

FLOOD INSURANCE STUDY



WAUKESHA COUNTY, WISCONSIN AND INCORPORATED AREAS VOLUME 1 OF 3

Community Name	Community Number
BIG BEND, VILLAGE OF	550477
BROOKFIELD, CITY OF	550478
BUTLER, VILLAGE OF	550536
CHENEQUA, VILLAGE OF	550125
DELAFIELD, CITY OF	550479
DOUSMAN, VILLAGE OF	550480
*EAGLE, VILLAGE OF	550144
ELM GROVE, VILLAGE OF	550578
HARTLAND, VILLAGE OF	550481
LAC LA BELLE, VILLAGE OF	550565
LANNON, VILLAGE OF	550482
MENOMONEE FALLS, VILLAGE OF	550483
MERTON, VILLAGE OF	550484
MILWAUKEE, CITY OF	550278
MUKWONAGO, VILLAGE OF	550485
MUSKEGO, CITY OF	550486
NASHOTAH, VILLAGE OF	550149
NEW BERLIN, CITY OF	550487
*NORTH PRAIRIE, VILLAGE OF	550175
OCONOMOWOC LAKE, VILLAGE OF	550582
OCONOMOWOC, CITY OF	550488
PEWAUKEE, CITY OF	550192
PEWAUKEE, VILLAGE OF	550489
SUMMIT, VILLAGE OF	550663
SUSSEX, VILLAGE OF	550490
WALES, VILLAGE OF	550183
WAUKESHA, CITY OF	550491
WAUKESHA COUNTY (UNINCORPORATED AREAS)	550476

*No Special Flood Hazard Areas Identified



Waukesha County

REVISED
November 5, 2014



Federal Emergency Management Agency

FLOOD INSURANCE STUDY NUMBER
55133CV001C

**NOTICE TO
FLOOD INSURANCE STUDY USERS**

Communities participating in the National Flood Insurance Program have established repositories of flood hazard data for floodplain management and flood insurance purposes. This Flood Insurance Study (FIS) report may not contain all data available within the Community Map Repository. Please contact the Community Map Repository for any additional data.

The Federal Emergency Management Agency (FEMA) may revise and republish part or all of this FIS report at any time. In addition, FEMA may revise part of this FIS report by the Letter of Map Revision process, which does not involve republication or redistribution of the FIS report. Therefore, users should consult with community officials and check the Community Map Repository to obtain the most current FIS report components.

Initial Countywide FIS Effective Date: November 19, 2008

Revised Countywide FIS Date: November 5, 2014

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**FLOOD INSURANCE STUDY
WAUKESHA AND INCORPORATED AREAS**

1.0 INTRODUCTION

1.1 Purpose of Study

This Flood Insurance Study (FIS) revises and updates information on the existence and severity of flood hazards in the geographic area of Waukesha County, including the Cities of, Brookfield, Delafield, Milwaukee, Muskego, New Berlin, Oconomowoc, Pewaukee, Waukesha; the Villages of: Big Bend, Butler, Chenequa, Dousman, Eagle, Elm Grove, Hartland, Lac La Belle, Lannon, Menomonee Falls, Merton, Mukwonago, Nashotah, North Prairie, Oconomowoc Lake, Pewaukee, Summit, Sussex, Wales; and the unincorporated areas of Waukesha County (referred to collectively herein as Waukesha County).

The following communities have No Special Flood Hazard Areas Identified: the Villages of Eagle and North Prairie. The City of Milwaukee and Village of Lac La Belle are located in more than one county. Only the portions of these communities within Waukesha County are shown.

This FIS aids in the administration of the National Flood Insurance Act of 1968 and the Flood Disaster Protection Act of 1973. This study has developed flood-risk data for various areas of the community that will be used to establish actuarial flood insurance rates and to assist the community in its efforts to promote sound floodplain management. Minimum floodplain management requirements for participation in the National Flood Insurance Program (NFIP) are set forth in the Code of Federal Regulations at 44 CFR, 60.3.

In some States or communities, floodplain management criteria or regulations may exist that are more restrictive or comprehensive than the minimum Federal requirements. In such cases, the more restrictive criteria take precedence, and the State (or other jurisdictional agency) will be able to explain them.

1.2 Authority and Acknowledgments

The sources of authority for this FIS report are the National Flood Insurance Act of 1968 and the Flood Disaster Protection Act of 1973.

Information on the authority and acknowledgments for each jurisdiction included in this countywide FIS, as compiled from their previously printed FIS reports, is shown on the following pages.

City of Big Bend: The hydrologic and hydraulic analyses for the FIS report dated September 1, 1983 were obtained from the Flood Insurance Study for the County of Waukesha, Unincorporated Areas, Wisconsin (Reference 7).

City of Brookfield: The hydraulic analyses for the FIS Report dated August 18, 1986 for all streams studied except South Branch Underwood Creek and Butler Ditch South Branch, were performed by Foth & Van Dyke of Madison, Inc. (the Study Contractor) for FEMA, under Contract No.

EMW-83-C-1177. This study was completed in December 1984. The hydrologic analysis for all streams studied in detail and the hydraulic analyses for South Branch Underwood Creek and Butler Ditch South Branch were performed by Owen Ayres and Associates, Inc.

Village of Butler: The hydrologic and hydraulic analyses for the Flood Insurance Study dated November 15, 1977 were performed by the U.S. Geological Survey, for the Federal Insurance Administration, under Inter-Agency Agreement No. IAA-H-8-76 Project Order No.1. This work, which was completed in April 1977, covered all significant flooding sources affecting the Village of Butler.

City of Delafield: The hydrologic and hydraulic analyses for the Flood Insurance Study dated August 15, 1983 were performed by Donohue & Associates, Inc. , for the Federal Emergency Management Agency (FEMA) , under contract No. EMW-C-0287. This study, completed in September, 1981, included all significant flooding sources affecting the City of Delafield.

Village of Dousman: The hydrologic and hydraulic analyses for the Flood Insurance Study dated April 17, 1987 were obtained from the Flood Insurance Study for the Unincorporated Areas of Waukesha County, Wisconsin (Reference 7), and a Flood Hazard Study for Bark River, Village of Dousman and Vicinity, by the U.S. Department of Agriculture, Soil Conservation Service (SCS) (Reference 8). The hydraulic analysis was supplied to FEMA by the Southeastern Wisconsin Regional Planning Commission..

Village of Elm Grove: The hydrologic and hydraulic analyses for the Flood Insurance Study dated January 19, 1982 were performed by Donohue and Associates, Inc. for the Federal Emergency Management Agency, under Contract No. H-4726. The hydrologic and hydraulic analysis for Dousman Ditch was performed by Owen Ayres and Associates, Inc. This study was completed in January 1980.

Village of Hartland: The hydrologic and hydraulic analyses for the Flood Insurance Study dated June 1, 1982 were performed by Donohue & Associates, Inc., for the Federal Emergency Management Agency, under contract No. EMW- C-0287. This study, completed in February, 1981, included all significant flooding sources affecting the Village of Hartland.

Village of Lac La Belle: The hydrologic and hydraulic analyses for the Flood Insurance Study dated July 18, 1983 were obtained from the Flood Insurance Study for the County of Waukesha, Unincorporated Areas, Wisconsin (Reference 7).

Village of Lannon: The hydrologic and hydraulic analyses for the Flood Insurance Study dated June 1, 1982 were performed by Carl C. Crane, Inc. for the Federal Emergency Management Agency under Contract No. EMW-C-0065. This study was completed in March 1981.

Village of Menomonee Falls: The hydrologic and hydraulic analyses for the Flood Insurance Study dated March 15, 1978 were performed by the U.S. Geological Survey, Water Resources division, for the Federal Insurance Administration, under Inter-Agency Agreement No. IAA-H-17-75, Project Order No. 11. This work, which was completed in March 1977, covered all significant flooding sources affecting the Village of Menomonee Falls.

Village of Merton: The hydrologic and hydraulic analyses for the Flood Insurance Study dated August 3, 1989 were performed by the U.S. Geological Survey (the Study Contractor) for the Federal Emergency Management Agency (FEMA), under Intel-Agency Agreement No. EMW-85-E-1823. This study was completed in June 1986.

Village of Mukwonago: The hydrologic and hydraulic analyses for the Flood Insurance Study dated January 5, 1982 were performed by Carl C. Crane, Inc. for the Federal Emergency Management Agency under Contract No. EMU-C-0065. This study was completed in December 1980.

City of Muskego: The hydrologic and hydraulic analyses for the Flood Insurance Study dated June 1, 1982 were performed by Carl C. Crane, Inc. for the Federal Emergency Management Agency under Contract No. EMW-C-0065. This study was completed in October 1980.

City of New Berlin: The hydrologic and hydraulic analyses for the Flood Insurance Study dated November 6, 1996 were performed by Foth and Van Dyke of Madison, Incorporated (the Study Contractor) for FEMA, under Contract No. EMW-83-C-1177. This study was completed in December 1984. The hydraulic analyses for the revision to Upper Kelly Lake and Upper Kelly Lake Tributary were obtained from the Southeastern Wisconsin Regional Planning Commission (SEIVRPC), Community Assistance Planning Report No. 121, "A Stormwater Management Plan for the Village of Hales Corners, Milwaukee County, Wisconsin" (Reference 9). The hydrologic and hydraulic analyses for Poplar Creek were performed by the U.S. Army Corps of Engineers (USACE), Detroit District, as part of the Limited Map Maintenance Program under Inter-Agency Agreement No. EMW-89-E-2994, Project Order No. 4. For Poplar Creek, however, the Southeastern Wisconsin Regional Planning Commission (SEWRPC) revised the original USACE hydraulic analyses and performed new hydrologic analyses. The Federal Emergency Management Agency (FEMA) reviewed and accepted these data for purposes of this revision.

- Village of Oconomowoc Lake: The hydrologic and hydraulic analyses for the Flood Insurance Study dated April 16, 1984 were obtained from the Flood Insurance Study for Waukesha County, Unincorporated Areas, Wisconsin (Reference 7).
- City of Oconomowoc: The hydrologic and hydraulic analyses for the Flood Insurance Study dated September 1, 1983 were performed by Donohue & Associates, Inc. , for the Federal Emergency Management Agency under contract No. EMW-C-0287. This study, completed in October 1981, included all significant flooding sources affecting the City of Oconomowoc.
- Village of Pewaukee: The hydrologic and hydraulic analyses for the Flood Insurance Study dated April 17, 1987 were transferred directly from the Floodland Information Report for the Pewaukee River by the Southeastern Wisconsin Regional Planning Commission (Reference 10) . This transfer was completed by Carl C. Crane, Inc. for the Federal Emergency Management Agency under Contract No. EM-C-0065. This study was completed in February 1980.
- Village of Sussex: The hydrologic and hydraulic analyses for the Flood Insurance Study dated June 19, 1989 were obtained from the Flood Insurance Study for Waukesha County, Wisconsin (Reference 7). Additional analyses for Sussex Creek, East Branch Sussex Creek, South Branch Sussex Creek, and Willow Springs Creek were obtained from the Floodland Information Report for the Village of Sussex, Wisconsin (Reference 11).
- City of Waukesha: The hydrologic and hydraulic analyses for the Flood Insurance Study dated March 2, 1982 were performed by Carl C. Crane, Inc. for the Federal Emergency Management Agency under Contract No. EMW-C-0065. This study was completed in February 1981.
- Waukesha County: The hydrologic and hydraulic analyses for the FIS Report dated December 18, 1986 were performed by Carl C. Crane, Inc. for the Federal Emergency Management Agency (FEMA) under Contract No. EMW-C-0065. This study was completed in October 1981. The hydrologic and hydraulic analyses for this Revisions Description were performed by the Southeastern Wisconsin Regional Planning Commission and completed by December 18, 1986. The Federal Emergency Management Agency (FEMA) reviewed and accepted these data for purposes of this revision.

For the previous FIS in 2008, the hydrologic and hydraulic analyses for: Mukwonago River, Pewaukee River, Pewaukee Trib 3, Quietwood, Rosenow, Sussex, Sussex South Branch, and Sussex Trib 1 were studied by detailed methods by The Wisconsin Department of Natural Resources, and Gannett Fleming, Inc., for the Federal Emergency Management Agency

(FEMA), under Contract No EMC-2004-GR-0212. This study was completed in June, 2006.

The hydrologic and hydraulic analyses for the: Butler Ditch, South Branch Butler Ditch, Deer Creek, Dousman Ditch, Fox River, North Branch Underwood Creek, Poplar Creek, South Branch Underwood Creek, and Underwood Creek were developed by the Southeastern Wisconsin Regional Planning Commission under a contract with the City of Brookfield, completed in March, 2004 and submitted to FEMA under the LOMR submittal process. The results were reviewed and approved by the Wisconsin Department of Natural Resources on behalf of the FEMA.

The Fox River, through the community of Menomonee Falls, was revised from the original hydraulic models to match the upstream limit of the study done by SEWRPC through the City of Brookfield, by the Wisconsin Dept. of Natural Resources, under this study.

The hydrologic and hydraulic analysis for Deer Creek, through the City of New Berlin, was performed by Bonestroo, Rosene, Anderlik & Associates, Inc. under Project No. 809-00-103 Completed on January 22, 2002. This study was approved by WDNR on behalf of the FEMA.

This countywide FIS includes new hydraulic and hydrologic analyses for Ashippun River, Bark River, Little Oconomowoc River, Oconomowoc River, School Section Creek, Scuppernong Creek, Scuppernong Creek USH18 Diversion, South Tributary to Scuppernong Creek, Unnamed Ditch to Bark River, Unnamed Tributary to Lake Keesus and Unnamed Tributary to North Lake. The analysis for this study were performed by Wisconsin DNR for FEMA under Mapping Activity Statement Contract No. WI-10-01. This study was completed in November 2012.

The projection used in the preparation of this map was Universal Transverse Mercator (UTM) zone 16. The horizontal datum was NAD83, GRS1980 spheroid. Differences in datum, spheroid, projection or UTM zones used in the production of FIRMs for adjacent jurisdictions may result in slight positional differences in map features across jurisdiction boundaries. These differences do not affect the accuracy of this FIRM.

1.3 Coordination

The initial Consultation Coordination Officer (CCO) meetings for this countywide FIS were held on February 1, 2011 and February 7, 2011, and attended by representatives of FEMA, WDNR and community officials. These meetings are held to explain the nature and purpose of a FIS and to identify the streams to be studied by detailed methods. A final CCO meeting was held on July 29, 2013 with representatives from FEMA, the communities and WDNR to review the results of the study. All problems raised at that meeting have been addressed in this study.

For the 2008 FIS, the initial Consultation Coordination Officer (CCO) meeting was held on October 09, 2003, and attended by representatives of: FEMA, WDNR, SEWRPC, City of New Berlin, Village of Merton, Waukesha County, Menomonee Falls, Nashotah, Village of Oconomowoc Lake, City of Waukesha, City of Brookfield, Village of Hartland, City of Muskego, Village of Sussex, and the Village of Elm Grove. The results of the study were reviewed at the final CCO meeting held on December 6, 2007, and attended by representatives of the study contractor, the communities and county, the

State of Wisconsin, and FEMA.

The dates of the initial and final CCO meetings for the first version of the Flood Insurance Studies and held for the incorporated communities within the boundaries of Waukesha County are shown in Table 1, "CCO Meeting Dates."

Table 1 - CCO Meeting Dates

<u>Community Name</u>	<u>Initial CCO Date</u>	<u>Final CCO Date</u>
Big Bend, Village of	*	April 7, 1983
Brookfield, City of	September 19, 1984	September 24, 1985
Butler, Village of	*	May 12, 1977
Delafield, Village of	November 29, 1978	May 26, 1982
Dousman, Village of	*	May 29, 1986
Elm Grove, Village of	March 14, 1978	December 15, 1980
Hartland, Village of	November 30, 1978	August 12, 1981
Lac La Belle, Village of	*	February 17, 1983
Lannon, Village of	June 5, 1979	November 17, 1981
Menomonee Falls, Village of	January 7, 1975	August 23, 1977
Merton, Village of	*	September 27, 1988
Mukwonago, Village of	June 5, 1979	June 2, 1981
Muskego, City of	June 5, 1979	June 3, 1981
New Berlin, City of	September 13, 1984	September 23, 1985
Oconomowoc Lake, Village of	*	October 19, 1983
Oconomowoc, City of	November 30, 1978	March 2, 1981
Pewaukee, Village of	June 5, 1979	May 14, 1981
Sussex, Village of	*	November 3, 1987
Waukesha, City of	June 5, 1979	August 11, 1981
Waukesha County, (Unincorporated Areas)	June 5, 1979	June 3, 1982

* Data not available

2.0 AREA STUDIED

2.1 Scope of Study

This FIS report covers the geographic area of Waukesha County, Wisconsin, including the incorporated communities listed in Section 1.1. The areas studied by detailed methods were selected with priority given to all known flood hazard areas and areas of projected development and proposed construction.

The following flooding sources listed in Table 2 were newly studied or revised by detailed methods:

Table 2 – Flooding Sources Studied by Detailed Methods for this FIS

<u>Stream</u>	<u>Limits of Detailed Study</u>
Ashippun River	Its entire length within Waukesha County
Bark River	Its entire length within Waukesha County
Lake Five	Its entire shoreline
Little Oconomowoc River	Its entire length within Waukesha County
Oconomowoc River	Its entire length within Waukesha County
School Section Creek	From the Waukesha – Jefferson County boundary upstream through School Section Lake
Scuppernong Creek	From its mouth at the Bark River to approximately 2300 feet upstream of Scuppernong Drive
Scuppernong Creek USH 18 Diversion	Its entire length
South Tributary to Scuppernong Creek	From its mouth at Scuppernong Creek to just upstream of County Highway D
Unnamed Ditch to Bark River	From its mouth at Bark River to just upstream of Hillside Road
Unnamed Tributary to Lake Keesus	From Lake Keesus upstream of Camp Whitcomb Road to approximately 400 feet downstream of Center Oak Road
Unnamed Tributary to North Lake	From North Lake to Cornell Lake

Waterways that were previously studied by detailed methods and not revised for this countywide FIS: Brandy Brook, Butler Ditch, Butler Ditch South Branch, Butler Ditch Tributary, Calhoun Creek, Dakota Street Tributary, Deer Creek, Dousman Ditch, East Branch Sussex Creek, Fox River, Genesee Creek, Jericho Creek, Jewel Creek, Lake Denoon

Tributary, Lilly Creek, Mason Creek, Menomonee River, Muskego Canal, Nor-X-way Channel, Pebble Brook, Pebble Brook Tributary, Pebble Creek, Pewaukee Lake Tributary, Pewaukee River, Pewaukee Tributary 3, Poplar Creek, Quietwood Creek, Root River, Rosenow Creek, South 130th Street Tributary, South Branch Sussex Creek, South Branch Underwood Creek, Sussex Creek, Sussex Creek Tributary 1, Tess Corners Creek, Tess Corners Creek North Branch, Tributary No. 2 to Fox River, Tributary to South Branch Underwood Creek, Underwood Creek, Upper Kelly Lake Tributary, West Branch Pewaukee Lake Tributary, West Branch Root River, Willow Springs Creek.

Approximate analyses were used to study those areas having a low development potential or minimal flood hazards. Waterways with new analyses and shown as Zone A on the map are: Lake Keesus outlet to the Oconomowoc River, Mason Creek above the detailed portion and Unnamed Tributary to Ashippun River. Waterways not restudied and shown as Zone A on the current map are: Artesian Brook, Battle Creek, Brandy Brook, Calhoun Creek, Lower, Middle, and Upper Genesee Lakes, Genesee Creek, Jericho Creek, Mill Creek, Mukwonago River, Pebble Creek, Pewaukee Lake Tributary, West Branch Pewaukee Lake Tributary, Silver Lake, South 130th Street Tributary, Spring Brook, Tess Corners Creek, West Branch Root River, Willow Springs Creek, and numerous unnamed streams. The scope and methods of study were proposed to, and agreed upon, by FEMA and Wisconsin DNR.

This countywide FIS also incorporates the determination of letters issued by FEMA resulting in map changes (Letters of Map Change, or LOMCs) as shown in Table 3. All Letters of Map Revision (LOMRs) and Letters of Map Amendment (LOMAs) incorporated in this study are summarized in the Summary of Map Actions (SOMA) associated with this FIS update. Copies of the SOMA may be obtained from the Community Map Repository.

Table 3 – Letters of Map Change Incorporated for this FIS

<u>Community</u>	<u>Flooding Source</u>	<u>Case Number</u>	<u>Date Issued</u>	<u>Type</u>
Waukesha County Unincorporated Areas	Brandy Brook	08-05-4338P	06-19-2009	LOMR
City of Muskego	Unnamed Tributary to Muskego Canal	09-05-4072P	09-30-2009	LOMR
Village of Elm Grove City of Brookfield	Underwood Creek	09-05-5085P	02-05-2010	LOMR
Waukesha County Unincorporated Areas	Golden Lake	10-05-0806P	09-03-2010	LOMR
City of New Berlin	Calhoun Creek	10-05-2901P	10-04-2010	LOMR
Waukesha County Unincorporated Areas	Genesee Lakes	12-05-1322P	11-16-2012	LOMR
City of New Berlin	Dakota Street Tributary	12-05-4601P	05-10-2013	LOMR
Waukesha County Unincorporated Areas	Sussex Creek	13-05-1048P	01-07-2014	LOMR

2.2 Community Description

Waukesha County is located in southeastern Wisconsin and is bordered by Dodge and Washington Counties on the north, Milwaukee County on the east, Racine and Walworth Counties on the south and Jefferson County on the west. The total land area contained within the county limits is approximately 554 square miles. Waukesha County was created in 1846. In 2010 its population was listed as 389,891. Urban population centers within the county include the cities of Waukesha, Brookfield, New Berlin, Muskego, Oconomowoc and Delafield. The County is divided into two distinct drainage basins. The western portion of the county is drained into the Rock River Basin. Principal rivers in this area include the Oconomowoc River, Mason Creek and the Bark River. The eastern portion of the County is drained by the Fox River Basin. All remaining rivers studied by detailed methods for this report contribute to the Fox River Basin. The climate in southeastern Wisconsin is characterized by wide variations in temperatures. Average summer and winter temperatures for the years 1973 to 1977 ranged from 74 degrees F. to 3 degrees F., respectively. Annual average precipitation of the region is 32.0 inches, with an average recorded snowfall of 42 inches. Precipitation is normally higher in the spring and summer months (References 1 and 2). The surface of the county is a gently undulating plain mainly sloping southward. There are only a few points of prominent relief and these are located in the western part. A belt of hummocky drift hills, the Kettle Moraine, associated with numerous lakes, lies across the western part of the county. In the eastern part, the valleys are broad and the uplands gently sloping. In the western part, the topography is more abrupt. There are numerous lakes in the county, the principal ones being Muskego Lake in the southeastern part, and the large group of lakes in the northwestern part between the Village of Pewaukee and the City of Oconomowoc. The upland ridges in the eastern part reach altitudes of 950 to 1,050 feet, while the uplands in the western part often reach 1,050 to 1,150 feet. The highest point in the county, Government Hill, reaches an altitude of 1,230 feet, 343 feet above Pewaukee Lake, two miles to the north. While the range in elevation in the county is nearly 500 feet, the usual difference in elevation between valley bottom and adjacent upland is less than 150 feet and rarely exceeds 250 feet. The Niagara limestone is the bedrock formation in the eastern three-fourths of the county. Along the western border is a belt 5 to 10 miles wide of the Cincinnati shale and the Galena-Platteville (Trenton) limestone. The glacial drift of variable thickness overlying the rock forms a well-defined belt of terminal moraine extended north and south in the western part of the county. The thickness of the Niagara limestone is variable on account of the extensive erosion of this formation. At Waukesha it has a known thickness of 230 feet, but the probable maximum thickness on ridges thinly covered with drift may reach 350 to 400 feet. The total thickness of the Cincinnati shale is probably 150 to 200 feet, and of the Galena-Platteville (Trenton) limestone 250 to 300 feet. In the western part of the county where these formations outcrop or underlie the drift, the entire formations are not present on account of erosion. The thickness of the St. Peter sandstone and Lower Magnesian limestone formations combined is about 250 feet, and of the Upper Cambrian (Potsdam) sandstone 800 to 900 feet.

2.3 Principal Flood Problems

The past history of flooding within Waukesha County indicates that floods may occur during any season of the year. The majority of major floods on the Fox River, the Bark River, the Mukwonago River, and the Oconomowoc River have occurred in the early spring and are usually the result of spring rains and/or snowmelt. All other rivers in this study are smaller

basins and, therefore, are more responsive to locally heavy rains. Floods usually occur on these creeks during any of the warmer months of the year. There are three gaging stations within the county, one each on the Fox River (No. 05-5438.3), the Mukwonago River (No. 05-5443), and Scuppernong Creek (No. 05-4261). The drainage areas of the latter two are quite small and, therefore, flooding conditions at the gages would not have to be indicative of general flooding conditions within the county. The Fox River Gage is located in the City of Waukesha and has a contributing drainage area of 124 square miles. The gage has been in operation since 1963 and has recorded major flood in 1965, 1973, 1974 and 1979. Frequencies for these floods were set at once every 5, 20, 6 and 5 years respectively.

JUNE 26, 1940 FLOOD

Runoff created by a violent thunderstorm resulted in several flooding problems in and near the Village of Pewaukee, including inundation of State Trunk Highway 16 east and west of Pewaukee and State Trunk Highway 19 west of Pewaukee. Pewaukee Lake levels rose such that the water threatened to top Wisconsin Avenue in the Village area east of the lake and as a result, sandbagging operations were initiated along Wisconsin Avenue. Six pumps were operated to eliminate surcharging in the Village sewer system.

APRIL 1, 1960 FLOOD

Flooding occurred in Waukesha County on April 1, 1960. The only problem reported in the Village of Pewaukee was the need for sandbagging to protect the Sentry Store located immediately adjacent to the Pewaukee River near the intersection of Oakton Avenue and Elm Street.

SEPTEMBER 19, 1972 FLOOD

This flood event was characterized by a combination of lightning, thunder, high winds and driving rain and a one foot rise in the level of Pewaukee Lake. A total of three inches of rainfall was recorded in Pewaukee. Sandbagging operations were required at the Sentry Store parking lot in order to prevent flood damage to the store. Basement flooding was reported and portions of local streets were inundated.

APRIL 21 -22, 1973 FLOOD

Heavy spring rains falling on an unusually wet ground caused extensive flooding and flood damage in southeastern Wisconsin in April 1973. The level of Pewaukee Lake rose almost one foot and, as a result of high winds, waves moved easterly across the lake and water flowed over Wisconsin Avenue and into the commercial area of the Village at the east end of the lake. Wisconsin Avenue was closed temporarily until a sandbagging operation could be completed, and sandbags were also placed along the rear of commercial buildings located along the east edge of Wisconsin Avenue in order to prevent flood damage from high waters on the Pewaukee Lake outlet and the Pewaukee River. The Pewaukee River and the Pewaukee Lake outlet were well out of their channels throughout the Village area, and basement flooding and backup from the sanitary sewers, with some basements reporting as much as eight feet of water, were reported throughout the Village with the most serious problems being in the vicinity of Wisconsin Avenue and Park Avenue. Fire department pumping trucks were used to prevent flooding at the Sentry Store. It was reported that almost every business in the downtown commercial section suffered some form of water damage. The Pewaukee River beneath the Capitol Drive bridge was intentionally blocked in order to make maximum utilization of the floodwater storage area immediately upstream in the Village park. (Reference 10).

MARCH, 1960 AND APRIL, 1973 FLOODS. The past history of flooding on the streams within the City of Waukesha indicates that flooding may occur during any season of the year. The majority of major floods on the Fox River have occurred in the early spring and are usually the result of spring rains and/or snowmelt. The most recent flooding within the City of Waukesha occurred in March of 1960, and April of 1973. A USGS gage (543803) was established in 1963, and has recorded flood peaks on the Fox River since that time. It registered a peak discharge for the 1973 flood of 2160 CFS, which would have an expected frequency of once every 25 years. Highwater marks from this flood were used to verify the hydraulic model used in this study.

JUNE 21, 1997 FLOOD -Flash flooding occurred primarily in eastern Waukesha County as a result of heavy rainfall amounts in excess of 5 to over 8 inches in a 30 hour period ending about 1000CST. (see Figure 1, below). This flash flooding was greater than a "100 year rainfall" based on rainfall frequency maps. No one was injured or killed by the flood waters, thanks to superb rescue efforts by local law enforcement officials and firefighters. Besides public sector damage in county/city parks, there was private and business damages. The hardest hit area was the city of Menomonee Falls, followed by New Berlin, Lannon, Sussex, and the town of Lisbon. Spotty flash flooding was noted in the cities of Oconomowoc, Hartland, Delafield, and Pewaukee. (On July 7th, Waukesha County was officially declared a Federal Disaster Area, making county residents and business owners eligible for Federal disaster aid). Areas along and near the Menomonee River experienced moderate to major flooding to nearby roads, homes, and businesses. In Menomonee Falls, several homes had significant structural damage, while about 50 homes and basements had significant loss of personal property. Some car dealerships and repair shops suffered damage to new and used vehicles. Hundreds of homes and businesses lost their electrical, natural gas, or telephone service. Many traffic lights were also inoperative. Several roads and underpasses across the eastern half of the county were flooded with several feet of water, resulting in road closures. Some drivers had to be rescued after their vehicles were swept away by deep, fast water currents over roads. Sections of asphalt paving were washed away on several roads in the eastern part of the county. Many farm fields in the eastern half of the county suffered soil erosion, or had enough standing water leftover to completely damage this years crops. Nearly all golf courses in the county were closed due to high water levels. A 12-foot sinkhole developed in the backyard of a Hartland residence as the ground collapsed. Rainfall totals for the 30-hour period ending 1200CST were 8.40 inches in the city of Menomonee Falls, about 6.50 inches in Sussex, 5.95 inches in Elm Grove, 5.20 inches in Pewaukee and Waukesha, 5.01 inches in Hartland, 3.90 inches in Delafield, and 2.44 inches in Oconomowoc. Due to runoff, the Fox River throughout the county rose to 1 to 2 feet above flood stage, resulting in minor to moderate flooding along the river. At some locations along this river, this would be a 5 to 10 year frequency flood. Flood gates on dams at Pewaukee and Nagawicka Lakes were opened to lower lake levels and relieve pressure. Properties and businesses along and near these lakes sustained flooding damage.

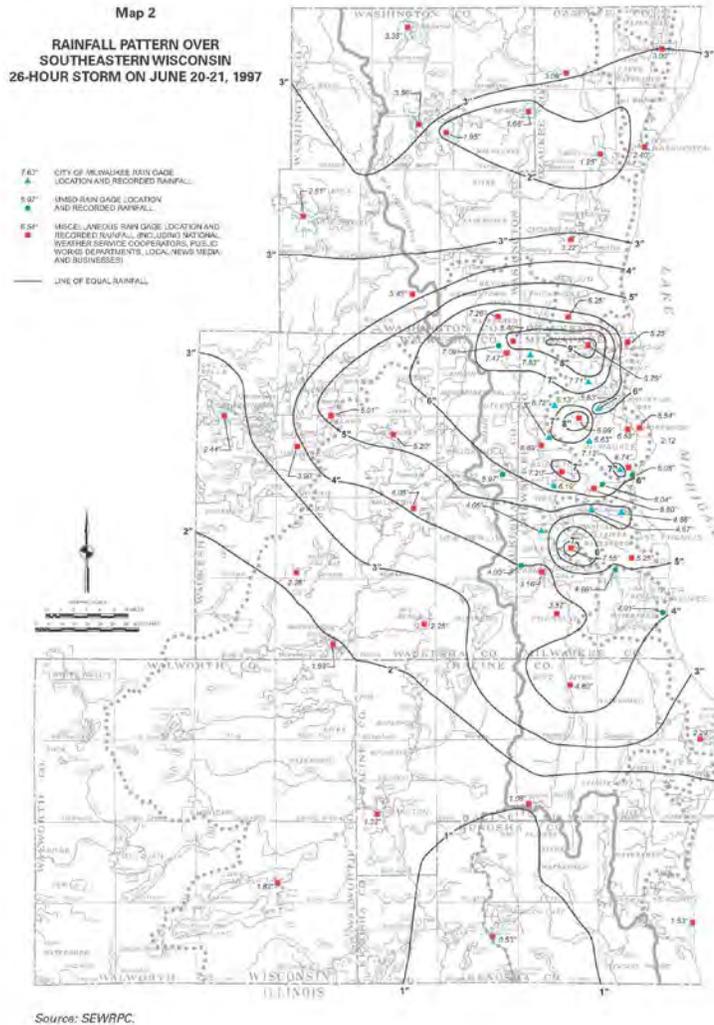


Figure 1 - Rainfall for June 20-21, 1997

These lakes were at the highest levels ever remembered by local residents. In the southeast part of the county, a small earthen dam on Jewel Creek just north of Little Muskego Lake was in danger of failing due to high water levels and water pressure. A small portion of the dam was breached. However, later in the day on June 21st and on the 22nd, DNR officials gradually lowered the lake in a controlled manner, to avoid any serious flooding.

AUGUST 6, 1998 FLOOD: The worst flash flooding of the 1900's struck eastern Waukesha Co. , resulting in large monetary loses, and forcing some residents to decide to move out of flood plains. The worst flash flooding occurred from Brookfield through Elm Grove into New Berlin, and was the result of 6 to almost 12 inches of rain between 1230CST (130pm) and 2000CST (9pm), falling on top of 1 to 2 inches that fell in the previous two days. Maximum storm rainfall was 11.75 inches in Elm Grove at the intersection of North and Calhoun. There was an 11.50 inch report out of Brookfield, while the Brookfield High School

registered 8.75 inches. (see Figure 2, below). Tragically, 2 teenage boys, ages 10 and 14, died when swirling flood waters swept them into a drainage ditch at 1710CST (610pm) which flowed into Underwood Creek in Elm Grove at Watertown Plank and Sunnyslope Roads.

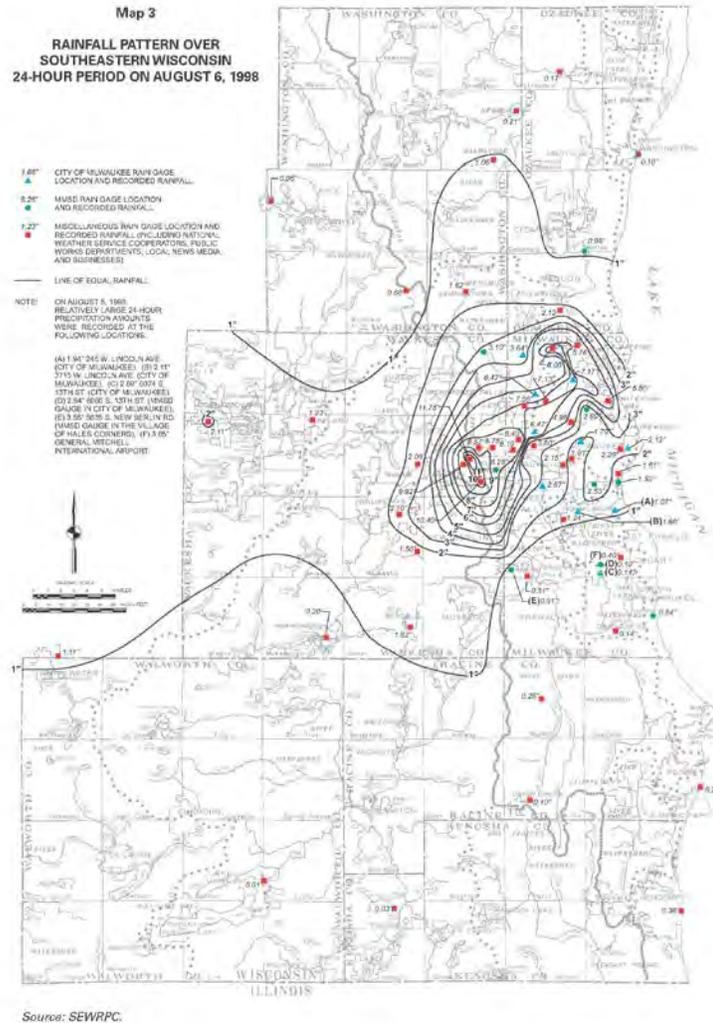


Figure 2 - Rainfall on August 6, 1998

Rescue workers had to put on scuba diving gear to locate one of the boys. Flood waters of 4 to 5 feet covered much of New Berlin, half of Brookfield's roads were submerged, and water to a depth of 4 to 7 feet settled in over Elm Grove. In fact, The Mill Place Shopping Center in Elm Grove still had standing water on August 7th. Flooding was so bad at the I-94 and Moreland Rd. interchange that local officials closed that intersection. Rescue workers in boats had to pluck people out of their stalled vehicles in that area. Compounding the flooding problem was the accumulation of raw sewage which backed into many basements. Overall,

2680 residential homes sustained minor flood damage, while 10 had major damage. Thirty businesses suffered minor damage, 20 had major damage, and 2 were destroyed. One utility building sustained minor damage. There was nearly a half-million dollars in damage in the public sector to road systems, buildings, etc. Many roads suffered gravel washouts on the shoulders, while a portion of Blackwolf Run golf course washed away. Many streams and creeks had high water levels for days after the bulk of the flash flood. The Fox River in Pewaukee crested at 12.08 feet at 0100CST (2am) on August 8th, or 2.08 feet over flood stage, and would stay above flood stage through the 10th.

2.4 Flood Protection Measures

There are numerous dams within Waukesha County. Most were built for recreational purposes. The chain of lakes on the Oconomowoc River, the Nemahbin Lakes and Nagawicka Lake on the Bark River, Phanbm Lake on the Mukwnago River, and Saylesville Pond on Genesee Creek all provide substantial attenuation of peak discharges on the watercourses where they are located. Most other lakes studied by detailed methods provided little to no attenuation of peaks and, therefore, provided little in the way of flood protection.

The Village of Butler has no flood protection structures. However, the village has retained most of the Menomonee River flood plain in public ownership as a municipal park. This effectively prevents development of flood-damageable structures in the flood-prone areas.

Within the City of Delafield there is a dam on the Bark River to maintain water levels on Nagawicka Lake.. Operation of the gates at this dam will reduce flooding downstream by about 1.0 ft., for a distance of several miles. Several small structures have been placed along the river banks and lake shorelines to protect buildings and the land from high wate damage. Conservancy districts which restrict development have been established along the Bark River upstream and downstream of Nagawicka Lake.

In the Village of Elm Grove, a dam on Underwood Creek at Wall Street is used to retain water for fire protection. However, this dam does not significantly alter the water surface elevations in the event of high water. The village has dredged, widened and straightened portions of the Underwood Creek channel since the 1973 flood.

The Village of Menomonee Falls, in cooperation with the Southeastern Water Resources Planning Commission, has considered potential flood problems in the Village. Preventive flood protection measures have been adopted. Major and minor channelization has taken place along reaches of the Menomonee River, Lilly Creek, and Nor-X-Way Channel. Also, most marsh and flood plain areas in the Menomonee and Fox River basins have been preserved as open space for floodwater storage.

In the Village of Merton, the flow of the Bark River is regulated by the Mill Pond Dam. If the tainter gate is operated properly, the dam embankment will not be overtopped during a 100-year flood.

In the Village of Mukwonago, the Lower Phantom Lake Dam is the only effective flood control structure within or upstream of the Village. The dam and its resulting storage capacity causes an attenuation of the peak 100-year discharge of approximately 25 per cent. This reduction of peak does result in lower flooding elevations downstream of the structure.

Although the dams within the City of Muskego were constructed to create recreational lakes, the storage capacity behind these structures does cause considerable attenuation of peak discharges and, therefore, helps minimize flood damages.

In the Village of Oconomowoc Lake, there are numerous dams along the Oconomowoc River. Most were built for recreational purposes. The chain of lakes on the Oconomowoc River provide substantial attenuation of peak discharges on the water courses where they are located.

In the Village of Pewaukee, there is only one hydraulically significant dam located on the stream system within the Pewaukee River subwatershed and that is the control structure at the east end of Pewaukee Lake. The Pewaukee Lake outlet control structure is equipped with a sluice gate that facilitates drawing down the level of Pewaukee Lake about 1.5 feet below the dam crest. Based on Wisconsin Department of Natural Resources operating regulations, this dam is to be operated so as to maintain the level of Pewaukee Lake at an elevation of 852.8 feet above Mean Sea Level Datum during the period May 15 through October 1. During the October 1 to October 15 period, the lake is to be drawdown to an elevation of 852.2 feet above Mean Sea Level Datum, and is to be maintained at that level for the period from October 15 through May 1. During the period from May 1 to May 15, the lake is to be gradually raised back to elevation 852.8 feet. Therefore, the lake level is to be maintained within a very narrow range of only 0.6 foot. For the purpose of the hydrologic-hydraulic modeling, the Pewaukee Lake was maintained at the 852.2 level.

Within the City of Waukesha, there are no known flood control structures along Pebble Creek or Pebble Brook Tributary within or upstream of the study area. There is a dam, on the Fox River, within the corporate limits of Waukesha. Its primary use at this time is recreational. It is ineffective in attenuating peak flows, therefore offers little flood protection.

3.0 ENGINEERING METHODS

For the flooding sources studied by detailed methods in the community, standard hydrologic and hydraulic study methods were used to determine the flood-hazard data required for this study. Flood events of a magnitude that is expected to be equaled or exceeded once on the average during any 10-, 25-, 50-, 100-, or 500-year period (recurrence interval) have been selected as having special significance for floodplain management and for flood insurance rates. These events, commonly termed the 10-, 25-, 50-, 100-, and 500-year floods, have a 10-, 4-, 2-, 1-, and 0.2-percent chance, respectively, of being equaled or exceeded during any year. Although the recurrence interval represents the long-term, average period between floods of a specific magnitude, rare floods could occur at short intervals or even within the same year. The risk of experiencing a rare flood increases when periods greater than 1 year are considered. For example, the risk of having a flood that equals or exceeds the 1-percent-annual-chance flood in any 50-year period is approximately 40 percent (4 in 10); for any 90-year period, the risk increases to approximately 60 percent (6 in 10). The analyses reported herein reflect flooding potentials based on conditions existing in the community at the time of completion of this study. Maps and flood elevations will be amended periodically to reflect future changes.

3.1 Hydrologic Analyses

Hydrologic analyses were carried out to establish peak discharge-frequency relationships for each flooding source studied by detailed methods affecting the community.

The methods used to determine peak discharge-frequency relationships for the flooding sources newly studied in detail or restudied as part of the countywide FIS are described below.

New hydrologic analyses were performed by the Wisconsin Department of Natural Resources (WDNR) in 2012 for the Ashippun River, Bark River watershed (Bark River, School Section Creek, Scuppernong Creek, Scuppernong Creek USH 18 Diversion, South Tributary Scuppernong Creek and Unnamed Ditch to Bark River) and the Oconomowoc River watershed (Lake Keesus, Little Oconomowoc River, Oconomowoc River, Unnamed Tributary to Lake Keesus and Unnamed Tributary to North Lake). A new hydrologic analyses was performed by CDM Smith for Lake Five.

Discharges were computed using the Hydrologic Engineering Center's *Hydrologic Modeling System (HEC-HMS)* computer software, version 3.5.0. For each subbasin, runoff Curve Numbers (CNs) were estimated using SSURGO soils data and the WISCLAND landuse data (1992). The Ashippun River and Oconomowoc River watershed studies used SEWRPC landuse data (2000). Times of concentration were estimated using the TR-55 flowpath segment method. The rainfall distribution used was developed by the WDNR and is based on large storms in the State of Wisconsin from 1975 to 2008. This curve was developed for use as a design distribution in combination with solving for a critical storm duration. Flood storage was taken into account through permanent water bodies and areas covered by the regulated Wisconsin Wetland Inventory where significant flood attenuation may occur. It is assumed that no major construction or filling will occur in these areas that would reduce the amount of available storage volume.

Some reaches in these studies were considered non-contributing due to the volume of depressions being able to contain a 0.2 percent rainfall event without contributing any runoff.

Where available, surveyed high water marks (HWMs) from the June 2008 event were used to calibrate the HEC-HMS models. Precipitation data was recorded and entered into the models for the events of June, 2008 at National Climatic Data Center (NCDC) precipitation gages. An Inverse Distance weighting method was chosen for the precipitation method (Met Model "June 2008"). This method computes the precipitation hyetograph for each subbasin using nearby gages and weights them according to the distance to each gage. CNs were adjusted for the 2008 run until the appropriate discharges were found to match the surveyed HWMs coded into the hydraulic models. The design discharges were then determined by running the design WI distribution storms over the basin model with adjusted CNs.

For the Oconomowoc River, surveyed high water marks were collected at two locations in Jefferson County for the June, 2008 flood. Daily staff gage readings were also provided at Lac La Belle, Oconomowoc Lake and Okauchee Lake. These records were used to calibrate the hydrologic model for results on the main stem of the Oconomowoc River between the mouth and North Lake.

The custom WI rainfall distribution was used in the HMS built for each basin, and run for the 3-hour, 6-hour, 12-hour, 24-hour, 2-day, 4-day, 7-day and 10-day durations for each storm frequency, as required by FEMA specifications, to determine the critical duration storm for each sub-basin. Rainfall depth was determined from TP-40 and TP-49. The largest peak discharge for each sub-basin was selected as the 'design storm' for the purpose of determining the peak discharge at key points in each watershed, and then used in the hydraulic model to determine the highest possible peak elevation at all points along the mapped floodplain.

There is one USGS stream gage on the Bark River at the Rome Dam that recorded the flood of June, 2008. There are also multiple rainfall gages surrounding the watershed that recorded this same event. Observed rainfall and streamflow data were entered into the Bark River watershed model for the month of June. The basin model was then calibrated to match the observed hydrographs by adjusting CNs and SCS lag times. The model was also adjusted to match known flooding heights on Whitewater Creek. Using the calibrated basin model, theoretical design storms were ran at various durations.

Flood stages for Lake Five were developed using a HEC-HMS model for portions of Washington and Waukesha Counties. Curve numbers were selected based on hydrologic soils types from the NRCS and land use data developed by SEWRPC. The SCS Unit Hydrograph was used to transform precipitation totals, obtained from TP-40 and TP-49, into runoff for the 10-, 4-, 2-, 1-, and 0.2-percent annual chance events for the 10-day storm duration. The initial lake elevation was taken as the maximum recorded water surface elevation since 1974, as obtained from gage readings. The 10-, 4-, 2-, 1-, and 0.2-percent annual chance flood stages were developed for Lake Five by adding the incremental stages resulting from the respective runoff events to the initial lake elevation.

For the Dakota Street Tributary, Brandy Brook, Underwood Creek, Golden Lake and the Genesee Lake LOMR's, hydrology was revised as described in their respective LOMR documentation.

The following hydrologic analyses have not changed from the previous countywide FIS.

Hydrologic analyses were performed by the WDNR in 2005 on the following waterways: Mukwonago River, Pewaukee River, Quietwood Creek, Rosenow Creek and Sussex Creek. Discharges were computed using the Hydrologic Engineering Center's Hydrologic Modeling System (HEC-HMS) computer software, version 2.2.2 (USACE, 2003). For each subbasin, runoff Curve Numbers (CNs) were estimated using Waukesha County's 2000 landuse data and SSURGO soils data. Times of concentration were estimated using the TR-55 flowpath segment method. The rainfall distribution used was developed jointly by the WDNR and the Southeastern Wisconsin Regional Planning Commission (SEWRPC). Rainfall time distributions were developed for 3-hour through 48-hour rain storms recorded at selected gauges in the Region (Reference 12). Those distributions were plotted as percent of total rainfall (y-axis) versus percent of total time (x-axis). The data were used to develop a representative storm/flooding distribution in Southeastern Wisconsin.

Mukwonago River Storage areas included: Eagle Spring Lake, Lake Beulah, and Phantom Lake. The rating curve for Lake Beulah was taken from the DNR field file. Discharge rating curves for Eagle Spring and Phantom Lakes were computed based upon DNR

inspection surveys from the field files. Storage rating curves for these two lakes are based upon lake survey maps and the 2000 TIN.

Pewaukee River At Pewaukee Lake, the discharge rating curve is based upon the 1981 DNR calculations in the DNR dam field file. Lengths used for weir flow calculations overtopping Wisconsin Ave. were updated to reflect more recent field survey provided by SEWRPC and the 2000 TIN. A new stage-storage curve was computed by calculating the available storage volume above the water surface of the 2000 TIN at each elevation. Storage was taken into account for Salow and Pewaukee Lake.

Quietwood Creek Floodplain storage was taken into account for the designated wetland in subbasin R50W50.

Rosenow Creek Subbasin R80W80 contains a 16-acre reservoir that was taken into account in both models.

Sussex Creek Storage was taken into account through the pond at the outlet of subbasin R170W180 in both models.

The hydrologic analysis for most waterways in the Fox River Basin, including Brandy Brook, Fox River, Genesee Creek, Jericho Creek, Muskego Canal, Poplar Creek, Pebble Brook, and Pebble Creek, were taken directly from the publication "A Comprehensive Plan for the Fox River Watershed" (Reference 2). The nearest recording stream gage (Reference 6) on the Fox River is located at Prairie Street (drainage area 127 square miles) in Waukesha a distance of about 10 miles from Brookfield. This gage has been in operation from 1963 to the present. The discharges for the various flood-frequency recurrence events on this river were evaluated according to a log-Pearson Type III analysis as prescribed in Bulletin No. 17. The discharges at various locations along the Fox River within the city were obtained from discharge versus drainage area curves for the river based on the upstream and downstream data.

The discharges for reaches of these stream covered by the Menomonee River Watershed study (Butler Ditch South Branch) were obtained using the method described in SCS Technical Release No. 20 (Reference 3). Discharges for Calhoun Creek were determined using the peak discharge frequency analysis.

The hydrologic analyses for the remaining rivers studied by detailed methods within Waukesha County, including Mason Creek and West Branch Pewaukee Lake Tributary were carried out using a combination of two different methods. The first utilized the methodology outlined in the U.S. Department of Agriculture, Soil Conservation Service (SCS), National Engineering Handbook (Reference 6). Using this procedure, the time of concentration and the time of peak are computed for the basin and a unit hydrograph is developed. The expected 6-hour rainfall or the desired frequency event was obtained from Technical Paper 40 (Reference 1), and distributed into 30-minute amounts as described in the SCS criteria for design storms. A 6-hour duration storm was chosen since it was determined to be the "effective duration" for areas having an average annual precipitation of approximately 30 inches. Rainfall excess is computed from accumulated rainfall, using an SCS runoff equation which equates runoff as a function of soil type, antecedent moisture condition, and land use. Utilizing these precipitation data and the derived unit hydrograph, an outflow hydrograph is computed for the basin.

The second method involves the use of the State of Wisconsin's Multiple Regression

Equations for ungaged basins. The derivation of these equations, the applicability, and the assumptions involved are described in “Estimating Magnitude and Frequency of Floods in Wisconsin” by Duane H. Conger (Reference 8). These equations use basin size, main channel slope, percent lake and marsh, and an areal factor as independent variables. The discharges, derived by combining these two methods, were compared with discharge-frequency distributions developed for similar gaged basins and were found to be consistent.

Poplar Creek discharges were originally determined by the computer model HYDROCOMP, reported in the Fox River Watershed study, (Ref. 2) 1970 . Poplar Creek was then restudied in 1996 by detailed methods from downstream of the corporate limits of New Berlin to a point approximately 1.59 miles upstream of Observatory Road. The new hydrologic model of the Poplar Creek subwatershed was developed by SEWRPC using the USACE HEC-1 computer program.

The hydrologic information for East Branch Sussex Creek and Willow Spring Creek were taken from the Floodland Information Report for the Village of Sussex (Reference 11). The discharges in those reports were developed using the Hydrocomp computer model (Reference 5). The principal function of this model is to determine the volume and temporal distribution of runoff from the land to the stream segments.

Butler Ditch. In 2000, SEWRPC completed a further revision of the stormwater and floodland management plan for Underwood Creek and Dousman Ditch in the City of Brookfield and the Village of Elm Grove That plan was developed at the request of those two communities and represented a further refinement of the plan prepared in 1990 for the MMSD. As part of this latest study, the HSP model as refined in 1990 was converted to the U.S. Environmental Protection Agency Hydrologic Simulation Program - Fortran (HSPF) model. The conversion was made only for the Underwood Creek and Butler Ditch subwatersheds. In addition to the conversion to HSPF, the model was updated to reflect further physical changes within these subwatersheds. Butler Ditch was included in the converted model since it had been found that runoff from that basin can overflow to the Underwood Creek basin under heavy storm events. This interaction between the two basins was added to the model. The Regional Planning Commission staff updated the Underwood Creek/Butler Ditch HSPF model to account for the August 6, 1998 flood event as well, since that event alone is the most significant flooding event since the late 1800’s for this watershed. The HSPF model has been updated to reflect current channel and floodplain conditions, including the incorporation of constructed stormwater detention basins in the Butler Ditch subwatershed. The model reflects planned year 2020 land use conditions. As noted, both subwatersheds are already near planned buildout conditions.

Peak discharge-drainage area relationships for all waterways studied by detailed methods are shown in Table 4, “Summary of Discharges.”

Table 4 - Summary of Discharges

<u>Flooding Source and Location</u>	<u>Drainage Area (square miles)</u>	<u>Peak Discharges (cubic feet per second)</u>				
		<u>10-Percent Annual Chance</u>	<u>4-Percent Annual Chance</u>	<u>2-Percent Annual Chance</u>	<u>1-Percent Annual Chance</u>	<u>0.2-Percent Annual Chance</u>
ASHIPPUN RIVER						
At Pennsylvania St. Approximately 2200' downstream of Monterey Dam	34.5	440	630	780	910	1,340
Approximately 3800' upstream of Monterey Dam	34.1	430	630	770	900	1,330
At confluence with Ashippun Lake	33.0	420	610	760	890	1,310
At County Highway P Approximately 2700' upstream of Norwegian Road	30.8	550	740	880	1,000	1,420
At Waukesha/Dodge county boundary	29.2	630	860	1,020	1,170	1,590
	26.2	510	700	830	950	1,310
	23.8	430	580	690	790	1,100
BARK RIVER						
At confluence with Scuppernong Creek	64.5	640	831	1,012	1,242	2,005
Upstream of confluence with Scuppernong Creek Approximately 4000' upstream of USH 18	48.0	327	477	578	719	952
Approximately 1300' upstream of Main St.	47.6	340	493	598	742	969
At State Highway 67	43.7	250	336	390	480	611
At Crooked Lake outlet	43.6	250	336	391	480	611
At Lower Nemahbin Lake outlet	42.4	251	337	392	482	612
Upper Nemahbin Lake	41.8	258	346	405	489	618
At Upper Nemahbin Lake inlet	40.5	294	381	441	521	655
At Nemahbin roller mill	37.9	445	513	544	646	821
At Nagawicka Lake outlet	36.8	445	513	544	646	819
At Nagawicka Lake inlet	36.8	445	513	544	648	823
At Bark River Dam	27.7	112	172	207	278	385
At County Highway K	25.0	142	212	251	337	452
	23.9	61	112	145	199	295

Table 4 - Summary of Discharges (continued)

<u>Flooding Source and Location</u>	<u>Drainage Area (square miles)</u>	<u>Peak Discharges (cubic feet per second)</u>				
		<u>10-Percent Annual Chance</u>	<u>4-Percent Annual Chance</u>	<u>2-Percent Annual Chance</u>	<u>1-Percent Annual Chance</u>	<u>0.2-Percent Annual Chance</u>
BARK RIVER (continued)						
Approximately 1300' downstream of Rybeck Road	23.3	51	89	113	152	224
At Merton millpond outlet	19.8	47	77	94	129	182
Upstream of Merton millpond	18.9	50	79	97	129	183
Downstream of railroad	18.2	51	80	98	130	183
Approximately 5300' upstream of Plain View Road	15.7	45	69	85	112	176
Approximately 900' upstream of STH 164	14.9	43	67	82	107	179
Approximately 2300' upstream of STH 164	11.4	32	56	68	101	172
At Waukesha county boundary	9.1	32	51	62	84	143
BRANDY BROOK						
At mouth	4.8	615	*	980	1,170	1,700
At STH 18	1.4	42	*	50	55	63
Approximately 1350' upstream of STH 18	1.3	36	*	42	47	49
At upstream limit of detailed study	1.3	55	*	88	159	288
BUTLER DITCH						
At Lisbon Avenue	6.6	453	*	915	1,213	2,267
Upstream of confluence with Butler Ditch South Branch	3.5	310	*	620	820	1,540
BUTLER DITCH SOUTH BRANCH						
At Capitol Drive	1.3	170	*	345	455	850
BUTLER DITCH TRIBUTARY						
At mouth	1.0	42	*	81	103	168

*Data not available

Table 4 - Summary of Discharges (continued)

<u>Flooding Source and Location</u>	<u>Drainage Area (square miles)</u>	<u>Peak Discharges (cubic feet per second)</u>				
		<u>10-Percent Annual Chance</u>	<u>4-Percent Annual Chance</u>	<u>2-Percent Annual Chance</u>	<u>1-Percent Annual Chance</u>	<u>0.2-Percent Annual Chance</u>
CALHOUN CREEK						
Just upstream of College Avenue	8.1	1,150	*	1,760	2,060	2,800
Approximately 200' upstream of Martin Rd.	3.8	570	*	870	1,000	1,360
Upstream of Beres Rd.	2.3	550	*	840	960	1,300
Upstream of Beloit Rd.	1.0	240	*	360	420	570
DAKOTA STREET TRIBUTARY						
At mouth	0.3	50	*	90	125	200
Upstream of Fountain Square Pond	0.2	56	*	108	137	184
DEER CREEK (continued)						
At mouth	8.1	570	*	880	1,050	1,510
At Brookfield Road	7.5	470	*	780	930	1,340
At Calhoun Road	7.5	420	*	700	840	1,200
At Greenfield Avenue	4.0	380	*	610	611	1,080
400' downstream of Lincoln Avenue	3.0	340	*	560	454	972
200' downstream of James Street	1.9	280	*	470	304	800
900' downstream of National Avenue	1.4	220	*	380	198	660
SP-2 Storage Pond	0.8	150	*	240	68	430
300' upstream of SP-2 Storage Pond	0.8	150	*	240	300	430
Upstream limit of study	0.6	120	*	175	220	310
DOUSMAN DITCH						
At mouth	3.0	370	*	700	900	1,520
About 4000' downstream of Calhoun Road	1.9	295	*	555	715	1,210
FOX RIVER						
At Racine-Waukesha county line	358.9	2,050	*	2,950	3,330	4,250
Upstream of State Highway 15	314.6	1,980	*	2,860	3,290	4,290
Upstream of confluence of Mukwonago River	223.4	1,480	*	2,080	2,370	3,030
At National Ave.	220.0	1,470	*	2,070	2,360	3,020

*Data not available

Table 4 - Summary of Discharges (continued)

<u>Flooding Source and Location</u>	<u>Drainage Area (square miles)</u>	<u>Peak Discharges (cubic feet per second)</u>				
		<u>10-Percent Annual Chance</u>	<u>4-Percent Annual Chance</u>	<u>2-Percent Annual Chance</u>	<u>1-Percent Annual Chance</u>	<u>0.2-Percent Annual Chance</u>
FOX RIVER (continued)						
Upstream of River Rd.	181.1	1,880	*	2,560	2,850	3,550
Upstream of CTH H	154.2	2,060	*	3,060	3,500	4,625
Waukesha Southern corporate limits	131.6	1,720	*	2,790	3,220	4,490
Waukesha Northern corporate limits	125.9	1,700	*	2,710	3,190	3,840
Downstream of Pewaukee River	82.5	1,630	*	2,650	3,110	3,750
Upstream of Soo Line RR	75.0	1,400	*	2,110	2,410	3,000
Brookfield Western corporate limits	50.5	1,420	*	2,130	2,450	3,150
Brookfield Northern corporate limits	45.0	1,020	*	1,600	1,840	2,450
Upstream of STH 190	26.5	1,100	*	1,700	1,950	2,650
Corporate limits	23.2	700	*	1,220	1,500	2,200
Upstream of Mill Rd.	5.4	330	*	660	850	1,370
At Menomonee Ave.	3.0	230	*	490	640	1,070
At Main St.	1.9	105	*	220	290	500
GENESEE CREEK						
At mouth	32.0	845	*	1,400	1,675	2,400
Upstream end of Saylesville mill pond	14.7	540	*	830	970	1,300
Limit of detailed study	3.0	325	*	475	550	750
GENESEE LAKES						
Genesee Lakes	0.8	137	*	228	288	352
JERICHO CREEK						
At mouth	18.9	700	*	960	1,100	1,780
Upstream of CTH LO	16.1	700	*	1,200	1,440	2,200
JEWEL CREEK						
At mouth at Little Muskego Lake	11.3	775	*	1,250	1,450	2,000
LAKE DENOON TRIBUTARY						
Mouth at Lake Denoon	0.6	115	*	200	240	360
At Kelsey Drive	0.3	70	*	125	150	225
LILLY CREEK						
At mouth	6.0	510	*	970	1,200	2,100
At Lilly Road	3.2	190	*	400	540	1,000
*Data not available						

Table 4 - Summary of Discharges (continued)

<u>Flooding Source and Location</u>	<u>Drainage Area (square miles)</u>	<u>Peak Discharges (cubic feet per second)</u>				
		<u>10-Percent Annual Chance</u>	<u>4-Percent Annual Chance</u>	<u>2-Percent Annual Chance</u>	<u>1-Percent Annual Chance</u>	<u>0.2-Percent Annual Chance</u>
LITTLE OCONOMOWOC RIVER						
Approximately 900' upstream of STH 83	10.5	280	390	480	570	850
At County Line Road	8.6	250	360	440	520	780
MASON CREEK						
Upstream of North Lake	8.0	165	*	375	430	710
Upstream of Peterson Rd.	7.5	165	*	375	480	810
MENOMONEE RIVER						
At 124th Street	60.6	1,700	*	2,700	3,100	4,500
At 124th Street	45.0	1,300	*	1,900	2,200	2,900
At confluence with Lilly Creek	41.9	950	*	1,300	1,500	1,900
At Pilgrim Road	34.5	720	*	1,010	1,100	1,400
At County Line Road	32.0	530	*	790	910	1,200
MUKWONAGO RIVER						
Mouth at Fox River Lower Phantom Lake outlet	64.2	567	*	1,398	2,029	3,123
Lower Phantom Lake inlet	60.6	470	*	1,439	2,076	3,205
At Lake Beulah	55.6	778	*	1,768	2,433	3,691
Approximately 2000' upstream of Beulah Rd.	51.5	1,065	*	2,334	3,133	4,526
Confluence with Eagle Spring Lake and Jericho Creek	38.0	978	*	2,215	2,994	4,342
	35.8	1,022	*	2,237	2,945	4,241
MUSKEGO CANAL						
South corporate limits	34.5	290	*	340	350	365
At Woods Road	14.0	250	*	310	340	405
NOR-X-WAY CHANNEL						
At mouth	5.3	430	*	660	770	1,000
At Fond du Lac Ave.	3.4	140	*	240	290	430
OCONOMOWOC RIVER						
Approximately 4500' upstream of Morgan Rd.	94.3	400	550	650	740	960

*Data not available

Table 4 - Summary of Discharges (continued)

<u>Flooding Source and Location</u>	<u>Drainage Area (square miles)</u>	<u>Peak Discharges (cubic feet per second)</u>				
		<u>10-Percent Annual Chance</u>	<u>4-Percent Annual Chance</u>	<u>2-Percent Annual Chance</u>	<u>1-Percent Annual Chance</u>	<u>0.2-Percent Annual Chance</u>
OCONOMOWOC RIVER						
(continued)						
Approximately 4500' upstream of CTH BB	91.6	270	370	440	500	660
At Lac La Belle Dam	86.2	88	200	280	350	570
At Peacock Dam	74.9	140	250	360	430	680
At Oconomowoc Lake Dam	72.9	140	250	360	430	690
At Okauchee Lake Dam	69.1	140	240	350	440	730
At North Lake outlet	63.2	120	240	350	460	830
At confluence with Unnamed Tributary to Oconomowoc River	35.2	640	900	1,090	1,270	1,950
At Monches Dam	29.3	490	700	830	940	1,420
At confluence with Flynn Creek	27.5	480	690	820	920	1,290
PEBBLE BROOK						
At mouth	19.0	790	*	1,385	1,695	2,500
At Wisconsin Central Limited railroad	18.0	790	*	1,350	1,655	2,400
Upstream of Glendale Ave.	17.0	775	*	1,300	1,580	2,300
At Wisconsin Central Limited railroad	15.2	760	*	1,290	1,550	2,250
Upstream of CTH I	7.9	405	*	690	835	1,200
At Les Paul Parkway	4.2	210	*	340	400	570
At Sunset Dr.	1.4	75	*	120	150	250
PEBBLE BROOK TRIBUTARY						
At Les Paul Parkway	0.8	100	*	175	210	250
At Southwest Ave.	0.4	95	*	155	180	240
PEBBLE CREEK						
At mouth	18.0	933	*	1,470	1,710	2,380
At Sunset Dr.	17.0	940	*	1,490	1,750	2,400
At Wisconsin and Calumet RR Co.	16.0	950	*	1,510	1,800	2,450
At Merrill Hills Rd.	15.8	935	*	1,480	1,765	2,410

*Data not available

Table 4 - Summary of Discharges (continued)

<u>Flooding Source and Location</u>	<u>Drainage Area (square miles)</u>	<u>Peak Discharges (cubic feet per second)</u>				
		<u>10-Percent Annual Chance</u>	<u>4-Percent Annual Chance</u>	<u>2-Percent Annual Chance</u>	<u>1-Percent Annual Chance</u>	<u>0.2-Percent Annual Chance</u>
PEWAUKEE LAKE						
TRIBUTARY						
Upstream of Pewaukee Lake	8.2	570	*	1,060	1,300	2,050
Upstream of USH 16	2.8	230	*	460	590	950
PEWAUKEE RIVER						
Mouth at Fox River	38.0	154	*	360	532	893
At I-94	37.1	155	*	362	534	895
8000' upstream of I-94	36.2	177	*	386	554	926
At E. Wisconsin Ave.	32.1	242	*	492	739	1,375
At confluence with Pewaukee Lake	30.8	224	*	496	726	1,377
Upstream of confluence with Pewaukee Lake	5.5	157	*	317	401	446
2000' upstream of STH 16	4.0	231	*	330	585	565
At CTH K	1.8	52	*	81	94	122
PEWAUKEE RIVER						
TRIBUTARY 3						
Pewaukee Lake outlet	25.2	75	*	311	488	958
POPLAR CREEK						
At mouth	25.6	750	*	1,200	1,400	1,950
At Bluemound Rd.	22.8	840	*	1,310	1,530	2,100
At Davidson Rd.	14.4	500	*	740	850	1,130
At South Barker Rd.	13.9	520	*	750	860	1,150
Just downstream of Lincoln Ave.	8.1	770	*	1,140	1,330	1,740
Just downstream of Cleveland Ave.	5.0	320	*	390	400	430
Just downstream of Observatory Rd.	2.7	140	*	260	300	370
QUIETWOOD CREEK						
At mouth	1.7	103	*	278	396	566
At Woods Rd.	1.6	103	*	273	388	555
At Knollwood Ct.	1.1	272	*	511	648	855
At limit of detailed study	0.5	138	*	260	331	436
ROOT RIVER						
Eastern county limits	1.6	325	*	500	600	900

*Data not available

Table 4 - Summary of Discharges (continued)

<u>Flooding Source and Location</u>	<u>Drainage Area (square miles)</u>	<u>Peak Discharges (cubic feet per second)</u>				
		<u>10-Percent Annual Chance</u>	<u>4-Percent Annual Chance</u>	<u>2-Percent Annual Chance</u>	<u>1-Percent Annual Chance</u>	<u>0.2-Percent Annual Chance</u>
ROSENOW CREEK						
At mouth	4.7	98	*	287	405	654
Downstream of STH 67	3.3	180	*	402	551	782
Mouth of North Branch	1.6	79	*	173	233	331
SCHOOL SECTION CREEK						
At School Section Lake Dam	6.3	50	85	115	188	369
SCUPPERNONG CREEK						
Just downstream of Glacial Drumlin Trail	16.2	232	399	547	696	1,152
0.5 mile downstream of Mill Pond Rd.	15.2	238	410	598	755	1,217
At South Tributary to Scuppernong Creek	13.3	240	432	586	718	1,122
At Hunter's Lake outlet	11.1	217	376	505	617	945
At Dutchman Lake outlet	8.9	217	339	431	515	769
At Waterville Dam	7.7	220	304	382	454	675
0.3 mile downstream of USH 18	5.9	157	241	304	361	538
At Scuppernong Creek USH 18 Diversion convergence	5.3	140	214	270	321	477
At Wales Creek	5.3	140	214	244	254	254
Downstream of USH 18 Diversion divergence	2.5	75	124	162	166	175
0.15 mile upstream of USH 18	2.5	75	124	188	233	398
0.15 mile downstream of Mary Court	0.9	38	61	89	106	172
0.1 mile upstream of Scuppernong Drive	0.5	23	36	51	60	97
0.2 mile downstream of Lexington Lane	0.3	12	19	27	32	52
SCUPPERNONG CREEK USH 18 DIVERSION						
At divergence from Scuppernong Creek	2.5	0	0	26	67	223

*Data not available

Table 4 - Summary of Discharges (continued)

<u>Flooding Source and Location</u>	<u>Drainage Area (square miles)</u>	<u>Peak Discharges (cubic feet per second)</u>				
		<u>10-Percent Annual Chance</u>	<u>4-Percent Annual Chance</u>	<u>2-Percent Annual Chance</u>	<u>1-Percent Annual Chance</u>	<u>0.2-Percent Annual Chance</u>
SOUTH 130TH STREET TRIBUTARY						
Just upstream of mouth	0.5	100	*	200	250	400
SOUTH BRANCH SUSSEX CREEK						
Confluence with Sussex Creek	3.1	174	*	312	398	829
At STH 164	2.6	175	*	313	398	853
At Mary Hill Rd.	1.3	165	*	370	536	900
At limit of detailed study	0.3	19	*	75	148	251
SOUTH BRANCH UNDERWOOD CREEK						
At Bluemound Rd.	5.0	1,700	*	2,340	2,630	3,340
At I-94	4.7	1,090	*	1,500	1,690	2,160
SOUTH TRIBUTARY TO SCUPPERNONG CREEK						
Just upstream of Hawk Hollow	1.8	84	132	187	223	356
0.25 mile upstream of Hawk Hollow	1.3	60	94	134	160	254
At CTH D	0.1	8	11	15	18	26
SUSSEX CREEK						
At mouth	12.9	384	*	698	875	1,169
At confluence with Sussex Creek Trib 1	12.5	421	*	748	931	1,237
At Duplainville Rd.	9.8	381	*	658	817	1,079
At Redford Blvd.	9.0	384	*	634	780	1,027
At Beaver Ct.	8.5	405	*	799	1,046	1,506
At CTH K	7.0	366	*	702	920	1,332
Approximately 1250' downstream of Clover Dr.	6.8	305	*	673	907	1,334
At confluence with East Branch	6.6	351	*	751	990	1,343
Confluence near Locust St.	5.5	254	*	477	654	1,082
At confluence with South Branch	4.4	311	*	597	765	1,132

*Data not available

Table 4 - Summary of Discharges (continued)

<u>Flooding Source and Location</u>	<u>Drainage Area (square miles)</u>	<u>Peak Discharges (cubic feet per second)</u>				
		<u>10-Percent Annual Chance</u>	<u>4-Percent Annual Chance</u>	<u>2-Percent Annual Chance</u>	<u>1-Percent Annual Chance</u>	<u>0.2-Percent Annual Chance</u>
SUSSEX CREEK TRIBUTARY 1						
At mouth	2.2	220	*	516	705	1,006
At limit of detailed study	1.2	228	*	447	577	773
TESS CORNERS CREEK						
East county limits	6.3	560	*	880	1,030	1,430
At confluence of Tess Corners Creek Tributary	5.2	420	*	670	770	1,040
At Tess Corners Rd. Approximately 400' upstream of Janesville Rd.	3.5	310	*	480	530	750
	3.1	320	*	530	620	870
TRIBUTARY NO. 2 TO FOX RIVER						
At mouth	5.2	160	*	300	380	590
TRIBUTARY TO SOUTH BRANCH UNDERWOOD CREEK						
At Bluemound Rd.	5.0	1,700	*	2,340	2,630	3,340
At I-94	4.7	1,090	*	1,500	1,690	2,160
UNNAMED DITCH TO BARK RIVER						
At Hillside Rd	2.1	45	62	75	85	122
UNNAMED TRIBUTARY TO MUSKEGO CANAL						
Mouth at Muskego Canal	1.4	175	*	300	350	500
UNNAMED TRIBUTARY TO LAKE KEESUS						
Approximately 0.8 mile upstream of mouth at Lake Keesus	1.9	140	200	260	290	430
UNNAMED TRIBUTARY TO NORTH LAKE						
At Cornell Lake outlet	5.9	30	45	54	60	80

*Data not available

Table 4 - Summary of Discharges (continued)

<u>Flooding Source and Location</u>	<u>Drainage Area (square miles)</u>	<u>Peak Discharges (cubic feet per second)</u>				
		<u>10-Percent Annual Chance</u>	<u>4-Percent Annual Chance</u>	<u>2-Percent Annual Chance</u>	<u>1-Percent Annual Chance</u>	<u>0.2-Percent Annual Chance</u>
UNDERWOOD CREEK						
Upstream of confluence with South Branch	10.2	821	*	1,385	1,672	2,466
At Juneau Boulevard	9.0	782	*	1,258	1,491	2,109
At North Ave.	7.4	543	*	923	1,126	1,719
Upstream of confluence with North Branch	5.7	520	*	870	1,058	1,606
At Pilgrim Rd.	5.1	396	*	628	748	1,090
At limit of detailed study	1.1	68	*	74	76	82
UPPER KELLY LAKE TRIBUTARY						
Just upstream of Upper Kelly Lake	1.2	250	*	400	500	720
Just downstream of West Balboa Dr.	0.5	150	*	250	300	450
WEST BRANCH PEWAUKEE LAKE TRIBUTARY						
Upstream of Pewaukee Lake Tributary	4.8	350	*	660	820	1,300
WEST BRANCH ROOT RIVER						
Just upstream of the east county boundary	1.7	580	*	840	950	1,200
Just upstream of South 128th St.	0.9	340	*	550	650	995
Just upstream of Dakota St.	0.4	210	*	340	400	575
WILLOW SPRINGS CREEK						
At mouth	5.4	330	*	710	940	1,600
At Town Line Rd.	2.2	160	*	340	460	800
Approximately 1650' upstream of Good Hope Rd.	1.3	56	*	66	69	76

*Data not available

3.2 Hydraulic Analyses

Analyses of the hydraulic characteristics of flooding from the sources studied were carried out to provide estimates of the elevations of floods of the selected recurrence intervals. Users should be aware that flood elevations shown on the FIRM [Flood Insurance Rate Map (FIRM)] represent rounded whole-foot elevations and may not exactly reflect the elevations shown on the Flood Profiles or in the Floodway Data tables in the FIS report. Flood elevations shown on the FIRM are primarily intended for flood insurance rating purposes. For construction and/or floodplain management purposes, users are cautioned to use the flood elevation data presented in this FIS in conjunction with the data shown on the FIRM.

New hydraulic models for Scuppernong Creek, South Tributary to Scuppernong Creek, School Seciton Creek, and Unnamed Ditch to Bark River were developed by MSA Professional Services using HEC-RAS version 4.1.0. Cross sections were extracted from 5-foot DEM data produced by the Wisconsin DNR and supplemented with field surveyed channel data. Cross sectional data extraction was performed with ArcGIS 10.0 and the ACOE GeoRAS 10 extension. All bridges and culverts were field surveyed to obtain elevation data and structural geometry. Manning's "n" values were determined by field observation and interpretation of land cover from year 2010 statewide NAIP orthophotos.

Scuppernong Creek exhibits split flow for the 50-, 100-, and 500-year recurrence intervals at a location along USH 18 west of STH 83. As the creek approaches the Glacial Drumlin State Trail, the culvert under the trail has limited capacity. Under flood conditions, some flow follows the ditch along the south side of USH 18 westward, overtops Wolf Road, and re-joins the main stem of the creek just before flowing northward again within a culvert under USH 18. An analysis was made of the ditch, using DEM-derived cross sections without surveyed data, and estimating the Wolf Road centerline overflow section as an inline structure.

Starting water surface elevation for all profiles on Scuppernong Creek was set to the 10-year flood elevation at the confluence with Bark River, using a model of the Bark River developed by the WDNR. Waterville Lake, Dutchman Lake, Hunters Lake, and the Scuppernong Creek Pond at Millpond Road south of Dousman are included in the hydraulic analysis for Scuppernong Creek and contain a floodway; therefore none of these lakes are listed in the "Summary of Stillwater Elevations" table. Dams at Waterville Lake and the Scuppernong Creek Pond (Bischel Dam) contain only low-flow gates for seasonal water level control and/or drawdown and are assumed to remain unoperated during flood events. Boundary conditions for the split flow along USH 18 were determined by optimization runs in RAS.

Starting water surface elevation for all profiles on the South Tributary to Scuppernong Creek was set to the 10-year flood elevation at the confluence with Scuppernong Creek, using the model developed by MSA Professional Services.

Starting water surface elevation for all profiles on School Section Creek was set to the 10-year flood elevation at the confluence with Bark River, using a model of the Bark River in Jefferson County being developed by MSA Professional Services for the Lower Rock River Watershed RiskMAP project. The School Section Lake Dam on the upper end of the study reach is a concrete weir with flashboards for seasonal water level control. The dam has no flood operations plan so the boards have been assumed to be left in place during a flood event. No floodway has been established within School Section Lake.

Starting water surface elevation for all profiles on Unnamed Ditch to Bark River were set to the 10-year flood elevation at the confluence with Bark River, using a model of the Bark River developed by the WDNR.

Detailed analyses were conducted by CDM Smith in 2012 for the Little Oconomowoc River, Lake Five, Oconomowoc River, and Unnamed Tributaries to Lake Keesus and North Lake in Waukesha County. For these analyses, surveys were conducted on channel cross-sections and at all significant structures following WDNR requirements. HEC-GeoRAS v.10 was used to convert the stream centerline and additional cross-section data created in ArcGIS v.10 for use in HEC-RAS v. 4.1. HEC-GeoRAS utilized the 5-foot Digital Elevation Model (DEM) for Waukesha County provided by WDNR to develop the overbank portions of the model cross-sections.

After the initial hydraulic calculations were completed, warnings presented by the HEC-RAS model were reviewed. The results were assessed for validity, accuracy, and appropriate engineering practices. Some of the areas of concern included: critical WSEL calculations, WSEL differences between adjacent cross-sections, and correct usage of ineffective flow areas. After the initial areas of concern were addressed, the HEC-RAS models were recalculated. All remaining warnings generated by HEC-RAS were reviewed and judged acceptable for the final models.

A similar methodology was used in the hydraulic computations for the approximate study reaches. The 5-foot DEM was used to develop the model cross-sections. Road crossing locations were selected by reviewing aerial photographs. The structures were modeled as bridges / culverts where Wisconsin Department of Transportation (WDOT) bridge plans were available. Otherwise, the structures were modeled as inline structures; engineering judgment was used to determine the hydraulic opening.

The standard starting boundary condition for tributaries in this study is the 10-year water surface elevation on the parent stream at the confluence. This applied to the Unnamed Tributaries to the Ashippun River, Mason Creek, North Lake, and the Oconomowoc River. The approximate reaches on Mason Creek tie in directly with studies immediately downstream. Similarly, the Unnamed Tributary to Lake Keesus ties into the lake elevations determined on Lake Keesus. The hydrographs for the Little Oconomowoc River and the Oconomowoc River showed that the times to peak were coincident with the parent stream. Therefore, known water surface elevations from the parent stream were used as the starting boundary condition for all profiles.

The Ashippun River hydraulic model from the 2008 FIS was rerun by WDNR in 2013 using the updated Ashippun River discharges described in section 3.1 of this FIS. This model was run using HEC-RAS v.4.1.0. The downstream boundary condition was updated to reflect the known water surface elevations of the concurrent detailed study in Jefferson County. The Monterey Dam was modified to simulate the stop logs being left in place, since there is not an Inspection, Operation, and Maintenance plan (IOM) for this dam.

Roughness coefficients (Manning's "n") listed below in Table 5 and contraction and expansion loss coefficients used in the hydraulic computations were chosen by engineering judgment and based on field observation of the streams and floodplain areas.

The 2012 Bark River model done by WDNR revises the previous 2010 study by providing

revised flows downstream of Scuppernong Creek. There are also revised floodway limits downstream of Scuppernong Creek and a starting water surface elevation that matches the 2012 Jefferson County Bark River model.

For the Dakota Street Tributary, Brandy Brook, Underwood Creek, Calhoun Creek, Golden Lake and the Genesee Lake LOMR's, hydraulics were revised as described in their respective LOMR documentation.

The following analyses have not changed from the previous countywide FIS. Study summaries have been compiled by waterway below:

The cross sections used for the detailed studies on: Mukwonago River, Pewaukee River, Quietwood Creek, Rosenow Creek, and Sussex Creek were obtained from the terrain data developed by Waukesha County from aerial photography taken in the spring of 2005. All bridge opening data and structural geometry for the backwater analyses of each flooding source studied were obtained by field surveys by the SEWRPC, under contract with Waukesha County. The channel soundings were also obtained by field measurement. Locations of selected cross sections used in the hydraulic analyses are shown on the Flood Profiles. For stream segments for which a floodway was computed (Section 4.2), selected cross section locations are also shown on the FIRM.

Cross Sections on: Butler Ditch, South Branch Butler Ditch, Deer Creek, Dousman Ditch, Fox River, North Branch Underwood Creek, Poplar Creek, South Branch Underwood Creek, and Underwood Creek were developed by the Southeastern Wisconsin Regional Planning Commission under a contract with the City of Brookfield, completed in March, 2004.

The cross sections used for the effective detailed studies on: Brandy Brook, Butler Ditch Trib, Calhoun Creek, Dakota St. Trib, East Branch Sussex Creek, Fox River (South of New Berlin), Fox River Tributary 2, Genesee Creek, Jericho Creek, Jewel Creek, Lilly Creek, Mason Creek, Menomonee River, Muskego Canal, Nor-X-Way Channel, Pebble Brook, Pebble Brook Trib, Pebble Creek, Root River, S130 St. Trib, Tributary to the South Branch Underwood Creek, (New Berlin Branch of the South Branch Underwood Creek), Tess Corners Creek, Upper Kelly Lake Trib, West Branch Pewaukee Lake Trib, West Branch Root River, Willow Springs Creek were developed by photogrammetric techniques and contour maps generated for the previous FIS for the Unincorporated Areas (Reference 13). All bridge elevation data and structural geometry for the backwater analyses of each flooding source studied were obtained by field surveys performed by the Study Contractor, (Donahue and Assoc.) in 1979. The channel soundings were also obtained by field measurement.

The hydraulic analyses for this study were based on unobstructed flow. The flood elevations shown on the Flood Profiles (Exhibit 1) are thus considered valid only if hydraulic structures remain unobstructed, operate properly, and do not fail.

Channel roughness factors (Manning's "n") used in the hydraulic computations were chosen by engineering judgement and based on field observations of the streams and flood plain areas. The Manning's "n" values are shown in Table 5. The acceptability of assumed hydraulic factors, cross sections, and hydraulic structure data was checked by computations that duplicated historic floodwater profiles whenever possible.

Table 5 – Summary of Roughness Coefficients

<u>Stream</u>	<u>Channel “n”</u>	<u>Overbank “n”</u>
Ashippun River	0.040	0.060-0.080
Bark River	0.030-0.040	0.030-0.100
Brandy Brook	0.035-0.045	0.050-0.080
Butler Ditch	0.035-0.040	0.040-0.050
Deer Creek	0.030-0.045	0.060-0.120
Dousman Ditch	0.030-0.060	0.040-0.200
Fox River	0.030-0.035	0.075-0.100
Genesee Creek	0.020-0.040	0.070-0.100
Jericho Creek	0.040-0.045	0.080-0.130
Little Oconomowoc River	0.035-0.050	0.030-0.120
Mason Creek	0.030-0.035	0.050-0.100
Mukwonago River	0.035-0.057	0.080-0.090
Oconomowoc River	0.030-0.060	0.030-0.150
Pebble Brook	0.040-0.045	0.090-0.110
Pebble Creek	0.045	0.075-0.095
Pewaukee Lake Tributary	0.035	0.060-0.070
Pewaukee River	0.025-0.080	0.045-0.120
Poplar Creek	0.035-0.040	0.060-0.110
Quietwood Creek	0.035-0.040	0.040-0.050
Rosenow Creek	0.030-0.035	0.035-0.040
School Section Creek	0.030-0.035	0.040-0.080
Scuppernong Creek	0.035-0.050	0.050-0.120
Scuppernong Creek USH 18 Diversion	0.030	0.050
Sussex Creek	0.035-0.040	0.045-0.070
Sussex Creek Tributary 1	0.035	0.050-0.060
South Branch Sussex Creek	0.035-0.040	0.045-0.070
South Tributary to Scuppernong Creek	0.045	0.060-0.080
Underwood Creek	0.015-0.040	0.030-0.100
Unnamed Ditch to Bark River	0.030	0.060
Unnamed Tributary to Lake Keesus	0.035-0.050	0.045-0.100
Unnamed Tributary to North Lake	0.035-0.045	0.045-0.120
South Branch Underwood Creek	0.015-0.040	0.030-0.100
West Branch Pewaukee Lake Tributary	0.045	0.110-0.130

The summary of elevations for lakes studied in detail are shown in Table 6.

Table 6 - Summary of Stillwater Elevations

<u>Flooding Source</u>	<u>Elevation (feet NAVD88)</u>				
	<u>10-Percent Annual Chance</u>	<u>4-Percent Annual Chance</u>	<u>2-Percent Annual Chance</u>	<u>1-Percent Annual Chance</u>	<u>0.2-Percent Annual Chance</u>
Cornell Lake	900.5	900.7	900.8	900.8	901.0
Eagle Spring Lake	821.4	*	821.6	821.8	821.8
Golden Lake	*	*	*	855.5	*
Lake Denoon	780.5	*	780.9	781.0	781.3
Lake Keesus	959.2	959.3	959.4	959.5	959.7
Lake Five	975.5	975.8	976.1	976.3	976.9
Little Muskego Lake	792.4	*	792.8	793.3	793.8
Lower Genesee Lake	867.3	*	867.5	867.6	867.8
Middle Genesee Lake	867.3	*	867.5	867.6	867.8
Muskego Lake	773.3	*	773.6	773.9	774.0
Pewaukee Lake	853.5	*	854.0	854.4	854.6
School Section Lake	853.6	854.0	854.3	854.9	855.4
Upper Genesee Lake	867.3	*	867.5	867.6	867.8
Upper Kelly Lake	807.3	*	807.9	808.2	809.8

* Data not available

3.3 Vertical Datum

All FIS reports and FIRMs are referenced to a specific vertical datum. The vertical datum provides a starting point against which flood, ground, and structure elevations can be referenced and compared. Until recently, the standard vertical datum used for newly created or revised FIS reports and FIRMs was the National Geodetic Vertical Datum of 1929 (NGVD). With the completion of the North American Vertical Datum of 1988 (NAVD), many FIS reports and FIRMs are now prepared using NAVD as the referenced vertical datum.

All flood elevations shown in this FIS report and on the FIRM are referenced to NAVD 88. These flood elevations must be compared to structure and ground elevations referenced to the same vertical datum. For information regarding conversion between the NGVD 29 and NAVD 88, visit the National Geodetic Survey website at www.ngs.noaa.gov, or contact the National Geodetic Survey at the following address:

Vertical Network Branch, N/CG13
 National Geodetic Survey, NOAA
 Silver Spring Metro Center 3
 1315 East-West Highway
 Silver Spring, Maryland 20910
 (301) 713-3191

Temporary vertical monuments are often established during the preparation of a flood hazard analysis for the purpose of establishing local vertical control. Although these monuments are

not shown on the FIRM, they may be found in the Technical Support Data Notebook associated with the FIS report and FIRM for this community. Interested individuals may contact FEMA to access these data.

For this revision, the vertical datum shift in Waukesha County was calculated to be -0.2 feet (NGVD 29 – 0.2 = NAVD 88). All elevation values were edited to reflect these changes. Structure and ground elevations in the community must therefore be referenced to NAVD 88.

4.0 FLOODPLAIN MANAGEMENT APPLICATIONS

The NFIP encourages State and local governments to adopt sound floodplain management programs. To assist in this endeavor, each FIS report provides 1-percent-annual-chance floodplain data, which may include a combination of the following: 10-, 2-, 1-, and 0.2-percent-annual-chance flood elevations; delineations of the 1- and 0.2-percent-annual-chance floodplains; and a 1-percent-annual-chance floodway. This information is presented on the FIRM and in many components of the FIS report, including Flood Profiles, Floodway Data tables, and Summary of Stillwater Elevation tables. Users should reference the data presented in the FIS report as well as additional information that may be available at the local community map repository before making flood elevation and/or floodplain boundary determinations.

4.1 Floodplain Boundaries

To provide a national standard without regional discrimination, the 1-percent-annual-chance flood has been adopted by FEMA as the base flood for floodplain management purposes. The 0.2-percent-annual-chance flood is employed to indicate additional areas of flood risk in the cou. For each stream studied by detailed methods, and for all waterways ‘re-delineated’ with existing BFE’s, the 1- and 0.2-percent-annual-chance floodplain boundaries have been delineated using the flood elevations determined at each cross section. Between cross sections on all streams except the Ashippun River and the Bark River, the boundaries were interpolated using digital topographic data provided by Waukesha County. This data includes 2005 orthophotography and contours at two foot intervals. For the Ashippun and Bark Rivers, the floodplain boundary was drawn using LiDAR provided by Waukesha County in 2012.

The 1- and 0.2-percent-annual-chance floodplain boundaries are shown on the FIRM. On this map, the 1-percent-annual-chance floodplain boundary corresponds to the boundary of the areas of special flood hazards (Zones A and AE), and the 0.2-percent-annual-chance floodplain boundary corresponds to the boundary of areas of moderate flood hazards. In cases where the 1- and 0.2-percent-annual-chance floodplain boundaries are close together, only the 1-percent-annual-chance floodplain boundary has been shown. Small areas within the floodplain boundaries may lie above the flood elevations, but cannot be shown due to limitations of the map scale and/or lack of detailed topographic data.

For the streams studied by approximate methods, only the 1-percent-annual-chance floodplain boundary is shown on the FIRM.

4.2 Floodways

Encroachment on floodplains, such as structures and fill, reduces flood-carrying capacity, increases flood heights and velocities, and increases flood hazards in areas beyond the encroachment itself. One aspect of floodplain management involves balancing the economic

gain from floodplain development against the resulting increase in flood hazard. For purposes of the NFIP, a floodway is used as a tool to assist local communities in this aspect of floodplain management. Under this concept, the area of the 1-percent-annual-chance floodplain is divided into a floodway and a floodway fringe. The floodway is the channel of a stream, plus any adjacent floodplain areas, that must be kept free of encroachment so that the base flood can be carried without substantial increases in flood heights. Minimum Federal standards limit such increases to 1 foot, provided that hazardous velocities are not produced. The floodways in this study are presented to local agencies as minimum standards based on the requirements of Wisconsin Administrative Code, NR 116.

The floodways presented in this FIS report and on the FIRM were computed on the basis of 'no increase' per Wisconsin Administrative Code NR116.07. Floodway widths were computed at cross sections. Between cross sections, the floodway boundaries were interpolated. The results of the floodway computations have been tabulated for selected cross sections (Table 7). The computed floodways are shown on the revised FIRM (Exhibit 2). In cases where the floodway and 1-percent-annual-chance floodplain boundaries are either close together or collinear, only the floodway boundary has been shown.

In previous redelineation efforts, the floodway was not recalculated. As a result, there were areas where the previous floodway did not fit within the boundaries of the revised 1-percent-annual-chance floodplain. Therefore, in these areas, the floodway was reduced. Table 7, "Floodway Data" lists the water surface elevations, *with* and *without* a floodway, the mean velocity in the floodway, and the location and area at each surveyed cross section as determined by hydraulic methods. The width of the floodway depicted by the FIRM panels and the amount of reduction to fit the floodway inside the 1-percent-annual-chance floodplain, if necessary, is also listed.

Encroachment into areas subject to inundation by floodwaters having hazardous velocities aggravates the risk of flood damage, and heightens potential flood hazards by further increasing velocities. A listing of stream velocities at selected cross sections is provided in Table 7, "Floodway Data." To reduce the risk of property damage in areas where the stream velocities are high, the community may wish to restrict development in areas outside the floodway.

Near the mouths of streams studied in detail, floodway computations are made without regard to flood elevations on the receiving water body. Therefore, "Without Floodway" elevations presented in Table 7 for certain downstream cross sections studied in detail are lower than the regulatory flood elevations in that area, which must take into account the 100-year flooding due to backwater from other sources.

The area between the floodway and 1-percent-annual-chance floodplain boundaries is termed the floodway fringe. The floodway fringe encompasses the portion of the floodplain that could be completely obstructed without increasing the water-surface elevation (WSEL) of the base flood at any point. Typical relationships between the floodway and the floodway fringe and their significance to floodplain development are shown in Figure 3.

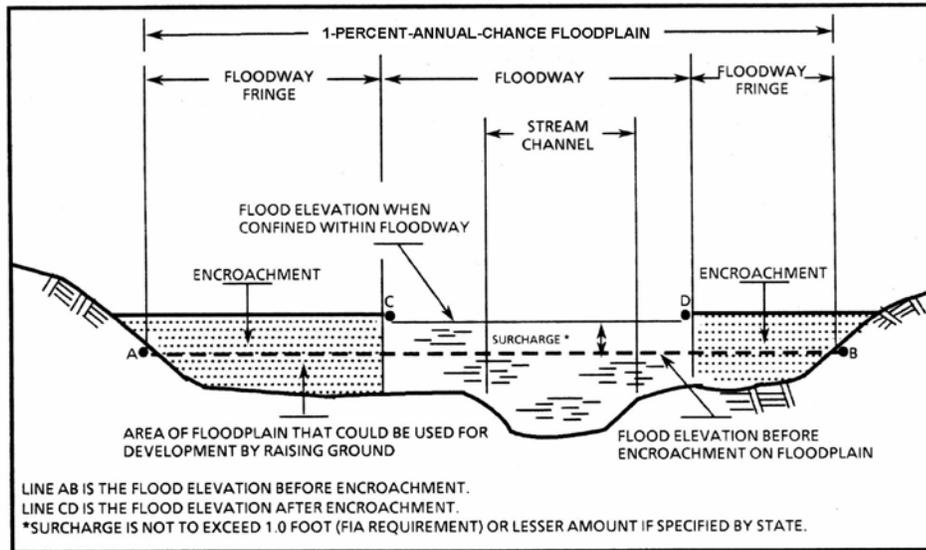


Figure 3 - Floodway Schematic

FLOODING SOURCE		FLOODWAY				1-PERCENT-ANNUAL-CHANCE FLOOD WATER SURFACE ELEVATION (FEET NAVD88)			
CROSS SECTION	DISTANCE ¹	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	WIDTH REDUCED FROM PRIOR STUDY (FEET)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
ASHIPPUN RIVER									
A	10	321	351	2.6	0	847.5	847.5	847.5	0.0
B	622	51	198	4.6	0	848.4	848.4	848.4	0.0
C	713	61	289	3.1	0	848.9	848.9	848.9	0.0
D	1,499	430	924	1.0	0	849.3	849.3	849.3	0.0
E	2,023	829	1,782	0.5	0	849.3	849.3	849.3	0.0
F	2,957	910	1,848	0.5	0	849.4	849.4	849.4	0.0
G	3,888	931	1,569	0.6	0	849.4	849.4	849.4	0.0
H	3,979	643	719	1.3	0	849.4	849.4	849.4	0.0
I	4,322	419	458	2.0	0	849.7	849.7	849.7	0.0
J	4,461	595	1,239	0.7	0	850.8	850.8	850.8	0.0
K	5,288	482	827	1.1	0	851.0	851.0	851.0	0.0
L	6,179	282	571	1.6	0	851.3	851.3	851.3	0.0
M	6,220	314	813	1.1	0	851.7	851.7	851.7	0.0
N	7,003	296	752	1.2	0	852.0	852.0	852.0	0.0
O	8,286	237	670	1.4	0	852.5	852.5	852.5	0.0
P	9,129	304	805	1.1	0	852.7	852.7	852.7	0.0
Q	9,557	48	163	5.6	0	852.7	852.7	852.7	0.0
R	9,620	53	303	3.0	0	854.6	854.6	854.6	0.0
S	10,438	333	946	1.0	0	855.0	855.0	855.0	0.0
T	11,061	535	1,565	0.6	0	855.1	855.1	855.1	0.0
U	11,995	270	818	1.1	0	855.1	855.1	855.1	0.0
V	12,039	277	838	1.1	0	855.2	855.2	855.2	0.0
W	12,895	48	204	4.4	0	855.3	855.3	855.3	0.0
X	13,009	39	179	5.0	0	855.6	855.6	855.6	0.0
Y	13,156	37	159	5.7	0	856.1	856.1	856.1	0.0
Z	13,280	56	260	3.5	0	856.8	856.8	856.8	0.0

¹Feet above county boundary

TABLE 7

FEDERAL EMERGENCY MANAGEMENT AGENCY
WAUKESHA COUNTY, WI
 AND INCORPORATED AREAS

FLOODWAY DATA

ASHIPPUN RIVER

FLOODING SOURCE		FLOODWAY				1-PERCENT-ANNUAL-CHANCE FLOOD WATER SURFACE ELEVATION (FEET NAVD88)			
CROSS SECTION	DISTANCE ¹	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	WIDTH REDUCED FROM PRIOR STUDY (FEET)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
ASHIPPUN RIVER (continued)									
AA	14,042	247	961	0.9	0	857.3	857.3	857.3	0.0
AB	15,425	242	872	1.0	0	857.4	857.4	857.4	0.0
AC	16,936	141	277	3.2	0	857.7	857.7	857.7	0.0
AD	17,857	121	197	4.5	0	859.2	859.2	859.2	0.0
AE	18,413	50	214	4.2	0	860.8	860.8	860.8	0.0
AF	18,427	61	289	3.1	0	870.8	870.8	870.8	0.0
AG	18,486	91	820	1.1	0	871.1	871.1	871.1	0.0
AH	19,369	369	1,303	0.7	0	871.1	871.1	871.1	0.0
AI	20,468	222	785	1.1	0	871.2	871.2	871.2	0.0
AJ	21,360	289	930	1.0	0	871.3	871.3	871.3	0.0
AK	22,777	294	1,063	0.9	0	871.5	871.5	871.5	0.0
AL	23,702	203	881	1.1	0	871.6	871.6	871.6	0.0
AM	24,674	770	2,776	0.4	0	871.6	871.6	871.6	0.0
AN	25,481	1,280	4,228	0.2	0	871.6	871.6	871.6	0.0
AO	26,329	1,490	4,848	0.2	0	871.6	871.6	871.6	0.0
AP	27,161	2,201	6,655	0.2	0	871.6	871.6	871.6	0.0
AQ	28,026	2,417	7,403	0.1	0	871.6	871.6	871.6	0.0
AR	29,175	2,614	8,240	0.1	0	871.6	871.6	871.6	0.0
AS	30,335	2,796	8,481	0.1	0	871.6	871.6	871.6	0.0
AT	31,376	2,517	7,162	0.2	0	871.6	871.6	871.6	0.0
AU	32,308	1,372	3,108	0.4	0	871.7	871.7	871.7	0.0
AV	32,929	936	2,035	0.6	0	871.7	871.7	871.7	0.0
AW	34,099	1,330	1,887	0.6	0	871.8	871.8	871.8	0.0
AX	35,023	1,115	1,245	0.9	0	872.1	872.1	872.1	0.0
AY	36,390	369	461	2.5	0	873.1	873.1	873.1	0.0
AZ	36,897	451	762	1.5	0	874.1	874.1	874.1	0.0

¹Feet above county boundary

TABLE 7

FEDERAL EMERGENCY MANAGEMENT AGENCY
WAUKESHA COUNTY, WI
 AND INCORPORATED AREAS

FLOODWAY DATA

ASHIPPUN RIVER

FLOODING SOURCE		FLOODWAY				1-PERCENT-ANNUAL-CHANCE FLOOD WATER SURFACE ELEVATION (FEET NAVD88)			
CROSS SECTION	DISTANCE ¹	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	WIDTH REDUCED FROM PRIOR STUDY (FEET)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
ASHIPPUN RIVER (continued)									
BA	37,559	362	732	1.6	0	874.7	874.7	874.7	0.0
BB	38,863	277	899	1.3	0	877.3	877.3	877.3	0.0
BC	39,623	223	784	1.5	0	877.6	877.6	877.6	0.0
BD	40,849	41	147	8.0	0	878.6	878.6	878.6	0.0
BE	40,907	65	286	4.1	0	880.2	880.2	880.2	0.0
BF	41,394	620	1,511	0.6	0	880.6	880.6	880.6	0.0
BG	42,025	247	306	3.1	0	882.2	882.2	882.2	0.0
BH	43,040	64	148	6.4	0	890.3	890.3	890.3	0.0
BI	43,136	58	194	4.9	0	891.3	891.3	891.3	0.0
BJ	44,239	231	423	2.3	0	894.1	894.1	894.1	0.0
BK	45,527	219	317	3.0	0	898.3	898.3	898.3	0.0
BL	46,148	54	248	3.8	0	899.5	899.5	899.5	0.0
BM	46,194	59	286	3.3	0	900.0	900.0	900.0	0.0
BN	46,677	263	655	1.5	0	900.5	900.5	900.5	0.0
BO	47,506	195	401	2.4	0	900.9	900.9	900.9	0.0
BP	48,795	158	413	2.3	0	902.0	902.0	902.0	0.0
BQ	48,905	46	157	6.0	0	901.9	901.9	901.9	0.0
BR	48,960	46	202	4.7	0	902.9	902.9	902.9	0.0
BS	50,166	319	800	1.2	0	903.5	903.5	903.5	0.0
BT	51,029	454	844	1.1	0	903.8	903.8	903.8	0.0
BU	51,622	674	1,282	0.7	0	904.0	904.0	904.0	0.0
BV	52,313	732	1,383	0.6	0	904.1	904.1	904.1	0.0
BW	52,998	535	751	1.1	0	904.3	904.3	904.3	0.0
BX	53,996	386	500	1.6	0	904.8	904.8	904.8	0.0
BY	54,983	259	334	2.4	0	905.9	905.9	905.9	0.0
BZ	55,003	255	337	2.4	0	906.0	906.0	906.0	0.0

¹Feet above county boundary

TABLE 7

FEDERAL EMERGENCY MANAGEMENT AGENCY
WAUKESHA COUNTY, WI
 AND INCORPORATED AREAS

FLOODWAY DATA

ASHIPPUN RIVER

FLOODING SOURCE		FLOODWAY				1-PERCENT-ANNUAL-CHANCE FLOOD WATER SURFACE ELEVATION (FEET NAVD88)			
CROSS SECTION	DISTANCE ¹	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	WIDTH REDUCED FROM PRIOR STUDY (FEET)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
ASHIPPUN RIVER (continued)									
CA	55,718	144	223	3.5	0	908.1	908.1	908.1	0.0
CB	56,335	189	363	2.2	0	909.5	909.5	909.5	0.0
CC	57,161	285	455	1.7	0	910.6	910.6	910.6	0.0
CD	57,986	324	555	1.4	0	911.4	911.4	911.4	0.0
CE	58,933	343	575	1.4	0	912.2	912.2	912.2	0.0
CF	59,784	24	94	8.4	0	912.9	912.9	912.9	0.0
CG	59,832	47	229	3.5	0	914.4	914.4	914.4	0.0
CH	60,506	346	818	1.0	0	914.8	914.8	914.8	0.0
CI	61,612	284	511	1.6	0	915.3	915.3	915.3	0.0
CJ	62,791	433	584	1.4	0	916.2	916.2	916.2	0.0

¹Feet above county boundary

TABLE 7

FEDERAL EMERGENCY MANAGEMENT AGENCY
WAUKESHA COUNTY, WI
 AND INCORPORATED AREAS

FLOODWAY DATA

ASHIPPUN RIVER

FLOODING SOURCE		FLOODWAY				1-PERCENT-ANNUAL-CHANCE FLOOD WATER SURFACE ELEVATION (FEET NAVD88)			
CROSS SECTION	DISTANCE ¹	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	WIDTH REDUCED FROM PRIOR STUDY (FEET)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
BARK RIVER									
A	179,950	6,168/5,846 ²	21,241	0.1	0	844.0	844.0	844.0	0.0
B	181,149	5,985	19,854	0.1	0	844.0	844.0	844.0	0.0
C	182,056	6,483	24,168	0.1	0	844.0	844.0	844.0	0.0
D	183,261	6,048	22,473	0.1	0	844.0	844.0	844.0	0.0
E	184,146	5,114	21,925	0.1	0	844.0	844.0	844.0	0.0
F	185,007	3,932	19,751	0.1	0	844.0	844.0	844.0	0.0
G	186,012	3,051	16,072	0.2	0	844.0	844.0	844.0	0.0
H	187,019	2,002	10,478	0.3	0	844.1	844.1	844.1	0.0
I	187,984	1,134	8,177	0.6	0	844.1	844.1	844.1	0.0
J	188,992	138	1,067	3.0	0	844.7	844.7	844.7	0.0
K	189,923	646	1,484	1.3	0	845.5	845.5	845.5	0.0
L	190,904	137	2,614	2.6	0	846.4	846.4	846.4	0.0
M	190,983	526	19,864	1.0	0	846.6	846.6	846.6	0.0
N	191,367	1,000	3,105	0.6	0	846.7	846.7	846.7	0.0
O	192,456	1,341	2,653	0.5	0	846.8	846.8	846.8	0.0
P	193,599	1,435	2,833	0.5	0	847.0	847.0	847.0	0.0
Q	194,160	1,316	2,624	0.5	0	847.1	847.1	847.1	0.0
R	195,138	1,338	2,228	0.7	0	847.4	847.4	847.4	0.0
S	196,187	895	1,959	0.5	192	847.8	847.8	847.8	0.0
T	196,878	735	2,113	0.6	370	848.0	848.0	848.0	0.0
U	197,830	635	1,967	0.5	400	848.1	848.1	848.1	0.0
V	198,612	434	3,196	1.0	185	848.4	848.4	848.4	0.0
W	199,329	472	2,242	1.0	55	848.8	848.8	848.8	0.0
X	199,891	81	3,988	2.7	0	850.1	850.1	850.1	0.0
Y	199,999	74	4,832	3.1	0	850.5	850.5	850.5	0.0
Z	201,026	484	4,529	0.5	435	850.9	850.9	850.9	0.0

¹Feet above mouth

²Width / Width within Waukesha County limits

TABLE 7

FEDERAL EMERGENCY MANAGEMENT AGENCY
WAUKESHA COUNTY, WI
 AND INCORPORATED AREAS

FLOODWAY DATA

BARK RIVER

FLOODING SOURCE		FLOODWAY				1-PERCENT-ANNUAL-CHANCE FLOOD WATER SURFACE ELEVATION (FEET NAVD88)			
CROSS SECTION	DISTANCE ¹	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	WIDTH REDUCED FROM PRIOR STUDY (FEET)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
BARK RIVER (continued)									
AA	202,055	1,000	4,527	0.4	150	851.0	851.0	851.0	0.0
AB	203,081	1,052	3,533	0.5	93	851.1	851.1	851.1	0.0
AC	204,196	765	3,437	0.9	0	851.5	851.5	851.5	0.0
AD	205,194	543	3,627	0.7	0	851.9	851.9	851.9	0.0
AE	205,904	800	3,437	0.6	0	852.1	852.1	852.1	0.0
AF	206,612	424	3,448	1.2	0	852.4	852.4	852.4	0.0
AG	207,071	407	3,856	1.1	0	852.7	852.7	852.7	0.0
AH	207,897	651	4,692	0.9	0	853.3	853.3	853.3	0.0
AI	208,608	645	5,641	0.7	0	853.6	853.6	853.6	0.0
AJ	209,027	476	5,561	1.3	0	853.9	853.9	853.9	0.0
AK	209,148	61	5,271	3.0	0	854.0	854.0	854.0	0.0
AL	209,226	54	4,504	3.7	0	854.1	854.1	854.1	0.0
AM	210,520	199	291	1.7	0	855.1	855.1	855.1	0.0
AN	211,061	471	792	0.8	115	855.4	855.4	855.4	0.0
AO	212,060	259	358	1.3	0	855.8	855.8	855.8	0.0
AP	213,095	409	557	0.9	0	856.3	856.3	856.3	0.0
AQ	214,052	77	232	2.1	0	856.7	856.7	856.7	0.0
AR	214,129	52	132	3.7	0	856.8	856.8	856.8	0.0
AS	214,339	87	383	1.8	0	857.1	857.1	857.1	0.0
AT	215,434	174	254	1.9	0	857.9	857.9	857.9	0.0
AU	216,427	353	332	1.5	187	858.8	858.8	858.8	0.0
AV	217,348	73	143	3.4	0	859.9	859.9	859.9	0.0
AW	217,388	73	180	2.7	0	860.1	860.1	860.1	0.0
AX	217,732	61	142	3.4	0	860.4	860.4	860.4	0.0
AY	217,811	108	372	1.8	0	860.8	860.8	860.8	0.0
AZ	218,301	156	402	1.2	36	861.1	861.1	861.1	0.0

¹Feet above mouth

TABLE 7

FEDERAL EMERGENCY MANAGEMENT AGENCY
WAUKESHA COUNTY, WI
AND INCORPORATED AREAS

FLOODWAY DATA

BARK RIVER

FLOODING SOURCE		FLOODWAY				1-PERCENT-ANNUAL-CHANCE FLOOD WATER SURFACE ELEVATION (FEET NAVD88)			
CROSS SECTION	DISTANCE ¹	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	WIDTH REDUCED FROM PRIOR STUDY (FEET)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
BARK RIVER (continued)									
BA	219,082	100	317	2.3	0	861.6	861.6	861.6	0.0
BB	219,179	208	433	1.4	0	862.3	862.3	862.3	0.0
BC	219,270	220	373	1.3	0	862.3	862.3	862.3	0.0
BD	220,442	279	486	1.1	0	862.8	862.8	862.8	0.0
BE	220,672	138	311	1.9	0	862.9	862.9	862.9	0.0
BF	220,712	204	717	1.0	0	863.8	863.8	863.8	0.0
BG	221,753	536	1,186	0.4	66	863.9	863.9	863.9	0.0
BH	222,513	341	941	0.5	0	864.0	864.0	864.0	0.0
BI	223,448	264	389	1.2	0	864.2	864.2	864.2	0.0
BJ	224,441	103	550	1.2	198	864.8	864.8	864.8	0.0
BK	225,486	304	514	1.1	97	865.4	865.4	865.4	0.0
BL	226,058	162	352	1.4	91	865.6	865.6	865.6	0.0
BM	227,209	41	523	3.6	0	866.0	866.0	866.0	0.0
BN	227,233	41	515	2.9	0	866.4	866.4	866.4	0.0
BO	228,334	414	685	0.7	0	866.7	866.7	866.7	0.0
BP	229,106	314	804	0.8	0	866.8	866.8	866.8	0.0
BQ	229,597	227	245	2.0	0	866.9	866.9	866.9	0.0
BR	229,632	318	548	0.9	0	867.3	867.3	867.3	0.0
BS	230,030	393	769	0.6	0	867.4	867.4	867.4	0.0
BT	230,715	678	775	0.6	0	867.5	867.5	867.5	0.0
BU	230,749	678	964	0.5	0	867.5	867.5	867.5	0.0
BV	231,683	689	789	0.6	0	867.6	867.6	867.6	0.0
BW	232,374	514	705	0.7	0	867.7	867.7	867.7	0.0
BX	233,305	261	383	1.3	54	868.1	868.1	868.1	0.0
BY	233,880	239	594	1.0	0	868.4	868.4	868.4	0.0
BZ	234,736	487	670	0.7	0	868.6	868.6	868.6	0.0

¹Feet above mouth

TABLE 7

FEDERAL EMERGENCY MANAGEMENT AGENCY
WAUKESHA COUNTY, WI
 AND INCORPORATED AREAS

FLOODWAY DATA

BARK RIVER

FLOODING SOURCE		FLOODWAY				1-PERCENT-ANNUAL-CHANCE FLOOD WATER SURFACE ELEVATION (FEET NAVD88)			
CROSS SECTION	DISTANCE ¹	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	WIDTH REDUCED FROM PRIOR STUDY (FEET)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
BARK RIVER (continued)									
CA	235,370	72	666	2.7	0	868.8	868.8	868.8	0.0
CB	235,417	58	573	3.4	0	868.9	868.9	868.9	0.0
CC	236,490	507	746	0.7	64	869.5	869.5	869.5	0.0
CD	237,420	413	1,528	0.9	0	869.6	869.6	869.6	0.0
CE	237,440	388	1,554	1.1	0	869.6	869.6	869.6	0.0
CF	238,553	428	2,634	0.6	58	869.8	869.8	869.8	0.0
CG	239,694	866	8,660	0.4	52	869.9	869.9	869.9	0.0
CH	240,675	1,107	3,005	0.3	0	870.0	870.0	870.0	0.0
CI	241,768	353	2,636	0.8	0	870.3	870.3	870.3	0.0
CJ	242,282	1,132	4,206	0.3	0	870.3	870.3	870.3	0.0
CK	243,347	830	3,253	0.3	0	870.3	870.3	870.3	0.0
CL	244,419	98	2,497	0.6	569	870.4	870.4	870.4	0.0
CM	244,451	91	2,327	0.5	524	870.6	870.6	870.6	0.0
CN	245,307	527	1,557	0.4	174	870.6	870.6	870.6	0.0
CO	246,207	50	221	3.4	0	870.7	870.7	870.7	0.0
CP	246,248	36	261	3.9	0	871.0	871.0	871.0	0.0
CQ	246,251	46	433	3.2	0	871.1	871.1	871.1	0.0
CR	246,258	66	590	2.2	0	871.4	871.4	871.4	0.0
CS	247,039	519	2,091	0.3	270	871.6	871.6	871.6	0.0
CT	247,602	487	8,779	0.2	643	871.7	871.7	871.7	0.0
CU	248,643	1,137	8,954	0.2	0	871.7	871.7	871.7	0.0
CV	249,710	103	1,316	1.5	0	871.7	871.7	871.7	0.0
CW	249,787	36	114	4.6	0	871.7	871.7	871.7	0.0
CX	249,796	26	95	5.5	0	871.7	871.7	871.7	0.0
CY	249,904	37	1,070	3.0	0	872.1	872.1	872.1	0.0
CZ	250,016	52	386	3.2	0	872.2	872.2	872.2	0.0

¹Feet above mouth

TABLE 7

FEDERAL EMERGENCY MANAGEMENT AGENCY
WAUKESHA COUNTY, WI
 AND INCORPORATED AREAS

FLOODWAY DATA

BARK RIVER

FLOODING SOURCE		FLOODWAY				1-PERCENT-ANNUAL-CHANCE FLOOD WATER SURFACE ELEVATION (FEET NAVD88)			
CROSS SECTION	DISTANCE ¹	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	WIDTH REDUCED FROM PRIOR STUDY (FEET)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
BARK RIVER (continued)									
DA	250,945	553	2,329	0.6	0	872.5	872.5	872.5	0.0
DB	252,070	160	374	1.7	0	872.8	872.8	872.8	0.0
DC	252,759	45	111	5.9	0	873.8	873.8	873.8	0.0
DD	252,806	48	148	4.6	0	874.4	874.4	874.4	0.0
DE	252,939	46	147	7.7	0	876.8	876.8	876.8	0.0
DF	252,985	51	998	3.5	0	883.6	883.6	883.6	0.0
DG	253,942	509	982	0.7	0	884.0	884.0	884.0	0.0
DH	254,611	216	747	0.9	0	884.1	884.1	884.1	0.0
DI	255,554	54	507	3.0	0	884.4	884.4	884.4	0.0
DJ	255,620	53	374	3.2	0	884.5	884.5	884.5	0.0
DK	256,558	380	1,130	0.6	0	884.8	884.8	884.8	0.0
DL	257,376	196	517	1.3	0	884.9	884.9	884.9	0.0
DM	258,138	56	259	2.5	0	885.2	885.2	885.2	0.0
DN	258,149	57	262	2.5	0	885.2	885.2	885.2	0.0
DO	258,894	59	225	2.9	0	886.7	886.7	886.7	0.0
DP	259,057	69	263	2.5	0	887.6	887.6	887.6	0.0
DQ	259,203	416	1,103	0.6	0	887.7	887.7	887.7	0.0
DR	259,304	397	1,072	0.6	0	887.8	887.8	887.8	0.0
DS	259,327	393	1,034	0.6	0	887.8	887.8	887.8	0.0
DT	259,439	710	640	1.0	0	889.9	889.9	889.9	0.0
DU	260,497	512	694	0.9	0	890.3	890.3	890.3	0.0
DV	261,380	948	1,255	0.6	0	890.4	890.4	890.4	0.0
DW	269,788	395	1,310	1.1	0	890.8	890.8	890.8	0.0
DX	270,759	343	283	1.0	0	891.1	891.1	891.1	0.0
DY	271,550	185	246	1.4	0	891.8	891.8	891.8	0.0
DZ	272,547	46	85	3.3	0	893.8	893.8	893.8	0.0

¹Feet above mouth

TABLE 7

FEDERAL EMERGENCY MANAGEMENT AGENCY
WAUKESHA COUNTY, WI
 AND INCORPORATED AREAS

FLOODWAY DATA

BARK RIVER

FLOODING SOURCE		FLOODWAY				1-PERCENT-ANNUAL-CHANCE FLOOD WATER SURFACE ELEVATION (FEET NAVD88)			
CROSS SECTION	DISTANCE ¹	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	WIDTH REDUCED FROM PRIOR STUDY (FEET)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
BARK RIVER (continued)									
EA	272,620	49	88	3.8	0	894.1	894.1	894.1	0.0
EB	273,739	254	648	1.1	0	895.5	895.5	895.5	0.0
EC	274,793	582	746	0.5	170	895.9	895.9	895.9	0.0
ED	275,729	294	220	1.5	0	896.8	896.8	896.8	0.0
EE	276,743	114	311	2.0	0	897.5	897.5	897.5	0.0
EF	276,860	52	192	2.3	0	897.6	897.6	897.6	0.0
EG	277,943	846	1,604	0.2	782	897.8	897.8	897.8	0.0
EH	278,946	482	1,538	0.2	1,182	897.8	897.8	897.8	0.0
EI	279,945	393	1,301	0.3	839	897.8	897.8	897.8	0.0
EJ	280,925	178	1,382	0.2	1,118	897.9	897.9	897.9	0.0
EK	281,780	224	1,556	0.2	1,301	897.9	897.9	897.9	0.0
EL	282,793	45	311	1.1	523	898.3	898.3	898.3	0.0
EM	283,644	94	954	0.7	473	898.6	898.6	898.6	0.0
EN	284,288	39	376	2.7	0	899.1	899.1	899.1	0.0
EO	284,355	88	459	2.6	0	899.2	899.2	899.2	0.0
EP	285,230	60	128	2.6	70	900.3	900.3	900.3	0.0
EQ	285,301	23	119	2.8	31	901.3	901.3	901.3	0.0
ER	285,931	133	182	1.9	0	902.7	902.7	902.7	0.0
ES	286,716	38	96	3.7	0	904.2	904.2	904.2	0.0
ET	286,830	35	110	4.0	0	905.3	905.3	905.3	0.0
EU	286,847	29	74	4.5	0	905.3	905.3	905.3	0.0
EV	287,267	32	71	2.8	0	906.5	906.5	906.5	0.0
EW	287,732	26	63	3.2	0	907.4	907.4	907.4	0.0
EX	287,776	26	54	3.7	0	907.5	907.5	907.5	0.0
EY	287,933	31	62	3.2	0	908.0	908.0	908.0	0.0
EZ	288,058	20	35	5.6	0	908.5	908.5	908.5	0.0

¹Feet above mouth

TABLE 7

FEDERAL EMERGENCY MANAGEMENT AGENCY
WAUKESHA COUNTY, WI
AND INCORPORATED AREAS

FLOODWAY DATA

BARK RIVER

FLOODING SOURCE		FLOODWAY				1-PERCENT-ANNUAL-CHANCE FLOOD WATER SURFACE ELEVATION (FEET NAVD88)			
CROSS SECTION	DISTANCE ¹	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	WIDTH REDUCED FROM PRIOR STUDY (FEET)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
BARK RIVER (continued)									
FA	288,210	28	67	3.0	0	909.5	909.5	909.5	0.0
FB	288,257	29	70	2.9	0	909.6	909.6	909.6	0.0
FC	288,330	21	39	5.1	0	910.0	910.0	910.0	0.0
FD	288,459	17	56	3.6	0	911.5	911.5	911.5	0.0
FE	288,542	15	45	4.4	0	912.2	912.2	912.2	0.0
FF	288,739	41	96	2.1	0	914.0	914.0	914.0	0.0
FG	288,746	35	95	2.1	0	914.1	914.1	914.1	0.0
FH	289,639	42	168	1.2	0	914.7	914.7	914.7	0.0
FI	289,708	45	179	1.1	0	914.8	914.8	914.8	0.0
FJ	290,713	41	150	1.3	0	915.7	915.7	915.7	0.0
FK	290,728	35	137	1.5	0	915.7	915.7	915.7	0.0
FL	291,082	26	243	1.5	0	915.8	915.8	915.8	0.0
FM	292,063	50	102	2.0	0	916.4	916.4	916.4	0.0
FN	292,077	62	101	2.0	0	916.4	916.4	916.4	0.0
FO	292,949	79	93	2.4	0	917.2	917.2	917.2	0.0
FP	293,594	211	209	1.0	0	918.1	918.1	918.1	0.0
FQ	294,232	298	269	0.7	0	918.6	918.6	918.6	0.0
FR	294,800	255	196	1.0	0	919.2	919.2	919.2	0.0
FS	295,793	42	443	3.1	0	921.0	921.0	921.0	0.0
FT	295,874	44	583	1.5	25	921.2	921.2	921.2	0.0
FU	296,881	44	168	1.9	0	922.0	922.0	922.0	0.0
FV	297,857	62	88	1.7	0	923.0	923.0	923.0	0.0
FW	298,499	91	195	0.8	0	923.3	923.3	923.3	0.0
FX	299,497	63	120	1.3	0	923.8	923.8	923.8	0.0
FY	300,036	46	87	1.5	0	924.1	924.1	924.1	0.0
FZ	300,891	36	65	2.0	0	924.6	924.6	924.6	0.0

¹Feet above mouth

TABLE 7	FEDERAL EMERGENCY MANAGEMENT AGENCY WAUKESHA COUNTY, WI	FLOODWAY DATA
	AND INCORPORATED AREAS	BARK RIVER

FLOODING SOURCE		FLOODWAY				1-PERCENT-ANNUAL-CHANCE FLOOD WATER SURFACE ELEVATION (FEET NAVD88)			
CROSS SECTION	DISTANCE ¹	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	WIDTH REDUCED FROM PRIOR STUDY (FEET)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
BARK RIVER (continued)									
GA	300,934	26	42	3.0	0	924.7	924.7	924.7	0.0
GB	301,605	35	73	1.8	0	926.3	926.3	926.3	0.0
GC	302,343	23	45	2.9	0	927.5	927.5	927.5	0.0
GD	303,272	71	93	1.4	0	928.2	928.2	928.2	0.0
GE	303,897	43	108	1.2	32	928.6	928.6	928.6	0.0
GF	304,493	50	105	1.2	56	929.2	929.2	929.2	0.0
GG	305,180	42	75	1.7	58	930.4	930.4	930.4	0.0
GH	306,048	24	52	2.5	0	931.8	931.8	931.8	0.0
GI	306,100	30	59	2.2	0	931.9	931.9	931.9	0.0
GJ	306,913	55	97	1.3	0	932.7	932.7	932.7	0.0
GK	307,752	78	122	1.1	0	933.1	933.1	933.1	0.0
GL	308,405	87	152	0.9	0	933.2	933.2	933.2	0.0
GM	309,431	54	69	1.9	0	933.6	933.6	933.6	0.0
GN	309,512	42	82	1.6	0	934.3	934.3	934.3	0.0
GO	310,576	48	102	1.5	0	934.7	934.7	934.7	0.0
GP	311,788	50	73	1.8	0	935.9	935.9	935.9	0.0
GQ	313,003	82	95	1.4	0	937.2	937.2	937.2	0.0
GR	314,050	75	80	1.6	0	938.7	938.7	938.7	0.0
GS	315,106	64	68	1.9	0	940.7	940.7	940.7	0.0
GT	315,499	18	39	3.3	0	941.6	941.6	941.6	0.0
GU	315,631	22	48	2.7	0	941.8	941.8	941.8	0.0
GV	315,688	36	433	1.4	0	949.7	949.7	949.7	0.0
GW	316,694	488	1,785	0.1	0	949.8	949.8	949.8	0.0
GX	317,691	446	1,682	0.1	0	949.8	949.8	949.8	0.0
GY	318,670	504	1,654	0.1	0	949.8	949.8	949.8	0.0
GZ	319,558	441	1,075	0.1	0	949.8	949.8	949.8	0.0

¹Feet above mouth

TABLE 7

FEDERAL EMERGENCY MANAGEMENT AGENCY
WAUKESHA COUNTY, WI
 AND INCORPORATED AREAS

FLOODWAY DATA

BARK RIVER

FLOODING SOURCE		FLOODWAY				1-PERCENT-ANNUAL-CHANCE FLOOD WATER SURFACE ELEVATION (FEET NAVD88)			
CROSS SECTION	DISTANCE ¹	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	WIDTH REDUCED FROM PRIOR STUDY (FEET)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
BARK RIVER (continued)									
HA	320,228	155	788	0.2	68	949.8	949.8	949.8	0.0
HB	320,535	147	599	0.3	0	949.8	949.8	949.8	0.0
HC	320,807	101	351	0.4	162	950.0	950.0	950.0	0.0
HD	321,521	549	1,618	0.1	134	950.0	950.0	950.0	0.0
HE	322,591	90	1,738	0.4	0	950.0	950.0	950.0	0.0
HF	322,706	114	1,309	0.3	0	951.0	951.0	951.0	0.0
HG	323,444	371	909	0.1	71	951.0	951.0	951.0	0.0
HH	323,902	94	844	0.1	324	951.0	951.0	951.0	0.0
HI	323,970	85	685	0.2	284	951.2	951.2	951.2	0.0
HJ	324,980	332	632	0.2	0	951.2	951.2	951.2	0.0
HK	325,900	441	963	0.1	0	951.2	951.2	951.2	0.0
HL	326,633	480	755	0.2	34	951.2	951.2	951.2	0.0
HM	327,534	511	978	0.1	0	951.2	951.2	951.2	0.0
HN	328,323	448	746	0.2	0	951.2	951.2	951.2	0.0
HO	329,240	426	954	0.1	81	951.3	951.3	951.3	0.0
HP	330,048	526	1,114	0.1	0	951.3	951.3	951.3	0.0
HQ	331,156	236	486	0.2	106	951.3	951.3	951.3	0.0
HR	332,078	283	339	0.3	0	951.3	951.3	951.3	0.0
HS	332,963	235	269	0.4	0	951.4	951.4	951.4	0.0
HT	334,052	143	254	0.4	124	951.5	951.5	951.5	0.0
HU	334,961	47	107	2.3	0	952.9	952.9	952.9	0.0
HV	335,975	25	144	0.8	97	953.8	953.8	953.8	0.0
HW	336,480	20	85	1.3	112	954.3	954.3	954.3	0.0
HX	337,182	46	61	1.8	0	955.1	955.1	955.1	0.0
HY	337,299	31	50	2.1	0	955.2	955.2	955.2	0.0
HZ	337,953	77	93	1.2	118	956.0	956.0	956.0	0.0

¹Feet above mouth

TABLE 7

FEDERAL EMERGENCY MANAGEMENT AGENCY
WAUKESHA COUNTY, WI
 AND INCORPORATED AREAS

FLOODWAY DATA

BARK RIVER

FLOODING SOURCE		FLOODWAY				1-PERCENT-ANNUAL-CHANCE FLOOD WATER SURFACE ELEVATION (FEET NAVD88)			
CROSS SECTION	DISTANCE ¹	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	WIDTH REDUCED FROM PRIOR STUDY (FEET)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
BARK RIVER (continued)									
IA	338,760	42	1,138	1.3	64	956.7	956.7	956.7	0.0
IB	339,777	326	610	0.2	39	959.7	959.7	959.7	0.0
IC	340,780	451	641	0.2	0	959.7	959.7	959.7	0.0
ID	341,808	95	109	0.8	43	959.9	959.9	959.9	0.0
IE	342,877	34	70	1.2	27	960.6	960.6	960.6	0.0
IF	343,871	25	32	2.7	0	962.1	962.1	962.1	0.0
IG	344,950	30	83	1.0	58	963.1	963.1	963.1	0.0
IH	345,861	33	185	0.5	313	963.5	963.5	963.5	0.0
II	346,929	33	36	2.4	0	964.3	964.3	964.3	0.0
IJ	347,004	24	17	5.0	0	964.4	964.4	964.4	0.0
IK	347,944	25	47	1.8	0	965.7	965.7	965.7	0.0
IL	349,037	44	120	0.7	29	966.0	966.0	966.0	0.0
IM	349,917	23	139	0.6	194	966.1	966.1	966.1	0.0
IN	350,888	28	107	0.8	145	966.4	966.4	966.4	0.0
IO	351,681	39	95	0.9	57	966.7	966.7	966.7	0.0
IP	352,510	18	62	1.4	26	967.1	967.1	967.1	0.0
IQ	353,443	67	116	0.7	0	967.3	967.3	967.3	0.0
IR	353,973	41	52	1.6	0	967.6	967.6	967.6	0.0
IS	354,047	21	52	1.8	30	967.8	967.8	967.8	0.0
IT	354,662	49	227	0.4	321	968.3	968.3	968.3	0.0

¹Feet above mouth

TABLE 7	FEDERAL EMERGENCY MANAGEMENT AGENCY WAUKESHA COUNTY, WI AND INCORPORATED AREAS	FLOODWAY DATA
		BARK RIVER

FLOODING SOURCE		FLOODWAY				1-PERCENT-ANNUAL-CHANCE FLOOD WATER SURFACE ELEVATION (FEET NAVD88)			
CROSS SECTION	DISTANCE	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	WIDTH REDUCED FROM PRIOR STUDY (FEET)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
BRANDY BROOK									
A	2,027 ¹	2,157	6,605	0.3	235	808.1	808.1	808.1	0.0
B	3,836 ¹	1,701	3,059	0.4	0	808.3	808.3	808.3	0.0
C	4,724 ¹	570	737	1.6	0	809.9	809.9	809.9	0.0
D	6,051 ¹	300	2,491	0.5	0	822.9	822.9	822.9	0.0
E	7,060 ¹	2,165	13,183	0.1	0	822.9	822.9	822.9	0.0
F	9,332 ¹	1,993	6,845	0.2	0	822.9	822.9	822.9	0.0
BUTLER DITCH									
A	864 ²	123	213	3.8	0	727.0	727.0	727.0	0.0
B	1,330 ²	28	125	7.7	0	731.1	731.1	731.1	0.0
C	1,557 ²	42	109	7.4	0	734.4	734.4	734.4	0.0
D	2,019 ²	87	236	3.4	0	738.3	738.3	738.3	0.0
E	2,584 ²	103	301	2.7	0	740.4	740.4	740.4	0.0
F	2,964 ²	115	217	3.7	0	742.6	742.6	742.6	0.0
G	3,414 ²	128	418	2.1	0	745.6	745.6	745.6	0.0
H	4,182 ²	151	384	2.2	0	746.7	746.7	746.7	0.0
I	4,662 ²	87	316	3.5	0	747.5	747.5	747.5	0.0
J	5,286 ²	75	529	3.0	32	748.9	748.9	748.9	0.0
K	5,314 ²	49	236	4.9	63	748.9	748.9	748.9	0.0
L	5,943 ²	150	245	2.9	0	751.3	751.3	751.3	0.0
M	6,499 ²	200	381	1.9	47	752.3	752.3	752.3	0.0
N	7,132 ²	32	588	5.1	0	753.9	753.9	753.9	0.0
O	7,219 ²	121	1,108	2.4	0	754.8	754.8	754.8	0.0
P	8,036 ²	396	736	1.0	0	755.4	755.4	755.4	0.0
Q	8,798 ²	517	1,004	0.7	0	755.7	755.7	755.7	0.0

¹Feet above mouth

²Feet above confluence with Menomonee River

TABLE 7

FEDERAL EMERGENCY MANAGEMENT AGENCY
WAUKESHA COUNTY, WI
 AND INCORPORATED AREAS

FLOODWAY DATA

BRANDY BROOK - BUTLER DITCH

FLOODING SOURCE		FLOODWAY				1-PERCENT-ANNUAL-CHANCE FLOOD WATER SURFACE ELEVATION (FEET NAVD88)			
CROSS SECTION	DISTANCE ¹	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	WIDTH REDUCED FROM PRIOR STUDY (FEET)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
BUTLER DITCH (continued)									
R	9,587	100	1,296	1.6	78	757.1	757.1	757.1	0.0
S	10,349	266	415	1.5	0	757.4	757.4	757.4	0.0
T	11,037	207	588	1.5	0	787.8	787.8	787.8	0.0
U	11,566	430	502	1.2	0	758.4	758.4	758.4	0.0
V	12,307	360	762	1.1	0	759.0	759.0	759.0	0.0
W	12,992	434	681	0.9	0	759.4	759.4	759.4	0.0
X	16,365	404	541	0.8	45	767.1	767.1	767.1	0.0
Y	16,745	225	259	1.6	0	767.7	767.7	767.7	0.0
Z	18,481	17	547	5.1	0	772.4	772.4	772.4	0.0
AA	18,534	20	1,409	3.4	0	774.1	774.1	774.1	0.0
AB	19,295	230	311	0.7	0	774.5	774.5	774.5	0.0
AC	20,534	102	109	0.5	130	776.5	776.5	776.5	0.0
AD	21,319	31	86	0.6	127	776.8	776.8	776.8	0.0
AE	21,529	10	29	1.8	29	777.6	777.6	777.6	0.0

¹Feet above confluence with Menomonee River

TABLE 7

FEDERAL EMERGENCY MANAGEMENT AGENCY
WAUKESHA COUNTY, WI
 AND INCORPORATED AREAS

FLOODWAY DATA

BUTLER DITCH

FLOODING SOURCE		FLOODWAY				1-PERCENT-ANNUAL-CHANCE FLOOD WATER SURFACE ELEVATION (FEET NAVD88)			
CROSS SECTION	DISTANCE ¹	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	WIDTH REDUCED FROM PRIOR STUDY (FEET)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
BUTLER DITCH SOUTH BRANCH									
A	988	28	272	1.4	352	760.0	760.0	760.0	0.0
B	1,408	150	254	1.5	0	761.2	761.2	761.2	0.0
C	1,573	24	48	8.0	0	763.3	763.3	763.3	0.0
D	1,644	24	65	5.9	0	764.4	764.4	764.4	0.0
E	1,724	24	141	1.7	0	765.8	765.8	765.8	0.0
F	1,874	24	144	1.7	0	765.9	765.9	765.9	0.0
G	1,950	68	196	1.5	0	765.9	765.9	765.9	0.0
H	2,183	90	188	1.7	0	766.0	766.0	766.0	0.0
I	2,795	28	49	8.5	0	766.7	766.7	766.7	0.0
J	3,531	65	107	4.0	0	773.4	773.4	773.4	0.0
K	3,993	97	88	6.9	0	780.3	780.3	780.3	0.0

¹Feet above mouth

TABLE 7

FEDERAL EMERGENCY MANAGEMENT AGENCY
WAUKESHA COUNTY, WI
 AND INCORPORATED AREAS

FLOODWAY DATA

BUTLER DITCH SOUTH BRANCH

FLOODING SOURCE		FLOODWAY			1-PERCENT-ANNUAL-CHANCE FLOOD WATER SURFACE ELEVATION (FEET NAVD88)			
CROSS SECTION	DISTANCE ¹	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
BUTLER DITCH TRIBUTARY								
A	312	38	29	3.7	755.8	753.9 ²	753.9 ²	0.0
B	389	35	35	4.5	755.8	755.2 ²	755.2 ²	0.0
C	419	17	35	3.0	755.8	755.6 ²	755.6 ²	0.0
D	802	127	223	0.7	759.3	759.3	759.3	0.0
E	1,062	64	89	1.5	759.4	759.4	759.4	0.0
F	1,230	23	33	3.2	759.8	759.8	759.8	0.0
G	1,367	54	55	2.1	760.6	760.6	760.6	0.0
H	1,644	13	31	3.3	761.8	761.8	761.8	0.0
I	1,675	100	109	1.7	763.2	763.2	763.2	0.0
J	1,902	18	33	3.1	763.4	763.4	763.4	0.0
K	1,937	39	55	2.1	764.5	764.5	764.5	0.0
L	2,006	61	53	2.8	764.7	764.7	764.7	0.0
M	2,222	13	38	2.7	765.4	765.4	765.4	0.0
N	2,332	15	83	1.2	768.7	768.7	768.7	0.0
O	3,178	218	603	0.3	770.0	770.0	770.0	0.0
P	3,393	308	671	0.3	770.0	770.0	770.0	0.0
Q	4,018	44	27	2.3	770.0	770.0	770.0	0.0
R	4,244	5	9	5.6	772.0	772.0	772.0	0.0
S	4,260	42	25	3.1	773.6	773.6	773.6	0.0
T	4,286	44	19	4.6	773.6	773.6	773.6	0.0
U	4,388	90	278	0.2	773.9	773.9	773.9	0.0
V	4,707	28	169	0.3	773.9	773.9	773.9	0.0
W	4,760	28	171	0.3	774.0	774.0	774.0	0.0
X	5,371	143	406	0.1	774.0	774.0	774.0	0.0

¹ Feet above mouth

² Elevations without considering backwater effect from Butler Ditch

TABLE 7

FEDERAL EMERGENCY MANAGEMENT AGENCY
WAUKESHA COUNTY, WI
 AND INCORPORATED AREAS

FLOODWAY DATA

BUTLER DITCH TRIBUTARY

FLOODING SOURCE		FLOODWAY				1-PERCENT-ANNUAL-CHANCE FLOOD WATER SURFACE ELEVATION (FEET NAVD88)			
CROSS SECTION	DISTANCE ¹	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	WIDTH REDUCED FROM PRIOR STUDY (FEET)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
CALHOUN CREEK									
A	29	15	210	9.6	0	815.4	815.4	815.4	0.0
B	114	210	1,480	1.4	0	820.8	820.8	820.8	0.0
C	293	330	2,860	0.7	0	820.8	820.8	820.8	0.0
D	516	345	2,700	0.8	0	820.8	820.8	820.8	0.0
E	981	290	1,620	1.3	0	820.9	820.9	820.9	0.0
F	2,458	570	1,780	0.7	0	821.0	821.0	821.0	0.0
G	3,666	110	450	2.8	0	821.2	821.2	821.2	0.0
H	3,837	50	260	4.8	0	821.2	821.2	821.2	0.0
I	3,949	140	520	2.4	0	821.7	821.7	821.7	0.0
J	4,664	310	850	1.2	0	822.4	822.4	822.4	0.0
K	6,518	560	1,480	0.7	0	823.0	823.0	823.0	0.0
L	8,023	25	170	5.9	0	823.9	823.9	823.9	0.0
M	8,401	300	560	1.8	0	825.3	825.3	825.3	0.0
N	10,213	410	620	1.6	0	827.6	827.6	827.6	0.0
O	11,134	220	510	2.0	0	828.7	828.7	828.7	0.0
P	11,228	195	640	1.6	0	830.5	830.5	830.5	0.0
Q	11,310	285	830	1.2	0	830.5	830.5	830.5	0.0
R	12,088	260	450	2.1	0	831.0	831.0	831.0	0.0
S	12,794	215	250	3.2	0	833.2	833.2	833.2	0.0
T	12,937	260	1,080	0.8	0	834.8	834.8	834.8	0.0
U	13,157	190	490	1.7	0	836.2	836.2	836.2	0.0
V	13,649	200	440	1.9	0	836.7	836.7	836.7	0.0
W	14,364	167	350	2.3	28	838.0	838.0	838.0	0.0
X	15,864	125	250	3.3	0	842.9	842.9	842.9	0.0
Y	16,081	130	500	1.6	0	845.6	845.6	845.6	0.0
Z	16,372	270	540	1.5	55	845.7	845.7	845.7	0.0

¹Feet above mouth

TABLE 7

FEDERAL EMERGENCY MANAGEMENT AGENCY
WAUKESHA COUNTY, WI
 AND INCORPORATED AREAS

FLOODWAY DATA

CALHOUN CREEK

FLOODING SOURCE		FLOODWAY				1-PERCENT-ANNUAL-CHANCE FLOOD WATER SURFACE ELEVATION (FEET NAVD88)			
CROSS SECTION	DISTANCE ¹	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	WIDTH REDUCED FROM PRIOR STUDY (FEET)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
CALHOUN CREEK (continued)									
AA	17,875	470	960	0.9	0	846.7	846.7	846.7	0.0
AB	20,444	210	140	2.9	200	854.3	854.3	854.3	0.0
AC	21,344	64	127	4.9	0	863.4	863.4	863.4	0.0
AD	21,539	50	138	3.1	50	864.9	864.9	864.9	0.0
AE	21,609	67	206	3.0	220	865.1	865.1	865.1	0.0
AF	22,175	97	264	2.3	193	866.0	866.0	866.0	0.0
AG	22,746	32	155	2.8	0	866.3	866.3	866.3	0.0
DAKOTA STREET TRIBUTARY									
A	76	51	92	1.4	0	785.6	785.6	785.6	0.0
B	278	30	53	2.4	0	785.9	785.9	785.9	0.0
C	577	42	41	3.0	0	789.5	789.5	789.5	0.0
D	849	40	66	1.9	25	792.6	792.6	792.6	0.0
E	1,030	41	35	3.6	0	795.9	795.9	795.9	0.0
F	1,449	37	58	2.2	0	801.4	801.4	801.4	0.0
G	1,565	29	38	3.3	0	802.4	804.8	804.8	0.0
H	2,123	57	285	0.5	0	811.8	811.8	811.8	0.0
I	2,305	32	50	2.7	0	812.7	812.7	812.7	0.0
J	2,494	39	29	4.7	0	814.2	814.2	814.2	0.0
K	2,827	136	79	1.7	0	821.6	821.6	821.6	0.0
L	3,266	74	42	3.2	0	829.2	829.2	829.2	0.0
M	3,934	42	36	3.9	0	846.0	846.0	846.0	0.0

¹Feet above mouth

TABLE 7

FEDERAL EMERGENCY MANAGEMENT AGENCY
WAUKESHA COUNTY, WI
 AND INCORPORATED AREAS

FLOODWAY DATA

CALHOUN CREEK - DAKOTA STREET TRIBUTARY

FLOODING SOURCE		FLOODWAY				1-PERCENT-ANNUAL-CHANCE FLOOD WATER SURFACE ELEVATION (FEET NAVD88)			
CROSS SECTION	DISTANCE ¹	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	WIDTH REDUCED FROM PRIOR STUDY (FEET)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
DEER CREEK									
A	1,974	396	2,390	0.5	0	828.2	828.2	828.2	0.0
B	2,498	49	2,155	2.3	0	828.2	828.2	828.2	0.0
C	4,243	55	1,584	0.7	305	829.4	829.4	829.4	0.0
D	5,075	550	1,630	0.6	0	829.6	829.6	829.6	0.0
E	5,957	616	2,281	0.4	54	829.6	829.6	829.6	0.0
F	6,521	187	1,200	1.3	0	830.5	830.5	830.5	0.0
G	7,860	164	483	2.0	0	830.9	830.9	830.9	0.0
H	8,415	212	1,028	1.2	0	831.3	831.3	831.3	0.0
I	9,722	63	1,403	1.0	147	832.6	832.6	832.6	0.0
J	10,276	250	603	1.4	0	832.8	832.8	832.8	0.0
K	11,193	180	978	1.5	0	834.4	834.4	834.4	0.0
L	11,933	206	1,089	1.6	0	835.2	835.2	835.2	0.0
M	13,563	251	666	1.3	0	836.4	836.4	836.4	0.0
N	14,645	85	1,046	2.0	0	836.5	836.5	836.5	0.0
O	15,762	410	2,350	0.5	0	837.1	837.1	837.1	0.0
P	16,381	280	1,741	0.8	0	837.1	837.1	837.1	0.0
Q	17,103	107	1,008	0.9	0	839.3	839.3	839.3	0.0
R	18,193	151	1,038	0.7	0	839.4	839.4	839.4	0.0
S	18,615	37	1,002	0.5	167	842.0	842.0	842.0	0.0
T	20,069	340	1,657	0.3	0	842.0	842.0	842.0	0.0
U	20,595	240	1,350	0.4	0	842.0	842.0	842.0	0.0
V	20,969	310	1,094	0.5	0	842.0	842.0	842.0	0.0
W	21,542	44	475	1.0	0	843.2	843.2	843.2	0.0
X	21,955	122	509	1.0	0	843.2	843.2	843.2	0.0
Y	22,343	206	528	1.0	0	843.3	843.3	843.3	0.0
Z	23,033	108	434	1.2	0	843.6	843.6	843.6	0.0

¹Feet above mouth

TABLE 7

FEDERAL EMERGENCY MANAGEMENT AGENCY
WAUKESHA COUNTY, WI
 AND INCORPORATED AREAS

FLOODWAY DATA

DEER CREEK

FLOODING SOURCE		FLOODWAY				1-PERCENT-ANNUAL-CHANCE FLOOD WATER SURFACE ELEVATION (FEET NAVD88)			
CROSS SECTION	DISTANCE ¹	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	WIDTH REDUCED FROM PRIOR STUDY (FEET)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
DEER CREEK (continued)									
AA	23,780	100	329	1.4	0	843.8	843.8	843.8	0.0
AB	24,217	23	120	3.8	0	844.2	844.2	844.2	0.0
AC	24,770	83	218	2.1	0	844.6	844.6	844.6	0.0
AD	25,790	66	255	1.8	0	845.7	845.7	845.7	0.0
AE	26,204	45	181	4.1	0	846.1	846.1	846.1	0.0
AF	26,978	34	76	6.0	0	847.7	847.7	847.7	0.0
AG	27,836	65	212	1.8	0	854.6	854.6	854.6	0.0
AH	29,176	84	144	2.1	0	855.8	855.8	855.8	0.0
AI	29,647	82	105	2.9	27	856.0	856.0	856.0	0.0
AJ	30,328	42	93	3.3	0	858.0	858.0	858.0	0.0
AK	31,022	300	404	0.8	50	860.3	860.3	860.3	0.0
AL	31,739	77	131	2.3	0	861.7	861.7	861.7	0.0
AM	32,254	23	79	3.0	0	862.9	862.9	862.9	0.0
AN	32,693	43	74	3.3	0	864.1	864.1	864.1	0.0
AO	33,115	26	74	3.3	0	865.7	865.7	865.7	0.0
AP	33,592	48	154	1.6	0	866.1	866.1	866.1	0.0
AQ	33,876	52	163	1.2	0	866.2	866.2	866.2	0.0
AR	35,067	38	131	1.5	0	867.7	867.7	867.7	0.0
AS	36,286	45	145	1.4	0	868.2	868.2	868.2	0.0
AT	36,903	46	174	1.1	0	868.4	868.4	868.4	0.0
AU	37,359	60	221	0.9	112	868.6	868.6	868.6	0.0
AV	37,769	87	2,391	0.2	36	868.6	868.6	868.6	0.0
AW	38,435	55	1,600	0.3	0	868.6	868.6	868.6	0.0
AX	39,090	70	191	1.6	0	869.1	869.1	869.1	0.0
AY	39,941	24	52	4.2	0	869.5	869.5	869.5	0.0
AZ	40,716	37	94	2.4	0	873.0	873.0	873.0	0.0

¹Feet above mouth

TABLE 7

FEDERAL EMERGENCY MANAGEMENT AGENCY
WAUKESHA COUNTY, WI
 AND INCORPORATED AREAS

FLOODWAY DATA

DEER CREEK

FLOODING SOURCE		FLOODWAY				1-PERCENT-ANNUAL-CHANCE FLOOD WATER SURFACE ELEVATION (FEET NAVD88)			
CROSS SECTION	DISTANCE ¹	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	WIDTH REDUCED FROM PRIOR STUDY (FEET)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
DOUSMAN DITCH									
A	244	57	189	3.6	0	822.7	822.1 ²	822.1 ²	0.0
B	417	56	300	2.1	0	822.7	822.7	822.7	0.0
C	1,016	43	204	2.8	27	823.1	823.1	823.1	0.0
D	1,662	63	210	2.7	0	823.7	823.7	823.7	0.0
E	2,362	48	306	1.8	30	824.1	824.1	824.1	0.0
F	3,187	43	250	2.2	0	824.4	824.4	824.4	0.0
G	3,372	42	263	2.1	0	824.6	824.6	824.6	0.0
H	3,733	113	353	1.1	0	824.8	824.8	824.8	0.0
I	4,422	225	1,329	0.8	0	825.1	825.1	825.1	0.0
J	4,866	405	1,950	0.6	0	825.2	825.2	825.2	0.0
K	7,084	136	5,367	0.7	30	826.8	826.8	826.8	0.0
L	8,640	242	3,595	0.5	487	827.2	827.2	827.2	0.0
M	9,884	20	1,143	0.7	770	827.6	827.6	827.6	0.0
N	10,840	233	157	3.1	0	828.7	828.7	828.7	0.0
O	12,634	40	149	6.9	0	829.1	829.1	829.1	0.0
P	13,032	87	373	1.3	0	830.8	830.8	830.8	0.0
EAST BRANCH SUSSEX CREEK									
A	1,575	85	*	*	215	900.8	900.8	900.8	0.0
B	2,200	200	*	*	0	906.0	906.0	906.0	0.0
C	3,098	340	*	*	0	911.7	911.7	911.7	0.0
D	3,884	5	*	*	115	914.5	914.5	914.5	0.0

¹Feet above mouth

*Data not available

²Elevations without considering backwater effect from Underwood Creek

TABLE 7	FEDERAL EMERGENCY MANAGEMENT AGENCY WAUKESHA COUNTY, WI AND INCORPORATED AREAS	FLOODWAY DATA
		DOUSMAN DITCH - EAST BRANCH SUSSEX CREEK

FLOODING SOURCE		FLOODWAY				1-PERCENT-ANNUAL-CHANCE FLOOD WATER SURFACE ELEVATION (FEET NAVD88)			
CROSS SECTION	DISTANCE ¹	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	WIDTH REDUCED FROM PRIOR STUDY (FEET)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
FOX RIVER									
A	149.381	1,775	4,937	0.7	0	776.8	776.8	776.8	0.0
B	169.622	835	2,568	1.3	0	777.1	777.1	777.1	0.0
C	150.190	1,213	4,411	0.8	0	778.1	778.1	778.1	0.0
D	150.485	1,771	6,241	0.5	35	778.2	778.2	778.2	0.0
E	151.102	1,910	5,198	0.6	26	778.5	778.5	778.5	0.0
F	151.483	1,402	5,789	0.6	0	778.7	778.7	778.7	0.0
G	151.850	2,146	7,785	0.4	0	778.8	778.8	778.8	0.0
H	152.178	584	2,896	1.1	0	778.9	778.9	778.9	0.0
I	152.590	945	4,010	0.8	46	779.1	779.1	779.1	0.0
J	152.987	471	2,672	1.2	0	779.3	779.3	779.3	0.0
K	153.069	479	2,933	1.1	169	779.4	779.4	779.4	0.0
L	153.168	460	2,788	1.2	0	779.5	779.5	779.5	0.0
M	153.375	724	3,619	0.9	0	779.6	779.6	779.6	0.0
N	153.736	142	1,935	1.7	224	780.0	780.0	780.0	0.0
O	153.924	661	4,289	0.8	314	780.2	780.2	780.2	0.0
P	154.344	1,508	6,279	0.5	32	780.4	780.4	780.4	0.0
Q	154.990	978	2,923	1.1	0	780.7	780.7	780.7	0.0
R	155.805	153	1,020	3.3	0	781.2	781.2	781.2	0.0
S	156.203	325	1,939	1.7	0	781.6	781.6	781.6	0.0
T	156.359	1,577	7,981	0.4	63	781.8	781.8	781.8	0.0
U	156.993	1,793	6,285	0.5	0	782.0	782.0	782.0	0.0
V	157.394	1,203	7,160	0.5	0	782.1	782.1	782.1	0.0
W	157.808	1,189	7,170	0.5	0	782.1	782.1	782.1	0.0
X	158.056	842	5,292	0.6	0	782.2	782.2	782.2	0.0
Y	159.296	2,483	10,246	0.3	37	782.3	782.3	782.3	0.0
Z	159.837	1,360	6,860	0.5	0	782.4	782.4	782.4	0.0

¹Distance in miles above the confluence with the Illinois River

TABLE 7

FEDERAL EMERGENCY MANAGEMENT AGENCY
WAUKESHA COUNTY, WI
 AND INCORPORATED AREAS

FLOODWAY DATA

FOX RIVER

FLOODING SOURCE		FLOODWAY				1-PERCENT-ANNUAL-CHANCE FLOOD WATER SURFACE ELEVATION (FEET NAVD88)			
CROSS SECTION	DISTANCE ¹	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	WIDTH REDUCED FROM PRIOR STUDY (FEET)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
FOX RIVER (continued)									
AA	160.394	294	2,200	1.5	191	782.6	782.6	782.6	0.0
AB	160.960	461	2,542	0.9	48	783.2	783.2	783.2	0.0
AC	161.208	156	1,330	1.7	0	783.3	783.3	783.3	0.0
AD	161.778	319	1,885	1.3	0	783.7	783.7	783.7	0.0
AE	162.004	292	1,837	1.1	0	783.8	783.8	783.8	0.0
AF	162.073	196	1,852	1.3	0	783.8	783.8	783.8	0.0
AG	162.095	1,701	1,852	1.3	0	783.8	783.8	783.8	0.0
AH	162.283	1,685	11,813	0.2	0	783.9	783.9	783.9	0.0
AI	162.881	3,975	19,616	0.1	0	783.9	783.9	783.9	0.0
AJ	163.547	4,626	20,348	0.1	668	783.9	783.9	783.9	0.0
AK	164.098	4,006	21,027	0.1	894	783.9	783.9	783.9	0.0
AL	164.915	3,650	16,067	0.1	0	784.0	784.0	784.0	0.0
AM	165.594	2,225	8,818	0.3	93	784.0	784.0	784.0	0.0
AN	165.966	3,560	13,040	0.2	0	784.1	784.1	784.1	0.0
AO	166.541	3,818	16,284	0.1	701	784.1	784.1	784.1	0.0
AP	167.094	1,800	4,390	0.5	0	784.3	784.3	784.3	0.0
AQ	167.384	580	2,359	1.0	30	784.5	784.5	784.5	0.0
AR	167.706	93	693	4.1	0	785.1	785.1	785.1	0.0
AS	168.467	1,288	2,569	1.1	0	786.4	786.4	786.4	0.0
AT	168.846	1,336	5,974	0.5	297	786.7	786.7	786.7	0.0
AU	169.523	1,773	8,099	0.4	27	786.8	786.8	786.8	0.0
AV	169.976	1,759	5,258	0.5	194	787.0	787.0	787.0	0.0
AW	170.732	1,602	5,312	0.5	0	787.3	787.3	787.3	0.0
AX	171.157	999	3,014	0.9	54	787.6	787.6	787.6	0.0
AY	171.627	943	1,790	1.6	0	788.3	788.3	788.3	0.0
AZ	172.076	880	3,177	0.9	127	788.9	788.9	788.9	0.0

¹Distance in miles above the confluence with the Illinois River

TABLE 7	FEDERAL EMERGENCY MANAGEMENT AGENCY WAUKESHA COUNTY, WI	FLOODWAY DATA
	AND INCORPORATED AREAS	FOX RIVER

FLOODING SOURCE		FLOODWAY				1-PERCENT-ANNUAL-CHANCE FLOOD WATER SURFACE ELEVATION (FEET NAVD88)			
CROSS SECTION	DISTANCE ¹	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	WIDTH REDUCED FROM PRIOR STUDY (FEET)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
FOX RIVER (continued)									
BA	172.507	75	1,168	3.0	125	790.3	790.3	790.3	0.0
BB	173.000	1,029	3,685	0.9	0	791.3	791.3	791.3	0.0
BC	173.474	1,171	4,501	0.8	453	791.8	791.8	791.8	0.0
BD	173.858	865	3,495	1.0	35	792.2	792.2	792.2	0.0
BE	174.118	3,902	2,329	1.5	0	792.7	792.7	792.7	0.0
BF	174.459	950	4,755	0.7	0	793.0	793.0	793.0	0.0
BG	174.673	1,050	5,720	0.6	0	793.1	793.1	793.1	0.0
BH	175.141	84	786	4.5	0	794.1	794.1	794.1	0.0
BI	175.506	7,302	3,413	0.9	0	794.7	794.7	794.7	0.0
BJ	175.859	679	2,968	1.1	0	795.0	795.0	795.0	0.0
BK	176.021	415	1,644	2.0	0	795.2	795.2	795.2	0.0
BL	176.309	661	3,180	1.0	0	795.5	795.5	795.5	0.0
BM	176.573	319	1,581	2.0	32	796.2	796.2	796.2	0.0
BN	176.779	97	480	6.7	0	798.4	798.4	798.4	0.0
BO	176.904	201	1,492	2.2	0	800.4	800.4	800.4	0.0
BP	177.094	255	1,505	2.1	149	801.3	801.3	801.3	0.0
BQ	177.217	67	515	6.3	0	802.0	802.0	802.0	0.0
BR	177.253	103	833	3.9	0	803.0	803.0	803.0	0.0
BS	177.685	59	412	7.8	0	804.3	804.3	804.3	0.0
BT	178.009	51	379	8.5	0	809.1	809.1	809.1	0.0
BU	178.046	76	603	5.3	0	811.4	811.4	811.4	0.0
BV	178.164	102	702	4.5	0	813.5	813.5	813.5	0.0
BW	178.189	233	1,389	2.3	30	813.9	813.9	813.9	0.0
BX	178.196	225	1,259	2.5	62	814.5	814.5	814.5	0.0
BY	178.492	541	3,381	0.9	0	814.8	814.8	814.8	0.0
BZ	178.784	482	2,739	1.2	131	814.9	814.9	814.9	0.0

¹Distance in miles above the confluence with the Illinois River

TABLE 7	FEDERAL EMERGENCY MANAGEMENT AGENCY WAUKESHA COUNTY, WI	FLOODWAY DATA
	AND INCORPORATED AREAS	FOX RIVER

FLOODING SOURCE		FLOODWAY				1-PERCENT-ANNUAL-CHANCE FLOOD WATER SURFACE ELEVATION (FEET NAVD88)			
CROSS SECTION	DISTANCE ¹	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	WIDTH REDUCED FROM PRIOR STUDY (FEET)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
FOX RIVER (continued)									
CA	178.919	193	1,591	2.0	0	815.0	815.0	815.0	0.0
CB	179.014	259	1,503	2.1	0	815.2	815.2	815.2	0.0
CC	179.251	173	2,091	0.2	105	815.3	815.3	815.3	0.0
CD	179.414	200	1,174	2.8	37	815.5	815.5	815.5	0.0
CE	179.625	100	1,034	3.1	118	817.3	817.3	817.3	0.0
CF	179.801	3,883	1,722	1.9	169	817.8	817.8	817.8	0.0
CG	180.093	151	1,457	2.2	285	818.9	818.9	818.9	0.0
CH	180.154	189	1,107	2.9	138	819.1	819.1	819.1	0.0
CI	180.380	314	3,204	1.0	312	820.4	820.4	820.4	0.0
CJ	180.559	649	4,119	0.8	0	820.6	820.6	820.6	0.0
CK	180.835	155	1,512	1.6	0	821.2	821.2	821.2	0.0
CL	181.079	215	2,156	1.1	100	821.5	821.5	821.5	0.0
CM	181.123	457	2,709	0.9	47	821.7	821.7	821.7	0.0
CN	181.476	295	2,544	0.9	0	822.5	822.5	822.5	0.0
CO	181.684	440	2,153	1.1	0	822.6	822.6	822.6	0.0
CP	181.846	337	1,701	1.4	0	823.1	823.1	823.1	0.0
CQ	182.244	919	4,740	0.5	0	823.3	823.3	823.3	0.0
CR	182.520	700	6,813	0.4	0	823.5	823.5	823.5	0.0
CS	182.730	408	3,147	0.9	0	823.5	823.5	823.5	0.0
CT	183.005	390	2,847	1.0	0	824.1	824.1	824.1	0.0
CU	183.123	599	4,264	0.6	0	824.2	824.2	824.2	0.0
CV	183.347	1,028	6,451	0.4	0	824.2	824.2	824.2	0.0
CW	183.538	1,269	7,217	0.3	0	824.2	824.2	824.2	0.0
CX	183.786	1,062	6,675	0.4	0	824.3	824.3	824.3	0.0
CY	184.198	991	7,240	0.3	0	824.3	824.3	824.3	0.0
CZ	184.689	1,172	6,179	0.4	0	824.4	824.4	824.4	0.0

¹Distance in miles above the confluence with the Illinois River

TABLE 7	FEDERAL EMERGENCY MANAGEMENT AGENCY WAUKESHA COUNTY, WI	FLOODWAY DATA
	AND INCORPORATED AREAS	FOX RIVER

FLOODING SOURCE		FLOODWAY				1-PERCENT-ANNUAL-CHANCE FLOOD WATER SURFACE ELEVATION (FEET NAVD88)			
CROSS SECTION	DISTANCE ¹	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	WIDTH REDUCED FROM PRIOR STUDY (FEET)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
FOX RIVER (continued)									
DA	184.963	900	5,600	0.4	0	824.5	824.5	824.5	0.0
DB	185.662	1,531	5,664	0.3	0	825.0	825.0	825.0	0.0
DC	185.993	541	5,924	0.7	0	825.0	825.0	825.0	0.0
DD	186.117	214	4,506	1.5	0	826.5	826.5	826.5	0.0
DE	186.292	1,275	7,281	0.3	0	826.7	826.7	826.7	0.0
DF	186.540	1,500	8,461	0.3	0	826.7	826.7	826.7	0.0
DG	186.831	1,390	6,868	0.4	0	826.7	826.7	826.7	0.0
DH	187.241	1,436	7,771	0.3	0	826.8	826.8	826.8	0.0
DI	187.422	1,466	5,342	0.4	0	826.8	826.8	826.8	0.0
DJ	187.800	393	1,397	1.6	0	827.2	827.2	827.2	0.0
DK	188.334	2,474	6,785	0.3	0	827.5	827.5	827.5	0.0
DL	188.631	2,948	8,569	0.2	0	827.6	827.6	827.6	0.0
DM	188.779	3,242	9,247	0.2	0	827.6	827.6	827.6	0.0
DN	189.332	2,272	6,432	0.4	0	827.8	827.8	827.8	0.0
DO	189.584	1,546	4,465	0.5	0	828.1	828.1	828.1	0.0
DP	189.769	1,242	4,171	0.5	0	828.2	828.2	828.2	0.0
DQ	189.845	937	1,107	1.4	0	828.3	828.3	828.3	0.0
DR	190.475	273	1,075	0.8	0	831.4	831.4	831.4	0.0
DS	190.754	798	1,263	0.7	0	832.0	832.0	832.0	0.0
DT	191.047	749	1,682	0.5	0	832.4	832.4	832.4	0.0
DU	191.357	526	1,205	0.7	0	832.8	832.8	832.8	0.0
DV	191.379	180	1,431	0.6	0	833.1	833.1	833.1	0.0
DW	191.466	914	1,824	0.5	0	833.2	833.2	833.2	0.0
DX	191.478	934	2,503	0.3	0	833.9	833.9	833.9	0.0
DY	191.661	691	2,443	0.3	26	834.0	834.0	834.0	0.0
DZ	191.884	639	1,629	0.5	0	834.1	834.1	834.1	0.0

¹Distance in miles above the confluence with the Illinois River

TABLE 7

FEDERAL EMERGENCY MANAGEMENT AGENCY
WAUKESHA COUNTY, WI
 AND INCORPORATED AREAS

FLOODWAY DATA

FOX RIVER

FLOODING SOURCE		FLOODWAY				1-PERCENT-ANNUAL-CHANCE FLOOD WATER SURFACE ELEVATION (FEET NAVD88)			
CROSS SECTION	DISTANCE ¹	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	WIDTH REDUCED FROM PRIOR STUDY (FEET)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
FOX RIVER (continued)									
EA	192.187	946	2,166	0.3	0	834.2	834.2	834.2	0.0
EB	192.533	106	1,835	0.4	0	834.5	834.5	834.5	0.0
EC	192.561	157	272	3.1	0	834.4	834.4	834.4	0.0
ED	192.584	314	979	0.8	0	835.0	835.0	835.0	0.0
EE	192.607	440	787	1.0	0	835.0	835.0	835.0	0.0
EF	192.624	540	1,503	0.5	0	835.1	835.1	835.1	0.0
EG	192.734	622	1,424	0.6	0	835.3	835.3	835.3	0.0
EH	192.930	830	1,535	0.5	0	835.5	835.5	835.5	0.0
EI	192.934	830	1,176	0.7	0	835.6	835.6	835.6	0.0
EJ	193.059	842	965	0.8	0	835.8	835.8	835.8	0.0
EK	193.252	1,072	1,489	0.4	0	836.1	836.1	836.1	0.0
EL	193.271	1,095	1,202	0.5	0	836.1	836.1	836.1	0.0
EM	193.333	792	1,012	0.6	0	836.2	836.2	836.2	0.0
EN	193.394	591	548	1.1	0	836.8	836.8	836.8	0.0
EO	193.498	480	503	1.2	0	837.7	837.7	837.7	0.0
EP	193.660	396	307	2.0	0	839.6	839.6	839.6	0.0
EQ	193.815	480	490	1.3	0	841.4	841.4	841.4	0.0
ER	194.100	337	2,767	0.2	0	847.6	847.6	847.6	0.0
ES	194.215	501	1,660	0.3	0	847.7	847.7	847.7	0.0
ET	194.318	414	990	0.6	0	847.8	847.8	847.8	0.0
EU	194.410	567	834	0.7	0	848.0	848.0	848.0	0.0
EV	194.732	342	449	1.4	0	850.7	850.7	850.7	0.0
EW	195.327	604	731	0.8	0	858.2	858.2	858.2	0.0
EX	195.715	180	423	1.5	0	859.1	859.1	859.1	0.0
EY	195.808	216	455	1.4	0	859.4	859.4	859.4	0.0
EZ	195.846	428	1,492	0.4	0	860.3	860.3	860.3	0.0

¹Distance in miles above the confluence with the Illinois River

TABLE 7

FEDERAL EMERGENCY MANAGEMENT AGENCY
WAUKESHA COUNTY, WI
 AND INCORPORATED AREAS

FLOODWAY DATA

FOX RIVER

FLOODING SOURCE		FLOODWAY				1-PERCENT-ANNUAL-CHANCE FLOOD WATER SURFACE ELEVATION (FEET NAVD88)			
CROSS SECTION	DISTANCE ¹	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	WIDTH REDUCED FROM PRIOR STUDY (FEET)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
FOX RIVER (continued)									
FA	195.849	427	623	1.0	0	861.1	861.1	861.1	0.0
FB	195.870	359	1,501	0.4	51	861.2	861.2	861.2	0.0
FC	195.880	345	1,907	0.3	86	862.5	862.5	862.5	0.0
FD	196.050	521	2,211	0.1	0	862.5	862.5	862.5	0.0
FE	196.196	821	3,413	0.1	0	862.5	862.5	862.5	0.0
FF	196.233	855	3,552	0.1	235	862.5	862.5	862.5	0.0
FG	196.270	990	3,172	0.1	100	862.5	862.5	862.5	0.0
FH	196.307	1,136	3,216	0.1	0	862.5	862.5	862.5	0.0
FI	196.385	1,009	2,775	0.1	0	862.5	862.5	862.5	0.0
FJ	196.441	792	1,829	0.2	60	862.5	862.5	862.5	0.0
FK	196.545	458	829	0.4	127	862.5	862.5	862.5	0.0
FL	196.714	744	644	0.5	0	862.6	862.6	862.6	0.0
FM	196.813	148	74	3.9	0	863.9	863.9	863.9	0.0
FN	196.899	207	214	1.4	0	866.2	866.2	866.2	0.0
FO	197.014	118	252	1.2	139	867.6	867.6	867.6	0.0
FP	197.073	154	200	1.5	0	868.8	868.8	868.8	0.0
FQ	197.154	79	78	3.7	0	872.5	872.5	872.5	0.0
FR	197.226	117	142	2.0	0	876.9	876.9	876.9	0.0
FS	197.311	37	69	4.2	0	880.9	880.9	880.9	0.0
FT	197.427	180	255	1.1	0	883.5	883.5	883.5	0.0
FU	197.538	311	423	0.7	0	884.0	884.0	884.0	0.0
FV	197.541	329	631	0.5	101	884.0	884.0	884.0	0.0
FW	197.750	369	1,160	0.3	0	886.1	886.1	886.1	0.0
FX	197.919	559	1,023	0.3	0	886.1	886.1	886.1	0.0
FY	197.960	364	477	0.6	0	886.1	886.1	886.1	0.0
FZ	198.011	156	91	3.2	0	886.5	886.5	886.5	0.0

¹Distance in miles above the confluence with the Illinois River

TABLE 7	FEDERAL EMERGENCY MANAGEMENT AGENCY WAUKESHA COUNTY, WI	FLOODWAY DATA
	AND INCORPORATED AREAS	FOX RIVER

FLOODING SOURCE		FLOODWAY				1-PERCENT-ANNUAL-CHANCE FLOOD WATER SURFACE ELEVATION (FEET NAVD88)			
CROSS SECTION	DISTANCE ¹	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	WIDTH REDUCED FROM PRIOR STUDY (FEET)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
FOX RIVER (continued)									
GA	198.038	122	156	1.9	0	887.5	887.5	887.5	0.0
GB	198.107	83	90	3.2	0	890.3	890.3	890.3	0.0
GC	198.208	176	368	0.8	29	892.1	892.1	892.1	0.0

¹Distance in miles above the confluence with the Illinois River

TABLE 7	FEDERAL EMERGENCY MANAGEMENT AGENCY	FLOODWAY DATA
	WAUKESHA COUNTY, WI	
	AND INCORPORATED AREAS	FOX RIVER

FLOODING SOURCE		FLOODWAY				1-PERCENT-ANNUAL-CHANCE FLOOD WATER SURFACE ELEVATION (FEET NAVD88)			
CROSS SECTION	DISTANCE ¹	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	WIDTH REDUCED FROM PRIOR STUDY (FEET)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
GENESEE CREEK									
A	1,114	680	2,028	0.8	0	786.7	785.5 ²	785.5 ²	0.0
B	2,011	1,042	3,152	0.5	39	786.7	785.8 ²	785.8 ²	0.0
C	2,850	1,155	2,665	0.6	0	786.7	786.0 ²	786.0 ²	0.0
D	3,955	1,018	4,465	0.4	232	786.7	786.1 ²	786.1 ²	0.0
E	5,182	489	3,055	0.5	589	788.8	788.8	788.8	0.0
F	6,487	605	1,196	1.4	0	789.8	789.8	789.8	0.0
G	7,429	370	2,207	0.8	104	793.6	793.6	793.6	0.0
H	7,586	349	1,566	1.1	0	793.6	793.6	793.6	0.0
I	9,556	676	2,513	0.7	0	800.4	800.4	800.4	0.0
J	12,080	804	1,422	0.7	261	801.6	801.6	801.6	0.0
K	13,847	43	872	1.1	608	804.2	804.2	804.2	0.0
L	15,277	234	416	2.3	288	810.9	810.9	810.9	0.0
M	16,790	335	584	1.7	57	818.5	818.5	818.5	0.0
N	18,464	31	1,157	0.8	660	837.8	837.8	837.8	0.0
O	19,491	47	148	6.6	29	840.9	840.9	840.9	0.0
P	20,638	37	164	5.9	0	847.9	847.9	847.9	0.0
Q	20,870	0	319	3.0	260	850.8	850.8	850.8	0.0
R	21,817	138	543	2.1	162	856.4	856.4	856.4	0.0
S	22,587	51	444	2.2	265	860.3	860.3	860.3	0.0
T	23,234	250	673	1.4	184	865.0	865.0	865.0	0.0
U	24,152	25	510	1.9	216	867.4	867.4	867.4	0.0
V	25,177	210	497	2.0	41	872.7	872.7	872.7	0.0
W	25,882	17	72	7.6	0	882.8	882.8	882.8	0.0
X	26,311	194	514	1.1	77	888.7	888.7	888.7	0.0
Y	26,858	212	147	3.7	0	890.5	890.5	890.5	0.0
Z	27,535	13	86	6.4	0	897.2	897.2	897.2	0.0

¹Feet above mouth

²Elevations without considering backwater effect from Fox River

TABLE 7

FEDERAL EMERGENCY MANAGEMENT AGENCY
WAUKESHA COUNTY, WI
 AND INCORPORATED AREAS

FLOODWAY DATA

GENESEE CREEK

FLOODING SOURCE		FLOODWAY				1-PERCENT-ANNUAL-CHANCE FLOOD WATER SURFACE ELEVATION (FEET NAVD88)			
CROSS SECTION	DISTANCE ¹	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	WIDTH REDUCED FROM PRIOR STUDY (FEET)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
JERICHO CREEK									
A	883	110	344	3.2	62	817.9	817.9	817.9	0.0
B	1,809	229	463	2.4	0	824.2	824.2	824.2	0.0
C	3,844	390	519	2.8	0	836.5	836.5	836.5	0.0
D	5,739	55	528	5.8	195	846.7	846.7	846.7	0.0
E	8,143	141	506	2.8	147	860.9	860.9	860.9	0.0
F	10,144	139	261	5.5	67	874.0	874.0	874.0	0.0
G	11,569	48	223	6.5	0	878.7	878.7	878.7	0.0
H	12,446	143	769	1.9	113	883.5	883.5	883.5	0.0
I	14,734	563	615	2.3	0	897.1	897.1	897.1	0.0
J	16,975	468	1,609	0.9	478	902.2	902.2	902.2	0.0
K	19,823	279	1,449	1.0	475	905.6	905.6	905.6	0.0
L	22,720	724	1,504	1.0	178	909.2	909.2	909.2	0.0
M	26,098	532	1,039	1.4	267	917.0	917.0	917.0	0.0
N	28,695	790	2,743	0.5	0	925.0	925.0	925.0	0.0
JEWEL CREEK									
A	652	110	427	3.4	0	794.0	794.0	794.0	0.0
B	1,490	37	289	5.0	0	796.4	796.4	796.4	0.0
C	2,011	150	291	5.0	0	797.1	797.1	797.1	0.0
D	2,243	147	531	2.7	44	798.1	798.1	798.1	0.0
E	2,548	94	235	6.2	0	798.9	798.9	798.9	0.0
F	2,794	97	335	4.3	0	800.9	800.9	800.9	0.0
G	3,453	72	248	5.8	94	806.4	806.4	806.4	0.0
H	3,834	230	1,018	1.4	0	807.2	807.2	807.2	0.0
I	4,494	18	106	13.7	0	809.5	809.5	809.5	0.0

¹Feet above mouth

TABLE 7

FEDERAL EMERGENCY MANAGEMENT AGENCY
WAUKESHA COUNTY, WI
 AND INCORPORATED AREAS

FLOODWAY DATA

JERICHO CREEK - JEWEL CREEK

FLOODING SOURCE		FLOODWAY				1-PERCENT-ANNUAL-CHANCE FLOOD WATER SURFACE ELEVATION (FEET NAVD88)			
CROSS SECTION	DISTANCE	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	WIDTH REDUCED FROM PRIOR STUDY (FEET)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
LAKE DENOON TRIBUTARY									
A	260 ¹	47	84	2.9	0	781.0	781.0	781.0	0.0
B	770 ¹	131	119	2.0	0	783.4	783.4	783.4	0.0
C	1,220 ¹	55	82	2.9	0	785.7	785.7	785.7	0.0
D	1,825 ¹	204	186	1.3	0	787.7	787.7	787.7	0.0
E	2,330 ¹	72	58	4.1	0	792.3	792.3	792.3	0.0
F	2,830 ¹	113	121	2.0	0	795.3	795.3	795.3	0.0
G	3,341 ¹	119	74	3.2	0	804.0	804.0	804.0	0.0
LILLY CREEK									
A	231 ²	350	662	1.9	0	747.5	746.9 ³	746.9 ³	0.0
B	693 ²	250	565	2.2	0	748.9	748.9	748.9	0.0
C	931 ²	190	314	3.9	0	749.7	749.7	749.7	0.0
D	1,279 ²	110	326	3.8	0	750.3	750.3	750.3	0.0
E	1,655 ²	90	252	4.9	0	751.1	751.1	751.1	0.0
F	1,924 ²	40	133	9.3	0	752.4	752.4	752.4	0.0
G	2,060 ²	40	174	7.1	0	754.2	754.2	754.2	0.0
H	2,291 ²	120	485	2.5	0	756.3	756.3	756.3	0.0
I	2,485 ²	223	694	1.8	67	757.2	757.2	757.2	0.0
J	2,558 ²	202	663	1.9	38	757.2	757.2	757.2	0.0
K	2,964 ²	271	641	1.9	39	757.3	757.3	757.3	0.0
L	3,573 ²	110	255	4.8	0	757.9	757.9	757.9	0.0
M	4,151 ²	40	223	5.5	0	759.1	759.1	759.1	0.0
N	4,340 ²	40	180	6.9	0	759.6	759.6	759.6	0.0
O	4,521 ²	109	1,213	1.0	131	766.9	766.9	766.9	0.0

¹Feet above mouth

³Elevations without considering backwater effect from Menomonee River

²Feet above confluence with Menomonee River

TABLE 7

FEDERAL EMERGENCY MANAGEMENT AGENCY
WAUKESHA COUNTY, WI
 AND INCORPORATED AREAS

FLOODWAY DATA

LAKE DENOON TRIBUTARY - LILLY CREEK

FLOODING SOURCE		FLOODWAY				1-PERCENT-ANNUAL-CHANCE FLOOD WATER SURFACE ELEVATION (FEET NAVD88)			
CROSS SECTION	DISTANCE ¹	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	WIDTH REDUCED FROM PRIOR STUDY (FEET)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
LILLY CREEK (continued)									
P	4,761	221	1,179	1.1	99	767.0	767.0	767.0	0.0
Q	4,983	120	601	2.1	0	767.0	767.0	767.0	0.0
R	5,230	180	553	2.2	0	767.0	767.0	767.0	0.0
S	5,538	140	408	3.0	0	767.1	767.1	767.1	0.0
T	5,664	190	513	2.4	0	767.8	767.8	767.8	0.0
U	6,144	160	508	2.4	0	768.0	768.0	768.0	0.0
V	6,466	120	244	5.1	0	768.1	768.1	768.1	0.0
W	6,822	160	312	4.0	0	769.3	769.3	769.3	0.0
X	7,293	180	368	3.4	0	770.0	770.0	770.0	0.0
Y	7,594	100	414	3.0	150	770.5	770.5	770.5	0.0
Z	8,048	196	352	3.5	54	771.3	771.3	771.3	0.0
AA	8,494	291	452	1.2	49	772.0	772.0	772.0	0.0
AB	9,020	109	208	2.6	121	772.3	772.3	772.3	0.0
AC	9,439	100	159	3.4	0	772.7	772.7	772.7	0.0
AD	9,710	280	369	1.5	0	773.9	773.9	773.9	0.0
AE	9,916	278	525	1.0	72	773.9	773.9	773.9	0.0
AF	10,054	308	1,145	0.5	102	775.3	775.3	775.3	0.0
AG	10,365	440	1,033	0.5	0	775.3	775.3	775.3	0.0
AH	10,677	380	730	0.7	0	775.3	775.3	775.3	0.0
AI	11,161	320	685	0.8	0	775.5	775.5	775.5	0.0
AJ	11,251	300	559	1.0	0	775.5	775.5	775.5	0.0
AK	11,585	240	540	1.0	0	775.7	775.7	775.7	0.0
AL	11,698	270	406	1.3	0	775.8	775.8	775.8	0.0
AM	12,069	315	883	0.6	185	775.9	775.9	775.9	0.0
AN	12,535	77	540	1.0	283	775.9	775.9	775.9	0.0

¹Feet above confluence with Menomonee River

TABLE 7

FEDERAL EMERGENCY MANAGEMENT AGENCY
WAUKESHA COUNTY, WI
 AND INCORPORATED AREAS

FLOODWAY DATA

LILLY CREEK

FLOODING SOURCE		FLOODWAY				1-PERCENT-ANNUAL-CHANCE FLOOD WATER SURFACE ELEVATION (FEET NAVD88)			
CROSS SECTION	DISTANCE ¹	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	WIDTH REDUCED FROM PRIOR STUDY (FEET)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
LILLY CREEK (continued)									
AO	12,779	162	747	0.7	118	776.0	776.0	776.0	0.0
AP	12,923	160	534	1.0	50	776.0	776.0	776.0	0.0
AQ	13,222	140	335	1.6	0	776.0	776.0	776.0	0.0
AR	13,464	169	381	1.4	31	776.4	776.4	776.4	0.0
AS	13,577	153	562	1.0	97	777.0	777.0	777.0	0.0
AT	13,793	245	2,019	0.3	515	778.1	778.1	778.1	0.0
AU	14,023	496	1,458	0.4	364	778.1	778.1	778.1	0.0
AV	14,522	611	1,746	0.3	269	778.1	778.1	778.1	0.0
AW	15,055	541	1,316	0.4	249	778.2	778.2	778.2	0.0
AX	15,421	669	1,269	0.4	251	778.2	778.2	778.2	0.0
AY	15,655	830	1,201	0.5	0	778.2	778.2	778.2	0.0
AZ	15,864	880	1,338	0.4	0	779.5	779.5	779.5	0.0
BA	16,344	887	1,140	0.5	43	779.5	779.5	779.5	0.0
BB	16,887	885	682	0.8	65	779.6	779.6	779.6	0.0
BC	17,487	785	1,010	0.5	95	779.7	779.7	779.7	0.0

¹Feet above confluence with Menomonee River

TABLE 7

FEDERAL EMERGENCY MANAGEMENT AGENCY
WAUKESHA COUNTY, WI
 AND INCORPORATED AREAS

FLOODWAY DATA

LILLY CREEK

FLOODING SOURCE		FLOODWAY				1-PERCENT-ANNUAL-CHANCE FLOOD WATER SURFACE ELEVATION (FEET NAVD88)			
CROSS SECTION	DISTANCE ¹	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	WIDTH REDUCED FROM PRIOR STUDY (FEET)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
LITTLE OCONOMOWOC RIVER									
A	97	307	333	1.7	0	899.6	899.6	899.6	0.0
B	193	213	270	2.1	0	900.2	900.2	900.2	0.0
C	218	279	322	1.8	0	900.3	900.3	900.3	0.0
D	290	233	732	0.8	0	901.5	901.5	901.5	0.0
E	463	22	70	8.1	0	901.5	901.5	901.5	0.0
F	555	81	275	2.1	0	903.2	903.2	903.2	0.0
G	830	1,083	4,784	0.1	0	903.3	903.3	903.3	0.0
H	1,447	1,533	6,158	0.1	0	903.3	903.3	903.3	0.0
I	3,490	54	98	5.3	0	903.5	903.5	903.5	0.0
J	4,128	300	584	0.9	0	905.3	905.3	905.3	0.0
K	5,401	241	250	2.1	0	911.2	911.2	911.2	0.0
L	6,076	60	93	5.6	0	916.6	916.6	916.6	0.0
M	6,160	153	419	1.2	0	920.1	920.1	920.1	0.0
N	8,266	339	538	1.0	0	921.1	921.1	921.1	0.0
O	8,934	157	218	2.4	0	922.4	922.4	922.4	0.0
P	9,656	82	135	3.9	0	926.0	926.0	926.0	0.0
Q	10,898	136	208	2.5	0	937.1	937.1	937.1	0.0
R	12,063	144	207	2.5	0	940.6	940.6	940.6	0.0
S	13,271	166	229	2.3	0	942.3	942.3	942.3	0.0
T	13,915	463	564	0.9	0	945.9	945.9	945.9	0.0
U	15,127	694	271	1.9	0	949.0	949.0	949.0	0.0
V	15,202	756	1,248	0.4	0	950.4	950.4	950.4	0.0
W	15,328	316	219	2.4	0	950.4	950.4	950.4	0.0
X	15,792	142	135	3.8	0	952.7	952.7	952.7	0.0

¹Feet above confluence with Oconomowoc River

TABLE 7

FEDERAL EMERGENCY MANAGEMENT AGENCY
WAUKESHA COUNTY, WI
 AND INCORPORATED AREAS

FLOODWAY DATA

LITTLE OCONOMOWOC RIVER

FLOODING SOURCE		FLOODWAY				1-PERCENT-ANNUAL-CHANCE FLOOD WATER SURFACE ELEVATION (FEET NAVD88)			
CROSS SECTION	DISTANCE ¹	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	WIDTH REDUCED FROM PRIOR STUDY (FEET)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
LITTLE OCONOMOWOC RIVER (continued)									
Y	16,430	88	153	3.4	0	957.5	957.5	957.5	0.0
Z	17,400	234	258	2.0	0	962.7	962.7	962.7	0.0
AA	17,532	412	503	1.0	0	963.7	963.7	963.7	0.0
AB	18,848	393	502	1.0	0	964.6	964.6	964.6	0.0
AC	18,940	425	879	0.6	0	966.0	966.0	966.0	0.0
AD	19,531	305	518	1.0	0	966.4	966.4	966.4	0.0
AE	20,319	230	326	1.5	0	968.4	968.4	968.4	0.0
AF	21,446	182	281	1.8	0	973.4	973.4	973.4	0.0
AG	21,865	309	561	0.9	0	974.3	974.3	974.3	0.0
AH	22,660	155	238	2.1	0	974.6	974.6	974.6	0.0
AI	22,738	250	1,039	0.5	0	976.7	976.7	976.7	0.0
AJ	25,361	369	896	0.6	0	976.7	976.7	976.7	0.0
AK	28,266	741	1,326	0.4	0	977.0	977.0	977.0	0.0
AL	32,613	918	1,397	0.3	0	978.0	978.0	978.0	0.0
AM	34,818	1,694	2,814	0.2	0	978.1	978.1	978.1	0.0
AN	37,660	400	342	1.4	0	978.1	978.1	978.1	0.0
AO	37,945	181	1,308	0.4	0	988.1	988.1	988.1	0.0

¹Feet above confluence with Oconomowoc River

TABLE 7

FEDERAL EMERGENCY MANAGEMENT AGENCY
WAUKESHA COUNTY, WI
 AND INCORPORATED AREAS

FLOODWAY DATA

LITTLE OCONOMOWOC RIVER

FLOODING SOURCE		FLOODWAY				1-PERCENT-ANNUAL-CHANCE FLOOD WATER SURFACE ELEVATION (FEET NAVD88)			
CROSS SECTION	DISTANCE ¹	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	WIDTH REDUCED FROM PRIOR STUDY (FEET)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
MASON CREEK									
A	364	72	196	2.2	0	899.4	899.4	899.4	0.0
B	667	215	901	0.5	0	903.3	902.0 ²	902.0 ²	0.0
C	1,488	92	260	1.8	40	906.3	906.3	906.3	0.0
D	2,310	173	716	0.7	0	917.0	917.0	917.0	0.0
E	2,840	46	374	1.3	125	919.9	919.9	919.9	0.0
F	4,160	180	266	1.8	62	926.7	926.7	926.7	0.0
G	5,382	173	304	1.6	0	929.2	929.2	929.2	0.0
H	6,783	227	389	1.2	27	933.5	933.5	933.5	0.0
I	7,989	83	276	1.7	131	935.9	935.9	935.9	0.0
J	9,137	196	507	0.5	132	938.0	938.0	938.0	0.0
K	10,373	115	518	0.5	188	938.4	938.4	938.4	0.0
L	11,407	25	302	0.8	122	939.4	939.4	939.4	0.0
M	13,423	281	282	0.8	0	941.9	941.9	941.9	0.0
N	14,130	237	369	0.6	108	942.3	942.3	942.3	0.0
O	20,714	317	228	1.5	0	948.0	948.0	948.0	0.0
P	20,905	187	115	3.1	0	949.3	949.3	949.3	0.0

¹Feet above mouth at North Lake

²Elevations without considering backwater effect from Little Oconomowoc River

TABLE 7	FEDERAL EMERGENCY MANAGEMENT AGENCY WAUKESHA COUNTY, WI AND INCORPORATED AREAS	FLOODWAY DATA
		MASON CREEK

FLOODING SOURCE		FLOODWAY				1-PERCENT-ANNUAL-CHANCE FLOOD WATER SURFACE ELEVATION (FEET NAVD88)			
CROSS SECTION	DISTANCE ¹	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	WIDTH REDUCED FROM PRIOR STUDY (FEET)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
MENOMONEE RIVER									
A	21	84	439	7.2	0	709.8	709.8	709.8	0.0
B	344	99	747	4.2	0	712.4	712.4	712.4	0.0
C	755	103	594	5.3	25	713.3	713.3	713.3	0.0
D	1,122	263	3,403	0.9	279	714.7	714.7	714.7	0.0
E	1,593	387	2,132	1.5	88	714.7	714.7	714.7	0.0
F	2,413	904	3,385	0.9	0	715.3	715.3	715.3	0.0
G	2,852	791	2,188	1.4	0	716.0	716.0	716.0	0.0
H	3,697	332	1,033	3.0	47	717.6	717.6	717.6	0.0
I	4,062	215	947	3.3	115	718.7	718.7	718.7	0.0
J	4,608	297	984	3.2	0	720.1	720.1	720.1	0.0
K	4,895	128	672	3.4	28	721.1	721.1	721.1	0.0
L	5,197	146	1,081	2.1	177	722.1	722.1	722.1	0.0
M	5,793	96	1,488	1.5	188	722.8	722.8	722.8	0.0
N	6,119	134	1,110	2.0	126	723.0	723.0	723.0	0.0
O	6,371	108	1,149	2.0	162	723.2	723.2	723.2	0.0
P	6,407	130	1,610	1.4	90	723.4	723.4	723.4	0.0
Q	6,887	317	1,257	1.8	73	723.8	723.8	723.8	0.0
R	7,447	215	1,947	1.2	415	724.9	724.9	724.9	0.0
S	7,757	371	1,868	1.2	269	725.2	725.2	725.2	0.0
T	8,151	393	1,163	1.9	67	725.8	725.8	725.8	0.0
U	8,655	360	1,112	2.0	0	726.9	726.9	726.9	0.0
V	9,252	345	1,311	1.7	25	727.9	727.9	727.9	0.0
W	9,848	427	1,828	1.2	33	728.6	728.6	728.6	0.0
X	10,337	395	1,825	1.2	95	728.9	728.9	728.9	0.0
Y	10,870	418	1,495	1.5	52	729.3	729.3	729.3	0.0
Z	11,359	497	1,791	1.3	63	729.7	729.7	729.7	0.0

¹Feet above county boundary

TABLE 7

FEDERAL EMERGENCY MANAGEMENT AGENCY
WAUKESHA COUNTY, WI
 AND INCORPORATED AREAS

FLOODWAY DATA

MENOMONEE RIVER

FLOODING SOURCE		FLOODWAY				1-PERCENT-ANNUAL-CHANCE FLOOD WATER SURFACE ELEVATION (FEET NAVD88)			
CROSS SECTION	DISTANCE ¹	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	WIDTH REDUCED FROM PRIOR STUDY (FEET)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
MENOMONEE RIVER (continued)									
AA	11,851	594	1,872	1.2	56	730.1	730.1	730.1	0.0
AB	12,390	650 / 478 ²	2,464	0.9	0	730.6	730.6	730.6	0.0
AC	12,899	600 / 219 ²	1,426	1.6	0	731.1	731.1	731.1	0.0
AD	13,077	412 / 52 ²	1,615	1.4	108	731.6	731.6	731.6	0.0
AE	13,784	550 / 149 ²	1,902	1.2	0	732.5	732.5	732.5	0.0
AF	14,215	610 / 171 ²	2,302	1.0	0	733.0	733.0	733.0	0.0
AG	14,757	300 / 109 ²	2,078	1.1	0	733.5	733.5	733.5	0.0
AH	15,323	680 / 98 ²	2,001	1.1	0	734.2	734.2	734.2	0.0
AI	15,827	690 / 0 ²	2,929	0.8	0	734.8	734.8	734.8	0.0
AJ	24,437	810	2,650	0.8	66	741.5	741.5	741.5	0.0
AK	24,829	759	2,818	0.8	41	741.9	741.9	741.9	0.0
AL	25,228	748	2,588	0.9	52	742.2	742.2	742.2	0.0
AM	25,367	704	2,022	1.1	76	742.4	742.4	742.4	0.0
AN	25,790	608	2,667	0.8	92	742.9	742.9	742.9	0.0
AO	26,239	370	1,600	1.4	0	743.3	743.3	743.3	0.0
AP	26,372	364	1,698	1.3	36	743.5	743.5	743.5	0.0
AQ	26,783	417	1,944	1.1	53	744.1	744.1	744.1	0.0
AR	27,197	316	1,446	1.5	44	744.7	744.7	744.7	0.0
AS	27,476	440	1,476	1.5	0	745.3	745.3	745.3	0.0
AT	27,652	560	1,544	1.4	0	745.5	745.5	745.5	0.0
AU	27,997	650	1,924	1.1	0	746.0	746.0	746.0	0.0
AV	28,111	616	1,830	1.2	44	746.2	746.2	746.2	0.0
AW	28,157	593	1,494	1.5	27	746.2	746.2	746.2	0.0
AX	28,284	510	930	2.4	0	746.2	746.2	746.2	0.0
AY	28,429	550	1,740	1.3	0	746.7	746.7	746.7	0.0
AZ	28,532	600	2,066	1.1	0	746.9	746.9	746.9	0.0

¹Feet above county boundary

²Width / Width within Waukesha County limits

TABLE 7

FEDERAL EMERGENCY MANAGEMENT AGENCY
WAUKESHA COUNTY, WI
 AND INCORPORATED AREAS

FLOODWAY DATA

MENOMONEE RIVER

FLOODING SOURCE		FLOODWAY				1-PERCENT-ANNUAL-CHANCE FLOOD WATER SURFACE ELEVATION (FEET NAVD88)			
CROSS SECTION	DISTANCE ¹	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	WIDTH REDUCED FROM PRIOR STUDY (FEET)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
MENOMONEE RIVER (continued)									
BA	28,650	610	2,013	1.1	0	747.0	747.0	747.0	0.0
BB	28,773	580	2,457	0.9	0	747.1	747.1	747.1	0.0
BC	29,151	630	1,641	1.3	0	747.3	747.3	747.3	0.0
BD	29,233	595	2,072	1.1	25	747.5	747.5	747.5	0.0
BE	29,738	340	1,743	0.9	0	747.7	747.7	747.7	0.0
BF	30,415	215	1,688	0.9	25	747.9	747.9	747.9	0.0
BG	30,926	160	1,258	1.2	0	748.3	748.3	748.3	0.0
BH	31,618	370	1,843	0.8	0	748.8	748.8	748.8	0.0
BI	32,730	444	2,071	0.7	106	749.2	749.2	749.2	0.0
BJ	33,065	439	1,855	0.8	61	749.3	749.3	749.3	0.0
BK	33,396	242	2,307	0.7	418	749.5	749.5	749.5	0.0
BL	33,548	138	716	2.1	42	749.7	749.7	749.7	0.0
BM	34,040	260	874	1.7	0	750.6	750.6	750.6	0.0
BN	34,627	450	1,503	1.0	0	751.4	751.4	751.4	0.0
BO	34,817	413	1,879	0.8	107	751.7	751.7	751.7	0.0
BP	35,171	855	3,292	0.5	105	751.8	751.8	751.8	0.0
BQ	35,574	784	2,500	0.6	46	751.9	751.9	751.9	0.0
BR	36,002	446	1,610	0.9	94	752.1	752.1	752.1	0.0
BS	36,088	396	1,273	1.2	44	752.2	752.2	752.2	0.0
BT	36,525	270	1,326	1.1	30	752.5	752.5	752.5	0.0
BU	36,943	222	986	1.1	38	752.7	752.7	752.7	0.0
BV	37,112	174	666	1.7	36	752.7	752.7	752.7	0.0
BW	37,463	120	422	2.7	0	752.7	752.7	752.7	0.0
BX	37,918	187	409	2.8	123	753.1	753.1	753.1	0.0
BY	38,301	70	315	3.6	0	753.7	753.7	753.7	0.0
BZ	38,714	70	216	5.2	0	754.8	754.8	754.8	0.0

¹Feet above county boundary

TABLE 7

FEDERAL EMERGENCY MANAGEMENT AGENCY
WAUKESHA COUNTY, WI
 AND INCORPORATED AREAS

FLOODWAY DATA

MENOMONEE RIVER

FLOODING SOURCE		FLOODWAY				1-PERCENT-ANNUAL-CHANCE FLOOD WATER SURFACE ELEVATION (FEET NAVD88)			
CROSS SECTION	DISTANCE ¹	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	WIDTH REDUCED FROM PRIOR STUDY (FEET)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
MENOMONEE RIVER (continued)									
CA	39,038	71	167	6.8	29	756.6	756.6	756.6	0.0
CB	39,359	50	195	5.8	0	759.0	759.0	759.0	0.0
CC	39,688	100	275	4.1	0	760.4	760.4	760.4	0.0
CD	39,973	184	288	3.9	36	761.1	761.1	761.1	0.0
CE	40,159	76	240	4.7	34	761.1	761.1	761.1	0.0
CF	40,316	39	209	5.4	31	761.6	761.6	761.6	0.0
CG	40,428	50	189	6.0	0	762.9	762.9	762.9	0.0
CH	40,739	130	218	5.2	0	764.3	764.3	764.3	0.0
CI	41,107	60	195	5.8	0	766.3	766.3	766.3	0.0
CJ	41,463	80	287	3.9	0	768.2	768.2	768.2	0.0
CK	41,609	70	228	5.0	0	768.5	768.5	768.5	0.0
CL	41,807	40	119	9.5	0	769.5	769.5	769.5	0.0
CM	41,928	50	233	4.8	0	771.8	771.8	771.8	0.0
CN	42,030	70	169	6.7	0	772.1	772.1	772.1	0.0
CO	42,143	60	228	5.0	0	773.2	773.2	773.2	0.0
CP	42,399	60	120	9.4	0	776.6	776.6	776.6	0.0
CQ	42,510	105	297	3.8	45	780.3	780.3	780.3	0.0
CR	42,641	80	232	4.9	0	782.2	782.2	782.2	0.0
CS	42,925	50	61	18.5	0	786.5	786.5	786.5	0.0
CT	43,168	40	77	14.7	0	798.4	798.4	798.4	0.0
CU	43,354	50	75	15.0	0	799.8	799.8	799.8	0.0
CV	43,515	30	76	14.8	0	803.9	803.9	803.9	0.0
CW	43,586	20	88	12.8	0	808.4	808.4	808.4	0.0
CX	43,724	50	66	17.1	0	811.2	811.2	811.2	0.0
CY	43,937	50	123	9.2	0	814.5	814.5	814.5	0.0
CZ	44,074	60	97	11.6	0	816.9	816.9	816.9	0.0

¹Feet above county boundary

TABLE 7

FEDERAL EMERGENCY MANAGEMENT AGENCY
WAUKESHA COUNTY, WI
 AND INCORPORATED AREAS

FLOODWAY DATA

MENOMONEE RIVER

FLOODING SOURCE		FLOODWAY				1-PERCENT-ANNUAL-CHANCE FLOOD WATER SURFACE ELEVATION (FEET NAVD88)			
CROSS SECTION	DISTANCE ¹	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	WIDTH REDUCED FROM PRIOR STUDY (FEET)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
MENOMONEE RIVER (continued)									
DA	44,155	96	1,790	0.5	74	834.5	834.5	834.5	0.0
DB	44,541	110	676	1.3	0	834.6	834.6	834.6	0.0
DC	44,859	70	228	4.0	0	834.7	834.7	834.7	0.0
DD	45,020	60	192	4.7	0	835.2	835.2	835.2	0.0
DE	45,185	40	176	5.2	0	836.4	836.4	836.4	0.0
DF	45,326	40	207	4.4	0	838.7	838.7	838.7	0.0
DG	45,572	122	864	1.1	58	839.5	839.5	839.5	0.0
DH	45,691	100	561	1.6	0	839.9	839.9	839.9	0.0
DI	46,152	80	441	2.1	0	840.0	840.0	840.0	0.0
DJ	46,447	237	1,093	0.8	33	840.1	840.1	840.1	0.0
DK	46,749	320	1,150	0.8	0	840.2	840.2	840.2	0.0
DL	47,031	320	971	0.9	0	840.2	840.2	840.2	0.0
DM	47,644	117	341	2.7	113	840.3	840.3	840.3	0.0
DN	47,795	61	616	1.5	159	840.7	840.7	840.7	0.0
DO	48,638	227	1,186	0.8	143	841.0	841.0	841.0	0.0
DP	49,612	370 / 70 ²	946	1.0	0	841.1	841.1	841.1	0.0
DQ	49,970	531 / 182 ²	1,357	0.7	0	841.2	841.2	841.2	0.0
DR	50,202	610 / 159 ²	1,739	0.5	0	841.2	841.2	841.2	0.0
DS	50,713	650 / 191 ²	2,091	0.4	0	841.2	841.2	841.2	0.0
DT	51,285	860 / 28 ²	1,373	0.7	0	841.2	841.2	841.2	0.0

¹Feet above county boundary

²Width / Width within Waukesha County limits

TABLE 7

FEDERAL EMERGENCY MANAGEMENT AGENCY
WAUKESHA COUNTY, WI
 AND INCORPORATED AREAS

FLOODWAY DATA

MENOMONEE RIVER

FLOODING SOURCE		FLOODWAY				1-PERCENT-ANNUAL-CHANCE FLOOD WATER SURFACE ELEVATION (FEET NAVD88)			
CROSS SECTION	DISTANCE ¹	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	WIDTH REDUCED FROM PRIOR STUDY (FEET)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
MUKWONAGO RIVER									
A	7	2,293	9,584	0.3	0	781.1	781.1	781.1	0.0
B	884	1,976	3,593	0.7	0	781.2	781.2	781.2	0.0
C	1,263	1,672	2,727	0.9	0	781.3	781.3	781.3	0.0
D	2,285	1,229	3,285	0.8	0	781.5	781.5	781.5	0.0
E	3,228	569	1,529	1.4	0	781.9	781.9	781.9	0.0
F	4,201	837	2,803	0.8	0	782.2	782.2	782.2	0.0
G	5,363	477	1,669	1.3	0	782.5	782.5	782.5	0.0
H	5,891	126	1,227	3.0	0	783.0	783.0	783.0	0.0
I	6,035	208	1,769	2.0	0	783.1	783.1	783.1	0.0
J	6,984	354	1,048	2.0	0	783.5	783.5	783.5	0.0
K	7,780	521	1,151	1.8	0	784.0	784.0	784.0	0.0
L	8,773	749	2,863	0.8	0	784.5	784.5	784.5	0.0
M	9,899	672	1,923	1.1	0	784.9	784.9	784.9	0.0
N	10,785	324	1,212	1.9	0	785.3	785.3	785.3	0.0
O	11,045	80	736	6.0	0	785.3	785.3	785.3	0.0
P	11,111	74	506	6.0	0	785.8	785.8	785.8	0.0
Q	11,285	81	986	3.8	0	786.7	786.7	786.7	0.0
R	11,412	90	1,084	3.3	0	787.0	787.0	787.0	0.0
S	11,742	37	353	7.6	0	787.1	787.1	787.1	0.0
T	11,829	56	188	11.0	0	788.1	788.1	788.1	0.0
U	11,862	340	604	4.2	0	792.3	792.3	792.3	0.0
V	12,152	464	1,639	1.5	0	793.3	793.3	793.3	0.0
W	12,501	676	3,396	0.5	0	793.7	793.7	793.7	0.0
X	23,446	325	1,864	1.5	0	795.0	795.0	795.0	0.0
Y	23,544	336	2,034	1.3	0	795.9	795.9	795.9	0.0
Z	23,822	346	1,784	1.8	0	796.1	796.1	796.1	0.0

¹Feet above confluence with Fox River

TABLE 7

FEDERAL EMERGENCY MANAGEMENT AGENCY
WAUKESHA COUNTY, WI
 AND INCORPORATED AREAS

FLOODWAY DATA

MUKWONAGO RIVER

FLOODING SOURCE		FLOODWAY				1-PERCENT-ANNUAL-CHANCE FLOOD WATER SURFACE ELEVATION (FEET NAVD88)			
CROSS SECTION	DISTANCE ¹	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	WIDTH REDUCED FROM PRIOR STUDY (FEET)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
MUKWONAGO RIVER (continued)									
AA	24,784	767	4,001	0.8	0	796.5	796.5	796.5	0.0
AB	25,772	700	5,137	0.9	0	796.6	796.6	796.6	0.0
AC	26,629	317	1,855	1.7	0	796.9	796.9	796.9	0.0
AD	27,573	1,425	22,882	0.4	0	797.2	797.2	797.2	0.0
AE	28,593	1,449	16,696	0.4	0	797.2	797.2	797.2	0.0
AF	29,467	891	6,432	0.8	0	797.3	797.3	797.3	0.0
AG	30,176	745	4,183	0.9	0	797.5	797.5	797.5	0.0
AH	30,999	463	3,054	1.2	0	798.1	798.1	798.1	0.0
AI	32,019	1,559	8,117	0.4	0	798.4	798.4	798.4	0.0
AJ	32,780	1,397	10,797	0.4	0	798.4	798.4	798.4	0.0
AK	33,725	1,078	9,790	0.5	0	798.5	798.5	798.5	0.0
AL	34,090	939	7,237	0.7	0	798.5	798.5	798.5	0.0
AM	35,155	865	4,422	1.3	0	798.9	798.9	798.9	0.0
AN	35,874	619	5,552	1.2	0	799.3	799.3	799.3	0.0
AO	36,484	173	2,659	4.5	0	800.6	800.6	800.6	0.0
AP	36,545	192	1,588	2.3	0	803.2	803.2	803.2	0.0
AQ	37,672	516	3,272	1.0	0	804.0	804.0	804.0	0.0
AR	38,778	914	9,256	0.6	0	804.1	804.1	804.1	0.0
AS	39,874	712	4,877	0.8	0	804.2	804.2	804.2	0.0
AT	40,451	616	3,990	1.5	0	804.5	804.5	804.5	0.0
AU	41,135	942	5,902	0.8	0	805.2	805.2	805.2	0.0
AV	41,263	895	4,524	1.1	0	805.2	805.2	805.2	0.0
AW	41,691	934	6,321	0.7	0	805.2	805.2	805.2	0.0
AX	43,169	1,277	4,924	0.7	0	805.4	805.4	805.4	0.0
AY	43,391	1,234	5,622	0.9	0	805.5	805.5	805.5	0.0
AZ	43,449	1,070	6,584	0.9	0	805.5	805.5	805.5	0.0

¹Feet above confluence with Fox River

TABLE 7

FEDERAL EMERGENCY MANAGEMENT AGENCY
WAUKESHA COUNTY, WI
 AND INCORPORATED AREAS

FLOODWAY DATA

MUKWONAGO RIVER

FLOODING SOURCE		FLOODWAY				1-PERCENT-ANNUAL-CHANCE FLOOD WATER SURFACE ELEVATION (FEET NAVD88)			
CROSS SECTION	DISTANCE ¹	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	WIDTH REDUCED FROM PRIOR STUDY (FEET)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
MUKWONAGO RIVER (continued)									
BA	44,123	441	1,836	3.0	0	805.8	805.8	805.8	0.0
BB	44,357	364	2,828	2.7	0	806.5	806.5	806.5	0.0
BC	44,819	638	7,758	1.5	0	806.8	806.8	806.8	0.0
BD	45,728	472	3,010	1.4	0	807.4	807.4	807.4	0.0
BE	46,433	256	1,515	2.4	0	807.9	807.9	807.9	0.0
BF	47,111	894	5,537	0.7	0	808.3	808.3	808.3	0.0
BG	48,251	855	3,895	0.9	0	808.4	808.4	808.4	0.0
BH	48,713	936	2,624	1.1	0	808.7	808.7	808.7	0.0
BI	49,503	1,088	2,880	1.1	0	809.7	809.7	809.7	0.0
BJ	49,611	1,087	2,964	1.1	0	809.7	809.7	809.7	0.0
BK	50,590	508	5,777	1.3	0	810.7	810.7	810.7	0.0
BL	51,259	562	2,105	1.4	0	811.0	811.0	811.0	0.0
BM	51,957	714	2,808	1.1	0	811.4	811.4	811.4	0.0
BN	52,940	752	2,981	1.0	0	811.8	811.8	811.8	0.0
BO	53,645	319	1,521	2.0	0	812.3	812.3	812.3	0.0
BP	54,737	1,068	6,686	0.6	0	812.8	812.8	812.8	0.0
BQ	55,298	909	3,664	0.8	0	812.8	812.8	812.8	0.0
BR	56,080	652	2,529	1.2	0	813.1	813.1	813.1	0.0
BS	56,765	322	1,291	2.5	0	813.6	813.6	813.6	0.0
BT	56,943	284	1,100	2.7	0	814.0	814.0	814.0	0.0
BU	57,020	244	1,069	2.8	0	817.6	817.6	817.6	0.0
BV	57,717	215	1,771	2.7	0	818.6	818.6	818.6	0.0
BW	58,127	137	1,343	4.7	0	818.9	818.9	818.9	0.0
BX	58,616	305	927	3.3	0	820.3	820.3	820.3	0.0

¹Feet above confluence with Fox River

TABLE 7

FEDERAL EMERGENCY MANAGEMENT AGENCY
WAUKESHA COUNTY, WI
 AND INCORPORATED AREAS

FLOODWAY DATA

MUKWONAGO RIVER

FLOODING SOURCE		FLOODWAY				1-PERCENT-ANNUAL-CHANCE FLOOD WATER SURFACE ELEVATION (FEET NAVD88)			
CROSS SECTION	DISTANCE ¹	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	WIDTH REDUCED FROM PRIOR STUDY (FEET)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
MUSKEGO CANAL									
A	24	250	1,360	0.3	0	773.6	773.6	773.6	0.0
B	1,161	42	317	1.1	0	773.7	773.7	773.7	0.0
C	1,903	53	433	0.8	99	773.7	773.7	773.7	0.0
D	2,790	450	509	0.7	0	773.8	773.8	773.8	0.0
E	3,333	279	822	0.4	91	773.9	773.9	773.9	0.0
F	3,447	169	586	0.6	264	773.9	773.9	773.9	0.0
G	19,876	1,290	1,633	0.2	0	773.9	773.9	773.9	0.0
H	21,307	216	248	1.4	0	774.0	774.0	774.0	0.0
I	22,450	74	241	1.4	0	774.3	774.3	774.3	0.0
J	23,774	69	238	1.4	0	774.6	774.6	774.6	0.0
K	24,433	37	179	1.9	0	774.7	774.7	774.7	0.0
L	25,725	48	100	3.4	0	775.9	775.9	775.9	0.0
M	26,877	49	222	1.5	116	776.9	776.9	776.9	0.0
N	27,401	51	183	1.9	51	778.7	778.7	778.7	0.0
O	27,825	74	231	1.5	54	779.1	779.1	779.1	0.0
P	28,294	72	246	1.4	98	779.3	779.3	779.3	0.0
Q	28,534	37	204	1.7	79	779.5	779.5	779.5	0.0
R	29,332	52	137	2.5	0	780.6	780.6	780.6	0.0
S	29,536	131	135	2.5	0	781.2	781.2	781.2	0.0
T	29,685	18	78	4.4	0	781.7	781.7	781.7	0.0
U	30,486	97	197	1.7	0	783.5	783.5	783.5	0.0
V	31,050	31	91	3.7	0	785.8	785.8	785.8	0.0
W	31,329	36	95	3.6	0	786.6	786.6	786.6	0.0

¹Feet above county boundary

TABLE 7

FEDERAL EMERGENCY MANAGEMENT AGENCY
WAUKESHA COUNTY, WI
 AND INCORPORATED AREAS

FLOODWAY DATA

MUSKEGO CANAL

FLOODING SOURCE		FLOODWAY				1-PERCENT-ANNUAL-CHANCE FLOOD WATER SURFACE ELEVATION (FEET NAVD88)			
CROSS SECTION	DISTANCE ¹	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	WIDTH REDUCED FROM PRIOR STUDY (FEET)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
NORTH BRANCH UNDERWOOD CREEK									
A	378	143	137	1.4	0	753.1	751.8 ²	751.8 ²	0.0
B	955	148	203	0.9	0	753.1	752.3 ²	752.3 ²	0.0
C	1,384	91	115	1.7	0	753.4	753.4	753.4	0.0
D	1,903	266	540	0.6	0	753.9	753.9	753.9	0.0
E	2,268	106	150	1.6	0	754.1	754.1	754.1	0.0
F	2,575	145	647	0.5	0	757.7	757.7	757.7	0.0
G	3,284	136	288	0.7	0	757.8	757.8	757.8	0.0
H	4,269	422	1,123	0.2	0	757.9	757.9	757.9	0.0
I	4,809	497	972	0.2	0	757.9	757.9	757.9	0.0
J	5,577	269	260	0.7	0	758.0	758.0	758.0	0.0
K	5,858	304	145	1.3	0	758.3	758.3	758.3	0.0
L	6,926	453	187	1.0	0	761.1	761.1	761.1	0.0
M	7,439	470	385	0.6	0	761.8	761.8	761.8	0.0
N	7,890	373	115	1.3	0	762.2	762.2	762.2	0.0
O	8,074	398	154	1.0	0	762.9	762.9	762.9	0.0
P	8,885	333	148	1.0	0	764.6	764.6	764.6	0.0

¹Feet above confluence with Underwood Creek

²Elevations without considering backwater effect from Underwood Creek

TABLE 7

FEDERAL EMERGENCY MANAGEMENT AGENCY
WAUKESHA COUNTY, WI
 AND INCORPORATED AREAS

FLOODWAY DATA

NORTH BRANCH UNDERWOOD CREEK

FLOODING SOURCE		FLOODWAY				1-PERCENT-ANNUAL-CHANCE FLOOD WATER SURFACE ELEVATION (FEET NAVD88)			
CROSS SECTION	DISTANCE ¹	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	WIDTH REDUCED FROM PRIOR STUDY (FEET)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
NOR-X-WAY CHANNEL									
A	269	359	1,065	0.7	261	752.5	752.5	752.5	0.0
B	407	321	1,728	0.4	239	753.9	753.9	753.9	0.0
C	670	410	1,087	0.7	0	753.9	753.9	753.9	0.0
D	847	90	310	2.5	0	754.7	754.7	754.7	0.0
E	1,023	120	410	1.9	0	754.7	754.7	754.7	0.0
F	1,377	120	400	1.9	0	754.7	754.7	754.7	0.0
G	1,512	110	404	1.9	0	756.0	756.0	756.0	0.0
H	1,696	80	404	1.9	0	756.4	756.4	756.4	0.0
I	2,207	120	343	2.2	0	756.4	756.4	756.4	0.0
J	2,496	80	283	2.7	0	757.2	757.2	757.2	0.0
K	2,861	50	207	3.7	0	757.2	757.2	757.2	0.0
L	3,191	50	200	3.8	0	757.4	757.4	757.4	0.0
M	3,499	60	203	3.8	0	757.6	757.6	757.6	0.0
N	3,729	20	75	10.2	0	757.7	757.7	757.7	0.0
O	3,917	60	172	4.4	0	760.2	760.2	760.2	0.0
P	4,251	80	510	1.5	0	761.9	761.9	761.9	0.0
Q	4,396	158	638	1.2	192	762.2	762.2	762.2	0.0
R	4,857	80	221	3.5	0	762.1	762.1	762.1	0.0
S	5,334	50	164	4.7	0	762.2	762.2	762.2	0.0
T	6,073	63	144	5.3	137	762.6	762.6	762.6	0.0
U	6,093	49	194	3.9	121	763.5	763.5	763.5	0.0
V	6,391	210	304	2.5	0	764.8	764.8	764.8	0.0
W	6,812	200	171	4.5	0	766.4	766.4	766.4	0.0
X	7,020	300	560	0.5	0	767.4	767.4	767.4	0.0

¹Feet above confluence with Menomonee River

TABLE 7

FEDERAL EMERGENCY MANAGEMENT AGENCY
WAUKESHA COUNTY, WI
 AND INCORPORATED AREAS

FLOODWAY DATA

NOR-X-WAY CHANNEL

FLOODING SOURCE		FLOODWAY				1-PERCENT-ANNUAL-CHANCE FLOOD WATER SURFACE ELEVATION (FEET NAVD88)			
CROSS SECTION	DISTANCE ¹	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	WIDTH REDUCED FROM PRIOR STUDY (FEET)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
OCONOMOWOC RIVER									
A	46,978	354	912	0.8	0	848.0	848.0	848.0	0.0
B	49,759	940	1,642	0.5	0	848.2	848.2	848.2	0.0
C	53,599	1,002	1,364	0.4	0	848.3	848.3	848.3	0.0
D	57,104	275	640	0.8	0	848.9	848.9	848.9	0.0
E	59,212	56	141	3.6	0	849.2	849.2	849.2	0.0
F	59,789	410	651	0.8	0	850.0	850.0	850.0	0.0
G	63,937	399	785	0.6	0	850.4	850.4	850.4	0.0
H	67,004	114	361	1.0	0	850.6	850.6	850.6	0.0
I	67,516	110	216	1.6	0	851.2	851.2	851.2	0.0
J	70,247	175	318	1.1	0	852.0	852.0	852.0	0.0
K	70,527	93	240	1.5	0	852.5	852.5	852.5	0.0
L	71,070	86	268	1.3	0	852.6	852.6	852.6	0.0
M	71,371	217	494	0.7	0	853.1	853.1	853.1	0.0
N	73,253	65	191	1.8	0	853.6	853.6	853.6	0.0
O	74,522	142	682	0.5	0	853.9	853.9	853.9	0.0
P	76,848	1,894	33,517	0.0	0	854.0	854.0	854.0	0.0
Q	79,901	143	706	0.6	0	854.0	854.0	854.0	0.0
R	80,001	138	440	1.0	0	861.1	861.1	861.1	0.0
S	84,450	206	679	0.6	0	861.1	861.1	861.1	0.0
T	86,763	59	269	1.6	0	861.8	861.8	861.8	0.0
U	90,468	655	1,285	0.3	0	862.2	862.2	862.2	0.0
V	92,629	170	350	1.2	0	862.3	862.3	862.3	0.0
W	93,776	360	748	0.6	0	862.9	862.9	862.9	0.0
X	94,054	226	434	1.0	0	863.0	863.0	863.0	0.0
Y	94,652	908	4,492	0.1	0	863.3	863.3	863.3	0.0
Z	98,719	3,366	120,496	0.0	0	863.3	863.3	863.3	0.0

¹Feet above confluence with Rock River

TABLE 7

FEDERAL EMERGENCY MANAGEMENT AGENCY
WAUKESHA COUNTY, WI
 AND INCORPORATED AREAS

FLOODWAY DATA

OCONOMOWOC RIVER

FLOODING SOURCE		FLOODWAY				1-PERCENT-ANNUAL-CHANCE FLOOD WATER SURFACE ELEVATION (FEET NAVD88)			
CROSS SECTION	DISTANCE ¹	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	WIDTH REDUCED FROM PRIOR STUDY (FEET)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
OCONOMOWOC RIVER (continued)									
AA	101,596	105	384	1.2	0	863.3	863.3	863.3	0.0
AB	103,467	140	369	1.2	0	863.7	863.7	863.7	0.0
AC	104,015	68	417	1.1	0	864.3	864.3	864.3	0.0
AD	104,235	335	2,512	0.2	0	874.4	874.4	874.4	0.0
AE	108,476	125	806	0.6	0	874.5	874.5	874.5	0.0
AF	112,356	541	5,154	0.1	0	874.5	874.5	874.5	0.0
AG	117,500	3,443	72,523	0.0	0	874.5	874.5	874.5	0.0
AH	121,041	147	550	0.8	0	874.5	874.5	874.5	0.0
AI	123,168	242	269	1.7	0	875.1	875.1	875.1	0.0
AJ	123,767	78	149	3.1	0	879.4	879.4	879.4	0.0
AK	124,179	92	132	3.5	0	881.3	881.3	881.3	0.0
AL	125,366	258	256	1.8	0	890.3	890.3	890.3	0.0
AM	126,714	179	256	1.8	0	892.1	892.1	892.1	0.0
AN	127,765	268	167	2.8	0	895.5	895.5	895.5	0.0
AO	128,903	293	546	0.8	0	897.6	897.6	897.6	0.0
AP	132,339	259	447	1.0	0	897.9	897.9	897.9	0.0
AQ	133,030	415	3,407	0.1	0	898.3	898.3	898.3	0.0
AR	135,473	2,463	128,429	0.0	0	898.3	898.3	898.3	0.0
AS	138,016	1,414	42,702	0.0	0	898.3	898.3	898.3	0.0
AT	139,369	293	976	1.3	0	900.0	900.0	900.0	0.0
AU	139,749	93	223	5.7	0	900.2	900.2	900.2	0.0
AV	139,993	125	418	3.0	0	904.2	904.2	904.2	0.0
AW	140,383	371	1,179	1.1	0	904.7	904.7	904.7	0.0
AX	141,021	479	1,060	1.2	0	907.9	907.9	907.9	0.0
AY	142,068	365	630	2.0	0	909.0	909.0	909.0	0.0
AZ	143,485	270	882	1.4	0	911.0	911.0	911.0	0.0

¹Feet above confluence with Rock River

TABLE 7

FEDERAL EMERGENCY MANAGEMENT AGENCY
WAUKESHA COUNTY, WI
 AND INCORPORATED AREAS

FLOODWAY DATA

OCONOMOWOC RIVER

FLOODING SOURCE		FLOODWAY				1-PERCENT-ANNUAL-CHANCE FLOOD WATER SURFACE ELEVATION (FEET NAVD88)			
CROSS SECTION	DISTANCE ¹	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	WIDTH REDUCED FROM PRIOR STUDY (FEET)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
OCONOMOWOC RIVER (continued)									
BA	143,830	146	481	2.6	0	911.5	911.5	911.5	0.0
BB	144,486	447	1,622	0.8	0	912.4	912.4	912.4	0.0
BC	145,300	62	278	4.6	0	913.1	913.1	913.1	0.0
BD	145,481	205	1,187	1.1	0	915.8	915.8	915.8	0.0
BE	147,440	406	662	1.9	0	916.6	916.6	916.6	0.0
BF	149,654	389	840	1.1	0	917.6	917.6	917.6	0.0
BG	150,767	487	699	1.3	0	918.1	918.1	918.1	0.0
BH	152,458	308	871	1.1	0	920.1	920.1	920.1	0.0
BI	154,219	480	770	1.2	0	921.2	921.2	921.2	0.0
BJ	156,404	425	991	1.0	0	923.3	923.3	923.3	0.0
BK	157,572	750	1,427	0.7	0	923.7	923.7	923.7	0.0
BL	158,449	242	373	2.5	0	925.7	925.7	925.7	0.0
BM	158,618	320	1,176	0.8	0	934.6	934.6	934.6	0.0
BN	160,544	289	1,232	0.8	0	934.6	934.6	934.6	0.0

¹Feet above confluence with Rock River

TABLE 7

FEDERAL EMERGENCY MANAGEMENT AGENCY
WAUKESHA COUNTY, WI
 AND INCORPORATED AREAS

FLOODWAY DATA

OCONOMOWOC RIVER

FLOODING SOURCE		FLOODWAY				1-PERCENT-ANNUAL-CHANCE FLOOD WATER SURFACE ELEVATION (FEET NAVD88)			
CROSS SECTION	DISTANCE ¹	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	WIDTH REDUCED FROM PRIOR STUDY (FEET)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
PEBBLE BROOK									
A	1,212	2,260	2,869	0.6	51	785.1	785.1	785.1	0.0
B	5,681	1,289	2,444	0.7	0	787.0	787.0	787.0	0.0
C	8,737	550	1,084	1.6	33	790.1	790.1	790.1	0.0
D	9,615	805	1,319	1.3	37	792.0	792.0	792.0	0.0
E	10,691	777	1,994	0.8	0	793.0	793.0	793.0	0.0
F	11,873	979	3,347	0.5	0	793.3	793.3	793.3	0.0
G	12,469	60	397	4.2	0	796.4	796.4	796.4	0.0
H	12,554	55	406	4.1	0	796.9	796.9	796.9	0.0
I	14,200	343	1,251	1.3	0	797.7	797.7	797.7	0.0
J	15,618	496	2,384	0.7	39	798.2	798.2	798.2	0.0
K	17,539	476	1,213	1.4	0	799.3	799.3	799.3	0.0
L	18,796	224	582	1.9	0	802.5	802.5	802.5	0.0
M	19,645	226	905	1.8	0	803.6	803.6	803.6	0.0
N	21,107	387	1,738	1.0	0	804.3	804.3	804.3	0.0
O	22,062	262	904	1.8	0	804.7	804.7	804.7	0.0
P	23,903	486	1,839	0.9	0	805.8	805.8	805.8	0.0
Q	25,290	423	1,773	0.9	0	806.2	806.2	806.2	0.0
R	26,965	304	1,158	1.4	0	806.7	806.7	806.7	0.0
S	29,186	77	427	3.6	0	807.9	807.9	807.9	0.0
T	32,142	1,090	3,955	0.2	0	809.8	809.8	809.8	0.0
U	35,343	688	1,785	0.5	0	811.3	811.3	811.3	0.0
V	37,489	23	108	7.7	0	813.8	813.8	813.8	0.0
W	39,093	270	973	0.9	0	819.9	819.9	819.9	0.0
X	40,555	628	1,493	0.6	0	820.5	820.5	820.5	0.0
Y	41,886	603	1,010	0.8	0	821.5	821.5	821.5	0.0
Z	43,163	16	59	6.8	0	825.7	825.7	825.7	0.0

¹Feet above confluence with Fox River

TABLE 7

FEDERAL EMERGENCY MANAGEMENT AGENCY
WAUKESHA COUNTY, WI
 AND INCORPORATED AREAS

FLOODWAY DATA

PEBBLE BROOK

FLOODING SOURCE		FLOODWAY				1-PERCENT-ANNUAL-CHANCE FLOOD WATER SURFACE ELEVATION (FEET NAVD88)			
CROSS SECTION	DISTANCE	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	WIDTH REDUCED FROM PRIOR STUDY (FEET)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
PEBBLE BROOK (continued)									
AA	44,260 ¹	177	358	1.1	0	829.0	829.0	829.0	0.0
AB	46,121 ¹	369	208	1.9	0	835.3	835.3	835.3	0.0
AC	48,022 ¹	5	17	8.8	0	848.0	848.0	848.0	0.0
PEBBLE BROOK TRIBUTARY									
A	1,067 ²	831	1,115	0.2	0	811.3	811.3	811.3	0.0
B	2,483 ²	564	543	0.4	0	811.3	811.3	811.3	0.0
C	3,643 ²	216	196	1.1	57	811.8	811.8	811.8	0.0
D	4,415 ²	41	90	2.3	0	814.2	814.2	814.2	0.0
E	4,570 ²	672	1,431	0.2	0	814.9	814.9	814.9	0.0
F	5,190 ²	80	472	0.4	282	814.9	814.9	814.9	0.0
G	5,546 ²	66	431	0.4	98	815.0	815.0	815.0	0.0
H	5,842 ²	62	249	0.7	90	815.0	815.0	815.0	0.0
I	6,153 ²	25	71	2.5	58	815.8	815.8	815.8	0.0

¹Feet above confluence with Fox River

²Feet above confluence with Pebble Brook

TABLE 7

FEDERAL EMERGENCY MANAGEMENT AGENCY
WAUKESHA COUNTY, WI
 AND INCORPORATED AREAS

FLOODWAY DATA

PEBBLE BROOK - PEBBLE BROOK TRIBUTARY

FLOODING SOURCE		FLOODWAY				1-PERCENT-ANNUAL-CHANCE FLOOD WATER SURFACE ELEVATION (FEET NAVD88)			
CROSS SECTION	DISTANCE	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	WIDTH REDUCED FROM PRIOR STUDY (FEET)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
PEBBLE CREEK									
A	1,374 ¹	500	1,729	1.0	0	792.8	792.8	792.8	0.0
B	2,988 ¹	256	1,295	1.3	0	796.6	796.6	796.6	0.0
C	4,562 ¹	322	1,510	1.1	0	797.0	797.0	797.0	0.0
D	6,949 ¹	90	5,545	0.3	180	797.3	797.3	797.3	0.0
E	8,855 ¹	863	2,203	0.5	0	797.5	797.5	797.5	0.0
F	12,396 ¹	33	193	9.3	0	802.5	802.5	802.5	0.0
G	12,665 ¹	100	665	2.7	0	804.4	804.4	804.4	0.0
H	14,026 ¹	623	2,236	0.8	0	805.2	805.2	805.2	0.0
I	15,296 ¹	140	1,580	1.1	130	807.1	807.1	807.1	0.0
J	16,587 ¹	623	2,526	0.7	0	807.4	807.4	807.4	0.0
K	18,833 ¹	1,017	3,340	0.5	100	807.8	807.8	807.8	0.0
L	20,206 ¹	1,003	2,143	0.8	0	808.1	808.1	808.1	0.0
PEWAUKEE LAKE TRIBUTARY									
A	682 ²	221	1,338	1.0	0	858.4	858.4	858.4	0.0
B	1,254 ²	642	2,742	0.5	0	859.5	859.5	859.5	0.0
C	1,578 ²	800	3,572	0.4	0	859.5	859.5	859.5	0.0
D	2,710 ²	1,000	3,208	0.4	0	859.6	859.6	859.6	0.0
E	3,472 ²	1,550	5,496	0.2	0	859.6	859.6	859.6	0.0
F	4,416 ²	1,123	3,846	0.3	0	859.7	859.7	859.7	0.0
G	5,099 ²	1,200	1,533	0.8	0	859.8	859.8	859.8	0.0
H	6,123 ²	240	692	1.9	0	861.8	861.8	861.8	0.0
I	6,736 ²	545	605	2.1	0	862.2	862.2	862.2	0.0
J	8,014 ²	470	509	2.6	0	865.4	865.4	865.4	0.0

¹Feet above confluence with Fox River

²Feet above confluence of Pewaukee Lake

TABLE 7

FEDERAL EMERGENCY MANAGEMENT AGENCY
WAUKESHA COUNTY, WI
 AND INCORPORATED AREAS

FLOODWAY DATA

PEBBLE CREEK - PEWAUKEE LAKE TRIBUTARY

FLOODING SOURCE		FLOODWAY				1-PERCENT-ANNUAL-CHANCE FLOOD WATER SURFACE ELEVATION (FEET NAVD88)			
CROSS SECTION	DISTANCE ¹	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	WIDTH REDUCED FROM PRIOR STUDY (FEET)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
PEWAUKEE RIVER									
A	639	67	293	2.3	0	820.8	820.8	820.8	0.0
B	858	160	233	2.3	0	821.0	821.0	821.0	0.0
C	1,225	82	165	3.6	0	822.0	822.0	822.0	0.0
D	1,994	24	65	8.3	0	826.3	826.3	826.3	0.0
E	2,112	43	176	3.2	0	828.1	828.1	828.1	0.0
F	2,572	20	80	6.7	0	829.5	829.5	829.5	0.0
G	2,871	179	305	2.1	0	830.9	830.9	830.9	0.0
H	3,752	254	295	1.9	0	932.0	932.0	932.0	0.0
I	4,588	121	193	3.1	0	833.8	833.8	833.8	0.0
J	5,365	37	180	4.0	0	835.5	835.5	835.5	0.0
K	5,428	47	166	3.7	0	835.7	835.7	835.7	0.0
L	6,171	39	158	3.4	0	837.0	837.0	837.0	0.0
M	7,393	184	306	1.8	0	838.4	838.4	838.4	0.0
N	8,029	105	216	2.5	0	838.9	838.9	838.9	0.0
O	8,826	148	350	1.5	0	839.7	839.7	839.7	0.0
P	9,048	218	707	1.1	0	840.0	840.0	840.0	0.0
Q	9,841	181	244	2.2	0	840.4	840.4	840.4	0.0
R	10,863	322	735	0.7	0	841.0	841.0	841.0	0.0
S	11,125	88	339	1.9	0	841.0	841.0	841.0	0.0
T	11,576	125	297	1.9	0	841.3	841.3	841.3	0.0
U	12,777	298	708	0.8	0	841.7	841.7	841.7	0.0
V	13,568	455	814	0.7	0	841.9	841.9	841.9	0.0
W	14,395	401	640	0.9	0	842.2	842.2	842.2	0.0
X	15,344	491	939	0.6	0	842.5	842.5	842.5	0.0
Y	16,226	364	652	0.9	0	842.7	842.7	842.7	0.0
Z	17,196	591	939	0.6	0	842.9	842.9	842.9	0.0

¹Feet above confluence with Fox River

TABLE 7

FEDERAL EMERGENCY MANAGEMENT AGENCY
WAUKESHA COUNTY, WI
 AND INCORPORATED AREAS

FLOODWAY DATA

PEWAUKEE RIVER

FLOODING SOURCE		FLOODWAY				1-PERCENT-ANNUAL-CHANCE FLOOD WATER SURFACE ELEVATION (FEET NAVD88)			
CROSS SECTION	DISTANCE ¹	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	WIDTH REDUCED FROM PRIOR STUDY (FEET)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
PEWAUKEE RIVER (continued)									
AA	18,303	832	1,338	0.4	0	843.1	843.1	843.1	0.0
AB	19,358	1,080	2,094	0.3	0	843.2	843.2	843.2	0.0
AC	20,293	1,086	2,192	0.6	0	843.3	843.3	843.3	0.0
AD	21,138	809	751	1.0	0	843.8	843.8	843.8	0.0
AE	22,420	583	977	0.8	0	844.5	844.5	844.5	0.0
AF	23,177	818	1,445	0.6	0	844.9	844.9	844.9	0.0
AG	24,330	690	1,760	0.5	0	845.1	845.1	845.1	0.0
AH	24,886	508	1,597	0.6	0	845.2	845.2	845.2	0.0
AI	26,127	659	1,952	0.5	0	845.3	845.3	845.3	0.0
AJ	27,231	454	1,195	0.6	0	845.4	845.4	845.4	0.0
AK	28,189	45	725	3.9	0	846.0	846.0	846.0	0.0
AL	28,268	81	1,083	1.8	0	847.7	847.7	847.7	0.0
AM	29,177	147	526	1.4	0	847.8	847.8	847.8	0.0
AN	29,775	396	1,380	0.6	0	848.0	848.0	848.0	0.0
AO	30,662	86	2,254	1.6	0	848.3	848.3	848.3	0.0
AP	30,993	43	213	3.4	0	848.4	848.4	848.4	0.0
AQ	31,517	288	2,199	0.5	0	848.7	848.7	848.7	0.0
AR	32,139	289	1,223	0.9	0	848.8	848.8	848.8	0.0
AS	33,184	246	425	1.7	0	848.8	848.8	848.8	0.0
AT	33,480	44	274	3.3	0	848.8	848.8	848.8	0.0
AU	33,597	40	188	3.9	0	848.9	848.9	848.9	0.0
AV	34,212	246	1,028	0.7	0	849.3	849.3	849.3	0.0
AW	34,511	142	348	2.7	0	849.2	849.2	849.2	0.0
AX	34,750	124	582	1.3	0	849.5	849.5	849.5	0.0
AY	35,268	52	1,476	2.6	0	850.0	850.0	850.0	0.0
AZ	35,381	93	1,638	1.0	0	850.4	850.4	850.4	0.0

¹Feet above confluence with Fox River

TABLE 7

FEDERAL EMERGENCY MANAGEMENT AGENCY
WAUKESHA COUNTY, WI
 AND INCORPORATED AREAS

FLOODWAY DATA

PEWAUKEE RIVER

FLOODING SOURCE		FLOODWAY				1-PERCENT-ANNUAL-CHANCE FLOOD WATER SURFACE ELEVATION (FEET NAVD88)			
CROSS SECTION	DISTANCE ¹	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	WIDTH REDUCED FROM PRIOR STUDY (FEET)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
PEWAUKEE RIVER (continued)									
BA	36,318	902	3,419	0.2	0	850.4	850.4	850.4	0.0
BB	36,677	842	4,865	0.2	0	850.5	850.5	850.5	0.0
BC	37,700	857	5,865	0.2	0	850.5	850.5	850.5	0.0
BD	38,408	82	3,880	1.8	0	850.5	850.5	850.5	0.0
BE	38,594	68	703	1.2	0	851.4	851.4	851.4	0.0
BF	39,306	305	5,620	0.6	0	851.5	851.5	851.5	0.0
BG	39,712	52	1,073	2.2	0	851.6	851.6	851.6	0.0
BH	39,855	75	2,004	1.1	0	854.5	854.5	854.5	0.0
BI	40,321	477	2,970	0.2	0	854.6	854.6	854.6	0.0
BJ	41,194	660	3,355	0.2	0	854.6	854.6	854.6	0.0
BK	42,146	842	4,313	0.2	0	854.6	854.6	854.6	0.0
BL	42,963	642	2,203	0.1	0	854.6	854.6	854.6	0.0
BM	43,479	587	2,485	0.2	0	854.6	854.6	854.6	0.0
BN	44,135	197	640	0.6	0	854.6	854.6	854.6	0.0
BO	44,820	220	262	1.1	0	855.2	855.2	855.2	0.0
BP	45,775	289	441	0.7	0	857.4	857.4	857.4	0.0
BQ	46,097	52	333	2.2	0	858.0	858.0	858.0	0.0
BR	46,190	150	501	1.4	0	859.9	859.9	859.9	0.0
BS	46,998	38	798	3.2	0	862.7	862.7	862.7	0.0
BT	47,119	46	158	2.4	0	863.2	863.2	863.2	0.0
BU	48,054	403	445	0.8	0	866.0	866.0	866.0	0.0
BV	48,986	605	533	0.6	0	869.6	869.6	869.6	0.0
BW	50,062	461	458	0.7	0	875.1	875.1	875.1	0.0
BX	51,090	352	324	0.9	0	878.8	878.8	878.8	0.0
BY	51,759	47	840	1.4	0	883.8	883.8	883.8	0.0
BZ	52,382	150	289	0.6	0	885.0	885.0	885.0	0.0

¹Feet above confluence with Fox River

TABLE 7

FEDERAL EMERGENCY MANAGEMENT AGENCY
WAUKESHA COUNTY, WI
 AND INCORPORATED AREAS

FLOODWAY DATA

PEWAUKEE RIVER

FLOODING SOURCE		FLOODWAY				1-PERCENT-ANNUAL-CHANCE FLOOD WATER SURFACE ELEVATION (FEET NAVD88)			
CROSS SECTION	DISTANCE	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	WIDTH REDUCED FROM PRIOR STUDY (FEET)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
PEWAUKEE RIVER (continued)									
CA	52,931 ¹	196	755	0.5	0	885.9	885.9	885.9	0.0
CB	53,946 ¹	299	1,027	0.4	0	886.7	886.7	886.7	0.0
CC	54,874 ¹	333	205	0.5	0	888.5	888.5	888.5	0.0
CD	55,365 ¹	202	109	0.9	0	890.8	890.8	890.8	0.0
CE	55,726 ¹	72	566	0.9	0	891.7	891.7	891.7	0.0
CF	56,528 ¹	249	228	0.5	0	893.5	893.5	893.5	0.0
CG	57,222 ¹	20	372	2.7	0	894.3	894.3	894.3	0.0
CH	57,350 ¹	30	490	1.1	0	895.4	895.4	895.4	0.0
CI	57,926 ¹	124	96	1.1	0	896.3	896.3	896.3	0.0
PEWAUKEE RIVER TRIBUTARY 3									
A	12 ²	113	769	1.3	0	849.6	846.6 ³	846.6 ³	0.0
B	460 ²	26	94	6.8	0	849.6	847.3 ³	847.3 ³	0.0

¹Feet above confluence with Fox River

³Elevations without considering backwater effect from Pewaukee River

²Feet above confluence with Pewaukee River

TABLE 7

FEDERAL EMERGENCY MANAGEMENT AGENCY
WAUKESHA COUNTY, WI
AND INCORPORATED AREAS

FLOODWAY DATA

PEWAUKEE RIVER - PEWAUKEE RIVER TRIBUTARY 3

FLOODING SOURCE		FLOODWAY				1-PERCENT-ANNUAL-CHANCE FLOOD WATER SURFACE ELEVATION (FEET NAVD88)			
CROSS SECTION	DISTANCE ¹	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	WIDTH REDUCED FROM PRIOR STUDY (FEET)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
POPLAR CREEK									
A	395	187	1,230	1.4	0	824.2	822.7 ²	822.7 ²	0.0
B	599	45	821	3.4	60	824.2	823.6 ²	823.6 ²	0.0
C	953	319	1,180	1.2	0	824.2	823.8 ²	823.8 ²	0.0
D	1,806	483	2,566	0.6	0	824.2	824.0 ²	824.0 ²	0.0
E	2,628	495	2,335	0.6	0	824.2	824.0 ²	824.0 ²	0.0
F	3,126	460	1,737	0.8	36	824.3	824.3	824.3	0.0
G	5,272	345	1,902	0.8	0	825.4	825.4	825.4	0.0
H	6,315	362	4,850	0.4	455	825.5	825.5	825.5	0.0
I	7,161	652	3,170	0.6	0	825.6	825.6	825.6	0.0
J	7,644	465	3,827	0.7	0	825.7	825.7	825.7	0.0
K	9,580	260	1,010	1.6	30	826.9	826.9	826.9	0.0
L	10,871	306	1,321	1.4	0	827.9	827.9	827.9	0.0
M	11,817	373	1,368	1.3	0	828.3	828.3	828.3	0.0
N	13,128	49	761	1.9	0	829.2	829.2	829.2	0.0
O	13,535	201	876	1.0	0	829.3	829.3	829.3	0.0
P	14,067	356	1,701	0.5	0	829.4	829.4	829.4	0.0
Q	15,001	304	2,100	0.6	180	829.5	829.5	829.5	0.0
R	15,641	56	1,046	1.4	120	829.7	829.7	829.7	0.0
S	15,964	592	2,811	0.3	0	829.8	829.8	829.8	0.0
T	16,733	902	3,211	0.3	0	829.8	829.8	829.8	0.0
U	17,783	566	3,402	0.6	0	830.2	830.2	830.2	0.0
V	18,864	104	434	2.0	0	830.3	830.3	830.3	0.0
W	19,778	316	2,201	0.8	0	830.5	830.5	830.5	0.0
X	19,880	76	155	5.7	0	830.5	830.5	830.5	0.0
Y	20,420	506	2,813	0.3	39	831.2	831.2	831.2	0.0
Z	20,460	78	278	2.7	0	831.3	831.3	831.3	0.0

¹Feet above confluence with Fox River

²Elevations without considering backwater effect from Fox River

TABLE 7	FEDERAL EMERGENCY MANAGEMENT AGENCY	FLOODWAY DATA
	WAUKESHA COUNTY, WI	
	AND INCORPORATED AREAS	POPLAR CREEK

FLOODING SOURCE		FLOODWAY				1-PERCENT-ANNUAL-CHANCE FLOOD WATER SURFACE ELEVATION (FEET NAVD88)			
CROSS SECTION	DISTANCE ¹	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	WIDTH REDUCED FROM PRIOR STUDY (FEET)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
POPLAR CREEK (continued)									
AA	25,132	955	4,965	0.3	0	831.6	831.6	831.6	0.0
AB	27,270	480	3,988	0.4	393	831.6	831.6	831.6	0.0
AC	29,199	121	1,860	1.7	484	832.6	832.6	832.6	0.0
AD	30,519	42	981	3.1	693	833.4	833.4	833.4	0.0
AE	32,056	388	815	3.6	0	835.5	835.5	835.5	0.0
AF	33,497	260	470	5.5	0	838.6	838.6	838.6	0.0
AG	34,543	403	544	2.5	0	841.0	841.0	841.0	0.0
AH	37,338	45	163	5.3	93	848.2	848.2	848.2	0.0
AI	38,786	190	2,824	0.3	0	866.1	866.1	866.1	0.0
AJ	42,657	190	572	1.5	0	866.2	866.2	866.2	0.0
AK	43,940	225	503	1.3	67	866.3	866.3	866.3	0.0
AL	47,562	282	255	5.1	73	872.1	872.1	872.1	0.0
AM	48,902	28	170	3.9	42	877.1	877.1	877.1	0.0
AN	50,202	252	611	0.8	73	882.7	882.7	882.7	0.0
AO	52,844	1,210	942	0.8	0	883.3	883.3	883.3	0.0
AP	57,181	387	968	0.9	205	884.9	884.9	884.9	0.0

¹Feet above confluence with Fox River

TABLE 7

FEDERAL EMERGENCY MANAGEMENT AGENCY
WAUKESHA COUNTY, WI
 AND INCORPORATED AREAS

FLOODWAY DATA

POPLAR CREEK

FLOODING SOURCE		FLOODWAY				1-PERCENT-ANNUAL-CHANCE FLOOD WATER SURFACE ELEVATION (FEET NAVD88)			
CROSS SECTION	DISTANCE ¹	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	WIDTH REDUCED FROM PRIOR STUDY (FEET)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
QUIETWOOD CREEK									
A	25	291	395	1.4	0	773.3	773.3	773.3	0.0
B	196	131	122	3.2	0	773.4	773.4	773.4	0.0
C	556	44	129	3.2	0	774.5	774.5	774.5	0.0
D	601	18	339	3.1	0	779.8	779.8	779.8	0.0
E	661	27	520	1.8	0	780.4	780.4	780.4	0.0
F	1,384	51	427	1.3	0	780.5	780.5	780.5	0.0
G	1,475	29	925	1.5	0	782.0	782.0	782.0	0.0
H	2,010	203	1,263	0.4	0	782.1	782.1	782.1	0.0
I	2,458	47	937	0.9	0	782.1	782.1	782.1	0.0
J	2,584	37	1,446	1.0	0	782.6	782.6	782.6	0.0
K	3,340	732	7,688	0.1	0	782.6	782.6	782.6	0.0
L	4,310	369	2,863	0.2	0	782.6	782.6	782.6	0.0
M	5,029	78	432	2.7	0	782.5	782.5	782.5	0.0
N	5,533	53	142	5.9	0	784.1	784.1	784.1	0.0
O	5,601	90	377	2.8	0	785.1	785.1	785.1	0.0
P	5,942	320	1,095	0.6	0	785.4	785.4	785.4	0.0
Q	6,611	176	288	1.9	0	785.9	785.9	785.9	0.0
R	6,954	158	206	2.9	0	787.7	787.7	787.7	0.0
S	7,712	19	89	4.6	0	792.4	792.4	792.4	0.0
T	8,505	55	514	2.6	0	795.2	795.2	795.2	0.0
U	9,219	32	383	3.6	0	797.3	797.3	797.3	0.0
V	9,432	60	194	1.7	0	800.2	800.2	800.2	0.0
W	9,569	16	752	2.4	0	804.5	804.5	804.5	0.0
X	10,019	19	123	4.8	0	804.5	804.5	804.5	0.0
Y	10,192	15	43	2.3	0	805.1	805.1	805.1	0.0
Z	10,610	9	14	7.0	0	807.1	807.1	807.1	0.0

¹Feet above confluence with Bass Bay

TABLE 7

FEDERAL EMERGENCY MANAGEMENT AGENCY
WAUKESHA COUNTY, WI
 AND INCORPORATED AREAS

FLOODWAY DATA

QUIETWOOD CREEK

FLOODING SOURCE		FLOODWAY				1-PERCENT-ANNUAL-CHANCE FLOOD WATER SURFACE ELEVATION (FEET NAVD88)			
CROSS SECTION	DISTANCE	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	WIDTH REDUCED FROM PRIOR STUDY (FEET)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
QUIETWOOD CREEK (continued)									
AA	10,627 ¹	12	22	4.6	0	807.7	807.7	807.7	0.0
AB	10,662 ¹	14	47	2.2	0	810.5	810.5	810.5	0.0
AC	10,680 ¹	14	42	2.4	0	810.5	810.5	810.5	0.0
AD	11,593 ¹	26	24	4.1	0	814.3	814.3	814.3	0.0
ROOT RIVER									
A	70 ²	267	324	1.9	0	760.9	760.9	760.9	0.0
B	562 ²	125	305	2.0	115	763.1	763.1	763.1	0.0
C	1,479 ²	302	233	2.6	0	767.9	767.9	767.9	0.0
D	2,303 ²	172	216	2.8	0	773.1	773.1	773.1	0.0
E	3,022 ²	249	310	1.7	65	778.1	778.1	778.1	0.0
F	3,204 ²	173	191	2.7	0	779.7	779.7	779.7	0.0
G	3,771 ²	80	161	3.3	0	784.1	784.1	784.1	0.0
H	4,311 ²	153	249	2.1	40	788.7	788.7	788.7	0.0
I	4,886 ²	93	153	3.4	0	793.2	793.2	793.2	0.0
J	5,064 ²	120	373	1.4	70	795.0	795.0	795.0	0.0
K	5,576 ²	78	165	3.2	0	796.8	796.8	796.8	0.0
L	6,077 ²	85	185	2.8	70	803.1	803.1	803.1	0.0
M	6,505 ²	90	180	2.5	0	807.7	807.7	807.7	0.0
N	7,138 ²	26	50	3.6	25	820.8	820.8	820.8	0.0

¹Feet above confluence with Bass Bay

²Feet above county boundary

TABLE 7

FEDERAL EMERGENCY MANAGEMENT AGENCY
WAUKESHA COUNTY, WI
 AND INCORPORATED AREAS

FLOODWAY DATA

QUIETWOOD CREEK - ROOT RIVER

FLOODING SOURCE		FLOODWAY				1-PERCENT-ANNUAL-CHANCE FLOOD WATER SURFACE ELEVATION (FEET NAVD88)			
CROSS SECTION	DISTANCE ¹	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	WIDTH REDUCED FROM PRIOR STUDY (FEET)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
ROSENOW CREEK									
A	4	85	261	5.4	0	854.0	852.2 ²	852.2 ²	0.0
B	672	130	2,738	2.0	0	855.2	855.2	855.2	0.0
C	791	145	9,916	0.8	0	856.8	856.8	856.8	0.0
D	1,335	381	3,006	0.3	0	856.8	856.8	856.8	0.0
E	1,398	429	2,445	0.4	0	856.9	856.9	856.9	0.0
F	2,430	201	836	1.1	0	857.0	857.0	857.0	0.0
G	2,746	138	501	2.6	0	857.1	857.1	857.1	0.0
H	2,842	165	2,672	0.6	0	860.7	860.7	860.7	0.0
I	3,480	287	3,489	0.4	0	860.7	860.7	860.7	0.0
J	3,964	386	3,723	0.3	0	860.7	860.7	860.7	0.0
K	4,028	466	4,982	0.4	0	860.7	860.7	860.7	0.0
L	4,311	502	4,449	0.3	0	860.7	860.7	860.7	0.0
M	4,364	494	3,980	0.4	0	860.7	860.7	860.7	0.0
N	4,510	441	4,387	0.4	0	860.7	860.7	860.7	0.0
O	4,544	427	4,333	0.4	0	860.8	860.8	860.8	0.0
P	5,230	241	2,259	0.9	0	860.8	860.8	860.8	0.0
Q	5,279	120	2,270	1.3	0	861.8	861.8	861.8	0.0
R	6,342	275	997	0.6	0	861.8	861.8	861.8	0.0
S	7,272	248	518	1.2	0	861.9	861.9	861.9	0.0
T	8,015	98	192	3.2	0	862.7	862.7	862.7	0.0
U	8,049	105	674	1.7	0	864.1	864.1	864.1	0.0
V	8,143	158	487	2.1	0	864.2	864.2	864.2	0.0
W	8,752	197	475	1.5	0	865.0	865.0	865.0	0.0
X	9,428	260	530	1.2	0	865.4	865.4	865.4	0.0
Y	9,496	243	1,965	0.4	0	865.5	865.5	865.5	0.0
Z	9,718	77	234	1.8	0	865.5	865.5	865.5	0.0

¹Feet above mouth

²Elevations without considering backwater effect from Lac La Belle

TABLE 7	FEDERAL EMERGENCY MANAGEMENT AGENCY WAUKESHA COUNTY, WI AND INCORPORATED AREAS	FLOODWAY DATA
		ROSENOW CREEK

FLOODING SOURCE		FLOODWAY				1-PERCENT-ANNUAL-CHANCE FLOOD WATER SURFACE ELEVATION (FEET NAVD88)			
CROSS SECTION	DISTANCE ¹	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	WIDTH REDUCED FROM PRIOR STUDY (FEET)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
ROSENOW CREEK (continued)									
AA	9,936	78	243	1.9	0	865.7	865.7	865.7	0.0
AB	10,746	200	291	1.5	0	866.1	866.1	866.1	0.0
AC	11,302	11	233	0.4	0	866.4	866.4	866.4	0.0
AD	11,348	140	589	0.1	0	866.5	866.5	866.5	0.0
AE	11,925	31	43	0.3	0	866.5	866.5	866.5	0.0
AF	12,855	34	28	0.5	0	866.6	866.6	866.6	0.0
AG	12,961	18	19	0.8	0	866.8	866.8	866.8	0.0
AH	13,569	20	15	0.9	0	867.0	867.0	867.0	0.0
AI	13,993	14	14	1.0	0	867.4	867.4	867.4	0.0
AJ	14,020	26	88	0.4	0	867.8	867.8	867.8	0.0
AK	14,084	32	37	0.4	0	868.0	868.0	868.0	0.0
AL	15,104	33	30	0.5	0	868.1	868.1	868.1	0.0
AM	15,890	23	12	1.1	0	868.3	868.3	868.3	0.0
AN	16,007	7	4	3.9	0	868.6	868.6	868.6	0.0
AO	16,074	6	76	2.0	0	870.2	870.2	870.2	0.0
AP	16,155	48	63	0.5	0	870.4	870.4	870.4	0.0
AQ	16,723	11	13	1.3	0	871.5	871.5	871.5	0.0
AR	16,884	6	11	1.8	0	871.9	871.9	871.9	0.0
AS	17,553	215	94	0.2	0	872.7	872.7	872.7	0.0
AT	18,395	314	136	0.1	0	872.9	872.9	872.9	0.0
AU	18,663	183	88	0.3	0	872.9	872.9	872.9	0.0
AV	18,865	146	234	0.1	0	873.5	873.5	873.5	0.0
AW	20,773	165	189	0.1	0	873.5	873.5	873.5	0.0

¹Feet above mouth

TABLE 7

FEDERAL EMERGENCY MANAGEMENT AGENCY
WAUKESHA COUNTY, WI
 AND INCORPORATED AREAS

FLOODWAY DATA

ROSENOW CREEK

FLOODING SOURCE		FLOODWAY				1-PERCENT-ANNUAL-CHANCE FLOOD WATER SURFACE ELEVATION (FEET NAVD88)			
CROSS SECTION	DISTANCE ¹	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	WIDTH REDUCED FROM PRIOR STUDY (FEET)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
SCHOOL SECTION CREEK									
A	9,639	26	770	3.5	0	845.0	845.0	845.0	0.0
B	10,168	99	111	3.1	0	846.2	846.2	846.2	0.0
C	10,515	304	205	0.9	0	846.8	846.8	846.8	0.0
D	11,212	31	82	2.9	0	847.3	847.3	847.3	0.0
E	11,263	41	133	1.8	0	847.6	847.6	847.6	0.0
F	11,736	172	165	1.4	0	848.1	848.1	848.1	0.0
G	12,487	124	93	2.0	0	848.7	848.7	848.7	0.0
H	13,078	240	177	1.1	0	849.3	849.3	849.3	0.0
I	14,119	411	575	0.3	0	850.5	850.5	850.5	0.0
J	15,151	110	1,363	1.2	0	850.9	850.9	850.9	0.0
K	15,342	61	5,041	0.6	0	854.9	854.9	854.9	0.0

¹Feet above confluence with Bark River

TABLE 7

FEDERAL EMERGENCY MANAGEMENT AGENCY
WAUKESHA COUNTY, WI
 AND INCORPORATED AREAS

FLOODWAY DATA

SCHOOL SECTION CREEK

FLOODING SOURCE		FLOODWAY				1-PERCENT-ANNUAL-CHANCE FLOOD WATER SURFACE ELEVATION (FEET NAVD88)			
CROSS SECTION	DISTANCE ¹	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	WIDTH REDUCED FROM PRIOR STUDY (FEET)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
SCUPPERNONG CREEK									
A	756	458	1,383	0.5	0	849.5	849.5	849.5	0.0
B	1,776	397	1,078	0.7	0	849.6	849.6	849.6	0.0
C	2,785	603	1,473	0.6	0	849.8	849.8	849.8	0.0
D	3,769	617	1,212	0.6	0	850.0	850.0	850.0	0.0
E	4,511	738	2,282	0.5	0	850.4	850.4	850.4	0.0
F	5,423	693	1,690	0.5	0	850.5	850.5	850.5	0.0
G	6,404	861	1,886	0.4	0	850.6	850.6	850.6	0.0
H	7,224	472	1,313	0.6	0	850.7	850.7	850.7	0.0
I	8,335	555	1,994	0.5	0	851.4	851.4	851.4	0.0
J	9,376	993	2,607	0.3	0	851.5	851.5	851.5	0.0
K	10,728	557	1,274	0.6	0	851.6	851.6	851.6	0.0
L	12,893	617	1,632	0.5	0	851.9	851.9	851.9	0.0
M	14,324	1,525	3,075	0.3	0	852.0	852.0	852.0	0.0
N	15,469	956	1,171	0.6	0	852.1	852.1	852.1	0.0
O	16,800	288	411	1.8	0	854.1	854.1	854.1	0.0
P	17,360	151	329	2.2	0	855.5	855.5	855.5	0.0
Q	17,928	483	2,560	0.3	0	864.0	864.0	864.0	0.0
R	19,531	1,062	4,120	0.2	0	864.0	864.0	864.0	0.0
S	21,362	715	1,725	0.4	0	864.1	864.1	864.1	0.0
T	22,546	302	802	0.9	0	864.5	864.5	864.5	0.0
U	23,297	501	923	0.8	0	865.1	865.1	865.1	0.0
V	24,554	491	1,795	0.4	0	868.4	868.4	868.4	0.0
W	24,959	482	1,691	0.4	0	868.5	868.5	868.5	0.0
X	26,028	339	1,171	0.6	0	868.6	868.6	868.6	0.0
Y	26,508	435	1,454	0.5	0	868.7	868.7	868.7	0.0
Z	26,973	409	2,651	0.4	0	868.8	868.8	868.8	0.0

¹Feet above confluence with Bark River

TABLE 7

FEDERAL EMERGENCY MANAGEMENT AGENCY
WAUKESHA COUNTY, WI
 AND INCORPORATED AREAS

FLOODWAY DATA

SCUPPERNONG CREEK

FLOODING SOURCE		FLOODWAY				1-PERCENT-ANNUAL-CHANCE FLOOD WATER SURFACE ELEVATION (FEET NAVD88)			
CROSS SECTION	DISTANCE ¹	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	WIDTH REDUCED FROM PRIOR STUDY (FEET)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
SCUPPERNONG CREEK (continued)									
AA	27,735	849	2,994	0.2	0	869.6	869.6	869.6	0.0
AB	29,026	1,411	4,731	0.1	0	869.6	869.6	869.6	0.0
AC	31,365	840	3,124	0.2	0	869.6	869.6	869.6	0.0
AD	32,293	502	1,051	0.5	0	869.6	869.6	869.6	0.0
AE	33,173	376	1,322	0.4	0	871.3	871.3	871.3	0.0
AF	33,901	725	2,231	0.2	0	871.3	871.3	871.3	0.0
AG	34,994	282	751	0.7	0	871.5	871.5	871.5	0.0
AH	36,278	466	971	0.5	0	872.1	872.1	872.1	0.0
AI	38,404	1,366	3,853	0.1	0	872.1	872.1	872.1	0.0
AJ	39,558	436	681	0.7	0	872.1	872.1	872.1	0.0
AK	40,259	140	213	2.1	0	872.5	872.5	872.5	0.0
AL	40,626	173	290	1.6	0	873.2	873.2	873.2	0.0
AM	41,584	185	482	0.9	0	874.5	874.5	874.5	0.0
AN	42,322	23	433	4.5	0	874.9	874.9	874.9	0.0
AO	43,386	178	535	0.9	0	876.2	876.2	876.2	0.0
AP	44,097	201	472	1.0	0	876.5	876.5	876.5	0.0
AQ	44,168	178	737	1.1	0	877.5	877.5	877.5	0.0
AR	44,561	147	319	1.4	0	877.8	877.8	877.8	0.0
AS	44,797	40	197	3.3	0	878.3	878.3	878.3	0.0
AT	45,147	214	809	0.6	0	880.4	880.4	880.4	0.0
AU	45,364	79	323	1.6	0	880.4	880.4	880.4	0.0
AV	46,055	456	5,319	0.1	0	889.6	889.6	889.6	0.0
AW	47,581	601	4,645	0.1	0	889.6	889.6	889.6	0.0
AX	48,360	90	366	1.0	0	889.6	889.6	889.6	0.0
AY	48,728	39	65	5.6	0	891.7	891.7	891.7	0.0
AZ	49,160	165	470	0.8	0	899.6	899.6	899.6	0.0

¹Feet above confluence with Bark River

TABLE 7

FEDERAL EMERGENCY MANAGEMENT AGENCY
WAUKESHA COUNTY, WI
 AND INCORPORATED AREAS

FLOODWAY DATA

SCUPPERNONG CREEK

FLOODING SOURCE		FLOODWAY				1-PERCENT-ANNUAL-CHANCE FLOOD WATER SURFACE ELEVATION (FEET NAVD88)			
CROSS SECTION	DISTANCE ¹	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	WIDTH REDUCED FROM PRIOR STUDY (FEET)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
SCUPPERNONG CREEK (continued)									
BA	49,903	72	119	3.0	0	900.9	900.9	900.9	0.0
BB	50,565	98	136	2.7	0	903.5	903.5	903.5	0.0
BC	51,028	54	92	3.9	0	905.5	905.5	905.5	0.0
BD	51,086	60	98	3.7	0	906.1	906.1	906.1	0.0
BE	51,621	89	137	2.6	0	908.2	908.2	908.2	0.0
BF	51,917	69	111	3.2	0	909.3	909.3	909.3	0.0
BG	52,253	83	1,287	1.7	0	910.8	910.8	910.8	0.0
BH	53,220	157	1,407	0.8	0	911.2	911.2	911.2	0.0
BI	54,110	839	2,119	0.2	0	911.3	911.3	911.3	0.0
BJ	54,894	262	228	1.4	0	912.0	912.0	912.0	0.0
BK	55,543	69	126	2.0	0	918.0	918.0	918.0	0.0
BL	56,078	108	86	2.9	0	921.4	921.4	921.4	0.0
BM	56,921	88	88	2.9	0	926.6	926.6	926.6	0.0
BN	57,531	19	33	5.1	0	932.8	932.8	932.8	0.0
BO	57,592	46	242	1.1	0	935.2	935.2	935.2	0.0
BP	57,931	22	59	2.8	0	935.5	935.5	935.5	0.0
BQ	58,098	23	119	5.3	0	937.8	937.8	937.8	0.0
BR	58,416	386	1,347	0.2	0	945.0	945.0	945.0	0.0
BS	58,716	264	593	0.4	0	945.0	945.0	945.0	0.0
BT	58,970	116	110	2.1	0	945.0	945.0	945.0	0.0
BU	59,030	180	202	1.4	0	946.1	946.1	946.1	0.0
BV	59,464	47	81	1.3	0	946.6	946.6	946.6	0.0
BW	60,035	34	52	2.0	0	947.2	947.2	947.2	0.0
BX	60,348	30	124	1.3	0	947.6	947.6	947.6	0.0
BY	60,395	35	52	2.0	0	947.7	947.7	947.7	0.0
BZ	60,890	291	150	0.7	0	948.5	948.5	948.5	0.0

¹Feet above confluence with Bark River

TABLE 7

FEDERAL EMERGENCY MANAGEMENT AGENCY
WAUKESHA COUNTY, WI
 AND INCORPORATED AREAS

FLOODWAY DATA

SCUPPERNONG CREEK

FLOODING SOURCE		FLOODWAY				1-PERCENT-ANNUAL-CHANCE FLOOD WATER SURFACE ELEVATION (FEET NAVD88)			
CROSS SECTION	DISTANCE ¹	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	WIDTH REDUCED FROM PRIOR STUDY (FEET)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
SCUPPERNONG CREEK (continued)									
CA	61,659	274	166	0.6	0	949.4	949.4	949.4	0.0
CB	62,331	181	165	0.8	0	950.5	950.5	950.5	0.0
CC	62,765	37	98	1.5	0	951.1	951.1	951.1	0.0
CD	62,953	127	1,235	0.3	0	954.1	954.1	954.1	0.0
CE	63,316	431	772	0.1	0	954.1	954.1	954.1	0.0
CF	64,472	22	44	2.4	0	954.8	954.8	954.8	0.0
CG	65,552	21	40	2.6	0	957.5	957.5	957.5	0.0
CH	66,557	20	40	2.7	0	960.4	960.4	960.4	0.0
CI	67,064	16	31	3.4	0	962.6	962.6	962.6	0.0
CJ	67,434	16	39	1.5	0	963.3	963.3	963.3	0.0
CK	67,703	23	42	1.4	0	963.5	963.5	963.5	0.0
CL	67,797	35	75	0.8	0	964.6	964.6	964.6	0.0
CM	68,284	19	52	1.4	0	964.7	964.7	964.7	0.0
CN	68,486	25	42	1.4	0	964.9	964.9	964.9	0.0
CO	68,528	20	58	1.0	0	965.6	965.6	965.6	0.0
CP	68,956	18	44	2.0	0	965.9	965.9	965.9	0.0
CQ	69,474	13	21	2.8	0	967.7	967.7	967.7	0.0
CR	69,644	83	57	1.1	0	968.7	968.7	968.7	0.0
CS	69,809	21	29	2.1	0	969.1	969.1	969.1	0.0
CT	70,300	45	70	1.0	0	970.0	970.0	970.0	0.0
CU	70,584	17	14	2.3	0	971.8	971.8	971.8	0.0
CV	70,622	22	28	1.2	0	972.4	972.4	972.4	0.0
CW	70,898	20	19	1.7	0	973.0	973.0	973.0	0.0
CX	71,281	29	76	2.2	0	976.0	976.0	976.0	0.0
CY	71,638	18	13	2.5	0	979.0	979.0	979.0	0.0
CZ	71,932	20	12	2.6	0	982.6	982.6	982.6	0.0

¹Feet above confluence with Bark River

TABLE 7

FEDERAL EMERGENCY MANAGEMENT AGENCY
WAUKESHA COUNTY, WI
 AND INCORPORATED AREAS

FLOODWAY DATA

SCUPPERNONG CREEK

FLOODING SOURCE		FLOODWAY				1-PERCENT-ANNUAL-CHANCE FLOOD WATER SURFACE ELEVATION (FEET NAVD88)			
CROSS SECTION	DISTANCE ¹	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	WIDTH REDUCED FROM PRIOR STUDY (FEET)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
SCUPPERNONG CREEK USH 18 DIVERSION									
A	66	30	16	4.2	0	918.5	918.5	918.5	0.0
B	372	17	16	5.1	0	925.9	925.9	925.9	0.0
C	675	15	17	4.0	0	928.7	928.7	928.7	0.0
D	978	13	12	5.5	0	931.8	931.8	931.8	0.0
E	1,270	34	17	4.0	0	940.0	940.0	940.0	0.0
F	1,402	91	313	0.2	0	944.6	944.6	944.6	0.0

¹Feet above confluence with Scuppernong Creek

TABLE 7	FEDERAL EMERGENCY MANAGEMENT AGENCY WAUKESHA COUNTY, WI AND INCORPORATED AREAS	FLOODWAY DATA
		SCUPPERNONG CREEK USH 18 DIVERSION

FLOODING SOURCE		FLOODWAY				1-PERCENT-ANNUAL-CHANCE FLOOD WATER SURFACE ELEVATION (FEET NAVD88)			
CROSS SECTION	DISTANCE	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	WIDTH REDUCED FROM PRIOR STUDY (FEET)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
SOUTH 130TH STREET TRIBUTARY									
A	67 ¹	170	369	0.7	0	764.3	764.3	764.3	0.0
B	345 ¹	36	115	2.2	120	765.0	765.0	765.0	0.0
C	423 ¹	55	129	1.9	0	766.2	766.2	766.2	0.0
D	734 ¹	110	126	2.0	0	767.6	767.6	767.6	0.0
E	932 ¹	97	103	2.4	0	771.1	771.1	771.1	0.0
F	1,285 ¹	69	113	2.2	0	773.7	773.7	773.7	0.0
G	1,529 ¹	30	50	5.0	0	776.1	776.1	776.1	0.0
H	1,755 ¹	95	118	2.1	0	778.1	778.1	778.1	0.0
I	2,014 ¹	73	86	2.9	0	782.5	782.5	782.5	0.0
SOUTH BRANCH UNDERWOOD CREEK									
A	481 ²	127	481	5.5	0	719.7	719.7	719.7	0.0
B	711 ²	102	584	5.7	0	720.0	720.0	720.0	0.0
C	823 ²	112	499	5.6	0	720.2	720.2	720.2	0.0
D	1,774 ²	165	532	5.0	0	721.3	721.3	721.3	0.0
E	2,774 ²	78	436	6.0	0	722.4	722.4	722.4	0.0

¹Feet above confluence with West Branch Root River

²Feet above mouth

TABLE 7	FEDERAL EMERGENCY MANAGEMENT AGENCY WAUKESHA COUNTY, WI AND INCORPORATED AREAS	FLOODWAY DATA
		SOUTH 130TH STREET TRIBUTARY - SOUTH BRANCH UNDERWOOD CREEK

FLOODING SOURCE		FLOODWAY				1-PERCENT-ANNUAL-CHANCE FLOOD WATER SURFACE ELEVATION (FEET NAVD88)			
CROSS SECTION	DISTANCE ¹	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	WIDTH REDUCED FROM PRIOR STUDY (FEET)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
SOUTH BRANCH SUSSEX CREEK									
BS	42,608	266	322	1.3	0	939.4	939.4	939.4	0.0
BT	43,311	34	523	2.3	0	940.3	940.3	940.3	0.0
BU	43,364	44	508	2.0	0	940.4	940.4	940.4	0.0
BV	44,310	34	223	1.7	0	941.3	941.3	941.3	0.0
BW	44,433	15	687	2.8	0	941.9	941.9	941.9	0.0
BX	45,400	33	138	2.4	0	942.2	942.2	942.2	0.0
BY	46,255	268	1,381	0.5	0	942.4	942.4	942.4	0.0
BZ	46,363	425	6,657	0.3	0	944.9	944.9	944.9	0.0
CA	47,273	1,418	6,148	0.1	0	945.0	945.0	945.0	0.0
CB	47,336	1,613	7,978	0.1	0	945.0	945.0	945.0	0.0
CC	48,238	1,254	6,855	0.1	0	945.0	945.0	945.0	0.0
CD	48,961	730	3,781	0.3	0	945.0	945.0	945.0	0.0
CE	49,606	254	1,386	0.9	0	945.0	945.0	945.0	0.0
CF	50,178	33	117	5.4	0	944.9	944.9	944.9	0.0
CG	50,281	123	862	1.7	0	947.9	947.9	947.9	0.0
CH	51,209	287	1,302	0.9	0	948.0	948.0	948.0	0.0
CI	51,548	105	281	3.8	0	948.2	948.2	948.2	0.0
CJ	51,745	51	104	5.9	0	949.2	949.2	949.2	0.0
CK	54,797	31	105	5.5	0	952.3	952.3	952.3	0.0
CL	52,377	28	2,293	3.5	0	952.7	952.7	952.7	0.0
CM	52,439	20	491	4.5	0	954.8	954.8	954.8	0.0
CN	52,892	14	708	3.0	0	957.1	957.1	957.1	0.0
CO	53,237	8	32	5.4	0	959.5	959.5	959.5	0.0
CP	53,586	6	31	6.9	0	961.5	961.5	961.5	0.0
CQ	54,187	27	99	3.0	0	963.2	963.2	963.2	0.0

¹Feet above confluence with Fox River

TABLE 7

FEDERAL EMERGENCY MANAGEMENT AGENCY
WAUKESHA COUNTY, WI
 AND INCORPORATED AREAS

FLOODWAY DATA

SOUTH BRANCH SUSSEX CREEK

FLOODING SOURCE		FLOODWAY				1-PERCENT-ANNUAL-CHANCE FLOOD WATER SURFACE ELEVATION (FEET NAVD88)			
CROSS SECTION	DISTANCE ¹	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	WIDTH REDUCED FROM PRIOR STUDY (FEET)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
SOUTH BRANCH SUSSEX CREEK (continued)									
CR	54,714	89	928	2.3	0	966.3	966.3	966.3	0.0
CS	55,020	22	1,944	4.9	0	973.1	973.1	973.1	0.0
CT	55,094	27	1,104	5.3	0	975.6	975.6	975.6	0.0
CU	55,486	25	3,671	1.9	0	988.5	988.5	988.5	0.0
CV	56,024	17	109	6.4	0	999.2	999.2	999.2	0.0
CW	56,230	21	27	5.6	0	1,001.5	1,001.5	1,001.5	0.0
CX	56,324	20	32	4.6	0	1,004.6	1,004.6	1,004.6	0.0
CY	56,991	24	59	3.1	0	1,011.4	1,011.4	1,011.4	0.0
CZ	57,103	15	22	6.9	0	1,012.6	1,012.6	1,012.6	0.0
DA	57,134	30	141	1.6	0	1,012.8	1,012.8	1,012.8	0.0
DB	57,691	18	312	5.4	0	1,016.0	1,016.0	1,016.0	0.0
DC	58,086	11	20	7.5	0	1,018.0	1,018.0	1,018.0	0.0
DD	58,118	33	224	2.4	0	1,020.6	1,020.6	1,020.6	0.0
DE	58,482	48	37	4.0	0	1,024.8	1,024.8	1,024.8	0.0
DF	58,628	19	159	6.3	0	1,029.2	1,029.2	1,029.2	0.0
DG	58,832	45	34	4.4	0	1,032.2	1,032.2	1,032.2	0.0
DH	59,197	28	45	5.3	0	1,039.6	1,039.6	1,039.6	0.0
DI	59,696	36	206	1.0	0	1,040.9	1,040.9	1,040.9	0.0
DJ	60,669	24	59	3.1	0	1,043.1	1,043.1	1,043.1	0.0

¹Feet above confluence with Fox River

TABLE 7

FEDERAL EMERGENCY MANAGEMENT AGENCY
WAUKESHA COUNTY, WI
 AND INCORPORATED AREAS

FLOODWAY DATA

SOUTH BRANCH SUSSEX CREEK

FLOODING SOURCE		FLOODWAY				1-PERCENT-ANNUAL-CHANCE FLOOD WATER SURFACE ELEVATION (FEET NAVD88)			
CROSS SECTION	DISTANCE ¹	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	WIDTH REDUCED FROM PRIOR STUDY (FEET)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
SOUTH TRIBUTARY TO SCUPPERNONG CREEK									
A	252	171	310	0.7	0	868.7	867.7 ²	867.7 ²	0.0
B	665	358	518	0.4	0	868.7	867.8 ²	867.8 ²	0.0
C	1,205	521	1,088	0.3	0	868.7	867.9 ²	867.9 ²	0.0
D	2,246	573	1,362	0.2	0	869.0	869.0	869.0	0.0
E	2,744	615	1,955	0.2	0	869.0	869.0	869.0	0.0
F	3,429	171	779	1.7	0	870.8	870.8	870.8	0.0
G	3,947	194	158	1.6	0	873.3	873.3	873.3	0.0
H	4,507	99	98	2.3	0	877.8	877.8	877.8	0.0
I	4,823	64	58	3.9	0	881.6	881.6	881.6	0.0
J	5,238	107	229	1.0	0	888.6	888.6	888.6	0.0
K	5,620	193	1,263	1.2	0	889.3	889.3	889.3	0.0
L	5,926	62	144	2.2	0	891.7	891.7	891.7	0.0
M	6,172	18	27	5.8	0	894.3	894.3	894.3	0.0
N	6,410	67	90	1.8	0	896.0	896.0	896.0	0.0
O	6,735	12	26	1.7	0	896.9	896.9	896.9	0.0
P	7,033	12	144	2.2	0	898.3	898.3	898.3	0.0
Q	7,449	16	730	1.9	0	901.1	901.1	901.1	0.0
R	7,860	13	182	1.9	0	903.4	903.4	903.4	0.0
S	8,091	17	6	3.2	0	909.5	909.5	909.5	0.0
T	8,313	9	7	2.8	0	912.1	912.1	912.1	0.0
U	8,567	12	6	2.9	0	916.9	916.9	916.9	0.0
V	8,658	14	6	3.1	0	919.1	919.1	919.1	0.0
W	8,728	24	30	0.6	0	921.3	921.3	921.3	0.0

¹Feet above confluence with Scuppernong Creek

²Elevations without considering backwater effect from Scuppernong Creek

TABLE 7	FEDERAL EMERGENCY MANAGEMENT AGENCY WAUKESHA COUNTY, WI AND INCORPORATED AREAS	FLOODWAY DATA
		SOUTH TRIBUTARY TO SCUPPERNONG CREEK

FLOODING SOURCE		FLOODWAY				1-PERCENT-ANNUAL-CHANCE FLOOD WATER SURFACE ELEVATION (FEET NAVD88)			
CROSS SECTION	DISTANCE ¹	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	WIDTH REDUCED FROM PRIOR STUDY (FEET)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
SUSSEX CREEK									
A	5,924	25	2,723	9.2	0	830.5	830.5	830.5	0.0
B	6,758	178	4,250	1.3	0	832.4	832.4	832.4	0.0
C	7,684	125	895	4.9	0	832.7	832.7	832.7	0.0
D	7,844	106	1,017	3.6	0	833.9	833.9	833.9	0.0
E	8,163	36	395	5.1	0	834.3	834.3	834.3	0.0
F	8,245	37	281	4.9	0	834.9	834.9	834.9	0.0
G	8,753	111	130	6.0	0	835.7	835.7	835.7	0.0
H	9,412	308	1,312	0.9	0	836.8	836.8	836.8	0.0
I	10,105	376	633	1.2	0	836.9	836.9	836.9	0.0
J	11,056	413	563	1.4	0	837.3	837.3	837.3	0.0
K	11,859	302	384	2.1	0	838.1	838.1	838.1	0.0
L	12,596	22	1,870	6.3	0	840.1	840.1	840.1	0.0
M	12,795	22	1,356	5.4	0	841.4	841.4	841.4	0.0
N	13,672	735	3,499	0.4	0	842.0	842.0	842.0	0.0
O	14,125	998	3,942	0.3	0	842.0	842.0	842.0	0.0
P	14,899	1,037	3,292	0.4	0	842.0	842.0	842.0	0.0
Q	15,652	851	1,528	0.9	0	842.0	842.0	842.0	0.0
R	16,178	518	540	2.7	0	842.1	842.1	842.1	0.0
S	18,336	258	342	2.7	0	846.6	846.6	846.6	0.0
T	19,072	243	333	2.8	0	848.1	848.1	848.1	0.0
U	20,003	372	965	1.5	0	849.1	849.1	849.1	0.0
V	20,689	30	297	8.0	0	851.5	851.5	851.5	0.0
W	20,779	67	3,110	1.7	0	857.6	857.6	857.6	0.0
X	21,783	175	337	3.0	0	857.9	857.9	857.9	0.0
Y	22,178	182	348	3.5	0	859.4	859.4	859.4	0.0
Z	22,297	135	349	5.7	0	860.7	860.7	860.7	0.0

¹Feet above confluence with Fox River

TABLE 7

FEDERAL EMERGENCY MANAGEMENT AGENCY
WAUKESHA COUNTY, WI
 AND INCORPORATED AREAS

FLOODWAY DATA

SUSSEX CREEK

FLOODING SOURCE		FLOODWAY				1-PERCENT-ANNUAL-CHANCE FLOOD WATER SURFACE ELEVATION (FEET NAVD88)			
CROSS SECTION	DISTANCE ¹	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	WIDTH REDUCED FROM PRIOR STUDY (FEET)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
SUSSEX CREEK (continued)									
AA	23,019	174	219	4.5	0	866.7	866.7	866.7	0.0
AB	23,633	285	311	3.2	0	870.6	870.6	870.6	0.0
AC	24,240	236	484	2.8	0	874.1	874.1	874.1	0.0
AD	24,333	119	257	4.6	0	874.1	874.1	874.1	0.0
AE	24,634	293	358	2.6	0	876.7	876.7	876.7	0.0
AF	24,856	355	698	1.3	0	877.0	877.0	877.0	0.0
AG	25,416	53	237	3.9	0	877.4	877.4	877.4	0.0
AH	25,909	131	631	2.1	0	878.4	878.4	878.4	0.0
AI	26,454	106	362	2.7	0	878.7	878.7	878.7	0.0
AJ	27,177	143	408	2.4	0	879.4	879.4	879.4	0.0
AK	27,798	87	249	3.7	0	880.1	880.1	880.1	0.0
AL	28,576	49	155	7.3	0	885.0	885.0	885.0	0.0
AM	29,170	49	177	5.1	0	888.3	888.3	888.3	0.0
AN	29,791	57	258	4.2	0	889.9	889.9	889.9	0.0
AO	30,414	171	491	2.4	0	890.9	890.9	890.9	0.0
AP	31,042	67	599	3.5	0	891.6	891.6	891.6	0.0
AQ	31,154	104	1,654	2.0	0	893.9	893.9	893.9	0.0
AR	31,690	436	2,405	0.5	0	894.1	894.1	894.1	0.0
AS	32,320	360	1,413	0.7	0	894.1	894.1	894.1	0.0
AT	33,117	49	309	3.3	0	895.8	895.8	895.8	0.0
AU	33,201	46	395	3.3	0	897.0	897.0	897.0	0.0
AV	33,808	305	682	1.1	0	897.4	897.4	897.4	0.0
AW	34,654	47	85	7.5	0	905.7	905.7	905.7	0.0
AX	34,676	62	311	2.7	0	908.3	908.3	908.3	0.0
AY	34,913	49	209	3.1	0	909.2	909.2	909.2	0.0
AZ	35,013	74	235	2.7	0	909.6	909.6	909.6	0.0

¹Feet above confluence with Fox River

TABLE 7

FEDERAL EMERGENCY MANAGEMENT AGENCY
WAUKESHA COUNTY, WI
 AND INCORPORATED AREAS

FLOODWAY DATA

SUSSEX CREEK

FLOODING SOURCE		FLOODWAY				1-PERCENT-ANNUAL-CHANCE FLOOD WATER SURFACE ELEVATION (FEET NAVD88)			
CROSS SECTION	DISTANCE ¹	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	WIDTH REDUCED FROM PRIOR STUDY (FEET)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
SUSSEX CREEK (continued)									
BA	35,159	95	122	5.8	0	911.2	911.2	911.2	0.0
BB	35,451	39	799	7.5	0	914.9	914.9	914.9	0.0
BC	35,509	57	1,177	3.4	0	916.6	916.6	916.6	0.0
BD	35,727	21	66	9.7	0	918.9	918.9	918.9	0.0
BE	35,838	34	556	4.5	0	922.7	922.7	922.7	0.0
BF	35,927	23	474	4.8	0	923.1	923.1	923.1	0.0
BG	36,137	42	241	3.0	0	923.7	923.7	923.7	0.0
BH	36,708	24	930	3.0	0	929.9	929.9	929.9	0.0
BI	37,142	149	851	0.7	0	930.1	930.1	930.1	0.0
BJ	37,970	61	232	3.5	0	930.6	930.6	930.6	0.0
BK	38,015	56	340	2.7	0	931.6	931.6	931.6	0.0
BL	38,451	27	87	7.1	0	933.7	933.7	933.7	0.0
BM	38,536	32	115	5.5	0	935.5	935.5	935.5	0.0
BN	39,187	123	496	1.9	0	936.9	936.9	936.9	0.0
BO	39,223	123	592	1.8	0	937.0	937.0	937.0	0.0
BP	39,951	109	643	1.6	0	937.3	937.3	937.3	0.0
BQ	40,787	569	2,440	0.3	0	937.4	937.4	937.4	0.0
BR	41,697	382	340	2.5	0	937.8	937.8	937.8	0.0

¹Feet above confluence with Fox River

TABLE 7

FEDERAL EMERGENCY MANAGEMENT AGENCY
WAUKESHA COUNTY, WI
 AND INCORPORATED AREAS

FLOODWAY DATA

SUSSEX CREEK

FLOODING SOURCE		FLOODWAY				1-PERCENT-ANNUAL-CHANCE FLOOD WATER SURFACE ELEVATION (FEET NAVD88)			
CROSS SECTION	DISTANCE ¹	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	WIDTH REDUCED FROM PRIOR STUDY (FEET)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
SUSSEX CREEK TRIBUTARY 1									
A	2,243	344	347	1.7	0	829.0	829.0	829.0	0.0
B	2,468	345	370	1.6	0	829.4	829.4	829.4	0.0
C	3,066	339	630	1.6	0	830.0	830.0	830.0	0.0
D	4,055	103	198	3.4	0	831.7	831.7	831.7	0.0
E	4,802	65	203	4.9	0	835.9	835.9	835.9	0.0
F	5,457	202	255	2.4	0	839.4	839.4	839.4	0.0
G	6,096	237	283	2.1	0	841.5	841.5	841.5	0.0
H	6,855	216	267	2.4	0	842.9	842.9	842.9	0.0
I	6,903	238	892	1.2	0	845.0	845.0	845.0	0.0
J	7,762	98	226	3.3	0	846.2	846.2	846.2	0.0
K	8,030	56	132	6.5	0	848.4	848.4	848.4	0.0
L	8,805	353	453	1.5	0	851.1	851.1	851.1	0.0
M	9,643	9	288	12.8	0	853.3	853.3	853.3	0.0
N	9,879	293	3,908	0.2	0	859.0	859.0	859.0	0.0

¹Feet above confluence with Sussex Creek

TABLE 7

FEDERAL EMERGENCY MANAGEMENT AGENCY
WAUKESHA COUNTY, WI
 AND INCORPORATED AREAS

FLOODWAY DATA

SUSSEX CREEK TRIBUTARY 1

FLOODING SOURCE		FLOODWAY				1-PERCENT-ANNUAL-CHANCE FLOOD WATER SURFACE ELEVATION (FEET NAVD88)			
CROSS SECTION	DISTANCE ¹	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	WIDTH REDUCED FROM PRIOR STUDY (FEET)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
TESS CORNERS CREEK									
A	4	121	424	2.4	0	771.5	771.5	771.5	0.0
B	402	433	1,404	0.7	0	771.8	771.8	771.8	0.0
C	977	490	3,062	0.3	0	771.8	771.8	771.8	0.0
D	1,903	745	2,424	0.4	0	771.9	771.9	771.9	0.0
E	2,617	583	1,776	0.4	0	772.0	772.0	772.0	0.0
F	3,381	473	433	1.8	0	772.6	772.6	772.6	0.0
G	4,685	78	313	2.5	40	774.1	774.1	774.1	0.0
H	5,753	14	190	4.1	0	778.4	778.4	778.4	0.0
I	6,527	125	304	2.5	25	780.5	780.5	780.5	0.0
J	7,018	194	442	1.7	160	781.4	781.4	781.4	0.0
K	7,685	45	144	5.3	0	783.8	783.8	783.8	0.0
L	8,423	91	154	5.0	0	788.8	788.8	788.8	0.0
M	8,947	264	562	1.4	0	790.2	790.2	790.2	0.0
N	9,821	221	321	2.4	0	794.1	794.1	794.1	0.0
O	10,489	260	903	0.9	0	794.6	794.6	794.6	0.0
P	11,103	130	327	1.7	0	795.0	795.0	795.0	0.0
Q	11,668	165	153	3.5	0	796.7	796.7	796.7	0.0
R	11,800	180	416	1.3	0	797.8	797.8	797.8	0.0
S	12,287	89	255	2.1	0	799.6	799.6	799.6	0.0
T	12,695	149	70	7.6	0	803.4	803.4	803.4	0.0
U	12,780	92	66	8.0	57	803.9	803.9	803.9	0.0
V	13,778	16	110	5.6	30	805.3	805.3	805.3	0.0
W	14,080	35	89	7.0	0	806.8	806.8	806.8	0.0
X	14,283	37	102	6.1	0	808.1	808.1	808.1	0.0
Y	14,685	83	151	4.1	0	810.0	810.0	810.0	0.0
Z	14,937	120	359	1.7	0	812.8	812.8	812.8	0.0

¹Feet above county boundary

TABLE 7

FEDERAL EMERGENCY MANAGEMENT AGENCY
WAUKESHA COUNTY, WI
 AND INCORPORATED AREAS

FLOODWAY DATA

TESS CORNERS CREEK

FLOODING SOURCE		FLOODWAY				1-PERCENT-ANNUAL-CHANCE FLOOD WATER SURFACE ELEVATION (FEET NAVD88)			
CROSS SECTION	DISTANCE	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	WIDTH REDUCED FROM PRIOR STUDY (FEET)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
TESS CORNERS CREEK (continued) AA	15,259 ¹	9	57	10.9	0	814.9	814.9	814.9	0.0
TESS CORNERS CREEK NORTH BRANCH									
A	1,055 ²	72	65	1.2	0	806.6	806.6	806.6	0.0
B	1,435 ²	82	41	2.0	0	809.4	809.4	809.4	0.0
C	1,970 ²	97	53	1.5	0	815.4	815.4	815.4	0.0
D	2,670 ²	51	28	2.9	0	830.1	830.1	830.1	0.0

¹Feet above county boundary

²Feet above mouth

TABLE 7	FEDERAL EMERGENCY MANAGEMENT AGENCY WAUKESHA COUNTY, WI AND INCORPORATED AREAS	FLOODWAY DATA
		TESS CORNERS CREEK - TESS CORNERS CREEK NORTH BRANCH

FLOODING SOURCE		FLOODWAY				1-PERCENT-ANNUAL-CHANCE FLOOD WATER SURFACE ELEVATION (FEET NAVD88)			
CROSS SECTION	DISTANCE ¹	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	WIDTH REDUCED FROM PRIOR STUDY (FEET)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
TRIBUTARY TO SOUTH BRANCH UNDERWOOD CREEK									
A	6,200	19	63	6.3	0	761.1	761.1	761.1	0.0
B	6,670	107	122	3.3	0	768.2	768.2	768.2	0.0
C	7,110	131	205	2.0	0	771.3	771.3	771.3	0.0
D	7,470	79	78	5.1	0	774.1	774.1	774.1	0.0
E	7,730	92	238	1.7	0	776.1	776.1	776.1	0.0
F	7,890	80	62	6.5	0	780.0	780.0	780.0	0.0
G	8,032	140	295	1.4	0	782.4	782.4	782.4	0.0
H	8,432	116	122	2.9	0	787.0	787.0	787.0	0.0
I	8,744	121	300	1.2	0	795.6	795.6	795.6	0.0
J	9,074	74	99	3.5	0	798.6	798.6	798.6	0.0
K	9,394	82	140	2.5	0	802.3	802.3	802.3	0.0
L	9,634	42	101	3.5	52	804.9	804.9	804.9	0.0
M	9,964	25	51	6.9	0	809.2	809.2	809.2	0.0
N	10,368	39	90	3.3	0	815.7	815.7	815.7	0.0
O	10,578	35	50	6.0	0	817.1	817.1	817.1	0.0
P	10,778	69	198	1.5	0	818.8	818.8	818.8	0.0
Q	10,913	41	68	4.4	0	819.7	819.7	819.7	0.0
R	11,143	37	59	5.1	0	825.3	825.3	825.3	0.0

¹Feet above mouth

TABLE 7

FEDERAL EMERGENCY MANAGEMENT AGENCY
WAUKESHA COUNTY, WI
 AND INCORPORATED AREAS

FLOODWAY DATA

TRIBUTARY TO SOUTH BRANCH UNDERWOOD CREEK

FLOODING SOURCE		FLOODWAY				1-PERCENT-ANNUAL-CHANCE FLOOD WATER SURFACE ELEVATION (FEET NAVD88)			
CROSS SECTION	DISTANCE ¹	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	WIDTH REDUCED FROM PRIOR STUDY (FEET)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
UNDERWOOD CREEK									
A	13,800	50	338	5.0	0	719.3	719.3	719.3	0.0
B	13,913	285	810	2.1	0	723.8	723.8	723.8	0.0
C	14,220	450	1,032	1.6	0	724.3	724.3	724.3	0.0
D	14,540	450	731	2.6	0	724.8	724.8	724.8	0.0
E	14,730	429	209	2.3	0	725.3	725.3	725.3	0.0
F	15,060	290	834	8.0	0	726.5	726.5	726.5	0.0
G	15,260	340	355	2.0	0	729.0	729.0	729.0	0.0
H	16,400	100	249	4.7	0	732.3	732.3	732.3	0.0
I	16,550	100	635	3.3	0	732.8	732.8	732.8	0.0
J	16,680	130	151	1.3	0	734.1	734.1	734.1	0.0
K	17,270	50	73	5.5	0	734.7	734.7	734.7	0.0
L	17,400	30	204	11.3	0	735.1	735.1	735.1	0.0
M	17,600	40	108	4.0	0	736.4	736.4	736.4	0.0
N	18,250	20	79	7.7	0	737.8	737.8	737.8	0.0
O	18,360	22	93	10.4	0	738.1	738.1	738.1	0.0
P	18,470	20	120	8.9	0	738.8	738.8	738.8	0.0
Q	18,640	30	186	6.9	0	739.9	739.9	739.9	0.0
R	18,830	35	434	4.5	0	740.8	740.8	740.8	0.0
S	19,165	125	631	1.9	0	741.7	741.7	741.7	0.0
T	19,485	205	679	1.8	0	741.8	741.8	741.8	0.0
U	19,605	190	762	1.7	0	742.9	742.9	742.9	0.0
V	19,975	230	748	1.5	0	743.0	743.0	743.0	0.0
W	20,095	235	1,708	1.5	0	744.8	744.8	744.8	0.0
X	20,805	570	1,671	0.7	0	744.8	744.8	744.8	0.0
Y	21,925	450	1,006	0.7	0	745.0	745.0	745.0	0.0
Z	23,095	255	350	1.1	0	745.3	745.3	745.3	0.0

¹Feet above mouth

TABLE 7

FEDERAL EMERGENCY MANAGEMENT AGENCY
WAUKESHA COUNTY, WI
 AND INCORPORATED AREAS

FLOODWAY DATA

UNDERWOOD CREEK

FLOODING SOURCE		FLOODWAY				1-PERCENT-ANNUAL-CHANCE FLOOD WATER SURFACE ELEVATION (FEET NAVD88)			
CROSS SECTION	DISTANCE ¹	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	WIDTH REDUCED FROM PRIOR STUDY (FEET)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
UNDERWOOD CREEK (continued)									
AA	23,775	125	401	2.8	0	748.3	748.3	748.3	0.0
AB	23,915	80	337	3.4	0	749.4	749.4	749.4	0.0
AC	24,695	305	1,315	0.9	0	750.2	750.2	750.2	0.0
AD	25,500	220	331	3.4	0	750.5	750.5	750.5	0.0
AE	25,772	340	2,185	0.7	0	751.9	751.9	751.9	0.0
AF	27,387	281	946	1.3	0	752.1	752.1	752.1	0.0
AG	29,227	89	414	4.3	0	753.7	753.7	753.7	0.0
AH	29,476	160	2,704	1.5	0	757.2	757.2	757.2	0.0
AI	29,836	94	1,359	4.2	0	757.6	757.6	757.6	0.0
AJ	29,978	165	552	2.0	0	758.0	758.0	758.0	0.0
AK	31,238	258	346	2.6	0	760.0	760.0	760.0	0.0
AL	32,313	72	180	5.7	0	766.7	766.7	766.7	0.0
AM	32,459	66	174	5.2	0	770.0	770.0	770.0	0.0
AN	32,822	42	63	14.3	0	778.2	778.2	778.2	0.0
AO	32,934	67	544	2.1	0	787.4	787.4	787.4	0.0
AP	33,459	53	148	6.1	0	791.9	791.9	791.9	0.0
AQ	33,595	125	513	1.8	0	796.8	796.8	796.8	0.0
AR	34,165	106	249	4.9	0	799.4	799.4	799.4	0.0
AS	34,319	75	854	1.7	0	803.6	803.6	803.6	0.0
AT	35,110	109	189	4.0	0	806.3	806.3	806.3	0.0
AU	35,349	27	80	9.4	0	808.4	808.4	808.4	0.0
AV	35,894	36	89	9.4	0	817.7	817.7	817.7	0.0
AW	35,911	45	345	5.0	0	819.0	819.0	819.0	0.0
AX	36,156	34	110	9.6	0	819.8	819.8	819.8	0.0
AY	36,281	66	279	2.9	0	821.8	821.8	821.8	0.0
AZ	37,616	52	235	3.2	0	822.7	822.7	822.7	0.0

¹Feet above mouth

TABLE 7

FEDERAL EMERGENCY MANAGEMENT AGENCY
WAUKESHA COUNTY, WI
 AND INCORPORATED AREAS

FLOODWAY DATA

UNDERWOOD CREEK

FLOODING SOURCE		FLOODWAY				1-PERCENT-ANNUAL-CHANCE FLOOD WATER SURFACE ELEVATION (FEET NAVD88)			
CROSS SECTION	DISTANCE ¹	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	WIDTH REDUCED FROM PRIOR STUDY (FEET)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
UNDERWOOD CREEK (continued)									
BA	39,076	580	833	0.2	0	823.3	823.3	823.3	0.0
BB	39,108	604	831	0.2	0	823.3	823.3	823.3	0.0
BC	40,368	732	513	0.3	0	823.8	823.8	823.8	0.0
BD	41,414	14	13	6.0	0	824.3	824.3	824.3	0.0

¹Feet above mouth

TABLE 7

FEDERAL EMERGENCY MANAGEMENT AGENCY
WAUKESHA COUNTY, WI
 AND INCORPORATED AREAS

FLOODWAY DATA

UNDERWOOD CREEK

FLOODING SOURCE		FLOODWAY				1-PERCENT-ANNUAL-CHANCE FLOOD WATER SURFACE ELEVATION (FEET NAVD88)			
CROSS SECTION	DISTANCE ¹	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	WIDTH REDUCED FROM PRIOR STUDY (FEET)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
UNNAMED DITCH TO BARK RIVER									
A	93	31	28	3.1	0	956.1	955.3 ²	955.3 ²	0.0
B	1,527	638	437	0.3	0	956.6	956.6	956.6	0.0
C	2,627	1,150	491	0.2	0	956.8	956.8	956.8	0.0
D	3,800	746	444	0.4	0	957.2	957.2	957.2	0.0
E	4,508	38	635	2.4	0	958.0	958.0	958.0	0.0
F	4,582	52	322	1.3	0	958.2	958.2	958.2	0.0
G	4,940	240	215	0.4	0	958.3	958.3	958.3	0.0
H	5,376	20	47	1.8	0	958.6	958.6	958.6	0.0
I	5,876	292	454	0.3	0	959.0	959.0	959.0	0.0
J	6,254	17	257	1.1	0	960.4	960.4	960.4	0.0

¹Feet above confluence with Bark River

²Elevations without considering backwater effect from Bark River

TABLE 7

FEDERAL EMERGENCY MANAGEMENT AGENCY
WAUKESHA COUNTY, WI
 AND INCORPORATED AREAS

FLOODWAY DATA

UNNAMED DITCH TO BARK RIVER

FLOODING SOURCE		FLOODWAY				1-PERCENT-ANNUAL-CHANCE FLOOD WATER SURFACE ELEVATION (FEET NAVD88)			
CROSS SECTION	DISTANCE ¹	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	WIDTH REDUCED FROM PRIOR STUDY (FEET)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
UNNAMED TRIBUTARY TO MUSKEGO CANAL									
A	506	250	187	1.9	34	778.7	778.7	778.7	0.0
B	945	217	436	0.8	116	779.6	779.6	779.6	0.0
C	1,341	31	53	6.6	0	780.6	780.6	780.6	0.0
D	2,063	109	261	1.3	0	784.8	784.8	784.8	0.0
E	2,576	157	423	0.8	46	784.9	784.9	784.9	0.0
F	2,931	80	389	0.9	69	785.0	785.0	785.0	0.0
G	3,288	109	302	1.2	0	785.0	785.0	785.0	0.0
H	3,879	415	295	0.4	0	785.2	785.2	785.2	0.0
I	4,798	515	842	0.4	0	785.3	785.3	785.3	0.0
J	5,372	316	626	0.6	0	785.5	785.5	785.5	0.0
K	5,813	90	66	5.3	0	785.7	785.7	785.7	0.0
L	6,680	57	67	5.2	0	791.0	791.0	791.0	0.0
M	7,208	39	90	3.9	0	795.0	795.0	795.0	0.0
N	7,477	150	73	4.8	0	796.6	796.6	796.6	0.0
O	7,802	300	166	2.1	0	798.5	798.5	798.5	0.0

¹Feet above mouth

TABLE 7

FEDERAL EMERGENCY MANAGEMENT AGENCY
WAUKESHA COUNTY, WI
 AND INCORPORATED AREAS

FLOODWAY DATA

UNNAMED TRIBUTARY TO MUSKEGO CANAL

FLOODING SOURCE		FLOODWAY				1-PERCENT-ANNUAL-CHANCE FLOOD WATER SURFACE ELEVATION (FEET NAVD88)			
CROSS SECTION	DISTANCE	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	WIDTH REDUCED FROM PRIOR STUDY (FEET)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
UNNAMED TRIBUTARY TO LAKE KEESUS									
A	201 ¹	60	123	2.4	0	959.9	959.9	959.9	0.0
B	530 ¹	616	797	0.4	0	960.1	960.1	960.1	0.0
C	1,395 ¹	674	995	0.3	0	960.1	960.1	960.1	0.0
D	2,922 ¹	684	564	0.5	0	960.3	960.3	960.3	0.0
E	3,680 ¹	291	192	1.5	0	967.2	967.2	967.2	0.0
F	4,105 ¹	64	61	4.7	0	979.2	979.2	979.2	0.0
UNNAMED TRIBUTARY TO NORTH LAKE									
A	3,804 ²	221	259	0.2	0	898.3	896.9 ³	896.9 ³	0.0
B	4,254 ²	29	49	1.2	0	898.3	896.9 ³	896.9 ³	0.0
C	4,461 ²	109	47	1.3	0	898.3	897.2 ³	897.2 ³	0.0
D	4,775 ²	41	35	1.7	0	898.3	898.2 ³	898.2 ³	0.0
E	4,935 ²	68	133	0.5	0	900.8	900.8	900.8	0.0
F	5,274 ²	457	956	0.1	0	900.8	900.8	900.8	0.0

¹Feet above mouth at Lake Keesus

³Elevations without considering backwater effect from Oconomowoc River

²Feet above confluence with Oconomowoc River

TABLE 7	FEDERAL EMERGENCY MANAGEMENT AGENCY WAUKESHA COUNTY, WI AND INCORPORATED AREAS	FLOODWAY DATA
		UNNAMED TRIBUTARY TO LAKE KEESUS - UNNAMED TRIBUTARY TO NORTH LAKE

FLOODING SOURCE		FLOODWAY				1-PERCENT-ANNUAL-CHANCE FLOOD WATER SURFACE ELEVATION (FEET NAVD88)			
CROSS SECTION	DISTANCE ¹	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	WIDTH REDUCED FROM PRIOR STUDY (FEET)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
UPPER KELLY LAKE TRIBUTARY									
A	329	212	136	3.7	0	809.0	808.4 ²	808.4 ²	0.0
B	695	65	197	2.5	28	809.8	809.8	809.8	0.0
C	1,018	69	102	4.9	0	811.4	811.4	811.4	0.0
D	1,256	52	119	4.2	35	814.4	814.4	814.4	0.0
E	1,861	69	346	1.4	0	818.9	818.9	818.9	0.0
F	2,227	35	82	6.1	0	819.7	819.7	819.7	0.0
G	2,686	63	159	2.8	0	824.6	824.6	824.6	0.0
H	2,990	41	127	3.5	31	826.1	826.1	826.1	0.0
I	3,320	56	94	4.8	0	829.1	829.1	829.1	0.0
J	3,751	60	136	3.3	0	834.2	834.2	834.2	0.0
K	4,046	53	168	2.7	0	836.6	836.6	836.6	0.0
L	4,481	55	121	2.5	0	843.0	843.0	843.0	0.0
M	4,768	42	146	2.1	0	843.4	843.4	843.4	0.0
N	4,998	46	76	3.9	0	843.8	843.8	843.8	0.0
O	5,242	25	64	4.7	0	844.7	844.7	844.7	0.0
P	5,666	25	213	1.4	75	847.8	847.8	847.8	0.0
Q	6,177	12	41	7.3	0	849.2	849.2	849.2	0.0
R	6,495	15	99	3.0	54	851.7	851.7	851.7	0.0
S	6,803	14	90	2.9	82	853.4	853.4	853.4	0.0
T	7,153	27	66	3.9	0	854.7	854.7	854.7	0.0

¹Feet above mouth

²Elevations without considering backwater effect from Upper Kelly Lake

TABLE 7

FEDERAL EMERGENCY MANAGEMENT AGENCY
WAUKESHA COUNTY, WI
 AND INCORPORATED AREAS

FLOODWAY DATA

UPPER KELLY LAKE TRIBUTARY

FLOODING SOURCE		FLOODWAY				1-PERCENT-ANNUAL-CHANCE FLOOD WATER SURFACE ELEVATION (FEET NAVD88)			
CROSS SECTION	DISTANCE ¹	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	WIDTH REDUCED FROM PRIOR STUDY (FEET)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
WEST BRANCH PEWAUKEE LAKE TRIBUTARY									
A	304	487	2,602	0.3	435	860.9	860.9	860.9	0.0
B	604	692	1,538	0.5	96	860.0	860.0	860.0	0.0
C	1,754	496	880	0.9	0	861.0	861.0	861.0	0.0

¹Feet above Pewaukee Lake Tributary

TABLE 7	FEDERAL EMERGENCY MANAGEMENT AGENCY WAUKESHA COUNTY, WI AND INCORPORATED AREAS	FLOODWAY DATA
		WEST BRANCH PEWAUKEE LAKE TRIBUTARY

FLOODING SOURCE		FLOODWAY				1-PERCENT-ANNUAL-CHANCE FLOOD WATER SURFACE ELEVATION (FEET NAVD88)			
CROSS SECTION	DISTANCE ¹	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	WIDTH REDUCED FROM PRIOR STUDY (FEET)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
WEST BRANCH ROOT RIVER									
A	11	70	271	3.5	0	751.0	751.0	751.0	0.0
B	332	81	178	5.4	0	752.7	752.7	752.7	0.0
C	654	121	390	2.5	0	754.8	754.8	754.8	0.0
D	943	45	695	1.4	95	757.5	757.5	757.5	0.0
E	1,205	187	491	2.0	0	757.7	757.7	757.7	0.0
F	1,556	137	237	4.1	0	759.4	759.4	759.4	0.0
G	2,020	15	130	7.4	0	762.9	762.9	762.9	0.0
H	2,530	54	313	2.1	46	766.0	766.0	766.0	0.0
I	2,700	139	363	1.8	0	767.6	767.6	767.6	0.0
J	3,039	14	272	2.4	63	772.2	772.2	772.2	0.0
K	3,420	168	409	1.6	0	772.7	772.7	772.7	0.0
L	3,749	28	83	6.3	0	778.1	778.1	778.1	0.0
M	4,056	36	292	1.8	99	781.6	781.6	781.6	0.0
N	4,225	148	605	0.9	67	782.1	782.1	782.1	0.0
O	4,682	22	52	7.7	0	785.5	785.5	785.5	0.0
P	4,961	60	104	3.8	0	789.3	789.3	789.3	0.0
Q	5,317	20	121	3.3	67	793.7	793.7	793.7	0.0
R	5,876	20	59	6.8	0	805.5	805.5	805.5	0.0
S	6,387	24	65	6.2	0	810.3	810.3	810.3	0.0
T	6,716	89	158	2.5	0	814.9	814.9	814.9	0.0
U	7,242	33	69	4.7	0	821.3	821.3	821.3	0.0
V	7,479	7	41	7.9	0	826.7	826.7	826.7	0.0

¹Feet above county boundary

TABLE 7

FEDERAL EMERGENCY MANAGEMENT AGENCY
WAUKESHA COUNTY, WI
 AND INCORPORATED AREAS

FLOODWAY DATA

WEST BRANCH ROOT RIVER

FLOODING SOURCE		FLOODWAY				1-PERCENT-ANNUAL-CHANCE FLOOD WATER SURFACE ELEVATION (FEET NAVD88)			
CROSS SECTION	DISTANCE ¹	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	WIDTH REDUCED FROM PRIOR STUDY (FEET)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
WILLOW SPRINGS CREEK									
A	23,455	200	*	*	0	917.9	917.9	917.9	0.0
B	24,697	300	*	*	0	921.6	921.6	921.6	0.0
C	26,119	200	*	*	0	926.6	926.6	926.6	0.0
D	27,851	6	*	*	54	939.6	939.6	939.6	0.0

¹Feet above confluence with Fox River

* Data not available

TABLE 7

FEDERAL EMERGENCY MANAGEMENT AGENCY
WAUKESHA COUNTY, WI
 AND INCORPORATED AREAS

FLOODWAY DATA

WILLOW SPRINGS CREEK

5.0 INSURANCE APPLICATION

For flood insurance rating purposes, flood insurance zone designations are assigned to a community based on the results of the engineering analyses. These zones are as follows:

Zone A

Zone A is the flood insurance rate zone that corresponds to the 1-percent-annual-chance floodplains that are determined in the FIS report by approximate methods. Because detailed hydraulic analyses are not performed for such areas, no base (1-percent-annual-chance) flood elevations (BFEs) or depths are shown within this zone.

Zone AE

Zone AE is the flood insurance rate zone that corresponds to the 1-percent-annual-chance floodplains that are determined in the FIS report by detailed methods. Whole-foot BFEs derived from the detailed hydraulic analyses are shown at selected intervals within this zone.

Zone AH

Zone AH is the flood insurance rate zone that corresponds to areas of 1-percent-annual-chance shallow flooding (usually areas of ponding) where average depths are between 1 and 3 feet. Whole-foot BFEs derived from the detailed hydraulic analyses are shown at selected intervals within this zone.

Zone AO

Zone AO is the flood insurance rate zone that corresponds to areas of 1-percent-annual-chance shallow flooding (usually sheet flow on sloping terrain) where average depths are between 1 and 3 feet. Average whole-foot depths derived from the detailed hydraulic analyses are shown within this zone.

Zone AR

Zone AR is the flood insurance risk zone that corresponds to an area of special flood hazard formerly protected from the base flood event by a flood-control system that was subsequently decertified. Zone AR indicates that the former flood-control system is being restored to provide protection from the 1-percent-annual-chance or greater flood event.

Zone A99

Zone A99 is the flood insurance rate zone that corresponds to areas of the 1-percent-annual-chance floodplain that will be protected by a Federal flood protection system where construction has reached specified statutory milestones. No BFEs or depths are shown within this zone.

Zone V

Zone V is the flood insurance rate zone that corresponds to the 1-percent-annual-chance coastal floodplains that have additional hazards associated with storm waves. Because approximate hydraulic analyses are performed for such areas, no BFEs are shown within this zone.

Zone VE

Zone VE is the flood insurance rate zone that corresponds to the 1-percent-annual-chance coastal floodplains that have additional hazards associated with storm waves. Whole-foot BFEs derived from the detailed hydraulic analyses are shown at selected intervals within this zone.

Zone X

Zone X is the flood insurance rate zone that corresponds to areas outside the 0.2-percent-annual-chance floodplain, areas within the 0.2-percent-annual-chance floodplain, areas of 1-percent-annual-chance flooding where average depths are less than 1 foot, areas of 1-percent-annual-chance flooding where the contributing drainage area is less than 1 square mile (sq. mi.), and areas protected from the base flood by levees. No BFEs or depths are shown within this zone.

6.0 FLOOD INSURANCE RATE MAP

The FIRM is designed for flood insurance and floodplain management applications.

For flood insurance applications, the map designates flood insurance rate zones as described in Section 5.0 and, in the 1-percent-annual-chance floodplains that were studied by detailed methods, shows selected whole-foot BFEs or average depths. Insurance agents use zones and BFEs in conjunction with information on structures and their contents to assign premium rates for flood insurance policies.

For floodplain management applications, the map shows by tints, screens, and symbols, the 1- and 0.2-percent-annual-chance floodplains, floodways, and the locations of selected cross sections used in the hydraulic analyses and floodway computations.

The countywide FIRM presents flooding information for the entire geographic area of Waukesha County. Previously, FIRMs were prepared for each incorporated community and the unincorporated areas of the County identified as flood-prone. This countywide FIRM also includes flood-hazard information that was presented separately on Flood Boundary and Floodway Maps (FBFMs), where applicable. Historical data relating to the maps prepared for each community are presented in Table 8, "Community Map History."

7.0 OTHER STUDIES

FIS's are complete or currently being prepared for: Ozaukee, Washington, Jefferson, Milwaukee, Racine, and Walworth Counties. Preparation of this FIS was compared to existing and/or proposed studies ongoing for these Counties to ensure compatibility with proposed BFE's at each County boundary.

Information pertaining to revised and unrevised flood hazards for each jurisdiction within Waukesha County has been compiled into this FIS. This FIS report either supersedes or is compatible with all previous studies published on streams studied in this report and should be considered authoritative for the purposes of the NFIP.

8.0 LOCATION OF DATA

Information concerning the pertinent data used in the preparation of this study can be obtained by contacting Federal Insurance and Mitigation Division, FEMA Region V, 536 South Clark Street, Sixth Floor, Chicago, IL 60605.

COMMUNITY NAME	INITIAL IDENTIFICATION	FLOOD HAZARD BOUNDARY MAP REVISION DATE(S)	FLOOD INSURANCE RATE MAP EFFECTIVE DATE	FLOOD INSURANCE RATE MAP REVISION DATE(S)
Big Bend, Village of	November 30, 1973	April 16, 1976	March 1, 1984	
Brookfield, City of	November 9, 1973	July 1, 1977	August 19, 1986	
Butler, Village of	October 18, 1974	June 4, 1976	May 15, 1978	
Chenequa, Village of ²	N/A	N/A	N/A	
Delafield, City of	June 7, 1974	October 10, 1975	August 15, 1983	
Dousman, Village of	September 6, 1974	June 11, 1976 February 12, 1982	April 17, 1987	
Eagle, Village of ^{1,2}	N/A	N/A	N/A	
Elm Grove, Village of	December 23, 1977	N/A	July 19, 1982	
Hartland, Village of	November 30, 1973	May 14, 1976 April 15, 1977	December 1, 1982	
Lac La Belle, Village of	January 31, 1975	September 21, 1979	January 18, 1984	
Lannon, Village of	December 28, 1973	May 21, 1976	December 1, 1982	

¹ No Special Flood Hazard Areas Identified

² This community does not have map history prior to the first countywide mapping

TABLE 8

FEDERAL EMERGENCY MANAGEMENT AGENCY

**WAUKESHA COUNTY , WI
AND INCORPORATED AREAS**

COMMUNITY MAP HISTORY

COMMUNITY NAME	INITIAL IDENTIFICATION	FLOOD HAZARD BOUNDARY MAP REVISION DATE(S)	FLOOD INSURANCE RATE MAP EFFECTIVE DATE	FLOOD INSURANCE RATE MAP REVISION DATE(S)
Menomonee Falls, Village of	September 13, 1974	August 27, 1976	September 15, 1978	October 9, 1981
Merton, Village of	December 28, 1973	May 21, 1976	August 3, 1989	
Milwaukee, City of	June 28, 1974	October 15, 1976	March 1, 1982	November 15, 1985 November 19, 1987
Mukwonago, Village of	December 17, 1973	May 28, 1976	July 5, 1982	
Muskego, City of	June 21, 1974	August 6, 1976	December 1, 1982	
Nashotah, Village of ²	N/A	N/A	N/A	
New Berlin, City of	June 21, 1974	September 26, 1975 December 12, 1975	March 18, 1987	July 4, 1988 November 6, 1996
North Prairie, Village of ^{1,2}	N/A	N/A	N/A	
Oconomowoc Lake, Village of	February 2, 1979	N/A	October 16, 1984	
Oconomowoc, City of	May 17, 1974	August 15, 1975	September 1, 1983	

¹ No Special Flood Hazard Areas Identified

² This community does not have map history prior to the first countywide mapping

TABLE 8

FEDERAL EMERGENCY MANAGEMENT AGENCY

**WAUKESHA COUNTY , WI
AND INCORPORATED AREAS**

COMMUNITY MAP HISTORY

COMMUNITY NAME	INITIAL IDENTIFICATION	FLOOD HAZARD BOUNDARY MAP REVISION DATE(S)	FLOOD INSURANCE RATE MAP EFFECTIVE DATE	FLOOD INSURANCE RATE MAP REVISION DATE(S)
Pewaukee, City of ³	June 17, 1977	N/A	August 1, 1983	December 18, 1986
Pewaukee, Village of	March 3, 1976	N/A	June 15, 1982	April 17, 1987
Summit, Village of ³	June 17, 1977	N/A	August 1, 1983	December 18, 1986
Sussex, Village of	April 12, 1974	August 6, 1976 February 26, 1982	June 19, 1989	
Wales, Village of ²	N/A	N/A	N/A	
Waukesha, City of	February 8, 1974	May 28, 1976	September 2, 1982	
Waukesha County (Unincorporated Areas)	June 17, 1977	N/A	August 1, 1983	December 18, 1986

² This community does not have map history prior to the first countywide mapping

³ Dates for this community taken from the Unincorporated Areas of Waukesha County

TABLE 8

FEDERAL EMERGENCY MANAGEMENT AGENCY

**WAUKESHA COUNTY , WI
AND INCORPORATED AREAS**

COMMUNITY MAP HISTORY

9.0 **BIBLIOGRAPHY AND REFERENCES**

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