations in the report.

Whatever your interest in the Etobicoke and Mimico Creek watersheds, I know that you will find useful information and guidance in this report. There is much to do-I hope you too will get involved and help to put the green back into these watersheds.

David Crombie Founding Chair, Waterfront Regeneration Trust November, 2001



Executive Summary

In 1999, The Toronto and Region Conservation Authority (TRCA) created the Etobicoke and Mimico Creek Watersheds Task Force. Its mandate was to develop an ecosystem-based management strategy to help restore two of the most degraded watersheds in the Greater Toronto Area.

Greening Our Watersheds is the culmination of two years of work and discussion by this multi-stakeholder task force of planners, biologists, engineers, heritage preservationists, naturalists, municipal elected representatives and watershed residents. It has been written to assist the people who can make a difference, including watershed residents, community, business, and environmental advocates and leaders, educators, elected representatives, and staff at the federal, provincial, regional and local levels of government.

Key Issues

The Task Force began its work with a review of the *State of the Watersheds Report: Etobicoke and Mimico Creeks* (December 1998). The report identifies and describes key issues related to the environment, society and economy in the watersheds.

Environmental issues include changes in ground and surface water volumes and flows resulting from water contamination, flooding and erosion; lack of stormwater control; loss of forests, tributaries and wetlands; impaired condition of flora, fauna and aquatic species; altered landscapes through settlement, urban development and aggregate extraction; degraded air quality; the creation of urban heat islands; and the potential impacts of global climate change.

Social and economic issues pertinent to the Etobicoke and Mimico Creek watersheds include loss of archaeological sites; loss of heritage sites and resources; lack of awareness regarding heritage, cultural diversity and identities; disconnected green open spaces and trail systems; limited angling and wildlife viewing opportunities; anticipated development in the headwaters of Etobicoke Creek; development of infill and brownfield sites; agricultural practices; the cost of rehabilitation efforts; lack of sustainable funding sources; and constrained legislation and planning tools.

Vision

Once the Task Force had an understanding of the key watershed issues, its next step was to develop a 25 year vision of the watersheds. The vision became the foundation upon which the management strategies were based.

About Greening Our Watersheds

Greening Our Watersheds contains nine chapters:

Chapter 1: "Developing *Greening Our Watersheds*", provides the guiding vision and objectives that inspired the Task Force in their development of the management strategies. It also provides the reader with information as to what a watershed is, what the concept of ecosystem management is, why the management strategy document was prepared, by whom it was prepared and how it is expected to change the state of the Etobicoke and Mimico Creek watersheds.

Chapter 2: "The Land", provides an understanding of the formation of the watersheds and their land forms over thousands of years.

Chapter 3: "The First Nations", tells the story of the people who inhabited the watersheds between 9000 B.C. and A.D. 1791, and how their presence affected the ecosystem.

Chapter 4: "The Second Nations", tells the story of the people who have inhabited the watersheds between A.D. 1791 and A.D.2001, and how their presence has affected the natural environment.

Chapter 5: "Conservation", examines the genesis of natural resource management and conservation, from the earliest days of Ontario's pioneering environmentalists in the 1850s, until 2001. It also examines conservation reports on the watersheds.

Executive Summary



Chapters 6 through 8 present the management strategies and action plans developed by the Task Force. These are:

- Chapter 6: "Natural Heritage System Management Strategies", includes strategies for Terrestrial, Aquatic, Water Quality and Water Quantity;
- Chapter 7: "Human Influences Management Strategies", includes strategies for City and Countryside, Recreation and Human Heritage; and
- Chapter 8: "Working Together Management Strategies", includes strategies for Outreach, Funding and Stewardship.

Each management strategy is defined by an objective and an indicator, or indicators, of condition. For each indicator, background information on the issues is provided, and the current condition is benchmarked where possible, for use in future report cards. Targets for meeting these objectives and measures to track progress have also been established. Based upon these targets, a series of actions have been developed and potential partners to assist in moving these actions forward have been identified.

Chapter 9: "Priorities for *Greening Our Watersheds*," outlines the five key priorities for restoring the health of the watersheds. They are:

- Improving water management;
- Promoting sustainable communities;
- Securing natural heritage lands;
- Expanding awareness of natural and human heritage; and
- Protecting and regenerating natural habitats.

Provided at the end of the document are a glossary, references and additional reading, and acknowledgments.

Partners in Implementation

Greening Our Watersheds is a plan for the future. This plan will take unhealthy creeks and disconnected landscapes and make them vital, connected and sustainable while educating those who live, work or play in the watersheds about how they can live in harmony with their natural surroundings. The success of its implementation will depend upon partnerships that are established.

One of the recommended strategy actions is that a watersheds coalition be established by TRCA to guide the implementation of the management strategies. The watersheds coalition will need to establish partnerships with the community, businesses, institutions and elected representatives and staff at all levels of government.