

**COOK COUNTY  
MULTI-JURISDICTIONAL  
HAZARD MITIGATION PLAN  
VOLUME 2 - Municipal Annexes**

**Burnham Annex**

**FINAL**

July 2019

Prepared for:



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## Hazard Mitigation Point of Contact

<b>Primary Point of Contact</b>	<b>Alternate Point of Contact</b>
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## Jurisdiction Profile

The following is a summary of key information about the jurisdiction and its history:

- **Date of Incorporation:** February 8, 1907
- **Current Population:** 4,119 as of 2018 U.S. Census population estimates.
- **Population Growth:** The population decreased a small percentage from 2010 to 2017, with a decrease of 1.1 percent.
- **Location and Description:** Burnham is bordered by Chicago to the north, Calumet City to the south and west, and Hammond, Indiana, to the east. The Village of Burnham links the southern suburbs to the neighboring State of Indiana and the City of Chicago. The Village is conveniently located next to large tracts of forest preserves and the Little Calumet River. There are two sections of Burnham. The westernmost section surrounds Torrence Avenue, a north-south street. Torrence Avenue leaves this part of Burnham via a bridge, with Chicago on the other side. The eastern section surrounds Burnham Avenue, another north-south street. This section of Burnham ends at Brainard Avenue, where the Hegewisch neighborhood of Chicago lies on the other side. Upon entering Chicago, Burnham Avenue becomes Avenue O. Burnham has a total land area of 1.87 square miles.
- **Brief History:** In 1883 a group of investors including George Pullman hired Telford Burnham to develop a commercial and residential plan for the point where the branches of the Calumet River meet before flowing north to Lake Calumet and Lake Michigan. The investors were aware of the growing steel industries across the Calumet Region. The Hammond Lumber Company had just built 500 feet of dock for shipping. For 40 years, from 1908 to 1948, the history of Burnham was tied to the activities of its mayor, John Patton. When first elected, “Johnny” Patton was the youngest mayor in Illinois. Over the years, he developed the clout to bring Chicago water and sewer services into Burnham along with “pleasure-loving people.” Early in its development, the village of Burnham created a public golf course on its eastern edge as an added attraction for its amusement seekers. This continues today as Burnham Woods, a public course owned and operated by the Forest Preserve District of Cook County.
- **Climate:** The Village of Burnham gets 35 inches of rain and 26 inches of snow per year. The average US city gets 37 inches of rain and 25 inches of snow per year. The number of days with any measurable precipitation is 118 and there are 192 sunny days per year in Burnham, on average. The July high is around 84 degrees and the January low is 16. Our comfort index, which is based on humidity during the hot months, is a 46 out of 100, where higher is more comfortable. The US average on the comfort index is 44.
- **Governing Body Format:** The Village of Burnham is governed by a Mayor/President, Village Clerk and 6 Trustees. This body will assume the responsibility for the adoption and implementation of this plan. The Village consists of a Clerks Office, Police Department, Fire Department, a Public Works Department, Water and Sewer Department, and Building Department.

- **Development Trends:** Currently, the Village is almost equally divided between residential and industrial districts, whereby, commercial areas exist on Torrence Avenue, State Street, and Burnham Ave. One point six (1.6) miles are zoned industrial, while on point nine (1.9) miles of land are zoned as residential sites. Two areas make up the residential portions of Village – one on the east side of the Village, and one on the west. The older area is on the east side of the Village where the Village Hall was previously located. The newer homes are on the west side of the Village, which was built up considerably after World War II in the fifties and into the present time. This area is larger than the old section of the Village and this is where the new Village Hall/police facility is now located. This new Village Hall opened in 1985 and the new police station addition opened in 2007.

## Capability Assessment

The assessment of the jurisdiction’s legal and regulatory capabilities is presented in the *Legal and Regulatory Capability Table* below. The assessment of the jurisdiction’s fiscal capabilities is presented in the *Fiscal Capability Table* below. The assessment of the jurisdiction’s administrative and technical capabilities is presented in the *Administrative and Technical Capability Table* below. Information on the community’s National Flood Insurance Program (NFIP) compliance is presented in the *National Flood Insurance Program Compliance Table* below. Classifications under various community mitigation programs are presented in the *Community Classifications Table* below.

<b>TABLE: LEGAL AND REGULATORY CAPABILITY</b>					
	<b>Local Authority</b>	<b>State or Federal Prohibitions</b>	<b>Other Jurisdictional Authority</b>	<b>State Mandated</b>	<b>Comments</b>
<b>Codes, Ordinances &amp; Requirements</b>					
Building Code	Yes	No	No	Yes	Ord. No. 76-O-005, art. I, § 101, 8-251976
Zonings	Yes	No	No	Yes	Ord. No. 80-O-009, § 1.C, 8-23-1980
Subdivisions	No	No	No	No	
Stormwater Management	Yes	No	Yes	Yes	State regulates industrial activity from Construction sites 1 acre or larger under section 402 CWA. Ord. No. 63-O-010, § 1
Post Disaster Recovery	No	No	No	No	
Real Estate Disclosure	No	No	Yes	Yes	(765 ILCS 77/) Residential Real Property Disclosure Act
Growth Management	No	No	No	No	
Site Plan Review	Yes	No	No	No	Ord. No. 94-O-004, § 1000, 8-23-1994

Public Health and Safety	No	No	Yes	Yes	Cook County Board of Health
Environmental Protection	No	No	No	No	
<b>Planning Documents</b>					
General or Comprehensive Plan	No	No	No	No	
<i>Is the plan equipped to provide linkage to this mitigation plan?</i>					N/A
Floodplain or Basin Plan	No	No	No	No	
Stormwater Plan	No	No	Yes	No	MWRD Detailed Watershed Plan
Capital Improvement Plan	No	No	No	No	
<i>What types of capital facilities does the plan address?</i>					N/A
<i>How often is the plan revised/updated?</i>					N/A
Habitat Conservation Plan	No	No	No	No	
Economic Development Plan	No	No	Yes	Yes	The Economic Development Commission is charged with reviewing all economic development related programs and incentives including tax incentives offered through the Cook County 6b program.
Shoreline Management Plan	No	No	No	No	
<b>Response/Recovery Planning</b>					
Comprehensive Emergency Management Plan	No	No	Yes	Yes	Cook County DHSEM
Threat and Hazard Identification and Risk Assessment	No	No	Yes	No	Cook County DHSEM Preparing THIRA
Terrorism Plan	No	No	Yes	Yes	Cook County DHSEM

Post-Disaster Recovery Plan	No	No	No	No	Cook County DHSEM
Continuity of Operations Plan	No	No	Yes	No	Cook County DHSEM
Public Health Plans	No	No	Yes	No	Cook County DPH

<b>TABLE: FISCAL CAPABILITY</b>	
<b>Financial Resources</b>	<b>Accessible or Eligible to Use?</b>
Community Development Block Grants	Yes
Capital Improvements Project Funding	No
Authority to Levy Taxes for Specific Purposes	Yes
User Fees for Water, Sewer, Gas or Electric Service	Yes
Incur Debt through General Obligation Bonds	Yes
Incur Debt through Special Tax Bonds	Yes
Incur Debt through Private Activity Bonds	Yes
Withhold Public Expenditures in Hazard-Prone Areas	Yes
State Sponsored Grant Programs	Yes
Development Impact Fees for Homebuyers or Developers	Yes

<b>TABLE: ADMINISTRATIVE AND TECHNICAL CAPABILITY</b>		
<b>Staff/Personnel Resources</b>	<b>Available?</b>	<b>Department/Agency/Position</b>
Planners or engineers with knowledge of land development and land management practices	Yes	Engineering Consultant, Public Works, Department of Buildings
Engineers or professionals trained in building or infrastructure construction practices	Yes	Engineering Consultant, Public Works, Department of Buildings
Planners or engineers with an understanding of natural hazards	Yes	Engineering Consultant



Staff with training in benefit/cost analysis	Yes	Engineering Consultant
Surveyors	Yes	Engineering Consultant
Personnel skilled or trained in GIS applications	Yes	Engineering Consultant, All partners have access to Cook County GIS Consortium as a technical resource.
Scientist familiar with natural hazards in local area	No	
Emergency manager	Yes	Fire Chief
Grant writers	Yes	Engineering Consultant

<b>TABLE: NATIONAL FLOOD INSURANCE PROGRAM COMPLIANCE</b>	
What department is responsible for floodplain management in your jurisdiction?	Public Works
Who is your jurisdiction’s floodplain administrator? (department/position)	Public Works
Are any certified floodplain managers on staff in your jurisdiction?	Engineering Consultants
What is the date of adoption of your flood damage prevention ordinance?	N/A
When was the most recent Community Assistance Visit or Community Assistance Contact?	11/14/1996
Does your jurisdiction have any outstanding NFIP compliance violations that need to be addressed? If so, please state what they are.	No
Do your flood hazard maps adequately address the flood risk within your jurisdiction? (If no, please state why)	Yes
Does your floodplain management staff need any assistance or training to support its floodplain management program? If so, what type of assistance/training is needed?	Yes
Does your jurisdiction participate in the Community Rating System (CRS)? If so, is your jurisdiction seeking to improve its CRS Classification? If not, is your jurisdiction interested in joining the CRS program?	No, but would be interested in joining

<b>TABLE: COMMUNITY CLASSIFICATIONS</b>			
	<b>Participating?</b>	<b>Classification</b>	<b>Date Classified</b>

Community Rating System	No	N/A	N/A
Building Code Effectiveness Grading Schedule	Yes	Unknown	Unknown
Public Protection/ISO	Yes	Unknown	Unknown
StormReady	Yes	Gold (Countywide)	2014
Tree City USA	No	N/A	N/A

## Jurisdiction-Specific Natural Hazard Event

The information provided below was solicited from the jurisdiction and supported by NOAA and other relevant data sources.

The *Natural Hazard Events Table* lists all past occurrences of natural hazards within the jurisdiction. Repetitive flood loss records are as follows:

- Number of FEMA-Identified Repetitive Loss Properties: 0
- Number of FEMA-Identified Severe Repetitive Loss Properties: 0
- Number of Repetitive Flood Loss/Severe Repetitive Loss Properties That Have Been Mitigated: 0

TABLE: NATURAL HAZARD EVENTS			
Type of Event	FEMA Disaster Number (if applicable)	Date	Preliminary Damage Assessment
Hail	-	7/13/2015	-
Hail	-	5/11/2014	-
Severe Storms, Straight-Line Winds, Flooding	DR-4116	4/26/2013	-
Severe Winter Snowstorm	DR-1960	1/31/2011	-
Severe Storms and Flooding	DR-1935	7/19/2010	-
Severe Storms and Flooding	DR-1800	9/13/2008	-
Severe Storms and Flooding	DR-1729	8/20/2007	-
Illinois Flooding	DR-1188	8/16/1997	-
Illinois Flooding	DR-1129	7/17/1996	-

### Jurisdiction-Specific Hazards and Impacts

Hazards that represent a county-wide risk are addressed in the Risk Assessment section of the 2019 Cook County Multi-Jurisdictional Hazard Mitigation Plan Update. This section only addresses the hazards and their associated impacts that are **relevant** and **unique** to the municipality.

**Flooding:** Burnham is located within and nearby moderate and high urban flood susceptibility zones. Severe flooding within Burnham has often been linked to severe weather and remains a mitigation priority.

**Severe Weather:** Half dollar to golf ball size hail has been reported at Sibley Boulevard and Burnham Avenue as well as 154th Place and Burnham Avenue. Severe storms occur often within Burnham.

**Tornado:** Although available data may not show any tornado events within Burbank specifically, these events have caused notable damage in nearby parts of Cook County. Burnham continues to prepare and mitigate against this hazard.

**Earthquake:** Although earthquakes or their effects are not commonly felt in Burnham, earthquakes have happened on several occasions in Illinois over the last few decades. Burnham continues to prepare and mitigate against this hazard.

## Hazard Risk Ranking

The *Hazard Risk Ranking Table* below presents the ranking of the hazards of concern. Hazard area extent and location maps are included at the end of this chapter. These maps are based on the best available data at the time of the preparation of this plan, and are considered to be adequate for planning purposes.

<b>TABLE: HAZARD RISK RANKING</b>		
<b>Rank</b>	<b>Hazard Type</b>	<b>Risk Rating Score (Probability x Impact)</b>
1	Severe Weather	54
2	Severe Winter Weather	54
3	Tornado	51
4	Earthquake	32
5	Flood	27
6	Drought	2
7	Dam Failure	0

## Mitigation Strategies and Actions

The heart of the mitigation plan is the mitigation strategy, which serves as the long-term blueprint for reducing the potential losses identified in the risk assessment. The mitigation strategy describes how the community will accomplish the overall purpose, or mission, of the planning process. In this section, mitigation actions/projects were updated/amended, identified, evaluated, and prioritized. This section is organized as follows:

- New Mitigation Actions - New actions identified during this 2019 update process
- Ongoing Mitigation Actions - Ongoing actions with no definitive end or that are still in progress. During the 2019 update, these "ongoing" mitigation actions and projects were modified and/or amended, as needed.
- Completed Mitigation Actions - An archive of all identified and completed projects, including completed actions since 2014.

The *Hazard Mitigation Action Plan Matrix Table* below lists the actions that make up the jurisdiction’s hazard mitigation plan. The *Mitigation Strategy Priority Schedule Table* identifies the priority for each action.

TABLE: HAZARD MITIGATION ACTION PLAN MATRIX						
Status	Hazards Mitigated	Objectives Met	Lead Agencies	Estimated Cost	Sources of Funding	Timeline/Projected Completion Date (a)
<b>Action B15.1</b> —Increase drainage/absorption capabilities.						
Ongoing	Flood, Severe Weather	1, 2, 3, 9, 12, 13	Village of Burnham, MWRD	High	General Revenue, Grants, MWRD-Phase II	Long-term
<b>Action B15.2</b> —Televising and repairing of all sanitary sewer lines and the rehabilitation / sealing of all sanitary structures throughout the Village.						
Ongoing	Flood, Severe Weather	1, 2, 9	Village of Burnham	High	General Revenue, Grant	Long-term
<b>Action B15.3</b> —Develop a community warming/cooling center.						
Ongoing	Severe Weather, Tornado	5, 9	Village of Burnham	Medium	General Revenue, Grants	Long-term

<b>Action B15.4</b> —Participate in the Community Rating System (CRS).						
Ongoing	Flood	3, 4, 5, 6, 7, 9, 10, 11, 13	Village of Burnham	Low	General Revenue	Short-term
<b>Action B15.5</b> —Developing and maintaining a GIS database to track community vulnerability and exposure to hazardous areas that are known.						
Ongoing	Multi-hazard	1, 2, 5, 6	Village of Burnham	High	General Revenue	Short-term and ongoing
<b>Action B15.6</b> —Developing and implementing a multi-hazard public awareness program.						
Ongoing	Multi-hazard	6, 8	Village of Burnham	Low	Grant, General Revenue	Short-term and ongoing
<b>Action B15.7</b> —Develop plan to protect infrastructure and critical facilities from natural hazards.						
Ongoing	Multi-hazard	1, 2, 5	Village of Burnham	Low	General, Revenue, Grant	Long-term
<b>Action B15.8</b> —Complete a stormwater drainage study for known problem areas.						
Ongoing	Flood, Severe Weather	3, 13	Village of Burnham	Medium	General Revenue, Grant	Short-term
<b>Action B15.9</b> —Support retrofitting, purchase, or relocation of structures in hazard-prone areas.						
Ongoing	All	7, 13	Village of Burnham	High	FEMA Hazard Mitigation Grants	Long-term (depending on funding)
<b>Action B15.10</b> —Continue to support the countywide actions identified in this plan.						
Ongoing	All	All	Village of Burnham	Low	General Fund	Short- and long-term
<b>Action B15.11</b> —Actively participate in the plan maintenance strategy identified in this plan.						
Ongoing	All	3, 4, 6	DHSEM (Village of Burnham)	Low	General Fund	Short-term
<b>Action B15.12</b> —Consider participation in incentive-based programs such as Tree City and StormReady.						
Ongoing	All	3, 4, 5, 6, 7, 9, 10, 11, 13	Village of Burnham	Low	General Fund	Long-term
<b>Action B15.13</b> —Maintain good standing under the National Flood Insurance Program by implementing programs that meet or exceed the minimum NFIP requirements. Such programs include enforcing an						

adopted flood damage prevention ordinance, participating in floodplain mapping updates, and providing public assistance and information on floodplain requirements and impacts.						
Ongoing	Flooding	4, 6, 9	Village of Burnham	Low	General Fund	Short- and long-term
<b>Action B15.14</b> —Where feasible, implement a program to record high water marks following high-water events.						
Ongoing	Flooding, Severe Weather	3, 6, 9	Village of Burnham	Medium	General Fund; FEMA Grant Funds(Public Assistance)	Long-term
<b>Action B15.15</b> —Integrate the hazard mitigation plan into other plans, programs, or resources that dictate land use or redevelopment.						
Ongoing	All	3, 4, 6, 10, 13	Engineering Consultant, Public Works, Department of Buildings	Low	General Fund	Short-term
<b>Action B15.16</b> —Consider the development and implementation of a Capital Improvements Program (CIP) to increase the Village’s regulatory, financial and technical capability to implement mitigation actions.						
Ongoing	All	1, 2, 7	Public Works	High	CIP component of general fund (if implemented)	Long-term
<b>Action B16.17</b> —Combination Sewer Pump Station Replacement.						
New	Flood, Widespread Power Outage	2, 9	Village of Burnham	2,600,000; High	Environmental Grant, State Grant, Sewer Revenues	2025
(a) Ongoing indicates continuation of an action that is already in place. Short-term indicates implementation within five years. Long-term indicates implementation after five years.						

TABLE: MITIGATION STRATEGY PRIORITY SCHEDULE							
Action Number	Number of Objectives Met	Benefits	Costs	Do Benefits Equal	Is Project Grant-Eligible?	Can Project Be Funded Under Existing Programs/Budgets?	Priority (a)



				or Exceed Costs?			
1	6	High	High	Yes	Yes	No	Medium
2	3	High	High	Yes	Yes	No	Medium
3	2	High	Medium	Yes	Yes	No	Medium
4	9	Low	Low	Yes	No	Yes	Medium
5	4	Medium	Medium	Yes	No	No	Medium
6	2	High	Low	Yes	Yes	No	Medium
7	3	Medium	Medium	Yes	Yes	No	Medium
8	2	Medium	Medium	Yes	Yes	No	Medium
9	2	High	High	Yes	Yes	No	Medium
10	13	Medium	Low	Yes	No	Yes	High
11	3	Medium	Low	Yes	Yes	Yes	High
12	9	Medium	Low	Yes	No	Yes	Medium
13	3	Medium	Low	Yes	No	Yes	High
14	3	Medium	Medium	Yes	Yes	No	Medium
15	5	Medium	Low	Yes	No	Yes	High
16	3	High	High	Yes	No	No	Medium
17	2	High	High	Yes	Yes	No	High

(a) See Chapter 1 for explanation of priorities.

## New Mitigation Actions

The following are new mitigation actions created during the 2019 update.

**Action B - 15.17**

<b>Mitigation Action</b>	Combination Sewer Pump Station Replacement
<b>Year Initiated</b>	2018
<b>Applicable Jurisdiction</b>	Village of Burnham
<b>Lead Agency/Organization</b>	Village of Burnham
<b>Supporting Agencies/Organizations</b>	IEPA, MWRD
<b>Applicable Goal</b>	<ul style="list-style-type: none"> <li>Develop and implement sustainable, cost-effective, and environmentally sound risk-reduction (mitigation) projects.</li> <li>Protect the lives, health, safety, and property of the citizens of Cook County from the impacts of natural hazards.</li> <li>Protect public services and critical facilities, including infrastructure, from loss of use during natural hazard events.</li> </ul>
<b>Applicable Objective</b>	<ul style="list-style-type: none"> <li>Increase the resilience of (or protect and maintain) infrastructure and critical facilities.</li> <li>Provide or improve flood protection on a watershed basis with flood control structures and drainage maintenance plans.</li> </ul>
<b>Potential Funding Source</b>	Environmental Grant, State Grant, Sewer Revenues
<b>Estimated Cost</b>	\$2,600,000
<b>Benefits (loss avoided)</b>	Reduce neighborhood flooding. Prevent basement backups. Avoid catastrophic failure. Reduce maintenance costs. Reduce combination sewer overflows to Grand Calumet River.
<b>Projected Completion Date</b>	2025
<b>Priority and Level of Importance (Low, Medium, High)</b>	High Priority
<b>Benefit Analysis (Low, Medium, High)</b>	High—Project will provide an immediate reduction of risk exposure for life and property.
<b>Cost Analysis (Low, Medium, High)</b>	High—Existing funding will not cover the cost of the project; implementation would require new revenue through an alternative source (for example, bonds, grants, and fee increases).
<b>Actual Completion Date</b>	

**Recommended Mitigation Action/Implementation Plan and Project Description**

<b>Action/Implementation Plan and Project Description:</b>	Removal and replacement of a 90-year-old combined sewer overflow pump station. The original aging concrete enclosure is structurally deficient. Mechanical and electrical components are nearing the end of their useful life.
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**Mitigation Action and Project Maintenance**

Year	Status	Comments
2019	New	
2020		

<b>2021</b>		
<b>2022</b>		
<b>2023</b>		

Mitigated Hazards	
	<b>All Hazards</b>
	Dam/Levee Failure
	Drought
	Earthquake
X	Flood
	Extreme Heat
	Lightning
	Hail
	Fog
	High Wind
	Snow
	Blizzard
	Extreme Cold
	Ice Storms
	Tornado
	Epidemic or pandemic
	Nuclear Power Plant Incident
X	Widespread Power Outage
	Coastal Erosion
	Secondary Impacts from Mass Influx of Evacuees
	Hazardous Materials Incident

### Ongoing Mitigation Actions

The following are ongoing actions with no definitive end or that are still in progress. During the 2019 update, these "ongoing" mitigation actions and projects were modified and/or amended, as needed.

**Action B - 15.1**

<b>TABLE: ACTION PLAN MATRIX</b>		
Action Number Action Taken Y/N	Action Item Description	Status (X, O, C, R, N)
# B—15.1	Increase drainage/absorption capabilities.	
Status Description: No	Limited funding available.	X
Completion status legend: <b>N</b> = New <b>O</b> = Action Ongoing toward Completion <b>C</b> = Project Completed <b>R</b> = Want Removed from Annex <b>X</b> = No Action Taken		

**Action B - 15.2**

<b>TABLE: ACTION PLAN MATRIX</b>		
Action Number Action Taken Y/N	Action Item Description	Status (X, O, C, R, N)
# B—15.2	Televising and repairing of all sanitary sewer lines and the rehabilitation/sealing of sanitary structures throughout the Village.	
Status Description: No	Limited funding available	X
Completion status legend: <b>N</b> = New <b>O</b> = Action Ongoing toward Completion <b>C</b> = Project Completed <b>R</b> = Want Removed from Annex <b>X</b> = No Action Taken		

**Action B - 15.3**

<b>TABLE: ACTION PLAN MATRIX</b>		
Action Number Action Taken Y/N	Action Item Description	Status (X, O, C, R, N)
# B—15.3	Develop community warming/cooling center.	
Status Description: Yes	Received grant for back up generator. Project moving toward completion.	O
Completion status legend: <b>N</b> = New <b>O</b> = Action Ongoing toward Completion <b>C</b> = Project Completed <b>R</b> = Want Removed from Annex <b>X</b> = No Action Taken		

**Action B - 15.4**

<b>TABLE: ACTION PLAN MATRIX</b>		
Action Number Action Taken Y/N	Action Item Description	Status (X, O, C, R, N)
# B—15.4	Participate in community rating system (CRS).	
Status Description: Yes	Have not commenced action as of yet, but actively investigating opportunities to proceed.	O
Completion status legend: <b>N</b> = New <b>O</b> = Action Ongoing toward Completion <b>C</b> = Project Completed <b>R</b> = Want Removed from Annex <b>X</b> = No Action Taken		

**Action B - 15.5**

<b>TABLE: ACTION PLAN MATRIX</b>		
Action Number Action Taken Y/N	Action Item Description	Status (X, O, C, R, N)
# B—15.5	Developing and maintaining a GIS database to track community vulnerability and exposure to hazardous areas that are known.	
Status Description: No	However, will work with engineering firm and SSMMA to accomplish activity	X
Completion status legend: <b>N</b> = New <b>O</b> = Action Ongoing toward Completion <b>C</b> = Project Completed <b>R</b> = Want Removed from Annex <b>X</b> = No Action Taken		

**Action B - 15.6**

<b>TABLE: ACTION PLAN MATRIX</b>		
Action Number Action Taken Y/N	Action Item Description	Status (X, O, C, R, N)
# B—15.6	Developing and implementing multi-hazard public awareness program.	
Status Description: No	Limited staffing and technology.	X
Completion status legend: <b>N</b> = New <b>O</b> = Action Ongoing toward Completion <b>C</b> = Project Completed <b>R</b> = Want Removed from Annex <b>X</b> = No Action Taken		



**Action B - 15.7**

<b>TABLE: ACTION PLAN MATRIX</b>		
Action Number Action Taken Y/N	Action Item Description	Status (X, O, C, R, N)
# B—15.7	Develop plan to protect infrastructure and critical facilities from natural hazards.	
Status Description: No	Have not begun plan development yet. Seeking grant moneys for assistance.	X
Completion status legend: <b>N</b> = New <b>O</b> = Action Ongoing toward Completion <b>C</b> = Project Completed <b>R</b> = Want Removed from Annex <b>X</b> = No Action Taken		

**Action B - 15.8**

<b>TABLE: ACTION PLAN MATRIX</b>		
Action Number Action Taken Y/N	Action Item Description	Status (X, O, C, R, N)
# B—15.8	Complete storm-water drainage study for known problem areas.	
Status Description: No	Limited funding available.	X
Completion status legend: <b>N</b> = New <b>O</b> = Action Ongoing toward Completion <b>C</b> = Project Completed <b>R</b> = Want Removed from Annex <b>X</b> = No Action Taken		

**Action B - 15.9**

<b>TABLE: ACTION PLAN MATRIX</b>		
Action Number Action Taken Y/N	Action Item Description	Status (X, O, C, R, N)
# B—15.9	Support retrofitting, purchase, or relocate structures in hazard-prone areas.	
Status Description: No	Limited funding available.	X
Completion status legend: <b>N</b> = New <b>O</b> = Action Ongoing toward Completion <b>C</b> = Project Completed <b>R</b> = Want Removed from Annex <b>X</b> = No Action Taken		

**Action B - 15.10**

<b>TABLE: ACTION PLAN MATRIX</b>		
Action Number Action Taken Y/N	Action Item Description	Status (X, O, C, R, N)
# B—15.10	Continue to support the countywide actions identified in this plan.	
Status Description: Yes	Ongoing effort	O
Completion status legend: <b>N</b> = New <b>O</b> = Action Ongoing toward Completion <b>C</b> = Project Completed <b>R</b> = Want Removed from Annex <b>X</b> = No Action Taken		

**Action B - 15.11**

<b>TABLE: ACTION PLAN MATRIX</b>		
Action Number Action Taken Y/N	Action Item Description	Status (X, O, C, R, N)
# B—15.11	Actively participate in the plan maintenance strategy identified in this plan.	
Status Description: Yes	Village staff and engineering staff will continue this effort within budgetary constraints. Village has limited funding.	O
Completion status legend: <b>N</b> = New <b>O</b> = Action Ongoing toward Completion <b>C</b> = Project Completed <b>R</b> = Want Removed from Annex <b>X</b> = No Action Taken		

**Action B - 15.12**

<b>TABLE: ACTION PLAN MATRIX</b>		
Action Number Action Taken Y/N	Action Item Description	Status (X, O, C, R, N)
# B—15.12	Consider participation in incentive-based programs such as Tree City and StormReady	
Status Description: Yes	Ongoing considerations	O
Completion status legend: <b>N</b> = New <b>O</b> = Action Ongoing toward Completion <b>C</b> = Project Completed <b>R</b> = Want Removed from Annex <b>X</b> = No Action Taken		

**Action B - 15.13**

<b>TABLE: ACTION PLAN MATRIX</b>		
Action Number Action Taken Y/N	Action Item Description	Status (X, O, C, R, N)
# B—15.13	Maintain good standing under the National Flood Insurance Program by implementing programs that meet or exceed the minimum NFIP requirements. Such programs include enforcing an adopted flood damage prevention ordinance, participating in floodplain mapping updates, and providing public assistance and information on floodplain requirements and impacts.	
Status Description: Yes	Ongoing effort when budget permits.	O
<p>Completion status legend:  <b>N</b> = New    <b>O</b> = Action Ongoing toward Completion  <b>C</b> = Project Completed    <b>R</b> = Want Removed from Annex    <b>X</b> = No Action Taken</p>		

**Action B - 15.14**

<b>TABLE: ACTION PLAN MATRIX</b>		
Action Number Action Taken Y/N	Action Item Description	Status (X, O, C, R, N)
# B—15.14	Where feasible, implement a program to record high water marks following high-water events.	
Status Description: No	Completed high-water marks on bridge of Grand Calumet River	O
<p>Completion status legend:  <b>N</b> = New    <b>O</b> = Action Ongoing toward Completion  <b>C</b> = Project Completed    <b>R</b> = Want Removed from Annex    <b>X</b> = No Action Taken</p>		

**Action B - 15.15**

<b>TABLE: ACTION PLAN MATRIX</b>		
Action Number Action Taken Y/N	Action Item Description	Status (X, O, C, R, N)
# B—15.15	Integrate the hazard mitigation plan into other plans, programs, or resources that dictate land use or redevelopment.	
Status Description: No	Limited funding. Seeking grants assistance to prepare other plans and programs	X
Completion status legend: <b>N</b> = New <b>O</b> = Action Ongoing toward Completion <b>C</b> = Project Completed <b>R</b> = Want Removed from Annex <b>X</b> = No Action Taken		

**Action B - 15.16**

<b>TABLE: ACTION PLAN MATRIX</b>		
Action Number Action Taken Y/N	Action Item Description	Status (X, O, C, R, N)
# B—15.16	Consider the development and implementation of a Capital Improvements Program (CIP) to increase the Village’s regulatory, financial and technical capability to implement mitigation actions.	
Status Description: No	Considerations ongoing. Limited funding. Seeking grants assistance to improve comprehensive planning.	X
Completion status legend: <b>N</b> = New <b>O</b> = Action Ongoing toward Completion <b>C</b> = Project Completed <b>R</b> = Want Removed from Annex <b>X</b> = No Action Taken		

### Completed Mitigation Actions

Burnham has no completed actions at this time.



## Future Needs to Better Understand Risk/Vulnerability

No needs have been identified at this time.



## Additional Comments

No additional comments at this time

### HAZUS-MH Risk Assessment Results

<b>BURNHAM EXISTING CONDITIONS</b>	
2010 Population	4,206
Total Assessed Value of Structures and Contents	\$3,838,693,685
Area in 100-Year Floodplain	302.16 acres
Area in 500-Year Floodplain	333.59 acres
Number of Critical Facilities	13

<b>HAZARD EXPOSURE IN BURNHAM</b>						
	Number Exposed		Value Exposed to Hazard		Total	% of Total Assessed Value Exposed
	Population	Buildings	Structure	Contents		
<b>Dam Failure</b>						
Buffalo Creek	0	0	\$0	\$0	<b>\$0</b>	0.00%
U. Salt Cr. #2	0	0	\$0	\$0	<b>\$0</b>	0.00%
Touhy	0	0	\$0	\$0	<b>\$0</b>	0.00%
U. Salt Cr. #3	0	0	\$0	\$0	<b>\$0</b>	0.00%
U. Salt Cr. #4	0	0	\$0	\$0	<b>\$0</b>	0.00%
<b>Flood</b>						
100-Year	91	28	\$99,315,081	\$135,937,622	<b>\$235,252,703</b>	6.13%

500-Year	215	66	\$108,565,704	\$143,837,749	<b>\$252,403,453</b>	6.58%
<b>Tornado</b>						
100-Year	—	—	\$968,285,074	\$968,043,991	<b>\$1,936,329,065</b>	50.44%
500-Year	—	—	\$1,322,729,072	\$1,287,875,311	<b>\$2,610,604,384</b>	68.01%

<b>ESTIMATED PROPERTY DAMAGE VALUES IN BURNHAM</b>				
	Estimated Damage Associated with Hazard			% of Total Assessed Value Damaged
	Building	Contents	Total	
<b>Dam Failure</b>				
Buffalo Creek	\$0	\$0	<b>\$0</b>	0.00%
U. Salt Cr. #2	\$0	\$0	<b>\$0</b>	0.00%
Touhy	\$0	\$0	<b>\$0</b>	0.00%
U. Salt Cr. #3	\$0	\$0	<b>\$0</b>	0.00%
U. Salt Cr. #4	\$0	\$0	<b>\$0</b>	0.00%
<b>Earthquake</b>				
1909 Historical Event	\$14,870,127	\$4,297,384	<b>\$19,167,512</b>	0.50%
<b>Flood</b>				
10-Year	\$126,952	\$26,640	<b>\$153,591</b>	0.00%
100-Year	\$5,229,249	\$10,027,793	<b>\$15,257,042</b>	0.40%
500-Year	\$11,571,501	\$28,062,238	<b>\$39,633,740</b>	1.03%

<b>Tornado</b>				
100-Year	\$96,828,507	\$96,804,399	<b>\$193,632,906</b>	5.04%
500-Year	\$193,118,445	\$188,029,795	<b>\$381,148,240</b>	9.93%

# Hazard Mapping









