

Foreword

Read this first - then get [INVOLVED!](#)

To those who live along Tyler Creek, enjoy its scenic beauty, or recreate in its waters, the following statement is an obvious one: *Tyler Creek is a precious resource worth protecting.* This tributary to the Fox River connects numerous natural areas, some of which are of the highest quality in all of Kane County. Tyler Creek provides many benefits:

- **it is the backbone of our watershed ecosystem - the fish, plants, and animals that rely on the stream for habitat and sustenance;**
- **it provides numerous opportunities for recreation – fishing, hiking, bird watching;**
- **it accepts and conveys our stormwater runoff – carrying away runoff from our homes and infrastructure;**
- **it receives some of our treated wastewater, further cleansing the water as it flows over and through the biologically rich substrate that lines channel.**
- **its natural systems assimilate our pollution and act as conduits for groundwater recharge, protecting the Fox River from further degradation and supplementing groundwater supplies. The Fox River and our groundwater are without question to the two most important natural resources in our region and perhaps our most threatened.**

Collectively, these functions can be referred to as the “green infrastructure” or network of natural systems that support the health and integrity of the Tyler Creek Ecosystem. Unlike human designed and constructed infrastructure, Tyler Creek and its natural features are irreplaceable. Once they are gone, the functions they provided cannot be replaced by manmade systems or places.

Development or the conversion of land to urban / suburban uses is now occurring at a dizzying rate in the Tyler Creek Watershed. It is therefore critical that stakeholders in the watershed take action now to recognize, appreciate, and protect our natural resources in the Tyler Creek Watershed.

The Tyler Creek Watershed Plan is intended to provide watershed stakeholders with a framework and the direction needed to protect critical areas and minimize the negative impacts of human activities to Tyler Creek and its green infrastructure –This Plan is an advisory document to be used by all stakeholders in the watershed; from municipal officials and their staff, developers, not-for-profit land stewardship organizations, and private landowners.

Acknowledgements

The Tyler Creek Watershed Plan was prepared utilizing funding from the U.S. Environmental Protection Agency, Section 319 of the Clean Water Act distributed through the Illinois Environmental Protection Agency. Additional funding was also provided by the City of Elgin, Village of Pingree Grove, and the Village of Gilberts.

In-kind services were provided by the City of Elgin, The Fox Valley Land Foundation, The Conservation Foundation, Friends of the Fox River. The planning process was coordinated by the Chicago Metropolitan Agency for Planning (formerly Northeastern Illinois Planning Commission) and The Conservation Foundation. Technical analysis and report preparation were completed by Watershed Resource Consultants, Inc. and Fluidclarity, Ltd. The authors wish to thank all those who contributed to the content and review of this report.

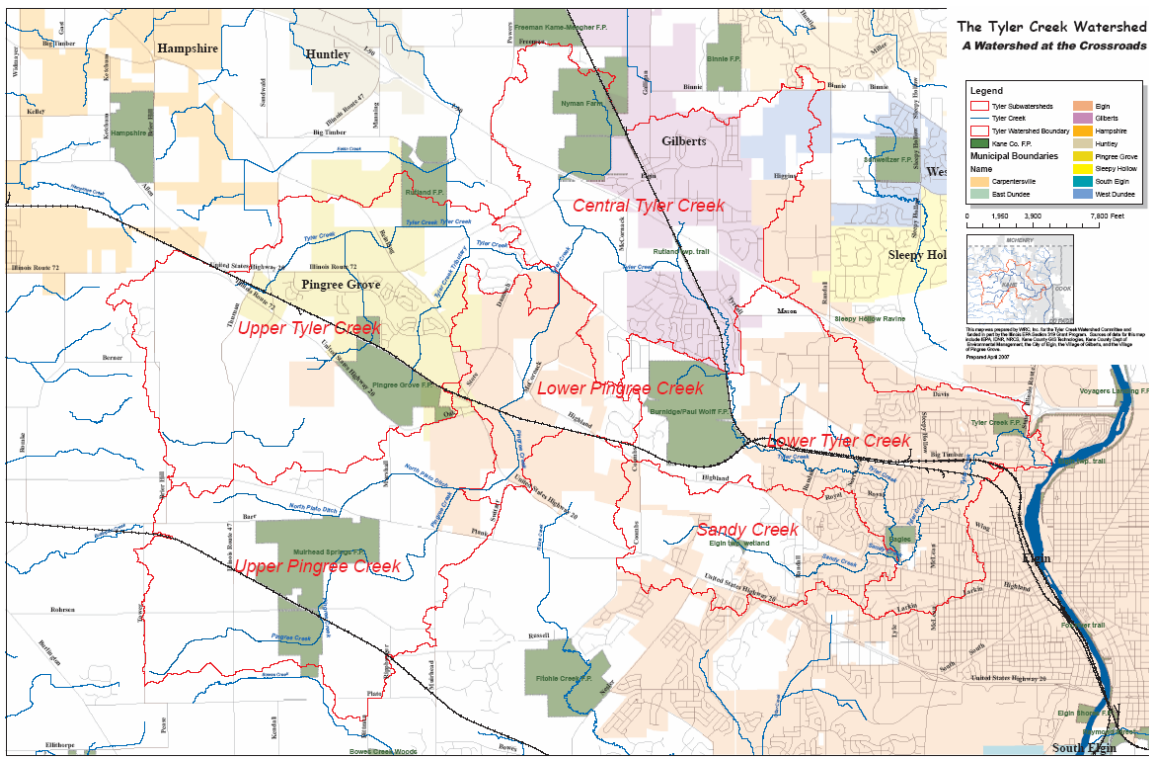
Executive Summary

Watershed Characteristics

Tyler Creek is a medium sized, high quality tributary of the Fox River. From southeast Rutland Township, the stream flows generally to the southeast toward the northwest side of Elgin, where it joins the Fox River. The Tyler Creek Watershed encompasses about 40.5 square miles and includes the small tributaries of Pingree Creek, Sandy Creek, and North Plato Ditch.

The eastern half of the Tyler Creek watershed is heavily urbanized, and has been for decades. However, the central region of the watershed is now rapidly urbanizing, and according to current comprehensive land use plans set forth by the municipalities, the western portion of the watershed is beginning to experience extensive development as well. The governmental stakeholders in the watershed that will have the most impact on the future Tyler Creek are the City of Elgin, the Village of Gilberts, the Village of Pingree Grove, and Kane County.

To facilitate easier dissemination of the findings and recommendations within the Tyler Creek Watershed Plan (TCWP), the Tyler Creek Watershed was divided into six subwatersheds, as illustrated below.



Stream / Water Quality Ratings

The Illinois Environmental Protection Agency (IEPA) is tasked with assessing the quality of the surface water resources of Illinois. The IEPA has determined Tyler Creek's designated uses are:

- Aquatic Life
- Fish Consumption
- Primary Contact
- Secondary Contact
- Aesthetic Quality

The IEPA periodically produces a [303\(d\) list](#), which identifies waterways that are not achieving certain designated uses. In the 2006 IEPA 303(d) list, Tyler Creek is identified as being in Full Support of its Aquatic Life Designated Use, which is notable for a stream in northeastern Illinois.

However, Tyler Creek was also determined to be Non-supporting of its Primary Contact Designated Use, due to excessive levels of fecal coliform. This pollutant, associated with human and animal waste, was listed as coming from urban runoff, storm sewers, and runoff from forest / grassland / parklands (geese and other wildlife are a suspected source in these areas). The IEPA also identified fish consumption, secondary contact and aesthetic quality as designated uses for Tyler Creek, although the ratings for these uses were classified as "not assessed". Below its confluence with Tyler Creek, however, the Fox River is listed as an impaired waterway for pH, silt, dissolved oxygen, fecal coliform, total suspended solids, habitat and flow modifications, excessive algae, PCBs, and methoxychlor.

Impetus for Updated Watershed Plan

The original watershed plan for Tyler Creek was completed in January 1996 by the Openlands Project, with input and guidance from the City of Elgin, Village of Gilberts, Kane County Forest Preserve District, Kane County, and the Illinois Department of Natural Resources. Funding was provided by the IDNR Office of Realty and Environmental Planning. The plan provided a summary of watershed history, physical, chemical and biological characteristics of the watershed at that time, and an outline for establishment of a watershed greenway plan, general watershed protection guidelines, and recommendations for restoration / protection of specific sites of concern / interest in the watershed's sub-areas.



Above: Growth pressures in the far west end of the Tyler Watershed are quickly turning farm fields into residential development.

In 1997, the City of Elgin completed the Tyler Creek Management Plan, which focused on stormwater management and natural resource protection in the lower one-third of the watershed within the municipal limits of Elgin (current as well as proposed city limits at that time). This plan was the result of the City of Elgin wanting to insure that Tyler Creek

would not experience additional degradation due to future upstream development following municipal expansion.

This 1997 Tyler Creek Management Plan for Elgin identified stormwater management strategies for future development, stormwater retrofit projects, stream corridor restoration / stabilization projects, and wetland banks as part of a plan to improve water quality and reduce flooding.

In 2000, the City took that plan a step further and prepared an EPA 319 grant application that included preliminary design plans and cost estimates for implementing several (12-13) of the projects identified in the 1997 Tyler Creek Management Plan. To date, two of these projects have been constructed / undertaken by the City of Elgin.

In 2005, the Fox River Ecosystem Partnership, with guidance from several local and state natural resource agencies and conservation groups, identified Tyler Creek as a high priority watershed for preventative planning due to the extensive development plans being considered by the municipalities within and adjacent to the watershed. Analysis of the municipal comprehensive land use plans for the region indicate that nearly the entire watershed will be “built out” with suburban development far more extensive than the development suggested by the Kane County 2030 Land Use Plan. Without careful planning and a fundamental change in the way in which land development is designed and implemented, the likelihood of losing the irreplaceable natural resources of the Tyler Creek Watershed is eminent.

As a result, the following Watershed Protection Goals were established to help protect Tyler Creek:

Watershed Protection Goals

- Goal 1: Maintain the Quality of Tyler Creek**
- Goal 2: Prevent Further Negative Impacts of Land Use Change on the Watershed’s Natural Resources**
- Goal 3: Reduce Flooding and Flood Damages in Existing Developed Areas of the Watershed**
- Goal 4: Create an effective and lasting watershed stakeholder organization.**

Existing and Future Watershed Protection Challenges

Overall, the health of Tyler Creek today is good. Previous water quality and biological data collection studies over the last eight years confirm that Tyler Creek has the water quality and biological characteristics to qualify it as a highly valuable resource. The two highest quality areas in the watershed are the Tyler Creek stream corridor between Big Timber Road and Randall Road, and the Pingree Grove Wetland in the Pingree Grove Forest Preserve.

However, Tyler Creek is in a state of rapid flux. While the land immediately adjacent to these high quality areas is largely protected from new development, the vast areas upstream of each high quality site are planned for extensive land use changes

(residential / commercial / office / light industrial developments). These drastic land use changes, even when implemented according to the current development & stormwater regulations, will have a profound impact on the remaining high quality natural areas downstream, as current development practices usually result in an increase total runoff as well small storm peak flow frequencies, both of which adversely impact stream stability. Development also creates additional pollutant loading into the stream system, especially nutrients such as phosphorus and nitrogen, which can fuel the growth of algae and aquatic vegetation to nuisance levels, resulting in habitat degradation and low dissolved oxygen.

Plan Organization

The Tyler Creek Watershed Plan is organized into 15 sections:

1. Introduction
2. Watershed Summary
3. Pollutant Loading Analysis
4. Watershed Recommendations
5. Lower Tyler Subwatershed Assessment
6. Central Tyler Subwatershed Assessment
7. Upper Tyler Subwatershed Assessment
8. Sandy Creek Subwatershed Assessment
9. Lower Pingree Subwatershed Assessment
10. Upper Pingree Subwatershed Assessment
11. Green Infrastructure Plan
12. Public Education & Outreach Programs
13. Measuring Watershed Plan Success
14. References
15. Appendices

THIS PAGE INTENTIONALLY LEFT BLANK

THIS PAGE INTENTIONALLY LEFT BLANK

Table of Contents

1. Introduction.....	13
1.1 Watershed Overview	
1.2 Watershed Planning – An EPA Perspective	
1.3 Watershed Plan Goals	
1.4 Getting Involved: The Tyler Creek Watershed Coalition	
1.5 Need for an Updated Watershed Plan	
1.6 Funding	
1.7 Partners / Contributors	
1.8 The Planning Process	
2. Tyler Creek Watershed Summary.....	24
2.1 Location and Regional Context	
2.2 Natural Resources	
2.2.1 Landscape Resources	
2.2.2 Biological Resources	
2.2.3 Water Quality	
2.3 Human Resources: Population and Land uses	
2.3.1 Population	
2.3.2 Landuse	
2.4 Watershed Impacts & Impairments	
2.4.1 Existing Impacts & Impairments	
2.4.2 Future Impacts & Impairments	
3. Pollutant Load Analysis.....	40
3.1 Pollutants of Concern	
3.2 Pollutant Loading Analysis	
3.3 Pollutant Loading Results and Pollutant Reduction Strategies	
3.3.1 Runoff Volume	
3.3.2 Tyler Creek Pollutant Load Results	
3.3.3 Pollutant Load Reduction BMP Summary	
3.3.3.1 Agricultural Best Management Practices for Reducing Pollutant Loads	
3.3.3.2 Best Management Practices for Urban Areas to Reduce Pollutant Loads	
4. Watershed Plan Recommendations.....	50
4.1 Key Watershed Protection Strategies	
4.2 Watershed-wide Recommendations	
4.3 Overview of Subwatershed-Specific Recommendation	
4.4 Potential Funding Sources	
5. Lower Tyler Creek Subwatershed Assessment.....	70
5.1 Subwatershed Data	
5.1.1 Location	
5.1.2 Topography and Geology	
5.1.3 Soil Conditions	
5.1.4 Subwatershed Drainage Features	

5.1.5	Population Data	
5.1.6	Landuse / Land cover Data	
5.1.7	Existing Watershed Development	
5.1.8	Natural Resources	
5.1.8.1	County Forest Preserves	
5.1.8.2	Other Publicly Owned Land	
5.1.8.3	Wetlands	
5.1.8.4	Threatened & Endangered Species	
5.1.8.5	Existing Greenways	
5.2	Analysis of Subwatershed Data and Problem Identification	
5.2.1	Water Quality Data	
5.2.2	Flooding Problems	
5.2.3	Projected Development & Growth	
5.2.4	Estimated Pollutant Loading	
5.2.5	Natural Area Protection/Preservation Issues	
5.3	Subwatershed-specific Recommendations to Protect Watershed Resources	
6.	Central Tyler Creek Subwatershed Assessment.....	100
6.1	Subwatershed Data	
6.1.1	Location	
6.1.2	Topography and Geology	
6.1.3	Soil Conditions	
6.1.4	Subwatershed Drainage Features	
6.1.5	Population Data	
6.1.6	Land use / Land cover Data	
6.1.7	Existing Watershed Development	
6.1.8	Natural Resources	
6.1.8.1	County Forest Preserves	
6.1.8.2	Other Publicly Owned Land	
6.1.8.3	Wetlands	
6.1.8.4	Threatened & Endangered Species	
6.1.8.5	Existing Greenways	
6.2	Analysis of Data and Problem Identification	
6.2.1	Water Quality Data	
6.2.2	Flooding Problems	
6.2.3	Projected Development & Growth	
6.2.4	Estimated Pollutant Loads	
6.2.5	Natural Area Protection/Preservation Issues	
6.3	Subwatershed-specific Recommendations to Protect Watershed Resources	
7.	Upper Tyler Creek Subwatershed Assessment.....	118
7.1	Subwatershed Data	
7.1.1	Location	
7.1.2	Topography and Geology	
7.1.3	Soil Conditions	
7.1.4	Subwatershed Drainage Features	
7.1.5	Population Data	
7.1.6	Land use / Land cover Data	
7.1.7	Existing Watershed Development	
7.1.8	Natural Resources	
7.1.8.1	County Forest Preserves	
7.1.8.2	Other Publicly Owned Land	

7.1.8.3	Wetlands	
7.1.8.4	Threatened & Endangered Species	
7.1.8.5	Existing Greenways	
7.2	Analysis of Subwatershed Data and Problem Identification	
7.2.1	Water Quality Data	
7.2.2	Flooding Problems	
7.2.3	Projected Development & Growth	
7.2.4	Estimated Pollutant Loads	
7.2.5	Natural Area Protection/Preservation Issues	
7.3	Subwatershed-specific Recommendations to Protect Watershed Resources	
8.	Sandy Creek Subwatershed Assessment.....	136
8.1	Subwatershed Data	
8.1.1	Location	
8.1.2	Topography and Geology	
8.1.3	Soil Conditions	
8.1.4	Subwatershed Drainage Features	
8.1.5	Population Data	
8.1.6	Land use / Land cover Data	
8.1.7	Existing Watershed Development	
8.1.8	Natural Resources	
8.1.8.1	County Forest Preserves	
8.1.8.2	Other Publicly Owned Land	
8.1.8.3	Wetlands	
8.1.8.4	Threatened & Endangered Species	
8.1.8.5	Existing Greenways	
8.2	Analysis of Subwatershed Data and Problem Identification	
8.2.1	Water Quality Data	
8.2.2	Flooding Problems	
8.2.3	Projected Development & Growth	
8.2.4	Estimated Pollutant Loads	
8.2.5	Natural Area Protection/Preservation Issues	
8.3	Subwatershed-specific Recommendations to Protect Watershed Resources	
9.	Lower Pingree Creek Subwatershed Assessment.....	152
9.1	Subwatershed Data	
9.1.1	Location	
9.1.2	Topography and Geology	
9.1.3	Soil Conditions	
9.1.4	Subwatershed Drainage Features	
9.1.5	Population Data	
9.1.6	Land use / Land cover Data	
9.1.7	Existing Watershed Development	
9.1.8	Natural Resources	
9.1.8.1	County Forest Preserves	
9.1.8.2	Other Publicly Owned Land	
9.1.8.3	Wetlands	
9.1.8.4	Threatened & Endangered Species	
9.1.8.5	Existing Greenways	
9.2	Analysis of Subwatershed Data and Problem Identification	
9.2.1	Water Quality Data	

9.2.2	Flooding Problems	
9.2.3	Projected Development & Growth	
9.2.4	Estimated Pollutant Loads	
9.2.5	Natural Area Protection/Preservation Issues	
9.3	Subwatershed-specific Recommendations to Protect Watershed Resources	
10.	Upper Pingree Creek Subwatershed Assessment.....	168
10.1	Subwatershed Data	
10.1.1	Location	
10.1.2	Topography and Geology	
10.1.3	Soil Conditions	
10.1.4	Subwatershed Drainage Features	
10.1.5	Population Data	
10.1.6	Land use / Land cover Data	
10.1.7	Existing Watershed Development	
10.1.8	Natural Resources	
10.1.8.1	County Forest Preserves	
10.1.8.2	Other Publicly Owned Land	
10.1.8.3	Wetlands	
10.1.8.4	Threatened & Endangered Species	
10.1.8.5	Existing Greenways	
10.2	Analysis of Subwatershed Data and Problem Identification	
10.2.1	Water Quality Data	
10.2.2	Flooding Problems	
10.2.3	Projected Development & Growth	
10.2.4	Estimated Pollutant Loads	
10.2.5	Natural Area Protection/Preservation Issues	
10.3	Subwatershed-specific Recommendations to Protect Watershed Resources	
11.	Protecting the Tyler Creek’s Green Infrastructure.....	182
11.1	What is a Green Infrastructure Plan?	
11.2	Need for a Green Infrastructure Plan	
11.3	Delineating the Green Infrastructure Boundary	
11.4	Guidelines for Interfacing with and Utilizing the Green Infrastructure	
11.5	Implementing the Green Infrastructure Plan	
11.5.1	Ordinance / Zoning revisions	
11.5.2	Landowner Outreach	
11.5.2.1	Developers	
11.5.2.2	Private Landowners	
12.	Public Outreach & Education Programs.....	194
12.1	Summary of Existing Programs	
12.1.1	Friends of the Fox River	
12.1.2	Kane County	
12.1.3	Kane-DuPage Soil & Water Conservation District	
12.1.4	Fox River Ecosystem Partnership	
12.1.5	The Conservation Foundation	
12.2	Education & Outreach Recommendations	
13.	Measuring Watershed Plan Success.....	200
13.1	Suggested Milestones	
13.1.1	Public Education/Outreach	

13.1.2	Water Quality Monitoring	
13.1.3	Natural Area Restoration	
13.1.4	Water Quality Best Management Practices (BMP's)	
13.1.5	Natural Area Protection	
13.1.5.1	Land Acquisition	
13.1.5.2	Conservation Easements	
14.	References.....	208
14.1	Watershed Plan References	
14.2	Watershed Protection References & Resources	
14.2.1	Organizations / Agencies	
14.2.2	Publications	
14.2.3	Internet-based References	
15.	Appendices.....	210
15.1	Subwatershed Maps	
15.2	Pollutant Loading Analysis Summary	

LIST OF ACRONYMS

ADID	Advanced Identification
BMP	Best Management Practice
DEBM	Department of Environmental and Building Management (Kane County)
DEM	Digital Elevation Model
HHQ	High Habitat Quality
IEPA	Illinois Environmental Protection Agency
IDNR	Illinois Department of Natural Resources
FREP	Fox River Ecosystem Partnership
FOFR	Friends of the Fox River
FRSG	The Fox River Study Group
GWLF	Generalized Watershed Loading Function (model)
KCFPD	Kane County Forest Preserve District
LID	Low Impact Development
LTCSW	Lower Tyler Creek Subwatershed
NPDES	National Pollutant Discharge Elimination System
NRCS	Natural Resource Conservation Service
NPS	Non-point Source
GIS	Geographic Information System
USDA	United States Department of Agriculture
USEPA	United States Environmental Protection Agency
USGS	United States Geological Survey
TCWP	Tyler Creek Watershed Plan
WQS	Water Quality Standard
WWTP	Waste Water Treatment Plant

THIS PAGE INTENTIONALLY LEFT BLANK

Chapter 1 Introduction

1.1 Watershed Overview

Tyler Creek is a tributary to Fox River, located in northern Kane County, Illinois. This 40.5 square mile watershed includes the small tributary streams, Pingree Creek, Sandy Creek, and North Plato Ditch. The eastern half of the watershed is heavily urbanized, and the central region of the watershed is rapidly urbanizing. The western portion of the watershed is largely comprised of agricultural land, although this will soon change as extensive development is planned for the future, according to current comprehensive land use plans set forth by the municipalities in the region. Without a doubt, the future quality of Tyler Creek and remaining natural areas of the watershed will be largely determined by the land use decisions made by the officials of the City of Elgin, the Village of Gilberts, and the Village of Pingree Grove.



Tyler Creek itself, although currently in good condition in many areas, is listed as being impaired due to fecal coliform, which has been detected by the IEPA in samples collected between Randall Road and just above the confluence with the Fox River at Illinois Route 31. While this is the only “documented” impairment to Tyler Creek by the IEPA, there are other major threats or impairments that have impacted the character and quality of Tyler Creek.

A major existing threat to the watershed is the urban encroachment and lack of water quality practices in the lower portion of the watershed, specifically east of Randall Road. This has resulted in a loss of stream corridor habitat in many areas, and a tremendous influx of untreated, undetained stormwater from high-density development on Elgin’s west side.

A major existing impairment is the loss of riparian habitat throughout much of the watershed resulting from the historic draining of wetlands and channelization of Tyler Creek and its tributaries.

Another threat is the rapid spread of invasive species of vegetation into the remaining natural areas, such as wetlands, woodlands, and stream corridors. Nearly every single wetland, woodland, prairie, or other natural open space is facing an onslaught of invasive herbaceous species, including Reed Canary Grass, Common Reed, Honeysuckle, Canada Thistle, Buckthorn, and Garlic Mustard. In addition, the watershed is faced with a proliferation of weedy, low quality trees and brush, which

chokes virtually all stream corridors with thick, shady canopy that exacerbates streambank erosion and sediment delivery into the stream system.

Perhaps the most significant threat to the watershed, however, is yet to come. Despite all of the negative impacts people associate with the row crop agriculture that dominates the watersheds west of the Fox River, they are relatively minor and reversible compared to the permanent impacts of urban and suburban development on the receiving stream. This is due not so much to land development as a practice, which is inevitable, but instead is due in large part to the **way** we undertake land development. As a society, we have allowed development to occur using the cheapest possible land development techniques to minimize construction schedules and maximize construction profit. This, as all other urbanized watersheds in the metropolitan area have shown, has been achieved at the expense of maintaining a quality, sustainable natural environment with cleanest of water, and flourishing native wildlife.

1.2 Watershed Planning – An EPA Perspective

This update to the original Tyler Creek Watershed Plan (1996; Openlands Project), is structured to meet the USEPA criteria for implementing non-point source management programs in accordance with Section 319 of the Clean Water Act. Watershed Plans meeting these requirements are eligible for Section 319 grant funds administered through the Illinois EPA to assist watershed stakeholders with implementing activities in the plan to help mitigate non-point source pollution in the watershed. Section 319 funding provides a 60% federal project cost share from USEPA. In many circumstances, other funding sources can be tapped to provide the 40% local cost share match.

This Tyler Creek Watershed Plan therefore addresses the following nine required components set forth by the EPA:

- 1. An identification of the causes and sources or groups of similar sources of pollution that will need to be controlled to achieve the pollutant load reductions estimated in this watershed-based plan.**
- 2. An estimate of the pollutant load reductions expected following the implementation of the management measures described under #3 below.**
- 3. A description of the non-point source (NPS) management measures that will need to be implemented to achieve the load reductions estimated under #2 above and an identification (using map or a description) of the critical areas in which those measures will be needed to implement this plan.**
- 4. An estimate of the amounts of technical and financial assistance needed, associated costs, and/or the sources and authorities that will be relied upon, to implement this plan.**
- 5. A public information/education component that is designed to change social behavior.**
- 6. A plan implementation schedule.**
- 7. A description of interim, measurable milestones.**
- 8. A set of criteria that can be used to determine whether pollutant loading reductions are being achieved over time.**

9. A monitoring component to evaluate the effectiveness of the implementation efforts over time.

1.3 Need for an Updated Watershed Plan

The original Tyler Creek watershed plan was completed in January 1996 by Openlands Project with input and guidance from the City of Elgin, Village of Gilberts, Kane County Forest Preserve District, Kane County, and the IDNR. The plan provided a summary of watershed history, as well as the physical, chemical and biological characteristics of the watershed at that time. It also included an outline for establishment of a watershed greenway plan, general watershed protection guidelines, and recommendations for restoration / protection of specific sites of concern/interest in the watershed's sub areas. That plan, while useful at that time for planning purposes, has since become out-dated due to changing development plans which now include the development of virtually all areas of the Tyler Creek Watershed.

Perhaps of more significance is the fact that Tyler Creek discharges into the Fox River, the most important natural resource in Kane County (along with groundwater supply). The Fox River is the primary source of drinking water for more than 236,600 residents in the watershed (the populations of Aurora & Elgin, according to the 2000 U.S. Census). The Fox River is a heavily used resource that is subjected to a number of inputs of pollution, including point sources (storm sewers) and non-point sources (runoff from the landscape), as well as pollution that enters the Fox River's many tributaries, such as Tyler Creek. Downstream of Tyler Creek, the Fox River now is listed on the Illinois EPA's impaired waterways list {known as the 303(d) List, published in accordance with the United States Clean Water Act}. This portion of the Fox River through the Elgin area is listed as impaired due to:

- Municipal Point Sources
- Combined Sewer Overflows
- Urban Runoff/Storm Sewers
- Hydrologic/Habitat Modification
- Flow regulation/ Modification
- Habitat Modification
- Streambank Modification/Destabilization
- Contaminated Sediments

Source: IEPA 303(d) List

These impairments are due to the collective pollution and alterations of the entire Fox River Watershed upstream of this reach, of which Tyler Creek is just a small portion. However, it is most immediate to this impaired reach of the Fox River and most of the watershed's area is or will soon be under the control of the municipal jurisdictions that rely on the resources that the Fox River provides. For this reason, the watershed resource protection efforts outlined in this plan should be implemented to the extent possible to provide an incremental benefit to the Fox River here and downstream.

1.6 Watershed Plan Goals

In order to begin to address and achieve the Watershed Plan Goals, objectives must be established to help identify specific research, implementation projects, or educational outreach activities that need to be accomplished. As the watershed planning process continues, these goals and objectives may change. At this point in time, these are the goals and objectives for Tyler Creek.

Goal 1: Maintain the Quality of Tyler Creek

- **Obj 1: Protect, through acquisition or conservation easements, existing High Quality and High Functional Value ADID Wetlands.**
- **Obj 2: Adopt a “Green Infrastructure Plan” for the watershed to guide future development and the preservation, restoration, and management activities of watershed stakeholders.**
- **Obj 3: Develop partnerships between private landowners, developers, local natural resource agencies, and local not-for-profit land protection organizations to restore/enhance existing and/or former wetland & riparian areas.**
- **Obj 4: Work with NPDES Phase I dischargers to insure that the highest quality treatment is achieved before wastewater effluent is discharged to any water course in the watershed.**
- **Obj 5: Implement a BMP program to reduce stormwater quantity and/or improve stormwater runoff quality wherever possible in the existing developments in the watershed.**

Goal 2: Prevent Further Negative Impacts of Land Use Change on the Watershed’s Natural Resources

- **Obj 1: Minimize increases in stormwater runoff flow rates AND total runoff volume for new developments.**
- **Obj 2: Prohibit negative changes in water quality from new development.**
- **Obj 3: Discourage development activities/encroachment within the Green Infrastructure Areas.**

Goal 3: Reduce Flooding and Flood Damages in Existing Developed Areas of the Watershed

- **Obj 1: Work with landowners subjected to repeated flood damages and assist them with seeking planning & design guidance and funding sources develop mitigation plans to reduce the magnitude and frequency of recurring flood damages.**

- **Obj 1: Minimize increases in stormwater runoff flow rates AND total runoff volume for new developments.**
- **Obj 2: Increase total required retention volume required for new developments.**

Goal 4: Create an effective and lasting watershed stakeholder organization.

- **Obj 1: Organize an active and engaged stakeholder group to**
 - 1.) Promote the Tyler Creek Watershed Plan,**
 - 2.) Track, monitor, and report on the success of implementing the recommendations of the plan, and**
 - 3.) Serve as a forum in which all parties in the watershed can communicate their ideas, concerns, and seek more information on how to maximize the protection efforts in the watershed.**
- **Obj 2: Coordinate annual comprehensive reviews of available water quality and biological data collected in the watershed as another way to measure plan success.**

1.7 Getting Involved: The Tyler Creek Watershed Coalition

In order for this Watershed Plan to be effective and lasting, one key precursor to the watershed plan will be to have stakeholders come together and form a Tyler Creek Watershed Coalition. The Tyler Creek Watershed Coalition should be comprised of watershed stakeholders who are committed to work together to preserve and protect the water quality and natural resources of Tyler Creek. The mission of the organization will be to bring together a diverse coalition of stakeholders to protect the unique and irreplaceable natural resources of the Tyler Creek Watershed through cooperative partnerships, smart land use decisions and sensible growth. Stakeholders must include private landowners, homeowner associations, municipal staff & officials, county, state, and federal agency staff charged with natural resource/water resource protection, representatives from umbrella conservation organizations (i.e. Fox River Ecosystem Partnership and the Fox River Study Group, Inc, Fox Valley Land Foundation, The Conservation Foundation).

The Coalition's mission will be achieved by seeing to it that the plan recommendations are implemented by the responsible parties, and by communicating and coordinating with municipalities, developers, and private landowners to insure that resource management is not compromised by rapid, hastily planned development.

The Coalition should designate a lead organization or person to take responsibility for setting up and coordinating meetings of the Coalition, which should occur at least on a quarterly basis (4 times per year) and meet in the watershed.

This is an essential first step, and perhaps most important recommendation of the Tyler Creek Watershed Plan.

1.8 Funding

Funding for this project was generously provided by a grant from the US EPA Section 319 Program of the Clean Water Act, issued through the Illinois EPA.

1.9 Partners / Contributors

The following organizations have contributed information, staff time, and/or funding to prepare this watershed plan:

- City of Elgin
- Village of Gilberts
- Village of Pingree Grove
- Chicago Metropolitan Agency for Planning
- The Conservation Foundation
- Fox Valley Land Foundation

1.10 The Planning Process

The remainder of this watershed plan document is divided into 13 sections.

Chapter 2 provides a summary of watershed characteristics, natural resources, water quality, population, land use, existing watershed impairments, and potential future watershed impairments.

Chapter 3 summarizes the pollutant loading analysis that was prepared for the watershed.

Chapter 4 presents the recommendations to protect watershed resources, including a discussion of watershed-wide recommendations and an overview of the types of recommendations specified for each of the subwatershed units.

Chapter 5 presents a concise summary of features, impairments, and recommendations for the Lower Tyler Creek Subwatershed.

Chapter 6 presents a concise summary of features, impairments, and recommendations for the Central Tyler Creek Subwatershed.

Chapter 7 presents a concise summary of features, impairments, and recommendations for the Upper Tyler Creek Subwatershed.

Chapter 8 presents a concise summary of features, impairments, and recommendations for the Sandy Creek Subwatershed.

Chapter 9 presents a concise summary of features, impairments, and recommendations for the Lower Pingree Creek Subwatershed.

Chapter 10 presents a concise summary of features, impairments, and recommendations for the Upper Pingree Creek Subwatershed.

Chapter 11 details the components and implementation strategy for the proposed Green Infrastructure Plan.

Chapter 12 provides information on existing Public Education & Outreach Programs as well as provides guidance for how these programs can be strengthened and utilized to effect change in watershed awareness by the local stakeholders.

Chapter 13 outlines milestones and a framework for measuring how successful the stakeholders are in implementing the actions of the Watershed Plan. It also outlines the monitoring needed to track watershed health and measure the impacts of implementing the plan recommendations.

Chapter 14 lists the references used to create this document, contact information for organizations and stakeholders in the Tyler Creek Watershed, and other publications in print and on-line that offer reference information on Best Management Practices and planning strategies that are applicable to the watershed.

Chapter 15 consists of appendices where maps and technical information used to make this document can be found.

The hope is that this plan will serve as the reference document that watershed stakeholders will use to plan projects and measure how successful their efforts are to protect the environmental integrity of the Tyler Creek Watershed.

THIS PAGE INTENTIONALLY LEFT BLANK