

2.47 City of Rochester Hills

Published 10/13/2017 10:27 by Daiko Abe

2017 Hazard Mitigation Plan Update: Representative(s) and Point(s) of Contact

Name	Title/Position	Phone Number	E-mail	Role in Mitigation Plan Development
Sean Canto	Fire Chief	(248) 656-4720	cantos@rochesterhills.org	
Bill Cooke	Assistant Fire Chief		cookeb@rochesterhills.org	

2017 Plan Participation and Involvement

2.47.1 Community Profile and Description

Published 7/26/2017 15:22 by Kim Pleva-Berka

The City of Rochester Hills is located on the northern outskirts of Metropolitan Detroit. Prior to European settlement, the area now known as Rochester Hills was inhabited by Native Americans, namely the Potawatomi. The first European settler was James Graham who arrived in 1817. Rochester incorporated as a village within the township in 1869. In 1966, village residents voted to become the City of Rochester, effective in February 1967. As of the 2016 U.S. Census Population and Housing Unit Estimates, the population is 73,422. The total area of the City of Rochester Hills is 32.91 square miles.

2.47.2 Hazards

Published 10/17/2017 21:46 by Leah Kahn

Areas of the community most vulnerable to flooding include Paint Creek near Dutton Road and Livernois, Stoney Creek near East Tienken Road, and the Clinton River north of Hamlin Road. Factors contributing to the flooding include the large amounts of water originating in other communities and overflowing the rivers and streams of this City. In addition, citizens who build private bridges on their property contribute to the problem as these bridges will many times get blocked by debris causing subsequent flooding. Riverine flood may impact low lying areas at Avon and Livernois, as well as Avon and Dequindre (**check with Parks on Paint Creek and Dutton**). There is shoreline flooding and erosion along Clinton River at Avon and Livernois as well as Avon and Dequindre.

Emergencies such as fires or tornadoes at senior citizen facilities present significant risks. Currently, 17 facilities in the community with 3 more scheduled to open by early 2018 presents even greater challenges to the City's public safety infrastructure. One area of concern is the lack of a specific plan to transport the residents of these communities to a safe area. Contributing to this problem is the physical limitations of some of the residents.

Extreme cold and heat pose a threat to multi-family residential and senior living complexes due to building infrastructure failure.

City leaders addressed the potential of a hazmat emergency at an area industrial facility as a concern.

High winds have become a major concern with residents by knocking over trees and power lines. The last storm that caused major damage was in March 2017.

Electrical grid failures have become a major concern with the community because of the larger number of senior citizens living in the area. These failures may be caused by a falling tree.

M-59 runs 6 miles through the city and is a potential hazard because of the high traffic volume along with the transportation of hazmat material.

Fog may be a hazard to low lying areas at Avon & Dequindre intersection as well as Livernois & Avon.

Hail can cause damage to residential structures.

Ice and sleet storms can cause residential structures, electrical systems and transportation needs.

There is a high probability for thunderstorms and lightning in a highly populated area.

Tornado poses a threat to highly populated, dense residential subdivisions.

Winter storms and blizzards may impact senior living, multi-family residential, and highly populated single family residential areas.

There are lots of schools in Rochester Hills, which may pose a mass shooting/active assailant threat to the many schools in the area.

Hazardous materials are not a large threat; there are only a few industrial areas with hazmat. There are only a few with high quantities of product storage.

There has been an effort to replace major bridges in the area over the past few years, so transportation infrastructure failure is a low risk.

There is some pipeline that runs through portions of the city.

Rochester Hills is in the flight path for Oakland County Airport, so it is possible it may be impacted by an air incident.

Ascension Crittenton Hospital is located in the city, as well as senior living complexes, which could post an additional threat during a pandemic/epidemic.

Please fill out the form to submit a New Hazard Description. Be sure to click "Submit" at the bottom of the form. All hazards can be described on this single form. If you have any problems accessing this form on this webpage, please use this link instead: [New Hazard Description Form](#)

By refreshing this webpage, a new form will appear. Upon submitting the form, you will receive an e-mail of your submission for your records. For assistance, please contact Daiko Abe at (208) 390-2021 or e-mail daiko.abe@i-s-consulting.com.

Oakland County Municipal/Organization Hazards

Please use this form to identify and describe how the hazards below have impacted (or could impact) your municipality or organization. Please be as specific as possible. Upon submitting this form, you will receive a copy of your submission.

Name

First Last

Email

Phone Number

 - -

####

Applicable Jurisdiction and/or Organization

Hazard(s) that will be mitigated by this project. Please select all that apply.

- | | |
|---|---|
| <input type="checkbox"/> Civil Disturbances | <input type="checkbox"/> Criminal Acts: Arson |
| <input type="checkbox"/> Criminal Acts: Mass Shootings/Active Assailant | <input type="checkbox"/> Criminal Acts: Vandalism |
| | <input type="checkbox"/> Dam Failure |

- Drought
- Extreme Cold
- Flash flooding
- Gas/Oil Shortages or Supply Disruption
- Hazardous Materials Incidents: Fixed Site
- High Winds/Severe Winds
- Infrastructure Failure: Communication System Failure Incident
- Infrastructure Failure: Sewer System Failure Incident
- Infrastructure Failure: Transportation (Bridges, Roads, Overpasses) Infrastructure System Failure Incident
- Nuclear Power Plant Accidents
- Pandemic/Epidemic
- Riverine Flooding
- Shoreline Flooding & Erosion
- Subsidence
- Thunderstorms (Lightning)
- Transportation Accidents: Air
- Transportation Accidents: Marine
- Urban Flooding
- Wildfire
- Earthquake
- Extreme Heat
- Fog
- Hail
- Hazardous Materials Incidents: Transportation Incident
- Ice and/or Sleet Storms
- Infrastructure Failure: Electrical System Failure Incident
- Infrastructure Failure: Storm Water System Failure Incident
- Infrastructure Failure: Water System Failure Incident
- Invasive Species
- Oil and Gas Well Accidents
- Petroleum and Natural Gas Pipeline Accidents
- Scrap Tire Fire
- Structural Fire
- Terrorism and Sabotage
- Tornadoes
- Transportation Accidents: Highway
- Transportation Accidents: Rail
- Weapons of Mass Destruction
- Winter Storm and Blizzards

Submit

Please fill out the form to submit a New Hazard Description. Be sure to click "Submit" at the bottom of the form. All hazards can be described on this single form. If you have any problems accessing this form on this webpage, please use this link instead: [New Hazard Description Form](#)

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2.47.3 Mitigation Strategies and Actions

Published 6/23/2017 12:27 by Daiko Abe

Mitigation Strategy 2005

1. Provide transportation for citizens, especially seniors, in cases of emergencies.
 - Hazard(s) Addressed: All (particularly Fire - Structural, High Winds and Tornadoes)
 - Progress: ONGOING
2. Address the problem of Clinton River flooding from storm water runoff and dam/lake level control structure releases upstream.
 - Hazard(s) Addressed: Flooding - Riverine, Flooding - Urban
 - Progress: ONGOING
3. Prohibit the building of private bridges that may back up small streams and result in flooding, particularly on Paint Creek, the Clinton River and Stoney Creek.
 - Hazard(s) Addressed: Flooding - Riverine
 - Progress: ONGOING

Mitigation Strategies 2012

1. Seek funding to complete bank erosion repair of Clinton River.
 - Hazard(s) Addressed: Flooding - Riverine, Flooding - Urban
2. Seek funding to remove woody debris removal of the Clinton River and Paint Creek.
 - Hazard(s) Addressed: Flooding - Riverine, Flooding - Urban
3. Seek funding to address flooding on Livernois and Avon Roads.
 - Hazard(s) Addressed: Flooding - Riverine, Flooding - Urban

2.47.3.1 New Mitigation Actions

Published 9/22/2017 16:27 by Leah Kahn

Please fill out the form to submit a New Mitigation Action/Project. Be sure to click "Submit" at the bottom of the form. Multiple projects can be submitted by refreshing this webpage. If you have any problems accessing this form on this webpage, please use this link instead: [New Mitigation Form](#)

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Oakland County Hazard Mitigation New Projects

To submit a new mitigation action, please fill out the form and click submit. Upon submission, you will receive an email confirming your submission.

Name

First Last

Email

Phone Number

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####

Mitigation Action (Please describe the mitigation action)

Year Mitigation Action was Initiated (example: 2017)

Applicable Jurisdiction and/or Organization

Lead Agency/Organization

Support Agency/Organization(s)

Applicable Goal (Please indicate if the mitigation goal is applicable to the new mitigation action/project). Check All That Apply

- Protection of public health and safety and prevention and reduction of loss of life and injury.
- Improve and support public and private organizational response capabilities.
- Prevention and reduction of damage to public and private property and infrastructure.
- Protect critical assets - hospitals, nursing homes, schools.
- Increase awareness and preparedness of public, business, non-profit, government, etc. about hazards.
- Encourage personal responsibility.

Potential Funding Source (example: Grants, Local Funds, etc.)

Estimated Cost

Benefits (Loss Avoided). Please describe the benefits this mitigation action/project will offer to your community and/or organization.

Projected Completion Date (example: 2019)

Priority and Level of Importance

	Low Priority	Medium Priority	High Priority
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Priority and Level of Importance

	Low Priority	Medium Priority	High Priority
Please indicate the Priority/Level of Importance of this Mitigation Action/Project to your jurisdiction/organization.	<input type="radio"/> 1	<input type="radio"/> 2	<input type="radio"/> 3

Technical Feasibility



Cost Effectiveness



Ability to Accomplish, Fund, Measure, and Sustain



Protection of Critical Resources



Community and Public Acceptance - environmentally sound, socially equitable, etc.



Mitigation Action and Implementation Plan. Please include a more detailed project description.

Hazard(s) that will be mitigated by this project. Please select all that apply.

- | | |
|--|---|
| <input type="checkbox"/> All Hazards | <input type="checkbox"/> Drought |
| <input type="checkbox"/> Earthquake | <input type="checkbox"/> Extreme Cold |
| <input type="checkbox"/> Extreme Heat | <input type="checkbox"/> Fog |
| <input type="checkbox"/> Hail | <input type="checkbox"/> High Winds/Severe Winds |
| <input type="checkbox"/> Ice and/or Sleet Storms | <input type="checkbox"/> Riverine Flooding |
| <input type="checkbox"/> Shoreline Flooding & Erosion | <input type="checkbox"/> Subsidence |
| <input type="checkbox"/> Thunderstorms (Lightning) | <input type="checkbox"/> Tornadoes |
| <input type="checkbox"/> Urban Flooding | <input type="checkbox"/> Wildfire |
| <input type="checkbox"/> Winter Storm and Blizzards | <input type="checkbox"/> Criminal Acts: Arson |
| <input type="checkbox"/> Criminal Acts: Mass Shootings/Active Assailant | <input type="checkbox"/> Criminal Acts: Vandalism |
| <input type="checkbox"/> Gas/Oil Shortages or Supply Disruption | <input type="checkbox"/> Dam Failure |
| <input type="checkbox"/> Hazardous Materials Incidents: Transportation Incident | <input type="checkbox"/> Hazardous Materials Incidents: Fixed Site |
| <input type="checkbox"/> Infrastructure Failure: Electrical System Failure Incident | <input type="checkbox"/> Infrastructure Failure: Communication System Failure Incident |
| <input type="checkbox"/> Infrastructure Failure: Storm Water System Failure Incident | <input type="checkbox"/> Infrastructure Failure: Sewer System Failure Incident |
| <input type="checkbox"/> Infrastructure Failure: Water System Failure Incident | <input type="checkbox"/> Infrastructure Failure: Transportation (Bridges, Roads, Overpasses) Infrastructure System Failure Incident |
| <input type="checkbox"/> Oil and Gas Well Accidents | <input type="checkbox"/> Invasive Species |
| <input type="checkbox"/> Scrap Tire Fire | <input type="checkbox"/> Nuclear Power Plant Accidents |
| <input type="checkbox"/> Transportation Accidents: Air | <input type="checkbox"/> Petroleum and Natural Gas Pipeline Accidents |
| <input type="checkbox"/> Transportation Accidents: Marine | <input type="checkbox"/> Structural Fire |
| <input type="checkbox"/> Civil Disturbances | <input type="checkbox"/> Transportation Accidents: Highway |
| <input type="checkbox"/> Weapons of Mass Destruction | <input type="checkbox"/> Transportation Accidents: Rail |
| | <input type="checkbox"/> Terrorism and Sabotage |
| | <input type="checkbox"/> Pandemic/Epidemic |

Submit

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2.47.3.1.1 Emergency Warning Notification System

Published 10/18/2017 14:27 by Leah Kahn

Mitigation Action	Develop an effective emergency warning notification system to make residents aware of a community emergency.
Year Initiated	2017
Applicable Jurisdiction	City of Rochester Hills
Lead Agency/Organization	Rochester Hills Fire Department
Supporting Agencies/Organizations	Rochester Hills MIS
Applicable Goal	<ul style="list-style-type: none"> • Protection of public health and safety and prevention and reduction of loss of life and injury • Improve and support public and private organizational response capabilities • Increase awareness and preparedness of public, business, non-profit, government, etc., about hazards
Potential Funding Source	
Estimated Cost	
Benefits (loss avoided)	
Projected Completion Date	2019
Actual Completion Date	
Priority	HIGH

Recommended Mitigation Action/Implementation Plan and Project Description

Action/Implementation Plan and Project Description	
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Mitigation Action and Project Maintenance

Year	Status	Comments
2017	Ongoing	
2018		
2019		
2020		
2021		

Mitigation Action Assessment

Assessment	Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree
Is technically feasible					
Is cost effective					
Can be easily accomplished, funded, measured, and sustained					
Protects critical resources and property					
Will be accepted by the community and public					
Is environmentally sound					

Mitigated Hazards	
<input type="checkbox"/>	All Hazards
Natural Hazards	
<input type="checkbox"/>	Drought
<input type="checkbox"/>	Earthquake
X	Extreme Cold
X	Extreme Heat
X	Fog
X	Hail
X	High Winds/Severe Winds
X	Ice and/or Sleet Storms
X	Flood (Riverine)
X	Flood (Shoreline Flooding and Erosion)
X	Flood (Urban/Flash Flooding)
<input type="checkbox"/>	Subsidence
X	Thunderstorms (Lightning)
X	Tornadoes
<input type="checkbox"/>	Wildfire
X	Winter Storm and Blizzards
Technological Hazards	
<input type="checkbox"/>	Criminal Acts: Arson
<input type="checkbox"/>	Criminal Acts: Mass Shootings/Active Assailant
<input type="checkbox"/>	Criminal Acts: Vandalism
<input type="checkbox"/>	Dam Failure
<input type="checkbox"/>	Gas/Oil Shortages or Supply Disruption
<input type="checkbox"/>	Hazardous Materials Incidents: Fixed Site
<input type="checkbox"/>	Hazardous Materials Incidents: Transportation Incident
<input type="checkbox"/>	Infrastructure Failure: Communication System Failure Incident
X	Infrastructure Failure: Electrical System Failure Incident
X	Infrastructure Failure: Sewer System Failure Incident
X	Infrastructure Failure: Storm Water System Failure Incident
X	Infrastructure Failure: Transportation (Bridges, Roads, Overpasses) Infrastructure System Failure Incident
X	Infrastructure Failure: Water System Failure Incident
<input type="checkbox"/>	Invasive Species
<input type="checkbox"/>	Nuclear Power Plant Accidents
<input type="checkbox"/>	Oil and Gas Well Accidents
X	Petroleum and Natural Gas Pipeline Accidents
<input type="checkbox"/>	Scrap Tire Fire
X	Structural Fire
<input type="checkbox"/>	Transportation Accidents: Air
<input type="checkbox"/>	Transportation Accidents: Highway
<input type="checkbox"/>	Transportation Accidents: Marine
<input type="checkbox"/>	Transportation Accidents: Rail
Political Hazards	
<input type="checkbox"/>	Civil Disturbances
X	Terrorism and Sabotage
<input type="checkbox"/>	Weapons of Mass Destruction
Public Health Hazards	
X	Pandemic/Epidemic

2.47.3.2 Ongoing Mitigation Actions

Published 6/23/2017 09:40 by Daiko Abe

2.47.3.2.1 Provide Transportation for Citizens in Emergencies

Published 10/17/2017 21:47 by Leah Kahn

Mitigation Action	Provide transportation for citizens, especially seniors, in cases of emergencies.
Year Initiated	2005
Applicable Jurisdiction	City of Rochester Hills
Lead Agency/Organization	
Supporting Agencies/Organizations	
Applicable Goal	
Potential Funding Source	
Estimated Cost	
Benefits (loss avoided)	
Projected Completion Date	
Actual Completion Date	
Priority	

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

Mitigation Action and Project Maintenance		
Year	Status	Comments
2017	Ongoing	Collaboration with Rochester Schools
2018		
2019		
2020		
2021		

Mitigated Hazards	
X	All Hazards
Natural Hazards	
	Drought
	Earthquake
	Extreme Cold
	Extreme Heat
	Fog
	Hail
X	High Winds/Severe Winds
	Ice and/or Sleet Storms
	Riverine Flooding
	Shoreline Flooding & Erosion
	Subsidence
	Thunderstorms (Lightning)
X	Tornadoes
	Urban Flooding
	Wildfire
	Winter Storm and Blizzards
Manmade/Technological Hazards	
	Criminal Acts: Arson
	Criminal Acts: Mass Shootings/Active Assailant
	Criminal Acts: Vandalism
	Dam Failure
	Gas/Oil Shortages or Supply Disruption
	Hazardous Materials Incidents: Fixed Site
	Hazardous Materials Incidents: Transportation Incident
	Infrastructure Failure: Communication System Failure Incident
	Infrastructure Failure: Electrical System Failure Incident
	Infrastructure Failure: Sewer System Failure Incident
	Infrastructure Failure: Storm Water System Failure Incident
	Infrastructure Failure: Transportation (Bridges, Roads, Overpasses) Infrastructure System Failure Incident
	Infrastructure Failure: Water System Failure Incident
	Invasive Species
	Nuclear Power Plant Accidents
	Oil and Gas Well Accidents
	Petroleum and Natural Gas Pipeline Accidents
	Scrap Tire Fire
X	Structural Fire
	Transportation Accidents: Air
	Transportation Accidents: Highway
	Transportation Accidents: Marine
	Transportation Accidents: Rail
Political Hazards	
	Civil Disturbances
	Terrorism and Sabotage
	Weapons of Mass Destruction
Public Health Hazards	
	Pandemic/Epidemic

2.47.3.2.2 Address Problem of Clinton River Flooding

Published 10/17/2017 21:47 by Leah Kahn

Mitigation Action	Address the problem of Clinton River flooding from storm water runoff and dam/lake level control structure releases upstream.
Year Initiated	2005
Applicable Jurisdiction	City of Rochester Hills
Lead Agency/Organization	
Supporting Agencies/Organizations	
Applicable Goal	
Potential Funding Source	
Estimated Cost	
Benefits (loss avoided)	
Projected Completion Date	
Actual Completion Date	
Priority	

Recommended Mitigation Action/Implementation Plan and Project Description

Action/Implementation Plan and Project Description:	
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Mitigation Action and Project Maintenance

Year	Status	Comments
2017	Ongoing	
2018		
2019		
2020		
2021		

Mitigated Hazards	
	All Hazards
	Natural Hazards
	Drought
	Earthquake
	Extreme Cold
	Extreme Heat
	Fog
	Hail
	High Winds/Severe Winds
	Ice and/or Sleet Storms
X	Riverine Flooding
	Shoreline Flooding & Erosion
	Subsidence
	Thunderstorms (Lightning)
	Tornadoes
	Urban Flooding
	Wildfire
X	Winter Storm and Blizzards
	Manmade/Technological Hazards
	Criminal Acts: Arson
	Criminal Acts: Mass Shootings/Active Assailant
	Criminal Acts: Vandalism
	Dam Failure
	Gas/Oil Shortages or Supply Disruption
	Hazardous Materials Incidents: Fixed Site
	Hazardous Materials Incidents: Transportation Incident
	Infrastructure Failure: Communication System Failure Incident
	Infrastructure Failure: Electrical System Failure Incident
	Infrastructure Failure: Sewer System Failure Incident
	Infrastructure Failure: Storm Water System Failure Incident
	Infrastructure Failure: Transportation (Bridges, Roads, Overpasses) Infrastructure System Failure Incident
	Infrastructure Failure: Water System Failure Incident
	Invasive Species
	Nuclear Power Plant Accidents
	Oil and Gas Well Accidents
	Petroleum and Natural Gas Pipeline Accidents
	Scrap Tire Fire
	Structural Fire
	Transportation Accidents: Air
	Transportation Accidents: Highway
	Transportation Accidents: Marine
	Transportation Accidents: Rail
	Political Hazards
	Civil Disturbances
	Terrorism and Sabotage
	Weapons of Mass Destruction
	Public Health Hazards
	Pandemic/Epidemic

2.47.3.2.3 Prohibit Building of Private Bridges

Published 10/17/2017 21:47 by Leah Kahn

Mitigation Action	Prohibit the building of private bridges that may back up small streams and result in flooding, particularly on Paint Creek, the Clinton River and Stoney Creek.
Year Initiated	2005
Applicable Jurisdiction	City of Rochester Hills
Lead Agency/Organization	
Supporting Agencies/Organizations	
Applicable Goal	
Potential Funding Source	
Estimated Cost	
Benefits (loss avoided)	
Projected Completion Date	
Actual Completion Date	
Priority	

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

Mitigation Action and Project Maintenance		
Year	Status	Comments
2017	Halted	Don't believe this mitigation action is active.
2018		
2019		
2020		
2021		

Mitigated Hazards	
	All Hazards
	Natural Hazards
	Drought
	Earthquake
	Extreme Cold
	Extreme Heat
	Fog
	Hail
	High Winds/Severe Winds
	Ice and/or Sleet Storms
X	Riverine Flooding
	Shoreline Flooding & Erosion
	Subsidence
	Thunderstorms (Lightning)
	Tornadoes
	Urban Flooding
	Wildfire
	Winter Storm and Blizzards
	Manmade/Technological Hazards
	Criminal Acts: Arson
	Criminal Acts: Mass Shootings/Active Assailant
	Criminal Acts: Vandalism
	Dam Failure
	Gas/Oil Shortages or Supply Disruption
	Hazardous Materials Incidents: Fixed Site
	Hazardous Materials Incidents: Transportation Incident
	Infrastructure Failure: Communication System Failure Incident
	Infrastructure Failure: Electrical System Failure Incident
	Infrastructure Failure: Sewer System Failure Incident
	Infrastructure Failure: Storm Water System Failure Incident
	Infrastructure Failure: Transportation (Bridges, Roads, Overpasses) Infrastructure System Failure Incident
	Infrastructure Failure: Water System Failure Incident
	Invasive Species
	Nuclear Power Plant Accidents
	Oil and Gas Well Accidents
	Petroleum and Natural Gas Pipeline Accidents
	Scrap Tire Fire
	Structural Fire
	Transportation Accidents: Air
	Transportation Accidents: Highway
	Transportation Accidents: Marine
	Transportation Accidents: Rail
	Political Hazards
	Civil Disturbances
	Terrorism and Sabotage
	Weapons of Mass Destruction
	Public Health Hazards
	Pandemic/Epidemic

2.47.3.2.4 Seek Funding to Complete Bank Erosion Repair of Clinton River

Published 10/17/2017 21:48 by Leah Kahn

Mitigation Action	Seek funding to complete bank erosion repair of Clinton River.
Year Initiated	2012
Applicable Jurisdiction	City of Rochester Hills
Lead Agency/Organization	
Supporting Agencies/Organizations	
Applicable Goal	
Potential Funding Source	
Estimated Cost	
Benefits (loss avoided)	
Projected Completion Date	
Actual Completion Date	
Priority	

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

Mitigation Action and Project Maintenance		
Year	Status	Comments
2017	Ongoing	Work along the Clinton River took place this summer, but will be a continuous process.
2018		
2019		
2020		
2021		

Mitigated Hazards	
	All Hazards
	Natural Hazards
	Drought
	Earthquake
	Extreme Cold
	Extreme Heat
	Fog
	Hail
	High Winds/Severe Winds
	Ice and/or Sleet Storms
X	Riverine Flooding
	Shoreline Flooding & Erosion
	Subsidence
	Thunderstorms (Lightning)
	Tornadoes
X	Urban Flooding
	Wildfire
	Winter Storm and Blizzards
	Manmade/Technological Hazards
	Criminal Acts: Arson
	Criminal Acts: Mass Shootings/Active Assailant
	Criminal Acts: Vandalism
	Dam Failure
	Gas/Oil Shortages or Supply Disruption
	Hazardous Materials Incidents: Fixed Site
	Hazardous Materials Incidents: Transportation Incident
	Infrastructure Failure: Communication System Failure Incident
	Infrastructure Failure: Electrical System Failure Incident
	Infrastructure Failure: Sewer System Failure Incident
	Infrastructure Failure: Storm Water System Failure Incident
	Infrastructure Failure: Transportation (Bridges, Roads, Overpasses) Infrastructure System Failure Incident
	Infrastructure Failure: Water System Failure Incident
	Invasive Species
	Nuclear Power Plant Accidents
	Oil and Gas Well Accidents
	Petroleum and Natural Gas Pipeline Accidents
	Scrap Tire Fire
	Structural Fire
	Transportation Accidents: Air
	Transportation Accidents: Highway
	Transportation Accidents: Marine
	Transportation Accidents: Rail
	Political Hazards
	Civil Disturbances
	Terrorism and Sabotage
	Weapons of Mass Destruction
	Public Health Hazards
	Pandemic/Epidemic

2.47.3.2.5 Seek Funding to Remove Woody Debris

Published 10/17/2017 21:48 by Leah Kahn

Mitigation Action	Seek funding to remove woody debris removal of the Clinton River and Paint Creek.
Year Initiated	2012
Applicable Jurisdiction	City of Rochester Hills
Lead Agency/Organization	
Supporting Agencies/Organizations	
Applicable Goal	
Potential Funding Source	
Estimated Cost	
Benefits (loss avoided)	
Projected Completion Date	
Actual Completion Date	
Priority	

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

Mitigation Action and Project Maintenance		
Year	Status	Comments
2017	Ongoing	Subcontractors clean woody debris from the Clinton River on an as needed basis.
2018		
2019		
2020		
2021		

Mitigated Hazards	
	All Hazards
Natural Hazards	
	Drought
	Earthquake
	Extreme Cold
	Extreme Heat
	Fog
	Hail
	High Winds/Severe Winds
	Ice and/or Sleet Storms
X	Riverine Flooding
	Shoreline Flooding & Erosion
	Subsidence
	Thunderstorms (Lightning)
	Tornadoes
X	Urban Flooding
	Wildfire
	Winter Storm and Blizzards
Manmade/Technological Hazards	
	Criminal Acts: Arson
	Criminal Acts: Mass Shootings/Active Assailant
	Criminal Acts: Vandalism
	Dam Failure
	Gas/Oil Shortages or Supply Disruption
	Hazardous Materials Incidents: Fixed Site
	Hazardous Materials Incidents: Transportation Incident
	Infrastructure Failure: Communication System Failure Incident
	Infrastructure Failure: Electrical System Failure Incident
	Infrastructure Failure: Sewer System Failure Incident
	Infrastructure Failure: Storm Water System Failure Incident
	Infrastructure Failure: Transportation (Bridges, Roads, Overpasses) Infrastructure System Failure Incident
	Infrastructure Failure: Water System Failure Incident
	Invasive Species
	Nuclear Power Plant Accidents
	Oil and Gas Well Accidents
	Petroleum and Natural Gas Pipeline Accidents
	Scrap Tire Fire
	Structural Fire
	Transportation Accidents: Air
	Transportation Accidents: Highway
	Transportation Accidents: Marine
	Transportation Accidents: Rail
Political Hazards	
	Civil Disturbances
	Terrorism and Sabotage
	Weapons of Mass Destruction
Public Health Hazards	
	Pandemic/Epidemic

2.47.3.2.6 Seek Funding to Address Flooding on Livernois and Avon Roads

Published 10/17/2017 21:49 by Leah Kahn

Mitigation Action	Seek funding to address flooding on Livernois and Avon Roads.
Year Initiated	2012
Applicable Jurisdiction	City of Rochester Hills
Lead Agency/Organization	
Supporting Agencies/Organizations	
Applicable Goal	
Potential Funding Source	
Estimated Cost	
Benefits (loss avoided)	
Projected Completion Date	
Actual Completion Date	
Priority	

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

Mitigation Action and Project Maintenance		
Year	Status	Comments
2017	Ongoing	
2018		
2019		
2020		
2021		

Mitigated Hazards	
	All Hazards
	Natural Hazards
	Drought
	Earthquake
	Extreme Cold
	Extreme Heat
	Fog
	Hail
	High Winds/Severe Winds
	Ice and/or Sleet Storms
X	Riverine Flooding
	Shoreline Flooding & Erosion
	Subsidence
	Thunderstorms (Lightning)
	Tornadoes
X	Urban Flooding
	Wildfire
	Winter Storm and Blizzards
	Manmade/Technological Hazards
	Criminal Acts: Arson
	Criminal Acts: Mass Shootings/Active Assailant
	Criminal Acts: Vandalism
	Dam Failure
	Gas/Oil Shortages or Supply Disruption
	Hazardous Materials Incidents: Fixed Site
	Hazardous Materials Incidents: Transportation Incident
	Infrastructure Failure: Communication System Failure Incident
	Infrastructure Failure: Electrical System Failure Incident
	Infrastructure Failure: Sewer System Failure Incident
	Infrastructure Failure: Storm Water System Failure Incident
	Infrastructure Failure: Transportation (Bridges, Roads, Overpasses) Infrastructure System Failure Incident
	Infrastructure Failure: Water System Failure Incident
	Invasive Species
	Nuclear Power Plant Accidents
	Oil and Gas Well Accidents
	Petroleum and Natural Gas Pipeline Accidents
	Scrap Tire Fire
	Structural Fire
	Transportation Accidents: Air
	Transportation Accidents: Highway
	Transportation Accidents: Marine
	Transportation Accidents: Rail
	Political Hazards
	Civil Disturbances
	Terrorism and Sabotage
	Weapons of Mass Destruction
	Public Health Hazards
	Pandemic/Epidemic

2.47.3.3 Completed Mitigation Actions

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