

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

Olympia Fields Annex

FINAL

July 2019

Prepared for:



Cook County
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Hazard Mitigation Point of Contact

Primary Point of Contact	Alternate Point of Contact
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Jurisdiction Profile

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

- **Date of Incorporation:** 1927
- **Current Population:** 4,998 as of 2010 census. No change in population as of June 14, 2019. Changes will be reflected after upcoming census is completed.
- **Population Growth:** Based on the 2010 census and projected build out of available property within the Village, the population of Olympia Fields is expected to increase 1.5% annually.
- **Location and Description:** The Village of Olympia Fields is located in southwest Cook County, approximately 22 miles south of Chicago and covers approximately 2.94 square miles. Olympia Fields is home to the Olympia Fields Country Club, St. James Hospital, Rich Central high School and is easily accessible from I-57, I-80 and Metra Electric rail lines. Adjacent towns that border Olympia Fields include: Flossmoor to the north, Matteson and Park Forest to the south, Chicago Heights to the east, and Frankfort Square to the west.
- **Brief History:** The Village of Olympia Fields was incorporated in August 1927. Prior to incorporation the land in what is now Olympia Fields was used for farming and for a “summer retreat” for wealthy Chicagoans. The summer retreat area was eventually transformed into what is now the Olympia Fields Country Club. Residential development comprised of 16 subdivisions or homeowners associations makes up the majority of property within the Village.
- **Climate:** The climate of Olympia Fields and the Chicago area is classified as humid continental, with all four seasons distinctly represented: wet springs; hot and humid summers; pleasant autumns; and cold winters. Annual precipitation is average, and reaches its lowest points in the months of January and February, and peaks in the months of May and June. Winter proves quite variable. Seasonal snowfall in the city has ranged from 9 – 90 inches. The daily average temperature in January at Midway Airport is 24.8 °F (-4.0 °C), and temperatures often stay below freezing for several consecutive days or even weeks in January and February. Temperatures drop to or below 0 °F (-18 °C) on 5.5 nights annually at Midway and 8.2 nights at O’Hare. Spring in the Chicago area is perhaps the city’s wettest and unpredictable season. Winter like conditions can persist well into April and even occasionally into May. Thunderstorms are especially prevalent in the spring time as the city’s lakeside location makes it a center of conflicts between large volumes of warmer and colder air, triggering many kinds of severe weather. Temperatures vary tremendously in the springtime; March is the month with the greatest span between the record highs and lows. On a typical summer day, humidity is usually moderately high and temperatures ordinarily reach anywhere between 78 and 92 °F (26 and 33 °C). The extreme heat that the Chicago area is capable of experiencing during the height of the summer season can persist into the autumn season. Temperatures have reached 100 degrees high and subzero lows below -18 °C. Fall can bring heavy thunderstorms, many of which are capable of producing flooding. The average first accumulating snow occurs around Nov 19.
- **Governing Body Format:** The Village of Olympia Fields is governed by a seven member Village Board of Trustees which includes the Village President. The Village Board of Trustees will assume the responsibility for the adoption and implementation of this plan. The Village President

provides policy making and direction to the Village Administrator and the following 4 Village departments: Finance and Administration, Building and Zoning, Department of Public Works and the Police Department. Fire and EMS services are contracted out to the City of Chicago Heights which has a Class 4 ISO Rating.

- **Development Trends:** Olympia Fields has long standing relationships with dedicated community partners focused on all sectors of life. Franciscan Health Olympia Fields is the Village's largest employer and a strong anchor to a growing medical district. The elite Olympia Fields Country Club put the Village on-the-map playing host to numerous professional and amateur tournaments including the 2003 U.S. Open, the US Amateur Championship in 2015 and the KPMG PGA Women's Championship in 2017. There are also existing businesses like Bizio's Fresh Market, Redwood Luxe Bar & Grille, Walgreens, CVS, and Walmart. Anticipated development levels for Olympia Fields are low to moderate due primarily to the current economic climate focused primarily on infill of vacant residential land and properties along with an aggressive campaign to bring commercial development into the Village.

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.

TABLE: LEGAL AND REGULATORY CAPABILITY					
	Local Authority	State or Federal Prohibitions	Other Jurisdictional Authority	State Mandated	Comments
Codes, Ordinances & Requirements					
Building Code	Yes	No	No	Yes	Ord. 2002-12, 8/12/2002
Zonings	Yes	No	No	Yes	Ord. 2002-12, 8/12/2002
Subdivisions	No	No	No	No	
Stormwater Management	Yes	Yes	No	Yes	State regulates industrial activity from Construction sites 1 acre or larger under section 402 CWA. 91-3, 3/22/1991
Post Disaster Recovery	No	No	No	Yes	
Real Estate Disclosure	No	Yes	Yes	Yes	(65 ILCS 77/) Residential Real Property Disclosure Act.
Growth Management	Yes	No	No	No	16-21, 5/24/2010
Site Plan Review	Yes	No	No	No	Ord. 2011-15, 7/11/2011
Public Health and Safety	No	No	No	Yes	

Environmental Protection	No	No	No	Yes	
Planning Documents					
General or Comprehensive Plan	No	No	No	No	
<i>Is the plan equipped to provide linkage to this mitigation plan?</i>					No
Floodplain or Basin Plan	No	Yes	No	No	
Stormwater Plan	Yes	No	Yes	No	Regional stormwater impacts are managed by MWRD. The Village lies within the Little Calumet River, Butterfield Creek watershed planning area of MWRD's comprehensive Stormwater Master Planning Program
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	No	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	
Response/Recovery Planning					
Comprehensive Emergency Management Plan	No	No	Yes	Yes	Cook County DHSEM
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	Yes	Yes	Cook County DHSEM
Continuity of Operations Plan	No	No	Yes	No	Cook County DHSEM
Public Health Plans	No	No	Yes	No	Cook County DPH

TABLE: FISCAL CAPABILITY

Financial Resources	Accessible or Eligible to Use?
Community Development Block Grants	Yes
Capital Improvements Project Funding	No
Authority to Levy Taxes for Specific Purposes	No
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	No
Withhold Public Expenditures in Hazard-Prone Areas	No
State Sponsored Grant Programs	Yes

Development Impact Fees for Homebuyers or Developers	Yes
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TABLE: ADMINISTRATIVE AND TECHNICAL CAPABILITY		
Staff/Personnel Resources	Available?	Department/Agency/Position
Planners or engineers with knowledge of land development and land management practices	Yes	Robinson Engineering, Inc./Teska and Associates, Inc
Engineers or professionals trained in building or infrastructure construction practices	Yes	Building Department/Building Commissioner
Planners or engineers with an understanding of natural hazards	Yes	Robinson Engineering, Inc.
Staff with training in benefit/cost analysis	No	
Surveyors	Yes	Engineering/Robinson Engineering Inc.
Personnel skilled or trained in GIS applications	Yes	Cook County GIS Consortium
Scientist familiar with natural hazards in local area	No	
Emergency manager	Yes	Cook County DHSEM
Grant writers	Yes	Administration/Village Administrator

TABLE: NATIONAL FLOOD INSURANCE PROGRAM COMPLIANCE	
What department is responsible for floodplain management in your jurisdiction?	Building Department
Who is your jurisdiction’s floodplain administrator? (department/position)	Building Department/Building Commissioner
Are any certified floodplain managers on staff in your jurisdiction?	Yes/Robinson Engineering, Inc.
What is the date of adoption of your flood damage prevention ordinance?	August 12, 2002
When was the most recent Community Assistance Visit or Community Assistance Contact?	Have not received a Community Assistance Visit
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/Economic Assistance
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/No

TABLE: COMMUNITY CLASSIFICATIONS			
	Participating?	Classification	Date Classified
Community Rating System	No	N/A	N/A
Building Code Effectiveness Grading Schedule	Yes	Unknown	N/A
Public Protection/ISO	Yes	ISO Class 4	Chicago Heights Fire Department provides Fire and EMS to Olympia Fields
StormReady	Yes	Gold (Countywide)	2014
Tree City USA	Yes	N/A	2007

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: 1
- Number of FEMA-Identified Severe Repetitive Loss Properties: None
- Number of Repetitive Flood Loss/Severe Repetitive Loss Properties That Have Been Mitigated: None

Type of Event	FEMA Disaster Number (if applicable)	Date	Preliminary Damage Assessment
Hail Storm	-	2/28/2017	-
Severe Storms	DR-4116	4/26/2013	Property Damage
Severe Storms/Wind	-	8/4/2012	Property Damage
Excessive Heat	-	7/4/2012	-
Hail Storm	-	6/4/2011	Property Damage
Severe Winter Storm	DR-1960 / EM-3161	1/31/2011	-
Severe Storms/Flooding	DR-1935	7/19/2010	Property Damage Flooded roadways and viaducts
Tornado/High Winds	-	6/23/2010	Property Damage Flooded roadways and viaducts
Severe Storms/Flooding	DR-1800	9/13/2008	Property Damage Flooded roadways and viaducts
Tornado/High Winds	-	6/7/2008	Property Damage Flooded roadways and viaducts
Severe Storms/Flooding	DR-1729	8/20/2007	Property Damage Flooded roadways and viaducts
Hail Storm	-	6/1/2007	Property Damage
Severe Winter Storm	-	3/2/2007	-
Extreme Cold/Wind	-	2/1/2007	-

Flash Flood	-	8/28/2006	Flooded roadways and viaducts
Severe Storms/Wind	-	10/2/2005	Property Damage
Hail Storm	-	4/19/1996	Property Damage
Severe Storms/Flooding	DR-997	4/13/1993	Property Damage Flooded roadways and viaducts
Severe Storms/Flooding	DR-798	8/13/1987	Property Damage Flooded roadways and viaducts
Severe Storms/Flooding	DR-776	9/21/1986	Property Damage Flooded roadways and viaducts
Severe Storms/Tornado	DR-643	6/30/1981	Property Damage Flooded roadways and viaducts

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.

Tornado: All of Cook County is at risk of high winds and tornadoes, the Village maintains the municipality's tornado warning system and verifies Southcom's systems are functional.

Severe Weather: Multiple large trees blown down. A semi-trailer was blown over at 83rd and the Tri-state Tollway.

Hail: Penny size hail reported at Interstate 57 and Route 30.

Flooding: February 20, 2018 - Governors Highway -- a main artery connecting Matteson to Richton Park and Olympia Fields -- closed between 214th and 219th. Water under one viaduct rose to 10 feet.

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.

TABLE: HAZARD RISK RANKING		
Rank	Hazard Type	Risk Rating Score (Probability x Impact)
1	Severe Weather	34
2	Severe Winter Weather	34
3	Tornado	34
4	Flood	22
5	Earthquake	11
6	Drought	10
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)
Action O5.1 —Integrate the hazard mitigation plan into other plans, ordinances, or programs to dictate land uses within the jurisdiction.						
Ongoing	All	3, 4, 6, 10, 13	Village	Low	General Fund	Short-term
Action O5.2 —Strive to capture perishable data (i.e. high water marks, preliminary damage estimates, and damage photos).						
Ongoing	All	3, 6, 9	Village	Medium	General Fund; FEMA Grant Funds (Public Assistance)	Long-term
Action O5.3 —Continue to support the county-wide initiatives identified in this plan.						
Ongoing	All	All	Village	Low	General Fund	Short- and long-term
Action O5.4 —Maintain the municipality’s tornado warning system and verify SouthCom’s systems are functional.						

Ongoing	Tornado, Severe Weather	1, 5	Village	Low	General Fund	Ongoing
Action 05.5 —Update the Olympia Fields’s emergency operations center.						
Ongoing	All	1, 2, 5	General revenue, EOC Grants	Medium	General revenue, EOC Grants	Long-term
Action 05.6 —Actively participate in the plan maintenance strategy identified in this plan.						
Ongoing	All	3, 4, 6	DHSEM, Village	Low	General Fund	Short-term
Action 05.7 —Where appropriate, support retrofitting, purchase, or relocation of structures in hazard-prone areas.						
Ongoing	All	7, 13	Village	High	FEMA Hazard Mitigation Grants	Long-term (depending on funding)
Action 05.8 —Maintain good standing under the National Flood Insurance Program.						
Ongoing	Flooding	4, 6, 9	Village	Low	General Fund	Short-term and ongoing
Action 05.9 —Consider the development and implementation of a Capital Improvements Program (CIP) to increase the Village’s capability for mitigation actions.						
Ongoing	All	1, 2, 7	Public Works	High	CIP component of general fund (if implemented)	Long-term
Action 05.10 —Drainage improvements to Graymoor subdivision and Butterfield Creek						
New	Flood, Hazardous Materials Release	1, 2, 13	MWRD	\$800,000; High	Grants (MWRD), local funds	2022
(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	Benefits	Costs	Do Benefits	Is Project	Can Project Be Funded Under	Priority (a)

	Objectives Met			Equal or Exceed Costs?	Grant-Eligible?	Existing Programs/Budgets?	
1	5	Medium	Low	Yes	No	Yes	High
2	3	Medium	Medium	Yes	Yes	No	Medium
3	13	Medium	Low	Yes	No	Yes	High
4	2	High	Low	Yes	Yes	Yes	High
5	3	High	Medium	Yes	Yes	No	Medium
6	3	Medium	Low	Yes	Yes	Yes	High
7	2	High	High	Yes	Yes	No	Medium
8	3	Medium	Low	Yes	No	Yes	High
9	3	High	High	Yes	No	No	Medium
10	3	Medium	High	Yes	Yes	Unknown	Medium

(a) See Chapter 1 for explanation of priorities.

New Mitigation Actions

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

Action O5.10

Mitigation Action	Drainage improvements to Graymoor subdivision and Butterfield Creek
Year Initiated	2019
Applicable Jurisdiction	Olympia Fields
Lead Agency/Organization	MWRD
Supporting Agencies/Organizations	Olympia Fields
Applicable Goal	<ul style="list-style-type: none"> • Develop and implement sustainable, cost-effective, and environmentally sound risk-reduction (mitigation) projects. • Protect the lives, health, safety, and property of the citizens of Cook County from the impacts of natural hazards.
Applicable Objective	<ul style="list-style-type: none"> • Eliminate or minimize disruption of local government operations caused by natural hazards through all phases of emergency management. • Increase the resilience of (or protect and maintain) infrastructure and critical facilities. • Encourage hazard mitigation measures that result in the least adverse effect on the natural environment and that use natural processes.
Potential Funding Source	Grants (MWRD), local funds
Estimated Cost	\$800,000
Benefits (loss avoided)	By improving swales and storm water run-off, the residents of Graymoor subdivision will realize a significant decrease in flooding and property damage. Swale improvements will provide proper drainage to Butterfield Creek.
Projected Completion Date	2022
Priority and Level of Importance (Low, Medium, High)	Medium Priority
Benefit Analysis (Low, Medium, High)	Medium- Project will have a long-term impact on the reduction of risk exposure for life and property, or project will provide an immediate reduction in the risk exposure for property.
Cost Analysis (Low, Medium, High)	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).

Actual Completion Date	
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Recommended Mitigation Action/Implementation Plan and Project Description	
Action/Implementation Plan and Project Description:	By improving swales in the Graymoor subdivision, storm water run-off will be properly directed to Butterfield Creek thereby eliminating the constant flooding/property damage experienced by residents and eliminate the potential for sewage back-up/overall in the basements of residents and potential discharge into Butterfield Creek.

Mitigation Action and Project Maintenance		
Year	Status	Comments
2019	New	
2020		
2021		
2022		
2023		

Mitigated Hazards	
	All Hazards
	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
	Widespread Power Outage
	Coastal Erosion
	Secondary Impacts from Mass Influx of Evacuees
X	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 O5.1

TABLE: ACTION PLAN MATRIX		
Action Number Action Taken Y/N	Action Item Description	Status (X, O, C, R, N)
# O5.1	Integrate the hazard mitigation plan into other plans, ordinances, or programs to dictate land use within the jurisdiction.	
Status Description: Yes	Ongoing revision and update of all building codes to comply with 2012 edition of International Code Council and zoning codes.	O
<p align="center">Completion status legend: N = New O = Action Ongoing toward Completion C = Project Completed R = Want Removed from Annex X = No Action Taken</p>		

Action O5.2

TABLE: ACTION PLAN MATRIX		
Action Number Action Taken Y/N	Action Item Description	Status (X, O, C, R, N)
# O5.2	Strive to capture perishable data (i.e. high water marks, preliminary damage estimates, damage photos).	
Status Description: Yes	Any perishable data is being filed accordingly for future reference.	O
<p align="center">Completion status legend: N = New O = Action Ongoing toward Completion C = Project Completed R = Want Removed from Annex X = No Action Taken</p>		

Action O5.3

TABLE: ACTION PLAN MATRIX		
Action Number Action Taken Y/N	Action Item Description	Status (X, O, C, R, N)
# O5.3	Continue to support the county-wide initiatives identified in this plan.	
Status Description: Yes	Ongoing support of this plan.	O
<p align="center">Completion status legend: N = New O = Action Ongoing toward Completion C = Project Completed R = Want Removed from Annex X = No Action Taken</p>		

Action O5.4

TABLE: ACTION PLAN MATRIX		
Action Number Action Taken Y/N	Action Item Description	Status (X, O, C, R, N)
# O5.4	Maintain the municipality's tornado warning system and verify Southcom's systems are functional.	
Status Description: Yes	Weekly tests are performed on this system. Public education regarding the warning system and coordinated activation in one SouthCom member municipality will alert all member municipalities.	O
<p align="center">Completion status legend: N = New O = Action Ongoing toward Completion C = Project Completed R = Want Removed from Annex X = No Action Taken</p>		

Action O5.5

TABLE: ACTION PLAN MATRIX		
Action Number Action Taken Y/N	Action Item Description	Status (X, O, C, R, N)
# O5.5	Update Olympia Fields's emergency operations center.	
Status Description: Yes	Funding mechanism not identified. Revision of existing Emergency Operations Plan. Ongoing training for identified potential threats including petroleum pipelines within jurisdiction.	O
<p align="center">Completion status legend: N = New O = Action Ongoing toward Completion C = Project Completed R = Want Removed from Annex X = No Action Taken</p>		

Action O5.6

TABLE: ACTION PLAN MATRIX		
Action Number Action Taken Y/N	Action Item Description	Status (X, O, C, R, N)
# O5.6	Actively participate in the plan maintenance strategy identified in this plan.	
Status Description: Yes	Ongoing support of this plan.	O
<p align="center">Completion status legend: N = New O = Action Ongoing toward Completion C = Project Completed R = Want Removed from Annex X = No Action Taken</p>		

Action O5.7

TABLE: ACTION PLAN MATRIX		
Action Number Action Taken Y/N	Action Item Description	Status (X, O, C, R, N)
# O5.7	Where appropriate, support retrofitting, purchase, or relocation of structures in hazard prone areas.	
Status Description: No	Dependent upon FEMA Hazard Mitigation Grants	X
<p align="center">Completion status legend: N = New O = Action Ongoing toward Completion C = Project Completed R = Want Removed from Annex X = No Action Taken</p>		

Action O5.8

TABLE: ACTION PLAN MATRIX		
Action Number Action Taken Y/N	Action Item Description	Status (X, O, C, R, N)
# O5.8	Maintain good standing under the National Flood Insurance Program.	
Status Description: Yes	Ongoing effort to maintain good standing.	O
<p align="center">Completion status legend: N = New O = Action Ongoing toward Completion C = Project Completed R = Want Removed from Annex X = No Action Taken</p>		

Action O5.9

TABLE: ACTION PLAN MATRIX		
Action Number Action Taken Y/N	Action Item Description	Status (X, O, C, R, N)
# O5.9	Develop and implement Capitol Improvements Program to increase the Village's capability for mitigation actions.	
Status Description: No	Funding mechanism not identified.	X
<p>Completion status legend: N = New O = Action Ongoing toward Completion C = Project Completed R = Want Removed from Annex X = No Action Taken</p>		

Completed Mitigation Actions

Olympia Fields 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

OLYMPIA FIELDS EXISTING CONDITIONS	
2010 Population	4,988
Total Assessed Value of Structures and Contents	\$1,785,341,277
Area in 100-Year Floodplain	142.12 acres
Area in 500-Year Floodplain	149.51 acres
Number of Critical Facilities	22

HAZARD EXPOSURE IN OLYMPIA FIELDS						
	Number Exposed		Value Exposed to Hazard		Total	% of Total Assessed Value Exposed
	Population	Buildings	Structure	Contents		
Dam Failure						
Buffalo Creek	0	0	\$0	\$0	\$0	0.00%
U. Salt Cr. #2	0	0	\$0	\$0	\$0	0.00%
Touhy	0	0	\$0	\$0	\$0	0.00%
U. Salt Cr. #3	0	0	\$0	\$0	\$0	0.00%
U. Salt Cr. #4	0	0	\$0	\$0	\$0	0.00%
Flood						
100-Year	42	13	\$4,351,693	\$2,175,847	\$6,527,540	0.37%

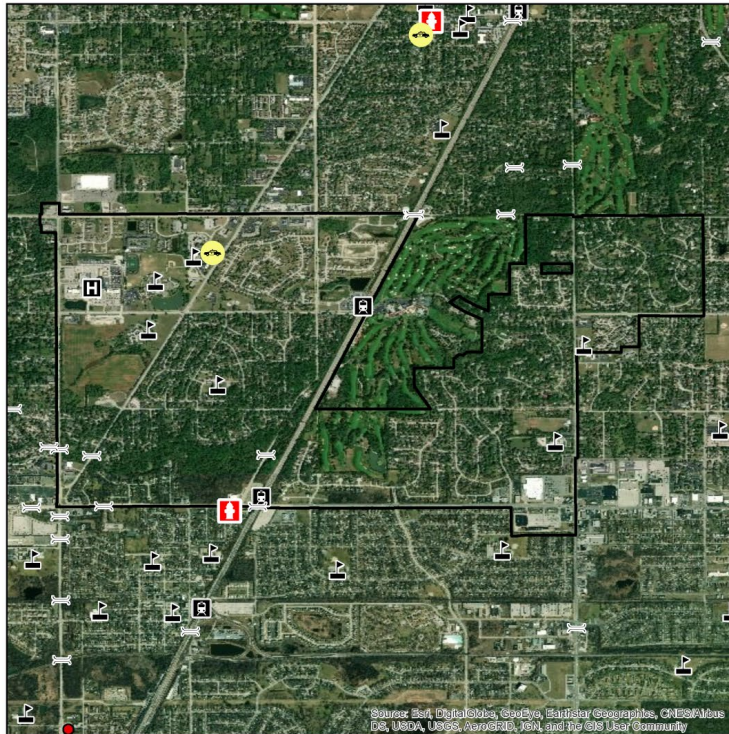
500-Year	68	21	\$6,780,129	\$3,390,065	\$10,170,194	0.57%
Tornado						
100-Year	—	—	\$182,153,846	\$92,423,794	\$274,577,639	15.38%
500-Year	—	—	\$296,031,715	\$148,314,389	\$444,346,104	24.89%

ESTIMATED PROPERTY DAMAGE VALUES IN OLYMPIA FIELDS

	Estimated Damage Associated with Hazard			% of Total Assessed Value Damaged
	Building	Contents	Total	
Dam Failure				
Buffalo Creek	\$0	\$0	\$0	0.00%
U. Salt Cr. #2	\$0	\$0	\$0	0.00%
Touhy	\$0	\$0	\$0	0.00%
U. Salt Cr. #3	\$0	\$0	\$0	0.00%
U. Salt Cr. #4	\$0	\$0	\$0	0.00%
Earthquake				
1909 Historical Event	\$7,509,839	\$1,944,743	\$9,454,582	0.53%
Flood				
10-Year	\$0	\$0	\$0	0.00%
100-Year	\$271,903	\$114,054	\$385,958	0.02%
500-Year	\$562,635	\$271,195	\$833,830	0.05%

Tornado				
100-Year	\$18,215,385	\$9,242,379	\$27,457,764	1.54%
500-Year	\$43,220,630	\$21,653,901	\$64,874,531	3.63%

Hazard Mapping



VILLAGE OF OLYMPIA FIELDS

CRITICAL INFRASTRUCTURE

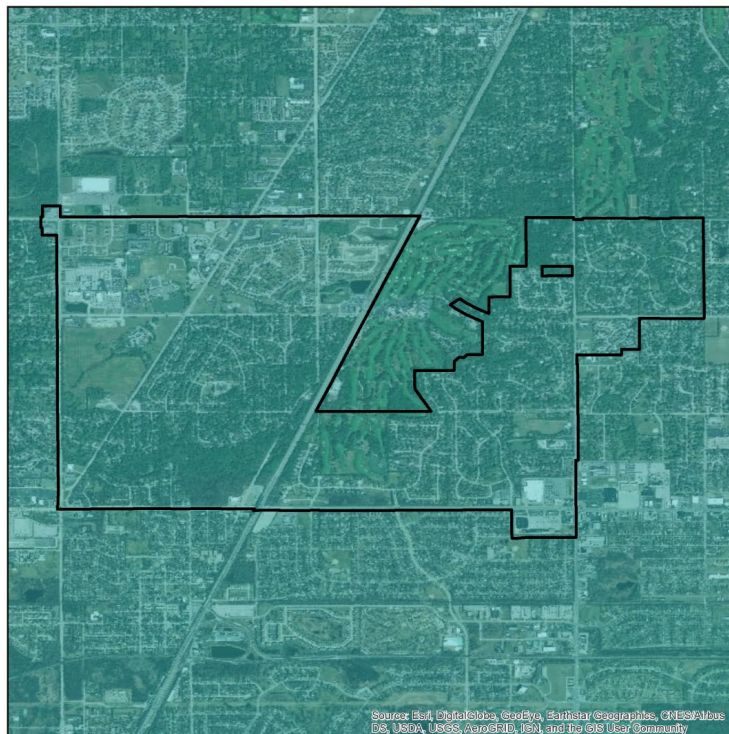
- Oil Facilities
- Transit Centers
- Military Facilities
- Police Stations
- Fire Stations
- Hazardous Waste
- Airports
- Hospitals
- Highway Bridges
- Warming Centers
- Cooling Centers
- Schools
- Railroad Stations

Base Map Data Sources:
Cook County, ESRI



0 0.125 0.25 0.5 0.75 1 Miles

Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community



VILLAGE OF OLYMPIA FIELDS

PEAK GROUND ACCELERATION FOR A 100 YEAR EARTHQUAKE EVENT

- Mercalli Scale, Potential Shaking**
- II-III Weak

Data provided by the USGS Earthquake Hazards Program and Cook County.

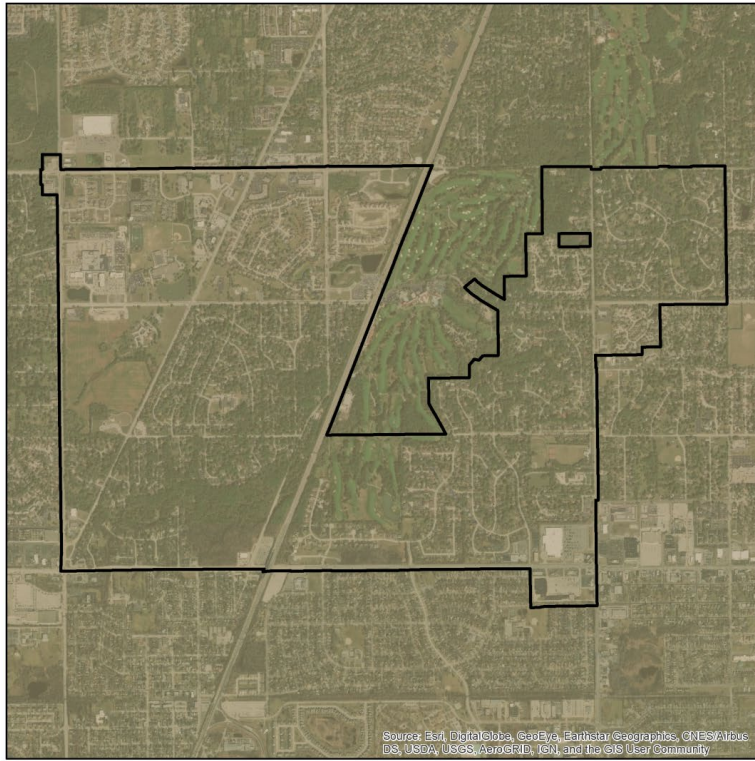
Probabilistic seismic-hazard maps were prepared for the conterminous United States for 2014 portraying peak horizontal acceleration and horizontal spectral response acceleration for 0.2- and 1.0-second periods with probabilities of exceedance of 10 percent in 50 years and 2 percent in 50 years. All of the maps were prepared by combining the hazard derived from spatially smoothed historical seismicity with the hazard from fault-specific sources. The acceleration values contoured are the random horizontal component. The reference site condition is firm rock, defined as having an average shear-wave velocity of 760 m/s in the top 30 meters corresponding to the boundary between NEHRP (National Earthquake Hazards Reduction Program) site classes B and C.

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0 0.125 0.25 0.5 0.75 1 Miles

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VILLAGE OF OLYMPIA FIELDS
NATIONAL EARTHQUAKE HAZARD REDUCTION PROGRAM (NEHRP) SOIL CLASSIFICATION

- TYPE**
- C - Very Dense Soil, Soft Rock
 - D - Stiff Soil
 - F- Site Specific Evaluation

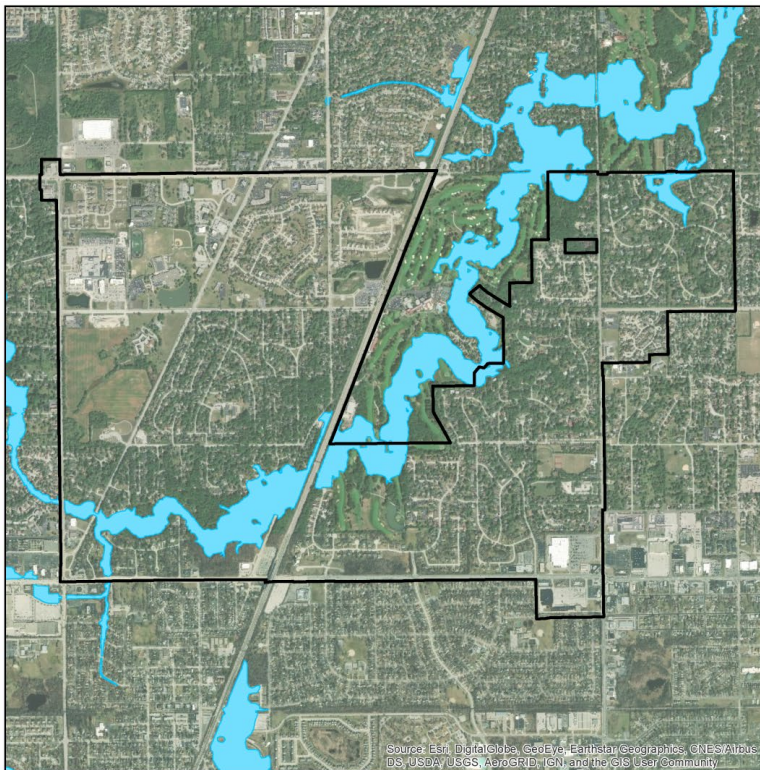
Data provided by the Illinois State Geological Survey and Cook County.

The Central United States Earthquake Consortium (CUSEC) State Geologists produced a regional Soil Site Class map (NEHRP Soil Profile Type Map), a Liquefaction Susceptibility Map and a Soil Response Map for the 8 states to be used in the FEMA New Madrid Catastrophic Planning Initiative Phase II work. The USGS Geologic Investigation Series I-2789 Map of Surficial Deposits and Materials in the Eastern and Central United State (East of 102 degrees West Longitude) by David S. Fullerton, Charles A. Bush and Jean N. Peneil (2003) was the base map used for this work. Each State Geological Survey produced its own state map version of the Soil Site Class and Liquefaction Susceptibility maps. The procedures outlined in the NEHRP provisions (Building Seismic Safety Council, 2004) and the 2003 International Building Codes (International Code Council, 2002) were followed to produce the soil site class maps. CUSEC State Geologists used the entire column of soils material down to bedrock and did not include any bedrock in the calculation of the average shear wave velocity for the column, since it is the soil column and the difference in shear wave velocity of the soils in comparison to the bedrock which influences much of the amplification.

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VILLAGE OF OLYMPIA FIELDS
COOK COUNTY MWRDGC 100-YEAR INUNDATION AREA

- 100-year inundation Area

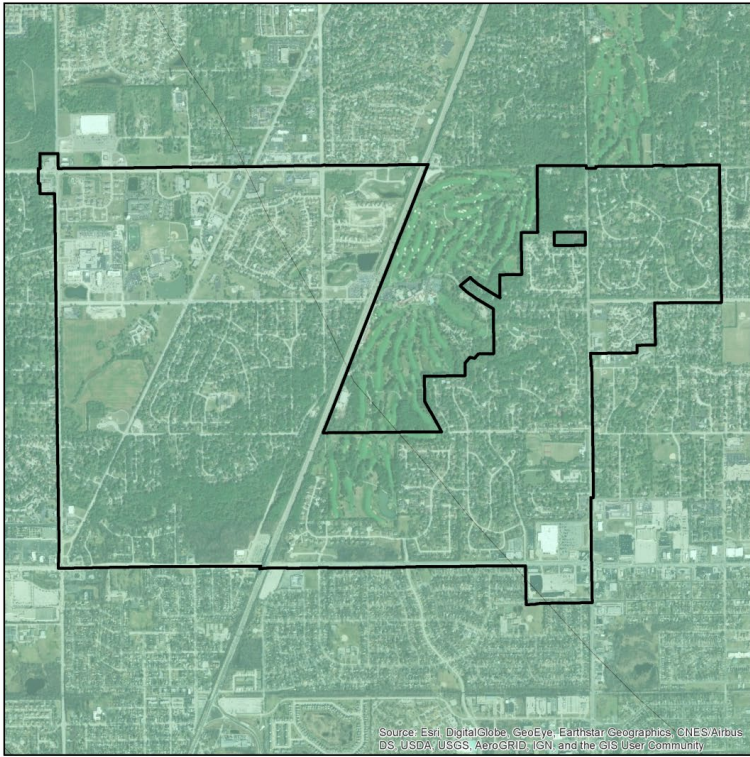
MWRDGC Data provided by Metropolitan Water Reclamation District of Greater Chicago and Cook County.

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DISCLAIMER: The Cook County MWRDGC 100-year Inundation Map is provided to show general flood risk information regarding floodplains and inundation areas. This map is not regulatory. Official FEMA Flood Insurance Study information and regulatory maps can be obtained from <http://www.fema.gov>.



Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community



VILLAGE OF OLYMPIA FIELDS

LIQUEFACTION SUSCEPTIBILITY

LIQUEFACTION SUSCEPTIBILITY

- high
- low
- very low

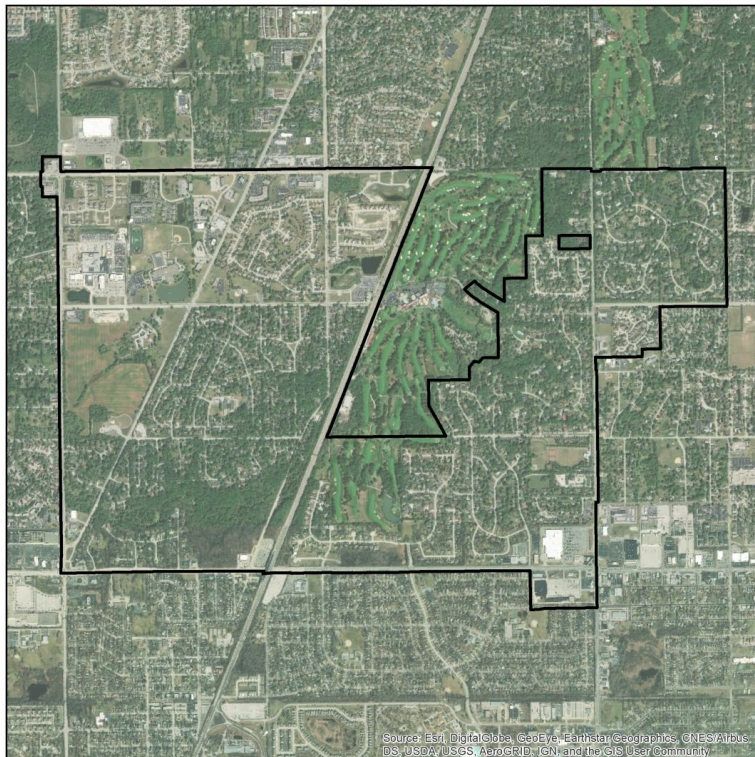
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VILLAGE OF OLYMPIA FIELDS

100- AND 500- YEAR TORNADO EVENTS

Magnitude

- 4 (100 year event)
- 5 (500 year event)

Historic tornado data provided by NOAA/NWS showing the initial points and paths of all F4 and F5 events observed from 1950 to 2017.



Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus, DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community