

**SUMMARY NOTES OF THE MAY 31, 2011 MEETING
OF THE CITY OF MILWAUKEE ALL HAZARDS MITIGATION PLAN
STEERING COMMITTEE**

INTRODUCTION

The third meeting of the City of Milwaukee All Hazards Mitigation Steering Committee was convened at the Frank P. Zeidler Municipal Building, Room 501 at 1:35 p.m. The meeting was called to order by Steven Fronk, Director, City of Milwaukee Office of Emergency Management and Homeland Security and Co-Chairman of the Committee. Attendance was taken by circulating a sign-in sheet.

In attendance at the meeting were the following individuals:

Steven Fronk, Co-Chairman	Director, City of Milwaukee Office of Emergency Management and Homeland Security
Matthew H. Mortwedt, Co-Chairman	Security Operations Manager, City of Milwaukee Department of Public Works
Joseph E. Boxhorn, Secretary	Senior Planner, Southeastern Wisconsin Regional Planning Commission
Steven P. Adams	Public Involvement and Outreach Coordinator, Southeastern Wisconsin Regional Planning Commission
Steven Jacquart	Intergovernmental Coordinator, Milwaukee Metropolitan Sewerage District
Arlyn R. Johnson	Assistant Village Manager and Director of Public Works, Village of Menomonee Falls
Laura L. Kletti	Principal Engineer, Southeastern Wisconsin Regional Planning Commission
James H. Ley	Battalion Chief, Milwaukee Fire Department and Office of Homeland Security
Doreen Martinez	Director, American Red Cross of Southeastern Wisconsin
Aaron W. Owens	Research Analyst, Southeastern Wisconsin Regional Planning Commission
Edward A. Richardson	Principal Planner, Milwaukee Department of City Development
Julie Schneider	Transit Security Planning Coordinator, Milwaukee County Transit System
Matt Schuenke	Assistant Village Manager, Village of Whitefish Bay
Timothy J. Thur	Chief Sewer Design Manager, City of Milwaukee Department of Public Works

Mr. Fronk noted that there were several people in attendance who were not at the last meeting and asked everyone to introduce themselves.

**REVIEW OF SUMMARY NOTES OF THE
APRIL 26, 2011, STEERING COMMITTEE MEETING**

At the request of Mr. Fronk, Mr. Boxhorn reviewed the Summary Notes from the April 26, 2011 meeting of the Steering Committee. Mr. Boxhorn stated that after the April 26 meeting, the Commission staff received several pieces of information from Mr. Thur. He explained that these were received after the Summary Notes for the meeting were completed. He indicated that Mr. Thur's comments would be documented and addressed in the Summary Notes for the May 31, 2011 meeting. Mr. Boxhorn asked if there were any comments, corrections or additions to the summary notes. None were offered. The Steering Committee approved the April 26, 2011 Summary Notes by consensus.

REVIEW OF PRELIMINARY DRAFT CHAPTER V, “HAZARD MITIGATION STRATEGIES”, OF SEWRPC COMMUNITY ASSISTANCE PLANNING REPORT NO. 282 (CAPR NO. 282), 2ND EDITION, CITY OF MILWAUKEE ALL HAZARDS MITIGATION PLAN UPDATE: 2011-2015

At Mr. Mortwedt’s request, Mr. Boxhorn reviewed the preliminary draft of Chapter V, “Hazard Mitigation Strategies.”

[Secretary’s Note: Mr. Boxhorn’s presentation is attached hereto as Exhibit A.]

Mr. Boxhorn introduced Laura Kletti of the SEWRPC staff. At Mr. Boxhorn’s request, Ms. Kletti reviewed the sections of the chapter related to plan components addressing flooding and associated stormwater drainage problems. She stated that the projects to mitigate flood-related damage have been updated in the chapter. She explained that this includes indicating projects that have been completed and updating the estimated costs of remaining projects to reflect 2010 amounts. She noted that the maps in the chapter have been redrawn and updated.

Ms. Kletti drew the Committee’s attention to the Kinnickinnic River concrete removal project described on page 4 of the draft chapter. She indicated that some of the structures that were purchased and demolished as part of the project were not located in the floodplain. She explained that these structures were purchased for construction purposes. Mr. Jacquart noted that this may shift the total number of structures that should be indicated by one or two. Ms. Kletti indicated that the text would be updated to reflect this.

[Secretary’s Note: The text in parentheses in the fifth sentence of the third paragraph on page 4 was deleted.]

Ms. Kletti stated that Commission staff has been seeking information on the Kinnickinnic River streambank stabilization project described on page 5. Mr. Thur stated that the project has been completed. Ms Kletti indicated that the text would be updated.

[Secretary’s Note: The bracketed and bolded text at the end of the third paragraph on page 5 was deleted and the last sentence in the third full paragraph on page 5 was revised to read:

“This project was completed in 2008.”]

In reference to the subsection on the floodland management plan for the Menomonee River watershed described on pages 5 and 6, Ms. Kletti noted that she had confirmed that eight structures were acquired and demolished as part of the Valley Park project. She indicated that the text would be updated.

[Secretary’s Note: The bracketed and bolded text under item 1) in the sixth paragraph on page 5 was deleted. The yellow highlighted text in Table V-3 was also changed to blue highlighting.]

Continuing in the subsection on the floodland management plan for the Menomonee River watershed discussed on pages 5 and 6, Ms. Kletti stated that she had received additional detail on the Western Milwaukee project from MMSD via electronic mail. The text was updated as noted below.

[Secretary’s Note: The text under item 4) in the sixth full paragraph on page 5 was revised to read:

“4) acquisition of approximately 40 acres of riparian land, acquisition and demolition of nine structures, floodplain lowering in two areas, and construction of 4,100 linear feet of berms or floodwalls in western Milwaukee;”

The description of Plan Component No. 2 in Table V-2 was revised to read:

“2. **Acquisition and demolition of nine structures**, floodplain lowering, and construction of **4,100 feet of berms or floodwalls** in the western Milwaukee area”]

Ms. Kletti said that she had received comments from Mr. Thur on the subsection related to the stormwater management element of the plan. She stated that the text would be updated to reflect his comments.

[Secretary’s Note: The last sentence in the seventh paragraph on page 7 was revised to read:

“**The City of Milwaukee should identify specific locations where the major stormwater management system is inadequate to handle the runoff from storms with annual probabilities of occurrence of one percent or greater and prepare stormwater management plans to address those deficiencies.**”]

Ms. Kletti stated that the discussion of basement backwater problems on pages 11 and 12 reflected the situation in 2004 and should be updated. She and Mr. Thur agreed to discuss this issue. She indicated that the text would be updated based upon this discussion.

[Secretary’s Note: The bracketed sentence in the second full paragraph on page 11 was deleted. The last three sentences were also deleted. The sentence below was added at the end of this paragraph:

“**In order to address ongoing inflow and infiltration (I/I) entering sanitary sewers and resulting in basement backups, the City of Milwaukee conducted one pilot project in 2011 and is initiating another pilot project to be conducted in 2011 and 2012. Both projects examine I/I originating from private property sources.**”

The last partial paragraph on page 11, extending into page 12 was deleted and replaced with the following paragraphs:

“**The first pilot project was conducted in early 2011 and involved rehabilitating the plumbing in five city-owned homes in an area near W. Capitol Drive between N. 39th Street and N. 42nd Street. A major goal of this project was to identify the costs and challenges associated with lining sanitary sewer building laterals, disconnecting foundation drains from the sanitary sewer, installing sump pumps, and installing backflow preventers. The average per home cost to disconnect the existing foundation drain and rehabilitate the sanitary sewer lateral was approximately \$14,200. In addition, the project demonstrated several challenges that are expected to be encountered in conducting large-scale projects of this type. These challenges include the potential need for an electrical service upgrade to provide dedicated service for a sump pump, locating areas in basements where a sump pump can be installed, and handling the sump discharge within the property.**

The second pilot project will apply the lessons learned in the first project to the rehabilitation of laterals in an area that has had basement backups in the past and has been identified by the MMSD as being located in a poorly performing sewershed due to high levels of I/I. The area selected consists of 564 properties and is located approximately between W. Center Street, W. Burleigh Street, N. 85th Street, and N. 92nd Street. In 2010, the City completed the rehabilitation of all public sewer mains in this area. The City currently is obtaining permission from the property owners in the project area to inspect their sanitary sewer laterals. Once these inspections are

completed, the City will award a contract to have needed sanitary laterals rehabilitated, disconnect the foundation drains from the sanitary sewer, and install sump pumps. It is anticipated that this project will be completed in 2012.

Flow monitoring is also being conducted as part of the second pilot project to determine how much reduction in I/I was achieved by rehabilitation of the public sewer mains only and to quantify the reduction following the addition of the private property improvements.”]

Mr. Fronk commented that he had heard news reports that the City’s Flooding Study Task Force would be announcing its conclusions today (May 31, 2011). Mr. Thur responded that he felt that this was unlikely. He explained that his understanding was that the Task Force may vote on the contents of their report at their June 10, 2011 meeting.

Ms. Kletti indicated that this completed the review of the sections of the chapter related to plan components addressing flooding and associated stormwater drainage problems. Mr. Boxhorn thanked Ms. Kletti.

Mr. Boxhorn reviewed the section of the chapter related to plan components addressing thunderstorms, high-wind, hail and lightning. The Committee had no questions or comments on this section.

Mr. Boxhorn reviewed the section of the chapter related to plan components addressing tornadoes. Mr. Adams asked whether the recommendations relative to storms address the public’s understanding of what to do in severe storm situations. Mr. Fronk replied that there is always a need for conducting additional outreach. He noted that City staff has been working with the Community Organizations Active in Disaster (COAD) and the faith-based community to further define their roles in this sort of outreach. Ms. Martinez added that the Red Cross has also been conducting outreach. Mr. Fronk acknowledged the need to make more outreach materials available. He noted that the City in collaboration with the Milwaukee Metropolitan Sewerage District (MMSD) is currently developing a video on post-flood mitigation procedures for residents. He explained that this will be available for distribution through a variety of channels including the City’s website. Mr. Boxhorn asked Mr. Fronk whether he could provide a short description of this for inclusion in the report. Mr. Fronk replied that he would provide such a description.

[Secretary’s Note: The following paragraph was added after the third paragraph on page 9:

“The City of Milwaukee Office of Emergency Management, in collaboration with the MMSD and Nechama, a nationally recognized flood response team, is currently in the process of producing a “self-help” video for individuals and business owners who may be affected by future flooding. This video will outline actions to be taken before a flood to reduce the impact of possible flooding. In addition, the video will demonstrate how a homeowner or business owner can conduct mold-remediation efforts in order to reduce long-term property damage and additional financial loss on a structure that has been flooded. The video will be made available for download via the Office of Emergency Management’s website and distributed without charge through community groups and business and faith based organizations.”]

Ms. Schneider asked whether it would be useful to develop a list of safe areas and shelters for buses on the streets to go to during tornado events. Mr. Boxhorn replied that a recommendation to develop such a list could be added to the plan, at the option of the Steering Committee. Ms. Martinez expressed concern that such a recommendation could create exposure to liability, if the sites included on such a list were not adequate as shelters. Messrs. Fronk and Mortwedt commented that they were hesitant to add such a recommendation. After further discussion, the consensus of the Steering Committee was to not add such a recommendation.

There was no further discussion on the section of the chapter related to plan components addressing tornadoes.

Mr. Boxhorn reviewed the section of the chapter related to plan components addressing extreme temperatures. Mr. Ley noted that the Milwaukee Heat Task Force remains active and last met during the week of May 23, 2011. Mr. Boxhorn asked whether the Heat Task Force had issued a 2011 update of its plan of excessive heat conditions. Mr. Ley replied that the 2010 plan remains the current version.

Mr. Boxhorn indicated that the reference to the Heat Steering Committee on page 24 would be changed to Heat Task Force.

[Secretary's Note: The second bullet point on page 24 was revised to read:

“Continue support of the Milwaukee Heat **Task Force**.”]

Ms. Martinez noted that the name of the Citizen Corps of Milwaukee has changed to Southeastern Wisconsin Community Organizations Active in Disaster (COAD). She asked that this be changed in the report. Mr. Boxhorn responded that this would be updated throughout the report.

[Secretary's Note: The last sentence in the first full bullet point on page 17 was revised to read:

“**Community Organizations Active in Disaster (COAD)** may be able to provide assistance in these educational efforts.”

All references in the Chapter to “Citizen Corps of Milwaukee” were changed to “Southeastern Wisconsin COAD.

All references to “Citizen Corps” in the chapter were changed to “COAD.”]

There was no further discussion on the section of the chapter related to plan components addressing extreme temperatures.

Mr. Boxhorn reviewed the section of the chapter related to plan components addressing Lake Michigan coastal hazards. With reference to the new paragraph on page 25, Ms. Kletti explained that FEMA would eventually like to map coastal wave run-up along all of the Lake Michigan shoreline. They are moving slowly on this in order to conduct pilot studies to determine the likely costs that would be associated with this mapping effort.

There was no further discussion on the section of the chapter related to plan components addressing Lake Michigan coastal hazards.

Mr. Boxhorn reviewed the section of the chapter related to plan components addressing winter storms. Mr. Richardson questioned whether this and other plan components should include review of building code requirements as a priority mitigation measure. He explained that the State now requires that local building codes conform to the International Building Code (IBC). He noted that this change occurred since the initial hazard mitigation plan was adopted. Mr. Thur indicated that this is an issue that was discussed at meetings of the City's Flooding Study Task Force. He stated that it is likely to be difficult to get variances from the State code, even to make local code requirements more stringent. He added that it would not hurt to retain the recommendation to review the City's building code as a priority mitigation measure as long as it is understood that such review would not be likely to result in changes. Mr. Boxhorn suggested retaining the recommendation with a footnote explaining the requirement that local building codes in Wisconsin conform to the IBC. He stated that he would seek further explanation of this from the State Department of Commerce and draft such a footnote.

[Secretary's Note: The following footnote was added at the end of the second bullet point at the top of page 17, at the end of the first bullet point on the top of page 21, and at the end of the sixth bullet point on page 30:

"The State Uniform Dwelling Code (UDC) is a Statewide regulation that sets standards for fire safety, structural strength, energy conservation, erosion control, heating, plumbing, and electrical systems, and general health and safety in dwellings constructed or altered after 1980. The UDC applies uniformly throughout the State, and local governments may not adopt a more or less stringent code. Consequently, should review of local ordinances reveal that a change in the building code would be a viable mitigation measure, the City would need to pursue a change in the UDC at the State level."

The following footnote was added at the end of the first bullet point on page 32:

"Ibid."]

There was no further discussion on the section of the chapter related to plan components addressing winter storms.

Mr. Boxhorn reviewed the section of the chapter related to plan components addressing earthquakes. The Committee had no questions or comments on this section.

Mr. Boxhorn reviewed the section of the chapter related to plan components addressing contamination or loss of water supply. Mr. Jacquart stated that it was his understanding that the City had a group that meets periodically on water supply issues. Mr. Boxhorn replied that he had asked the Milwaukee Water Works about this and was told that this group was no longer active.

There was no further discussion on the section of the chapter related to plan components addressing contamination or loss of water supply.

Mr. Boxhorn reviewed the section of the chapter related to plan components addressing hazardous material incidents. The Committee had no questions or comments on this section.

Mr. Boxhorn reviewed the section of the chapter related to plan components addressing public health emergencies. The Committee had no questions or comments on this section.

Mr. Boxhorn reviewed the section of the chapter related to plan components addressing terrorism. Ms. Schneider suggested adding discussion of the Fusion Center to the section on local programs. Mr. Fronk stated that he would provide text for this.

[Secretary's Note: The following paragraph was added after the fifth full paragraph on page 46:

"The Milwaukee Police Department's Intelligence Fusion Center (IFC) was created in 2009 by combining several units from the Milwaukee Police Department, including the Crime Analysis Section and the Southeastern Wisconsin Threat Analysis Center (STAC). State and major urban area fusion centers serve as focal points within the state and local environment for the receipt, analysis, gathering, and sharing of threat-related information between the Federal government and state, local, and private sector partners. Located in states and major urban areas throughout the country, fusion centers are situated to empower front-line law enforcement, public safety, fire service, emergency response, public health, critical infrastructure

and key resources protection, and private sector security personnel to understand local implications of national intelligence, enabling local officials to better protect their communities. Fusion centers provide interdisciplinary expertise and situational awareness to inform decision-making at all levels of government. They conduct analysis and facilitate information sharing while assisting law enforcements and homeland security agencies in preventing, protecting against, and responding to terrorism.”

Mr. Boxhorn reviewed the section of the chapter related to plan components addressing major fire and medical emergency incidents. The Committee had no questions or comments on this section.

Mr. Boxhorn reviewed the section of the chapter related to the hazard risk analysis and prioritization. He explained that two parallel prioritizations had been conducted: One is based on the numbers of fatalities and injuries resulting from each hazard, while the other is based on the amount of property damage caused by each hazard.

Mr. Boxhorn stated that the plan components are summarized in Table V-8, which characterizes costs and benefits for each plan component.

Mr. Boxhorn asked whether there were any additional comments or corrections to Chapter V. None were offered. Mr. Boxhorn indicated that the updated and revised version of Chapter V, “Hazard Mitigation Strategies” will be posted on the SEWRPC website.

REVIEW OF PRELIMINARY DRAFT CHAPTER VI, “PLAN ADOPTION, IMPLEMENTATION, MAINTENANCE, AND REVISION”, OF SEWRPC COMMUNITY ASSISTANCE PLANNING REPORT NO. 282 (CAPR NO. 282), 2ND EDITION, CITY OF MILWAUKEE ALL HAZARDS MITIGATION PLAN UPDATE: 2011-2015

At Mr. Fronk’s request, Mr. Boxhorn reviewed the preliminary draft of Chapter VI, “Plan Adoption, Implementation, Maintenance, and Revision.” Mr. Boxhorn referred the Steering Committee to Table VI-1. He explained that for each priority mitigation measure, this table contains a summary of the costs and benefits that were identified in Chapter V, an estimated schedule for implementation, and identification of departments and agencies responsible for leading implementation. Ms. Kletti added that the implementation schedule for those strategies that are related to flooding was taken mostly from the MMSD’s fiscal plan.

Mr. Boxhorn asked the Steering Committee to review the assignments of departments and agencies responsible for leading implementation in the table and to indicate whether the assignments were appropriate relative to the City’s policies and practices. Mr. Richardson commented that it would more closely reflect the City’s practices if responsibility for razing condemned buildings was assigned to the City’s Department of Neighborhood Services, rather than the Department of Public Works.

[Secretary’s Note: The managing agency in the eighth row on Page 19 was changed from “CMDPW” to “CMNS.”]

Mr. Boxhorn noted that Table VI-1 also identifies potential sources of funding for various plan elements. He indicated that the numbers identifying funding sources refer to sources described in Appendix G. Mr. Fronk asked whether the sources were for fiscal year 2011. Mr. Boxhorn replied that, because funding sources are in constant flux, the table identifies recent programs. He explained that the appendix is intended as a starting point for researching potential funding sources. Mr. Adams commented on the importance of stressing the need for continuity of funding to elected officials.

There was no further discussion regarding Chapter VI.

DISCUSSION REGARDING NOTIFICATION OF ADJACENT COMMUNITIES

Mr. Fronk reported that a letter was sent to representatives of municipalities adjacent to the City of Milwaukee notifying them that the City was updating its hazard mitigation plan and inviting them to participate in the process. He noted that representatives of the Villages of Menomonee Falls and Whitefish Bay were present at this meeting.

[Secretary's Note: A copy of the letter and cover email is included herein as Exhibit B.]

DISCUSSION OF ARRANGEMENTS FOR PUBLIC MEETINGS

Mr. Mortwedt reported that two public information meetings have been scheduled to review the draft updated hazard mitigation plan. He said that the first meeting would be held June 7, 2011, from 1:00 to 3:00 p.m., at the Andersen Lake Tower, 4001 S. 6th Street, Milwaukee, and the second would be held June 7, 2011, from 4:00 to 6:00 p.m., at the Department of Public Works Field Headquarters, 3850 N. 35th Street, Milwaukee. He noted that he had consulted the City Clerk's office regarding notice for the meeting and, as per the instructions from the Clerk's office, copies of the notice were posted in public areas of three City facilities. He added that the notice was also issued as a press release to local news organizations. Mr. Boxhorn commented that he would consult Wisconsin Emergency Management (WEM) to confirm that this notice procedure is sufficient to meet the Federal Emergency Management Agency's (FEMA) requirements.

[Secretary's Note: A copy of the meeting notice is attached herein as Exhibit D. Commission staff consulted WEM and confirmed that this notice will meet FEMA requirements.]

Mr. Fronk indicated that he would forward this notice to the municipalities adjacent to the City of Milwaukee.

[Secretary's Note: Commission staff confirmed that the notice was sent by email to the adjacent municipalities on May 31, 2011.]

Mr. Boxhorn and Mr. Mortwedt reviewed the agenda for the public meetings.

REVIEW OF PLAN APPROVAL AND ADOPTION PROCESS

At Mr. Fronk's request, Mr. Boxhorn reviewed the plan approval and adoption process. Mr. Boxhorn noted that the Steering Committee may ask additional questions and submit additional comments on the draft plan through the comment page on the SEWRPC website or by emailing him directly.

Mr. Boxhorn stated that following the public meetings, the draft plan will be revised to incorporate the revisions requested by the Steering Committee and to address any comments that are submitted during or following the public meetings. This revised version of the plan will be posted on the SEWRPC website for review by the Steering Committee. Following this, he continued, Commission staff will submit the plan on the City's behalf to WEM for review. Following this review, he noted, Commission staff will then make any revisions requested by WEM. After these revisions are made, he stated, Commission staff will resubmit the plan to WEM who will submit it on the City's behalf to FEMA for review and approval. Following this review, he noted, Commission staff will make any revisions requested by FEMA. After this, he concluded, the Common Council will need to formally adopt the plan by resolution.

Mr. Fronk asked what the time frame was for this process. Mr. Boxhorn replied that it is hard to predict how long review will take. He indicated that his intent is to submit the plan to WEM by the end of June 2011. He noted that staff at WEM had indicated to him that they would attempt to expedite their review; however, he did not know

how long it would take FEMA to conduct their review. Mr. Thur commented that after the initial plan expires, any application to FEMA for grant funds would be put on hold until the updated plan was approved.

ADJOURNMENT

There being no further business, the meeting was adjourned by unanimous consent at 3:10 p.m.

REVISIONS MADE BY SEWRPC STAFF TO CHAPTER II OF SEWRPC COMMUNITY ASSISTANCE PLANNING REPORT NO. 282, 2ND EDITION FOLLOWING THE MEETING

After the April 26, 2011 meeting of the Steering Committee, population data for the City of Milwaukee at the census block level from the 2010 census became available. Map II-2, "Population Distribution by Census Block for the City of Milwaukee: 2000" has been updated to reflect 2010 data.

[Secretary's Note: The updated Map II-2, "Population Distribution by Census Block for the City of Milwaukee: 2010" is attached herein as Exhibit C

The last sentence in the last paragraph on page 1, continuing onto page 2, was revised to read as follows:

"The population distribution **by census block in the year 2010** ranges up to more than 2,300 persons per census block, while most of the City of Milwaukee is dominated by densities of 50 to 300 persons, as shown on Map II-2."]

REVISIONS MADE BY SEWRPC STAFF TO CHAPTER III OF SEWRPC COMMUNITY ASSISTANCE PLANNING REPORT NO. 282, 2ND EDITION FOLLOWING THE MEETING

After the May 31, 2011 meeting of the Steering Committee, the Commission staff received data from WEM related to the number of facilities in the City reporting inventories of hazardous materials under the requirements of the Emergency Planning and Community Right-to-Know Act.

[Secretary's Note: The last sentence of the first paragraph on page 40 was revised to read as follows:

"**As of May 2011**, there are **369** facilities in the City of Milwaukee that report their **inventories** of hazardous materials **and 100 facilities that** provide notification that they have an extremely hazardous substance under the requirements of EPCRA."

The footnote at the end of this sentence was retained.]

REVISIONS MADE TO CHAPTERS III AND IV OF SEWRPC COMMUNITY ASSISTANCE PLANNING REPORT NO. 282, 2ND EDITION IN RESPONSE TO CORRESPONDENCE FROM MR. TIMOTHY THUR, CITY OF MILWAUKEE DEPARTMENT OF PUBLIC WORKS

As noted above, following completion of Summary Notes for the April 26, 2011 meeting of the Steering Committee, the Commission staff received additional information for Chapters III and IV from Mr. Thur by electronic mail. A copy of Mr. Thur's email is attached herein as Exhibit E.

Mr. Thur indicated that the Department of Public Works received 12,203 reports of basement backups and flooding as a result of the July 15, 2010 and July 22, 2010 storms.

[Secretary's Note: Data on annual precipitation for General Mitchell International Airport for 2010 were obtained from the National Climatic Data Center. These data and the basement backup data were added to Table III-7. A copy of the revised table is attached herein as Exhibit F. The third and fourth sentences in the third paragraph on page 16 of Chapter III were revised to read:

“From 1999 to 2010, there were a total of 14,622 reported basement backwater problems within the City of Milwaukee ranging up to 12,203 in one year as shown in Table III-7. The greatest number of reported backwater problems occurred in 2010, with all of the incidents being reported during the month of July. Although total annual precipitation during 2010 was only 1.17 inches above average annual precipitation, precipitation for July 2010 was 7.35 inches greater than average July precipitation. In addition, precipitation for the month of June 2010 was 3.37 inches greater than average June precipitation. The second greatest number of reported backwater problems occurred in 2008, when total annual precipitation was about nine inches above normal and precipitation for the month of June was 8.71 inches greater than average June precipitation. Many of these backups were associated with storms that occurred on June 7 and 8, which deposited about 7.18 inches of rainfall at General Mitchell International Airport.”]

Mr. Thur submitted revised language for the recommendation that the City complete its stormwater master planning.

[Secretary's Note: The last sentence in the first partial paragraph on page 17 in Chapter III was revised to read:

“The City of Milwaukee should identify specific locations where the major stormwater management system is inadequate to handle the runoff from storms with annual probabilities of occurrence of one percent or greater and prepare stormwater management plans to address those deficiencies.”]

Relative to stormwater management, Mr. Thur indicated that the City used a 20-percent-annual-probability storm event for the design of storm sewer facilities and a 10-percent-annual-probability storm event for the design of combined sewer facilities.

[Secretary's Note: Standard No. 2 under Objective No. 4 in Table IV-1 was revised to read:

“In order to provide for an acceptable level of access to property and of traffic service, the minor components of the stormwater management system should be designed to accommodate a runoff from a 10-percent-annual-probability storm event in the combined sewer area of the City and a 20-percent-annual-probability storm event in the separate sewer area of the City.”

Standard No. 3 under Objective No. 4 in Table IV-1 was revised to read:

“In order to provide for an acceptable level of access to property and of traffic service, the stormwater management system should be designed to provide two clear 10-foot lanes for moving traffic on existing arterial streets, and one clear 10-foot lane for moving traffic on existing collector and land access streets during storm events up to and including the 10-percent-annual-probability event in the combined sewer

area of the City and a 20-percent-annual-probability event in the separate sewer area of the City.

Standard No. 4 under Objective No. 4 in Table IV-1 was revised to read:

“Flow of stormwater along and across the full pavement width of collector and land access streets shall be acceptable during storm events exceeding a 10-percent-annual-probability event **in the combined sewer area of the City and a 20-percent-annual-probability event in the separate sewer area of the City** when the streets are intended to constitute integral parts of the major stormwater drainage system.”]

Respectfully Submitted,

Joseph E. Boxhorn
Secretary

#157487 V1 - CAPR-282-2ED SUMMARY NOTES 05/31/11
330-3027
MGH/LLK/JEB/pk
06/21/11

Exhibit A

CITY OF MILWAUKEE ALL HAZARD MITIGATION STEERING COMMITTEE

May 31, 2011

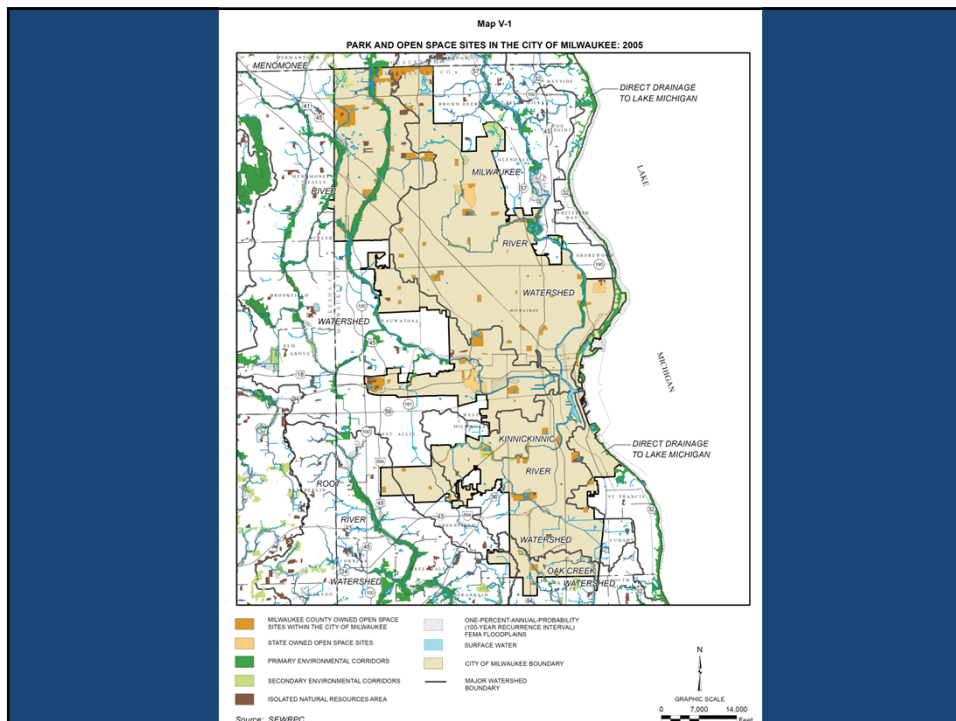


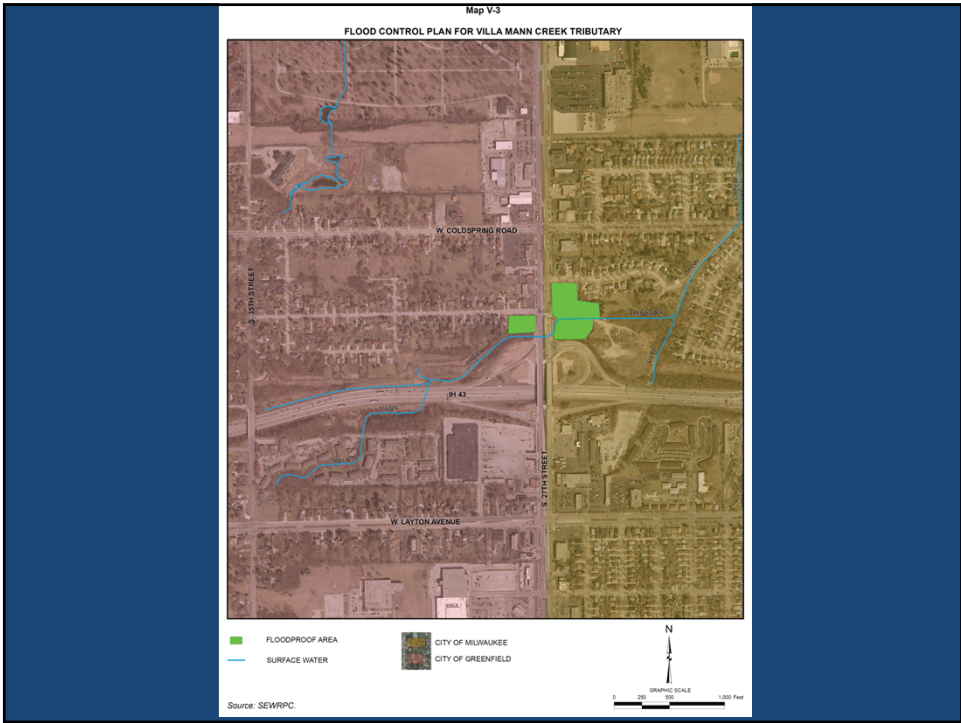
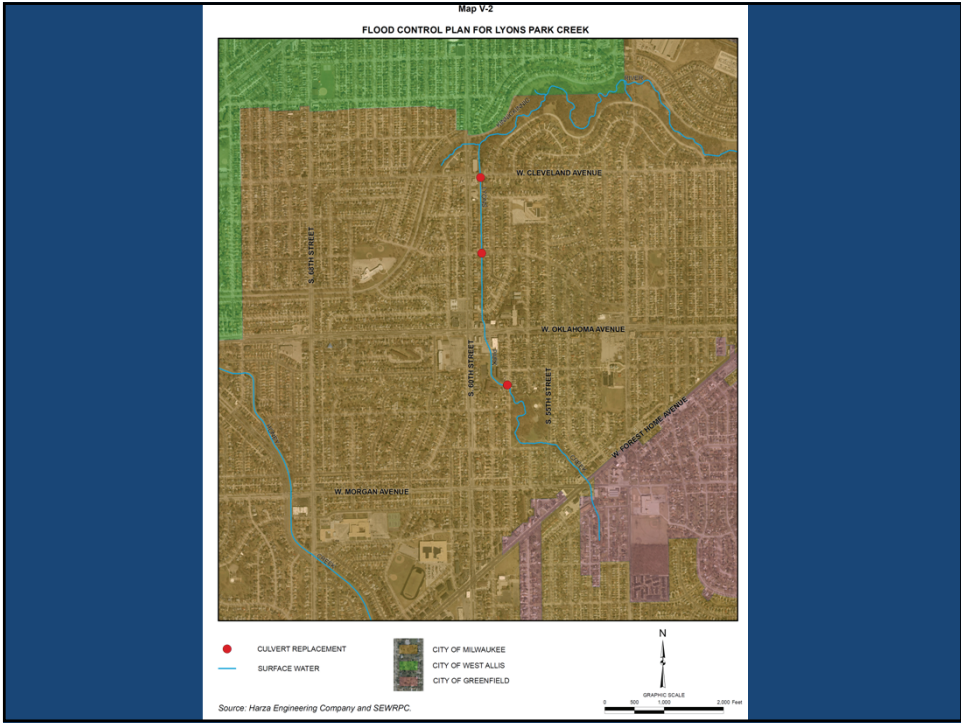
DOCS #157387

CHAPTER 5: HAZARD MITIGATION STRATEGIES

General Scheme of Presentation in Chapter V

- Identification of alternative mitigation strategies
- Review of current programs
 - Federal and State
 - Local
- Evaluation of alternatives and identification of mitigation actions
- Priority mitigation actions





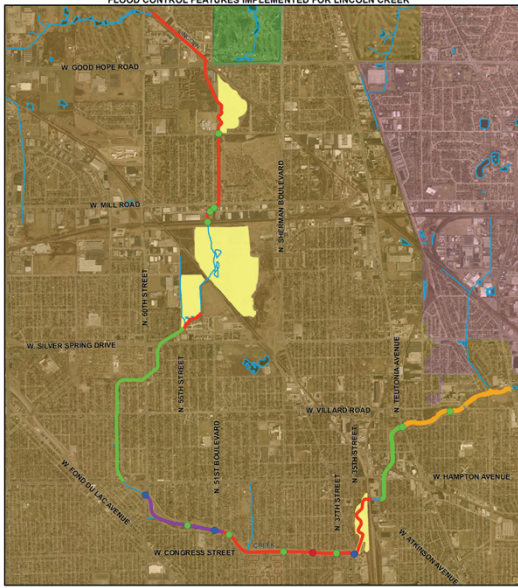
Map V-6
 FLOOD CONTROL FEATURE IMPLEMENTED FOR THE LITTLE MEMONEE RIVER



■ ONE STRUCTURE ACQUIRED AND DEMOLISHED
— SURFACE WATER
 CITY OF MILWAUKEE
 CITY OF MEQUON
 N
 GRAPHIC SCALE
 0 500 1000 Feet

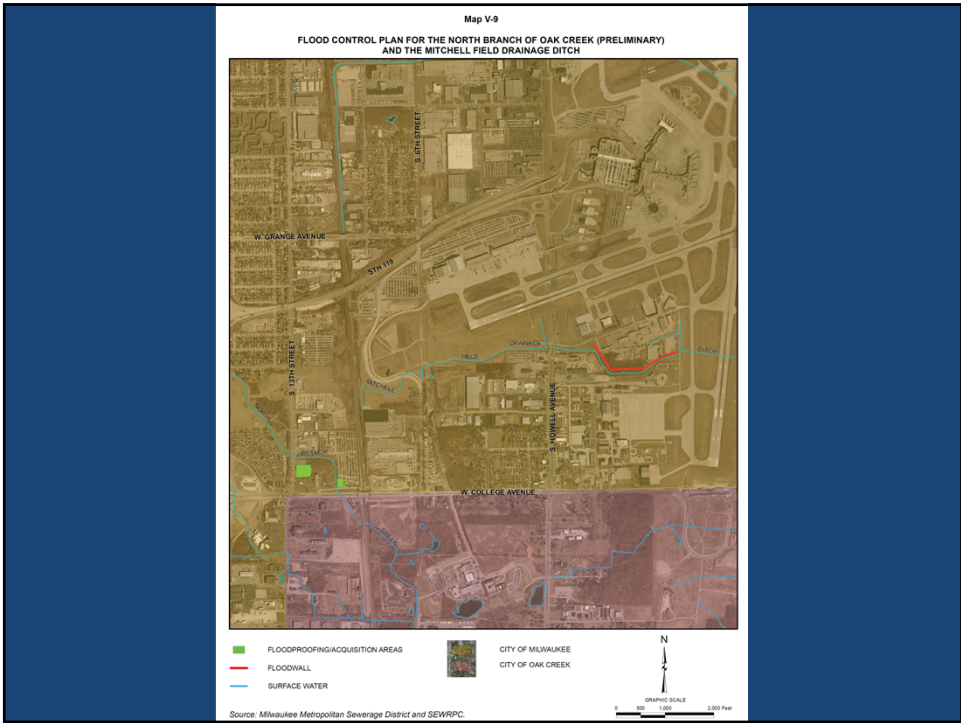
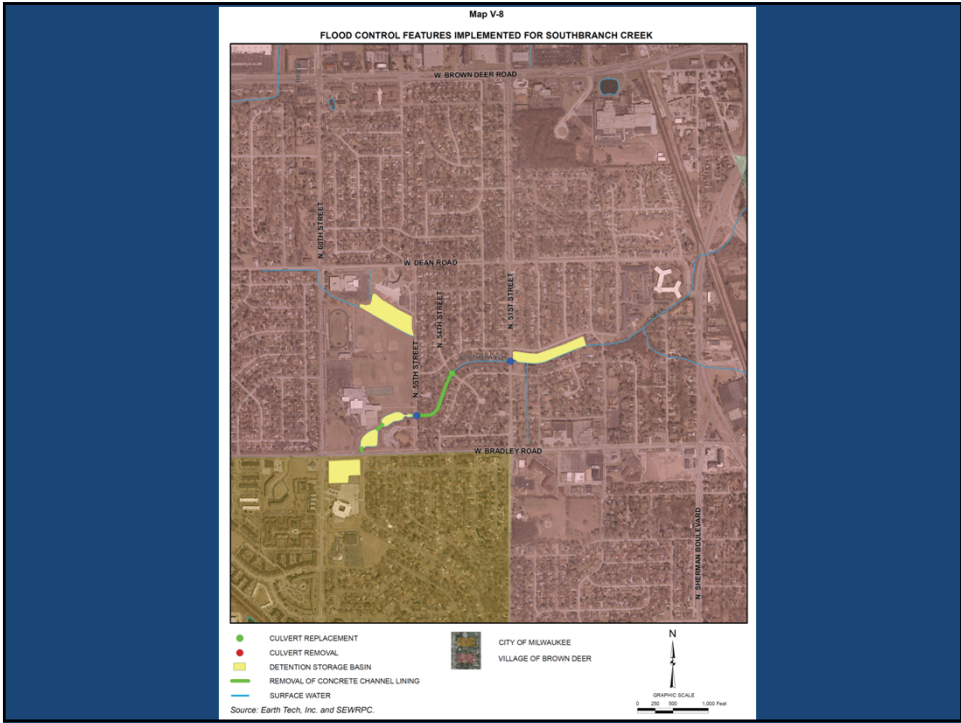
Source: Milwaukee Metropolitan Sewerage District and SEWRPC

Map V-7
 FLOOD CONTROL FEATURES IMPLEMENTED FOR LINCOLN CREEK



● BRIDGE REPLACED
● BRIDGE MODIFIED
● BRIDGE REMOVED
 FLOODWATER DETENTION
— CHANNEL MODIFICATION
— CREEK BANK WIDENING
— FLOODPLAIN LOWERING AND ADDITION OF LOW FLOW AQUATIC HABITAT
— CONCRETE LINING REMOVAL AND ADDITION OF LOW FLOW AQUATIC HABITAT
— SURFACE WATER
 CITY OF MILWAUKEE
 CITY OF GLENDALE
 VILLAGE OF BROWN DEER
 N
 GRAPHIC SCALE
 0 500 1000 2000 Feet

Source: Camp, Dresser & McKee, Inc. and SEWRPC



Priority Ranking of Hazards

(Tables V-6 and V-7)

Mortality and Injury

Medical and health risks
Temperature extremes
Major fire and emergency incidents
Tornadoes
Thunderstorms, high wind, hail, and lightning
Hazardous material incidents
Winter Storms
Flooding
Contamination or loss of water supply
Terrorism incidents
Coastal erosion
Earthquake

Property and Crop Damage

Major fire and emergency incidents
Flooding
Thunderstorm and associated
Tornadoes
Hazardous material Incidents
Winter storms
Coastal erosion
Temperature extremes
Terrorism incidents
Earthquake
Contamination or loss of water supply
Medical and health risks

CHAPTER 6: PLAN ADOPTION, IMPLEMENTATION, MAINTENANCE, AND REVISION

For each priority mitigation strategy

- Estimated costs
- Designated management agencies
- Noted current implementation status
- Identified potential funding sources
 - These are continually changing

SUBMITTING COMMENTS OR DATA ON THE PLAN CHAPTERS:

SEWRPC website:

[http://www.sewrpc.org/SEWRPC/communityassistance/
ProjectPlanningServices.htm](http://www.sewrpc.org/SEWRPC/communityassistance/ProjectPlanningServices.htm)

or

Email: jboxhorn@sewrpc.org

• City of Milwaukee All Hazards Mitigation Plan Update

Preliminary Draft Chapters:

[Chapter 1 - Introduction and Background](#)

[Chapter 2 - Basic Study Area Inventory](#)

[Appendix B - Critical Community Facilities in the City of Milwaukee](#)

Meeting Materials:

[March 10, 2011 Agenda](#)

Comment Opportunity

Use the box below to submit any comments you may have about the City of Milwaukee All Hazards Mitigation Plan Update. A record of public comments will be assembled and provided to the Plan Steering Committee and to the Commission for Applications in preparing the final plan.

Your Contact Information:

First Name*

Last Name*

Email Address*

Organization

Mailing Address:

City*

State*

Zip

*Denotes a required field

You may also submit a comment via the following:

Email: 262mmp@arcgis.com

Fax: 262-647-1100

U.S. Mail: Southeastern Wisconsin Regional Planning Commission
P.O. Box 1807
Wauwatosa, WI 53187-1807

If you have any questions, please contact: **Michael Hahn**
26263PC Chief Environmental Engineer
262-647-6722, Ext 243

Press the "Submit" button when finished.

Exhibit B

Boxhorn, Joseph E.

From: Fronk, Steve [SFRONK@milwaukee.gov]
Sent: Monday, May 23, 2011 11:56 AM
To: Ddevine@westalliswi.gov; Jdidier@wauwatosa.net; dayt@ci.cudahy.wi.us; alr@stfranwi.org; presidentjohnson@villageofshorewood.org; mayor@ci.mequon.wi.us; manager@browndeerwi.org; admin@menomonee-falls.org; jat1941@aol.com; PresidentSiegel@wfbvillage.org; zepecki@ci.south-milwaukee.wi.us; jhermes@greendale.org; ponto@ci.brookfield.wi.us; Kim.Egan@westmilwaukee.org
Cc: Boxhorn, Joseph E.; Korban, Ghassan; Mortwedt, Matthew
Subject: Milwaukee All-Hazard Mitigation Plan Update
Attachments: Letter to Adjoining Municipalities.pdf

Please see the attached letter. The City of Milwaukee is in the process of updating its all-hazard mitigation plan and you are invited to review the draft and recommend a representative from your jurisdiction to participate in the review process. Preliminary draft chapters of the updated mitigation plan can be viewed at www.sewrpc.org. Click on "Community Assistance" then "Project Planning Services" then "City of Milwaukee Hazard Mitigation Plan Update". Select the chapter that you want to review.

Our next meeting is on Tuesday May 31st from 1:30-3:30 p.m. in Room 501 of the Zeidler Municipal Building, 841 N. Broadway, Milwaukee. Please let me know if someone from your jurisdiction will be attending this meeting so that we can be sure to greet him/her.

Feel free to call or email if you have additional questions.

Steven Fronk, Director
Emergency Management & Homeland Security
200 East Wells Street, Room 605
Milwaukee, WI 53202
Office: 414-286-5062
Mobile: 414-217-6829
FAX: 414-286-5141
steve.fronk@milwaukee.gov

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**Office of Emergency Management
& Homeland Security**

Tom Barrett
Mayor

Steven Fronk
Director

May 23, 2011

To: Municipalities Adjoining City of Milwaukee

Re: All-Hazard Mitigation Plan Update Process

The City of Milwaukee, with assistance from the Southeastern Wisconsin Regional Planning Commission, is in the process of updating our existing Hazard Mitigation Plan. The purpose of hazard mitigation planning is to identify policies and actions that will reduce potential risks and future losses. While many disasters cannot be prevented, implementation of a hazard mitigation plan is intended to lessen the impact of major disruptive events and help us to become more resilient.

Earlier this year the City of Milwaukee Department of Public Works and the Office of Emergency Management and Homeland Security convened a Hazard Mitigation Task Force comprised of citizens, government officials, business leaders, volunteers, non-profit organizations and other stakeholders. The primary mission of this task force is to update the City of Milwaukee's Hazard Mitigation Plan. The most recent meeting was held on April 26, 2011. Work on this important project continues.

I am inviting you, as a representative of an adjoining municipality, to recommend someone from your jurisdiction to participate in the process of revising the City of Milwaukee Hazard Mitigation Plan. The next public meeting is Tuesday, May 31st from 1:30-3:30 in Room 501 of the Zeidler Municipal Building, 841 N. Broadway Avenue, Milwaukee. Preliminary draft chapters of the updated mitigation plan can be viewed at www.sewrpc.org. Click on "Community Assistance" then "Project Planning Services" then "City of Milwaukee Hazard Mitigation Plan Update". Select the chapter that you want to review. Meeting summary notes and meeting agendas may also be accessed from that web page.

Please let me know via email no later than May 30, 2011 if someone from your jurisdiction is interested in participating in the process. Provide me with the name, address, phone and email of that person so that I may keep him/her apprised of our meetings and progress.

If your jurisdiction does not wish to participate directly, I hope that you will check back on the web site periodically for updates on the planning process. Feel free to contact me at any time via e-mail or at 414-286-5062 if you have questions or feedback.

Very truly yours,

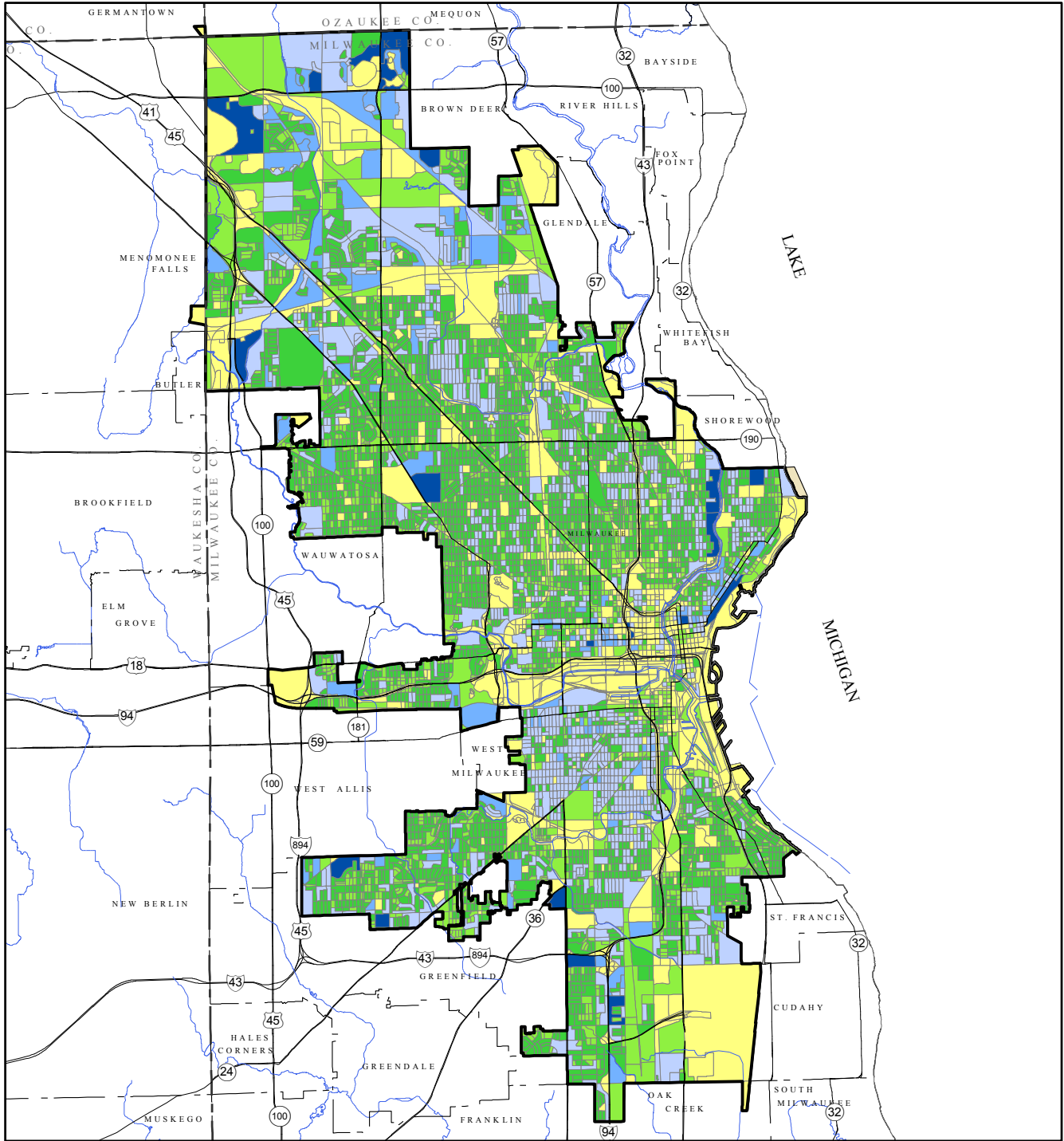
Steven Fronk

Cc: J. Boxhorn
G. Korban

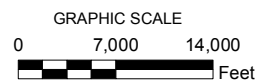
Exhibit C

Map II-2

POPULATION DISTRIBUTION BY CENSUS BLOCK FOR THE CITY OF MILWAUKEE: 2010



NUMBER OF PEOPLE IN EACH CENSUS BLOCK



Source: U.S. Bureau of the Census and SEWRPC.

Exhibit D

City of Milwaukee All Hazard Mitigation Plan Update

Notice of Public Meetings

June 7th, 2011, 1-3PM
Andersen Lake Tower, 3rd Floor
4001 S. 6th St.
Milwaukee, WI

June 7th, 2011, 4-6PM
DPW Field Headquarters, Assembly Room
3850 N. 35th St
Milwaukee, WI

Citizens are invited to two public information meetings related to the mitigation of impacts from natural and human-induced hazards in the City of Milwaukee, Wisconsin. The plan includes recommendations related to the mitigation of impacts from hazards such as flooding and related stormwater drainage problems; weather-related hazards such as tornados, winter storms, and severe thunderstorms; and hazardous material incidents in the City of Milwaukee. The plan constitutes an update of the initial hazard mitigation plan which was adopted by the City of Milwaukee in 2005. Copies of the report chapters, including the recommended plan chapter are now available for review on the Southeastern Wisconsin Regional Planning Commission (SEWRPC) website:

<http://www.sewrpc.org/SEWRPC/communityassistance/ProjectPlanningServices.htm#Milwaukee>

Meeting Agenda

1. Open house, written comment, discussion with City & SEWRPC staff
2. Presentation by SEWRPC representatives
3. Questions and Answers
4. Adjournment

In addition to providing comments at the public meeting, written comments may also be submitted through a comment screen on SEWRPC's website. The comment screen may be found at:

<http://www.sewrpc.org/SEWRPC/communityassistance/ProjectPlanningServices.htm>

Representatives from the City of Milwaukee Department of Public Works and Office of Emergency Management will be in attendance. Questions or comments should be directed to:

Joseph E. Boxhorn, SEWRPC, Senior Planner
W239 N1812 Rockwood Drive
Waukesha, Wisconsin 53187-1607
Phone: 262-547-6721 Fax: 262-547-1103
Email: jboxhorn@sewrpc.org

Members of the Common Council and its standing committees who are not members of this committee may attend this meeting to participate or to gather information. Notice is given that this meeting may constitute a meeting of the Common Council or any of its standing committees, although they will not take any formal action at this meeting.

Upon reasonable notice, efforts will be made to accommodate the needs of persons with disabilities through sign language interpreters or auxiliary aids. For additional information or to request this service, contact the Council Services Division ADA Coordinator at 286-2998, (FAX)286-3456, (TDD)286-2025 or by writing to the Coordinator at Room 205, City Hall, 200 E. Wells Street, Milwaukee, WI 53202.

Persons engaged in lobbying as defined in s. 305-43-4 of the Milwaukee Code of Ordinances are required to register with the City Clerk's Office License Division. More information is available at www.milwaukee.gov/lobby.

Exhibit E

Boxhorn, Joseph E.

From: Kletti, Laura L.
Sent: Thursday, May 19, 2011 3:29 PM
To: Boxhorn, Joseph E.
Subject: FW: City Hazard Plan follow-up - for mtg minutes

Joe – response from the City on Ch 3 & 4 discussion. I can update the meeting minutes if desired.
Laura

From: Thur, Timothy [<mailto:Timothy.Thur@milwaukee.gov>]
Sent: Thursday, May 19, 2011 2:19 PM
To: Kletti, Laura L.
Cc: Owens, Aaron W.
Subject: RE: City Hazard Plan follow-up

Laura,

Here is the additional information for Chapter 3 & 4 of teh Hazard Mitigation Plan:

1. We received 12,203 reports of basement backups/flooding complaints as a result of the July 15 and July 22 storms.
2. Please revise the last sentence of the 1st paragraph on page 17 to read:

The City of Milwaukee should identify specific locations where the major storm water management system is inadequate to handle the runoff from storms with annual probabilities of one percent or greater, and prepare storm water management plans to address those deficiencies.

3. The City uses a five year storm event (20-percent annual probability) for the design of storm sewer facilities and a 10 year storm event (10-percent annual probability) for the design of combined sewer facilities.

Please let me know if you have any questions.

Tim Thur
Environmental Engineering
City of Milwaukee
414-286-2463
timothy.thur@milwaukee.gov

From: Kletti, Laura L. [<mailto:LKLETTI@SEWRPC.org>]
Sent: Mon 5/16/2011 1:45 PM
To: Thur, Timothy
Cc: Owens, Aaron W.
Subject: City Hazard Plan follow-up

Tim –

I just wanted to follow up on some items from the last Hazard Mitigation Plan meeting on 4/26. You were going to provide additional information on the following for Chapters 3 & 4:

1. July 2010 event – number of basement flooding complaints.
2. Chapter 3 page 17 top – review wording for storm water master planning recommendation.
3. Table IV-1 Objective 4 – review the event standards for storm water and floodland management components.

Let me know any questions or concerns.

Laura L. Kletti P.E., CFM
SEWRPC
W239 N1812 Rockwood Drive
P.O. Box 1607
Waukesha, WI 53187-1607
Direct 262-547-6722 x224
lkletti@sewrpc.org

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Exhibit F

Table III-7

REPORTED SANITARY SEWER BACKWATER PROBLEMS^a AND ANNUAL PRECIPITATION SUMMARIES WITHIN THE CITY OF MILWAUKEE: 1999-2009

Year	Backwater Complaints (number)	Annual Precipitation Departures from Normal (inches)	Annual Total Precipitation (number of days)			
			Greater than 0.01 to 0.1 Inch	Greater than 0.1 to 0.5 Inch	Greater than 0.5 to 1.0 Inch	Greater than 1.0 Inch
1999	187	+4.95	42	43	16	8
2000	112	+11.44	61	38	16	9
2001	2	+3.80	38	35	22	9
2002	60	-8.12	45	38	11	5
2003	0	-12.51	52	34	11	2
2004	86-400 ^b	-1.87	45	48	14	6
2005	0	-8.89	43	50	9	3
2006	0	+3.12	42	46	18	9
2007	0	-1.75	47	46	14	6
2008	1,000	+8.71	44	50	13	11
2009	658	+1.00	36	49	14	7
2010	12,203	+1.17	50	31	17	6

^aThese are meant to illustrate rain-related sanitary sewer backwaters reported and does not include any backups that occurred due to clogged sewers or a problem in the building sewer.

^b86 backwater complaints were reported by property owners during two community meetings held after the May 2004 rainfall period and are considered to be related to specific sanitary sewer problems. Newspaper reports indicate that over 400 basement backup complaints of various types were filed during the May 2004 rainfall events. There also were likely to have been more homes that were affected but not reported.

Source: City of Milwaukee Department of Public Works, National Weather Service Milwaukee/Sullivan Weather Forecast Office, and SEWRPC.