

Fuller Creek Watershed Assessment

Introduction

Material presented in the following summary documents current stormwater management and flooding issues for the Fuller Creek Watershed. Information presented is based on a review of available information related to current conditions in the drainage basin. No comprehensive analysis of stormwater management and flooding issues in the watershed has been performed in the last 20 years.

Watershed Description

Description and Land Use

The Fuller Creek watershed is located in the far southern part of the City of Rockford on the west side of the Rock River. The watershed drains approximately 2,974 acres at its mouth. Roughly 15% of the watershed is located within the City of Rockford. The remaining 85% of the watershed extends unincorporated Winnebago County. The watershed is small and narrow, with the stream entering the Rock River south of US Highway 20.

Watershed Statistics: Fuller Creek	
Total Area:	2,974 ac.
Total Area within City:	455 ac.
% of City within Watershed:	1.2%
Other Stakeholders:	None
No. of Detention Facilities	3
No. of Outfalls	0

The Fuller Creek watershed is about 10% developed. Most of the development is residential and occurs at the Fuller Creek watershed border with South Main watershed, in addition to a small development on Montague Street. The rest of the watershed is vacant, or occupied by farmland.

Topography and Soils

Ground elevations within the watershed range from about 825 feet NAVD near Centerville Road, with a high point at Kelley and Central Road of 875 feet, to about 700 feet NAVD near the creek's confluence with the Rock River.

Soils within the Fuller Creek watershed consist of type B soils. Type B soils are soils with moderately low runoff potential when thoroughly wet. Water can be transmitted through these soils without impediment. Type B soils typically have less than 20 percent clay, and between 50 and 90 percent sand with a loamy sand or sandy loam textures. These soils have moderately fine

to moderately coarse textures.²² The predominance of type B soils in the Fuller Creek watershed should facilitate infiltration of rainfall in pervious areas, thereby contributing to lower runoff volumes and rates than in basins with less pervious soil types.

Primary Receiving Stream

Fuller Creek is the primary receiving stream for the Fuller Creek watershed. The creek is approximately 22,300 feet (4.2 mi.) long and exists in its natural state. The Fuller Creek profile is unavailable because Fuller Creek was not a part of the 2006 Flood Insurance Study for Winnebago County and Incorporated Areas.

There are no impoundments on this creek.

There are no USGS gauging stations in this watershed.

There is no readily available flow data for the Fuller Creek watershed.

Given the character of the watershed, flooding within Fuller Creek is of gradual nature. Localized flooding along the creek is aggravated by the number of vegetative debris and trees along the stream channel. As shown in Figure FC-1, the floodplain along Fuller Creek is relatively narrow over most of the length of the stream.

Records maintained by the Federal Emergency Management Agency (FEMA), indicate that no letters of map revision (LOMRs) have been issued for development projects in the Fuller Creek watershed during the past 30 years.

Water Quality and NPDES Discharges

Fuller Creek is a clear, spring-fed stream. The waters are generally cool and clear with thriving aquatic life. Sedimentation has occurred in certain portions of the creek, indicating that the stream is susceptible to impacts resulting from erosion of upstream agricultural lands.

SCORE has not sampled water quality in the Fuller Creek Watershed.

There are no facilities with a NPDES permit discharging in this watershed. Runoff from industrial sites is a potential pollutant source for receiving waters. Table FC-1 lists the industrial sites within the Fuller Creek watershed.

²² Burke, Christopher and Thomas Burke. HERPICC Stormwater Drainage Manual. West Lafayette, Indiana: Purdue Research Foundation, 1994.

TABLE FC-1
INDUSTRIAL SITES LOCATED WITHIN THE FULLER CREEK WATERSHED
ROCKFORD, ILLINOIS

Name	Street	Land Use Code	Description
Rockford Ballscrew	Southrock Dr.	3450	Fabricated Metal Prod. (dry)
Adelphia, Inc.	Southrock Dr.	3450	Fabricated Metal Prod. (dry)

Existing Drainage Network

Drainage within the Fuller Creek watershed occurs through a mix of surface drainage paths and creek channels. In the less developed northeastern part of the watershed, surface drainage is the primary mode of stormwater conveyance. Figure FC-2 shows a very small sewer portion in the northeast corner. There are no sewer outfalls.

Figure FC-2 also shows the general location of identified detention basins. The Fuller Creek watershed has 2 identified detention facilities.

Available Data Resources

Previous Drainage Studies

A review of available data identified no recent, comprehensive studies of drainage issues within the Fuller Creek watershed.

Historic Flow Data

No source of historic flow data has been identified for the Fuller Creek watershed.

Historic Water Quality Data

No source of historic water quality data has been identified for the Fuller Creek watershed.
(pending input from David Pott)

Other

Soil Characteristics:

“Soil Survey Geographic (SSURGO) database for Winnebago County, Illinois.”

Fort Worth: U.S. Department of Agriculture, Natural Resources Conservation Service, 2007.

URL:<<http://SoilDataMart.nrcs.usda.gov/>>

Drainage Issues

Table FC-2 provides a summary listing of current identified drainage issues and projects within the Fuller Creek watershed. The general locations of these issues and projects are shown on Figure FC-1.

The most significant stormwater management/flood control problem in the Fuller Creek Watershed seems to be runoff issues from new commercial developments. With the opportunity for increased residential development upstream along the Creek, the City should be proactive in its efforts to preclude future development activities that would contribute to further flooding or property loss along the creek. They are planning a channel realignment downstream.

Table FC-2
SUMMARY OF STORMWATER/FLOOD CONTROL ISSUES AND PROJECTS
FULLER CREEK WATERSHED, ROCKFORD, ILLINOIS

#	Brief Description of Issue	Issue Type				Action		
		Over-bank Flooding	Major Surface Flooding	Localized/Nuisance Flooding	Water Quality Impacts	Improvements Completed	Maintenance Required	Future Project
1	Lowes Distribution Center - The property owner south of the distribution center reports that the development is now causing erosion problems and more frequent flooding on their property.			•				
2	SW of Beltline Road and US HWY 20 - Future channel realignment							•

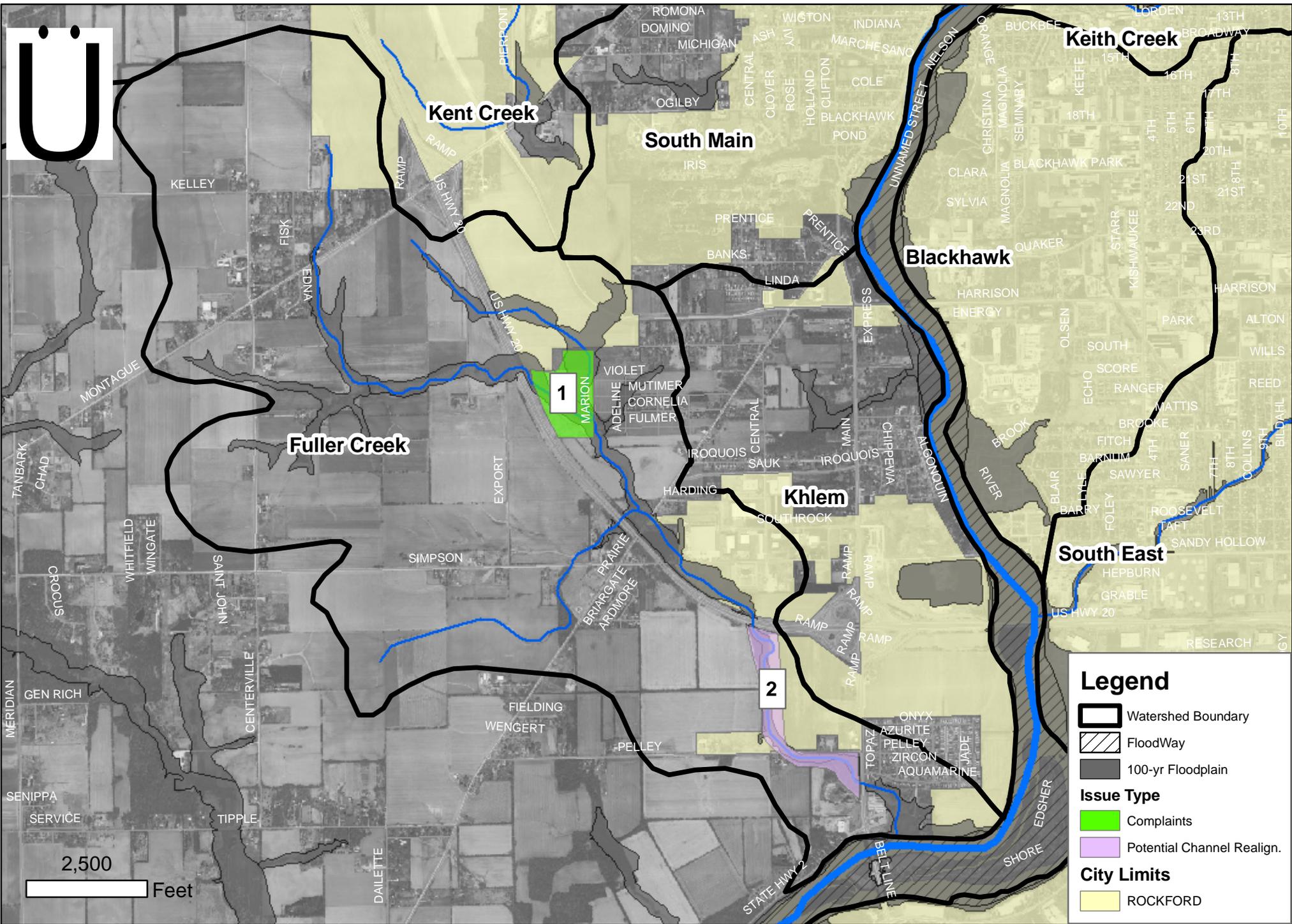


Figure FC - 1

Fuller Creek Watershed Flooding Issues
 City of Rockford, Illinois
 Autumn 2008



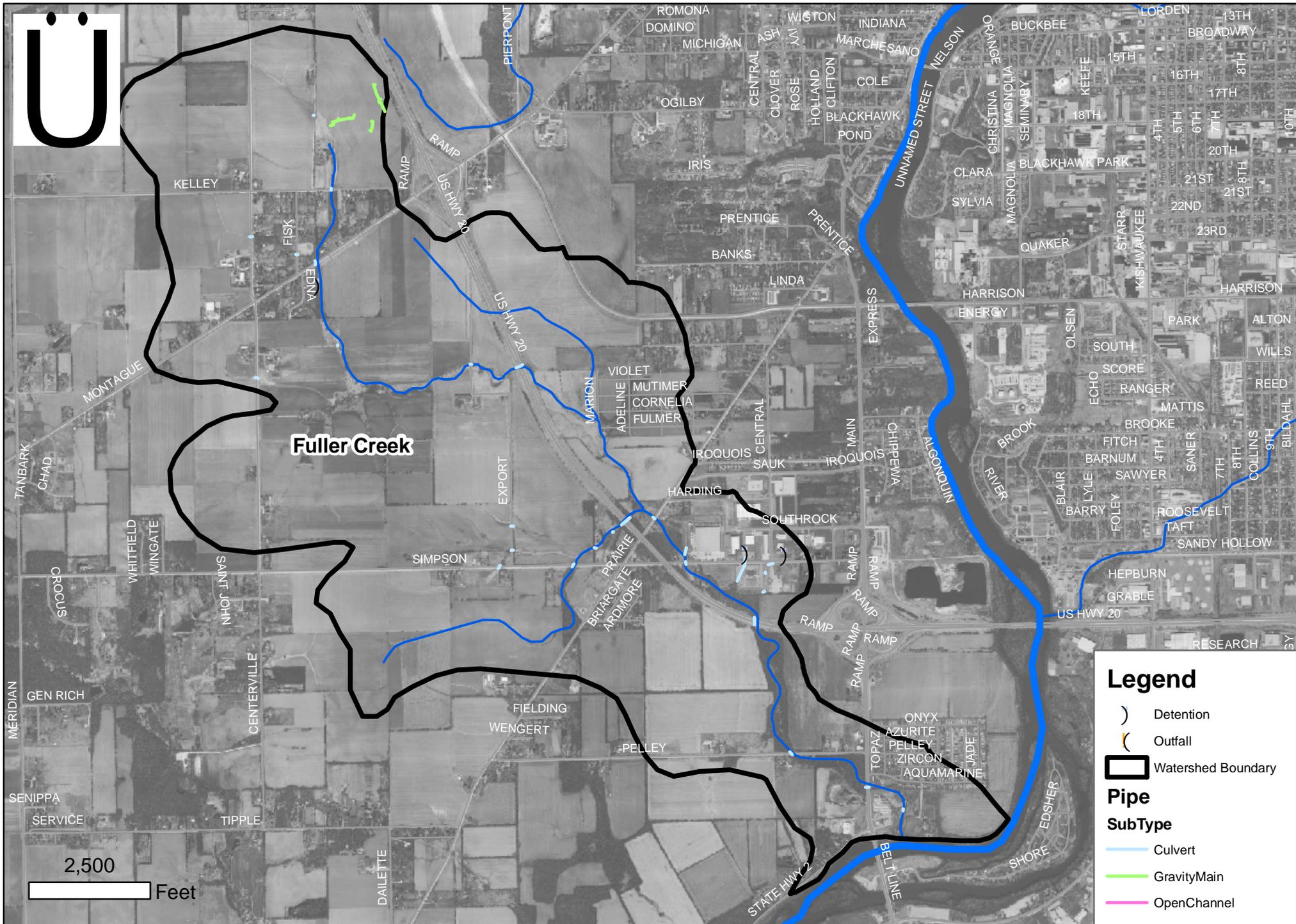


Figure FC - 2