All Hazards Mitigation Plan Update

Clermont County, Ohio

Risk Vulnerability Public Meeting

October 03, 2012

Stantec

Introductions

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Meeting Agenda

Outline

1. Introductions
2. Plan and Meeting Goals
3. Hazard Mitigation Plan - Overview
4. Risk Analysis Overview
5. Hazard Profiles
6. Questions / Comments

Hazard Mitigation Plan - Timeline

- 2006 – First Hazard Mitigation Plan Adopted
- 2011 – FEMA Grant Received for Plan Update
- July 2012 - Plan Update Started
  - July 20, 2012 - Kickoff Meeting
  - Now – Risk Vulnerability Public Meeting
  - December 2012 - Draft Plan Complete
  - March 2013 - Target Adoption Date

Hazard Mitigation Plan - Goals

Hazard Mitigation Plan Goal

1. Protect lives and property through identification of Clermont County specific hazards and development of sound mitigation projects
2. Allows for Federal funding for mitigation projects

Today's Meeting Goal

1. Review community hazard vulnerability
2. Collect community feedback on populations, facilities at risk, and historic hazards

Hazard Mitigation Plan - Overview

Primary Elements

1. Planning
2. Risk Assessment
3. Mitigation Strategies
4. Plan Review and Adoption
5. Plan Maintenance

Planning → Risk Assessment → Mitigation Strategies → Plan Review and Adoption → Plan Maintenance

Critical Facilities

Primary Facilities Identified (Facility numbers listed are currently identified within the Risk Analysis)

- Emergency Services = 58
- Schools & Daycares = 138
- Transportation Structures/Facilities = 517
- Utility Structures/Facilities = 155
- Community Structures/Facilities = 48

Population At-Risk

County-wide Census Data

- Total 2010 U.S. Census Population = 197,363
- 5 Townships with 72% of the population
    - Batavia, Goshen, Miami, Pierce, & Union
- 13 Municipalities and 9 Townships with other 28%

Hazard Risk Analysis

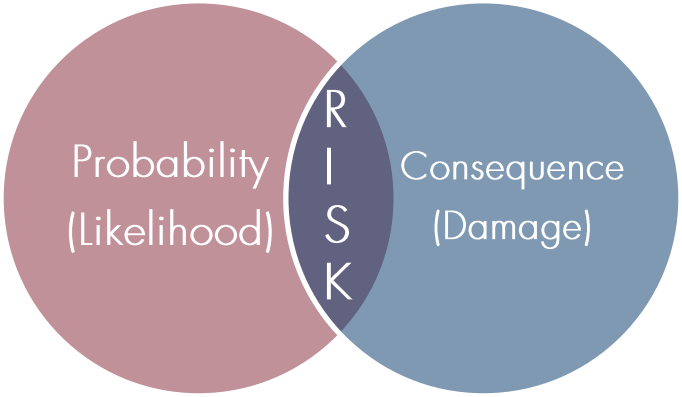
Primary Hazards

1. Severe Storms
2. Flooding
3. Tornadoes
4. Landslides
5. Droughts
6. Earthquakes
7. Hazardous Materials
8. Dam Failure
9. Utility Failures
10. Invasive Species

Hazard Risk Analysis

Methodology

1. Calculate Event Probabilities
2. Determine Potential Impacts
   - Economic Damage, Population, Critical Facilities
3. Calculate Risks / Vulnerabilities

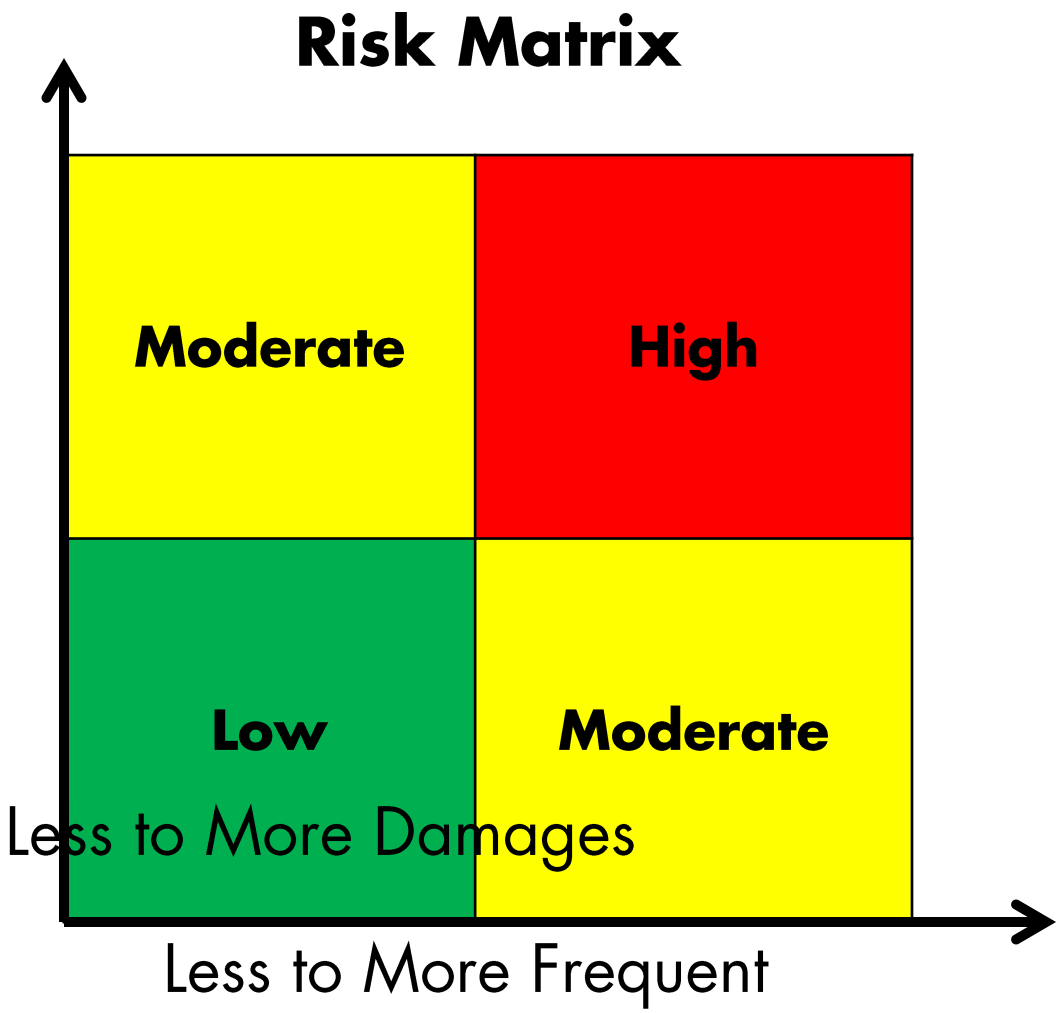


Hazard Risk Analysis

Data Sources

1. FEMA's HAZUS-MH
   - Flooding and Earthquakes
2. Historic Events
   - Tornadoes, Severe Storms, Excessive Heat, Extreme Cold, Severe Winter Storms, Landslides
3. Additional Studies
   - Drought, USACE Dam Failure, Ohio EMA
4. Qualitative Assessments
   - Dam Failure, Hazardous Materials, Invasive Species, Utility Failure

Hazard Risk Analysis

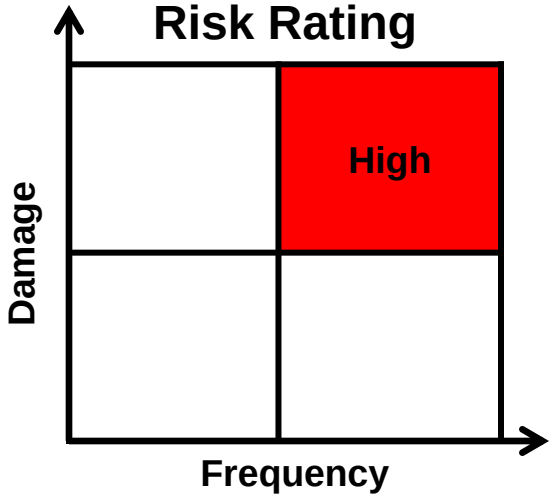


Hazard Risk Analysis – Severe Storms

Summary of Events & Future Probability

- 199 Events from 1965 -2011
  - Damages: $29,128,000
  - Life Loss: 2
  - Injuries: 19

- Data Sources Needed: Localized Damages or Event information.



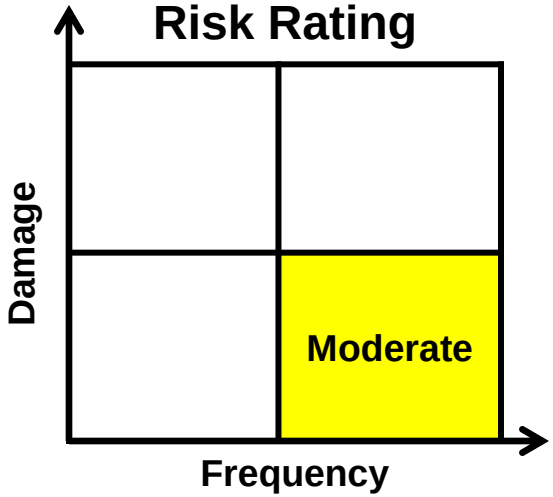
Hazard Risk Analysis – Severe Winter Storm

Summary of Events & Future Probability

- 54 Events from 1993 -2011
  - Damages*: $18,342,000
  - Life Loss*: 5
  - Injuries*: 32

- Data Sources Needed: Localized Damages or Event information.

* Event data based on regional totals. Specific impacts to Clermont County unknown.



Hazard Risk Analysis – Flooding

Summary of Events & Future Probability

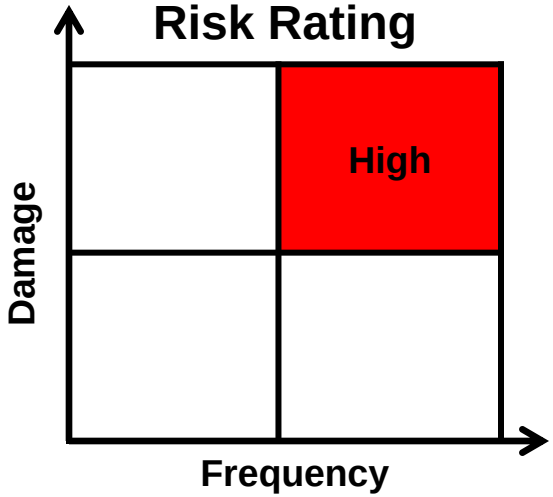
- 79 Events from 1993 -2011
  - Damages: $25,348,000
  - Life Loss: 2
  - Injuries: 1
- FEMA NFIP – 178 Claims (1978-2011)
  - Value: $8,401,436

Source-enquirer.com

Clermont County Sheriff's Deputy Jeff Sellars patrols New Richmond flooded streets in a boat (Michael Snyder photo)

- Data Sources Needed: Localized Damages or Event information. *Flash Flooding Areas.*

- HAZUS analysis in-progress.

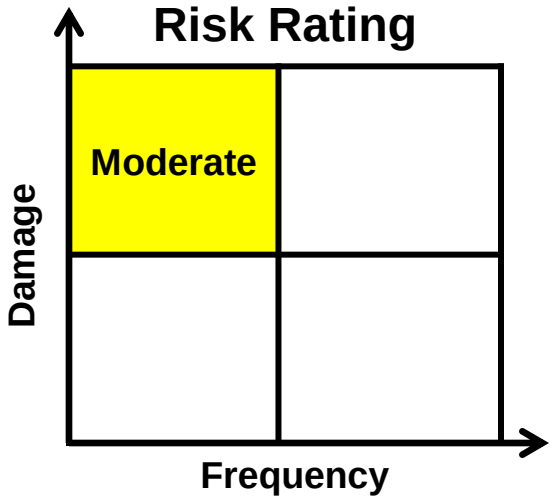


Hazard Risk Analysis – Tornadoes

Summary of Events & Future Probability

- 16 Events from 1953 -2012
  - Damages: $9,493,000
  - Life Loss: 4
  - Injuries: 38

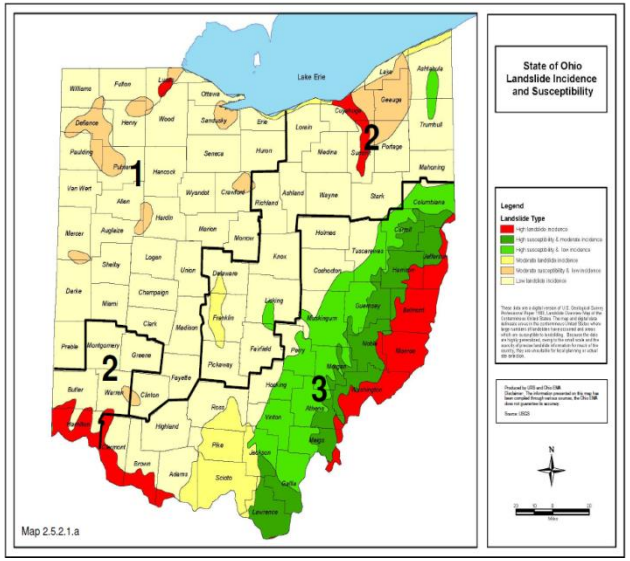
- Data Sources Needed: Localized Damages or Event information.

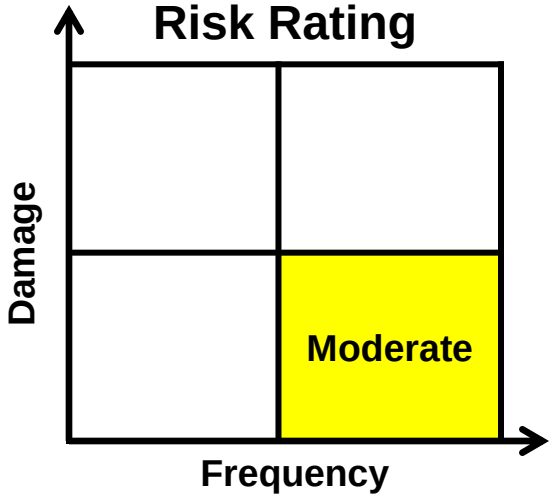


Hazard Risk Analysis – Landslides

Summary of Events & Future Probability

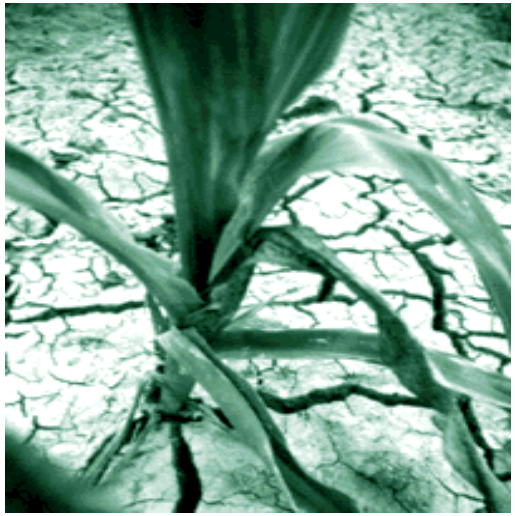
- No Detailed Historical Record
- Data Sources Obtained: ODNR Landslide Incidence and Susceptibility Study
- Data Sources Needed: Localized Damages or Event information.



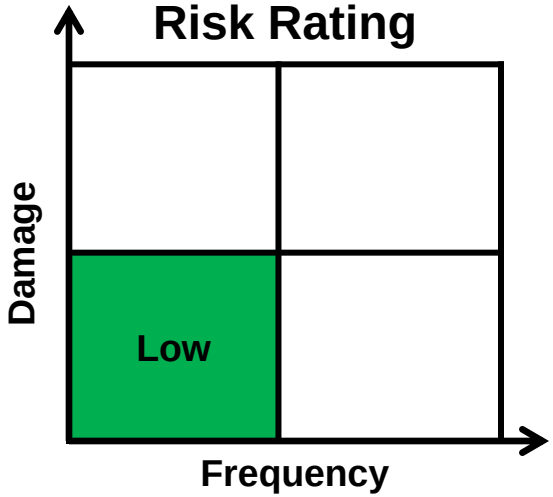


Hazard Risk Analysis – Drought

Summary of Events & Future Probability



- 2 Events from 1914 -2012
  - Damages: Unknown
- Annual Chance of Occurrence = 5% - 10% (PDSI)
- Data Sources Obtained: National Climactic Data Center (NCDC) Storm Events, ODNR
- Data Sources Needed: Localized Damages or Event information.



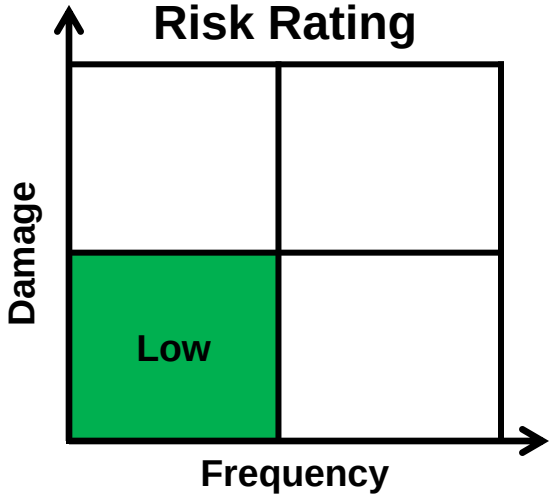
Hazard Risk Analysis – Earthquakes

Summary of Events & Future Probability

- 3 Earthquakes from 1804-2012
  * Unknown Impact
  - Damages*: $ 0
  - Life Loss*: 0
  - Injuries*: 0

- Annual Chance of Occurrence = Minimal

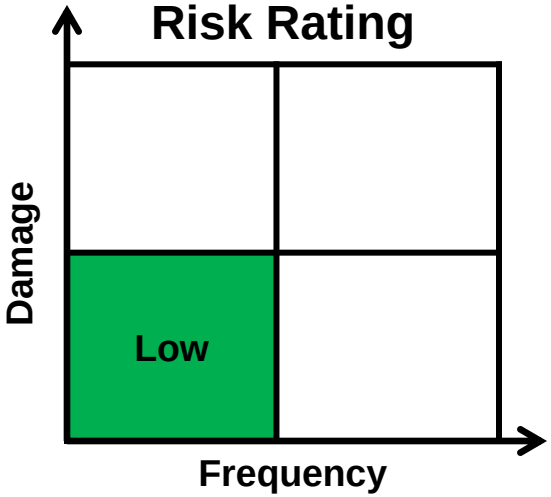
- Data Sources Needed: Localized Damages or Event information.



Hazard Risk Analysis – Hazardous Material Accidents / Spills

Summary of Events & Future Probability

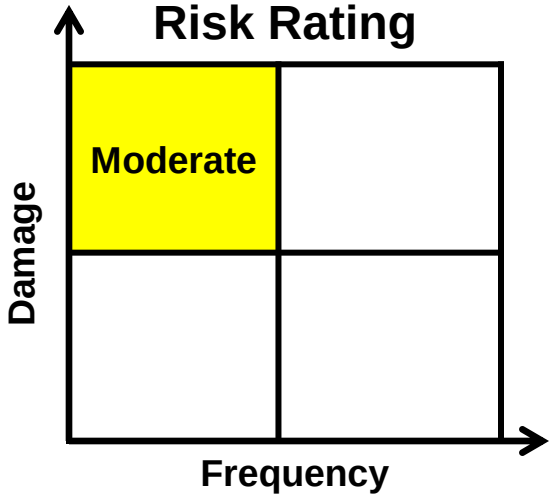
- No Detailed Historical Record of Accidents
- Data Sources Needed: Localized Damages or Event information.
- Potential Impacts:
  - Hazardous materials are stored throughout the County
  - Additionally multiple pipelines, rail corridors and transportation routes bisect the County



Hazard Risk Analysis – Dam Failure

Summary of Events & Future Probability

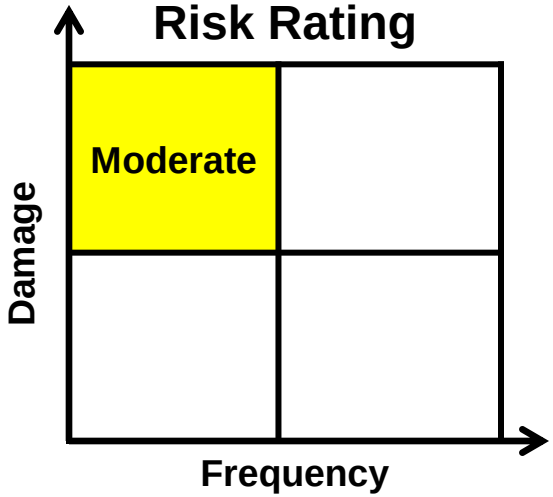
- No Historical Records
- Primary Concerns: Harsha and Caesar Creek Lakes
- Impacts to be determined from Army Corps dam breach models
  - Potential structural damage and life loss
  - Drinking water source impacts



Hazard Risk Analysis – Utility Failure

Summary of Events & Future Probability

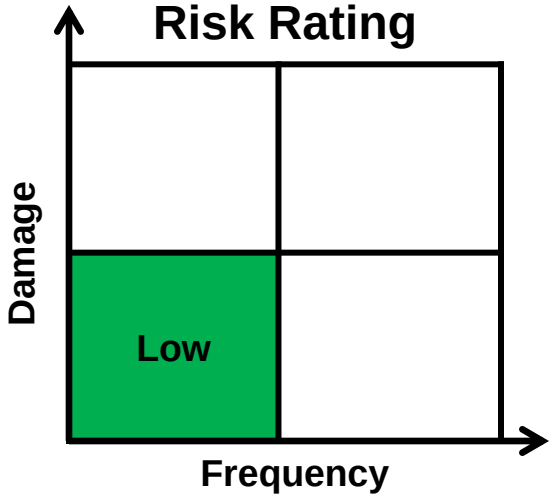
- No Detailed Historical Record of Accidents
- Probability of Occurrence: Unknown
- Potential Impacts:
  - Extended Periods of Power Loss
  - Disruption of Communication
  - Potential Loss of Income
  - Impacts associated with Utility Failure unknown



Hazard Risk Analysis – Invasive Species

Summary of Events & Future Probability

- No Detailed Historical Record.
- Potential Impacts: 6 of Ohio's top10 invasive plants are found in Clermont County
- Asian Long Horn Beetle, Emerald Ash Borer, Asian Carp



Next Steps

Public

1. Provide Local Input on the Risks and Vulnerability to the hazards identified.

Planning Team / Stakeholders

1. Completion of Risk Analysis will be provided at the Stakeholder meeting in Mid-October
2. Develop Mitigation Projects

Questions

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