2020
Local Mitigation Strategy Update

Public Comment Workshop

November 12, 2020

Agenda

- Introductions
- LMS Background
- LMS Working Group
- LMS Maintenance
- LMS Update Process
- Update Summary
- LMS Approval and Adoption

Introductions

- Bill Litton, Emergency Management Director
  LMS Chairman
- Richard Halquist, Emergency Operations Manager
  LMS Member
- Robin Hinson, Emergency Management Planner
  LMS Coordinator
- LMS Working Group Members
- Guests

LMS Background

- Disaster Mitigation Act (2000), 44CFR201.6
- 27P-22 FAC
- Multi-jurisdictional Participation

LMS Working Group

- Bylaws
- Membership
- Regular meetings
- Special meetings
- Public participation

LMS Maintenance

- Project list
- Membership updates
- Annual reports

LMS Update Process

- 5-year Approval Cycle
- Florida LMS Crosswalk
- Review
- Updates
- Public Input

Update Summary

- LMS Working Group Bylaws
- HIRA

LMS Working Group Bylaws

- Process
- Key dates
- Changes

HIRA

- HIRA Committee
- HIRA Survey
- Identification and Assessment

HIRA Committee

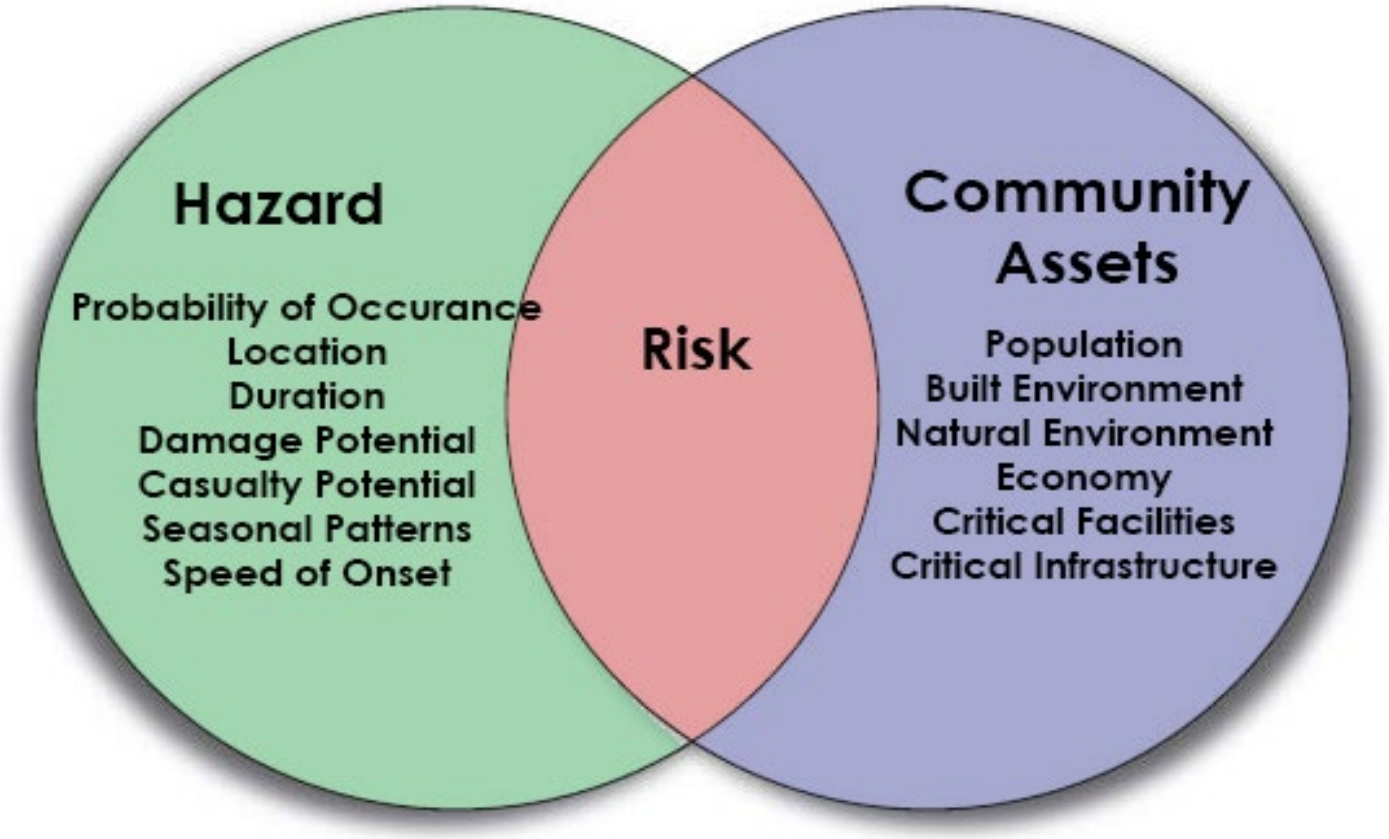
- Members
- Meetings
- Process

HIRA Survey

- Timeline
- Participants
- Results summary

Risk Definition

- The identification and application of community hazards weighted against the community assets including the built environment and its people



Identification and Assessment

Natural Hazards

- Tropical Cyclone
- Flooding
- Tornado
- Wildfire
- Severe Thunderstorm
- Pandemic
- Agriculture/ Livestock Disease
- Geomagnetic Storm
- Sinkhole
- Climate Change

Identification and Assessment

Human-Caused Hazards

- Cyber Attack
- Terrorism
- Nuclear Facility Incident
- Civil Unrest
- Mass Migration
- Hazardous Material Release
- Transportation Incident

Blue	Natural Hazard
Red	Manmade Hazard

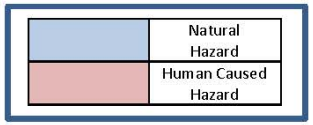
HAZARD/ASSET IMPACT TABLE

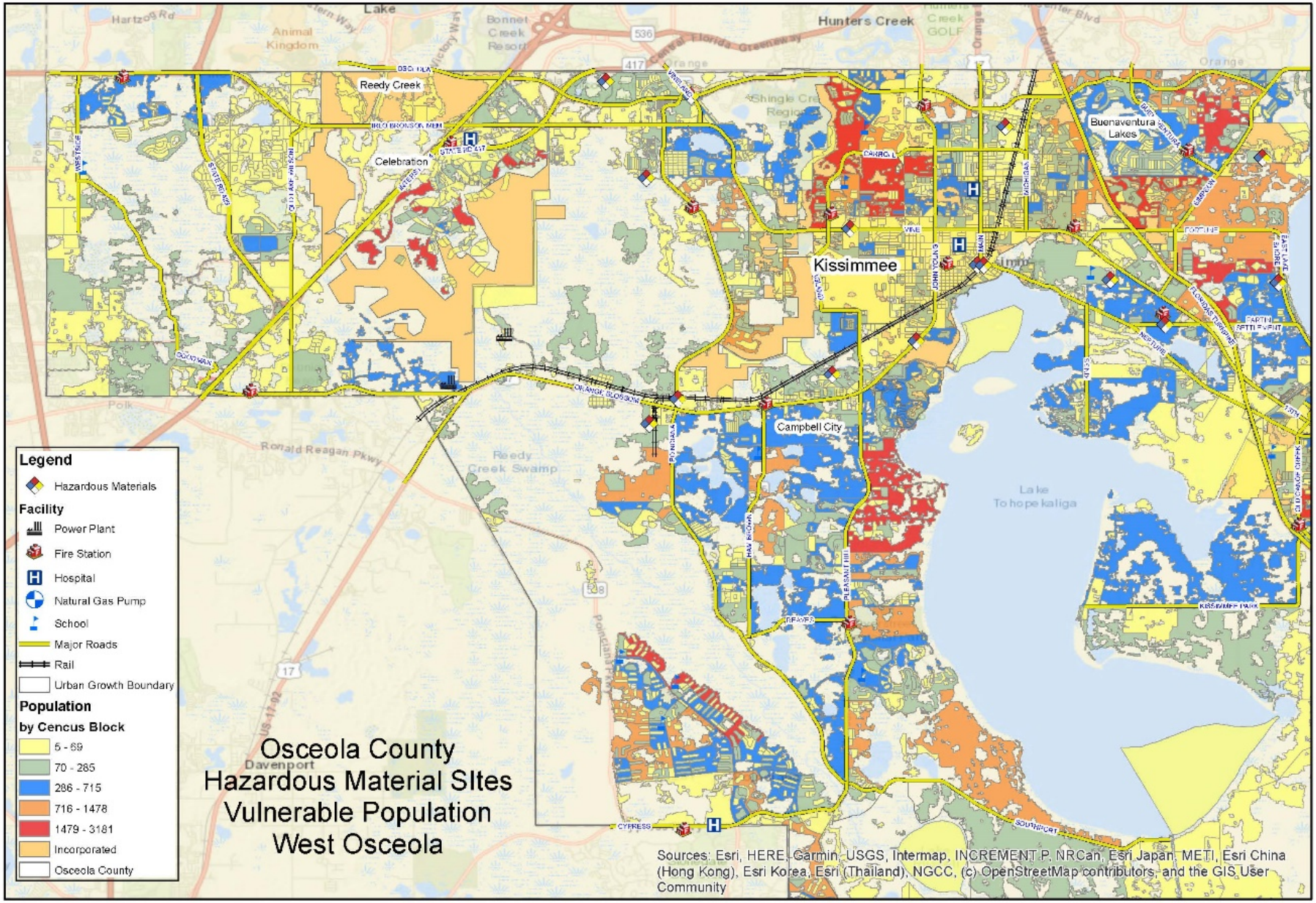
Community Asset / Hazard	General Population	Special Need Population	Critical Facilities	Critical Infrastructure	Natural Resources – Rivers, Lakes, Streams	Residential Buildings	Commercial Buildings	Agriculture & Livestock	Tourism	Business Industry Commerce	Environment	Public Confidence	Transportation Systems	Public Safety Services	Medical Healthcare	General Government Services
Tropical Cyclone	4	4	4	4	3	4	3	3	4	4	2	2	3	2	3	4
Flooding	4	3	1	2	4	4	3	3	3	3	2	2	3	3	3	4
Tornado	4	4	4	4	2	5	4	2	3	4	2	2	2	3	4	3
Wildfire	2	2	2	3	3	2	2	3	1	1	2	3	2	3	2	2
Severe Thunderstorm	3	3	3	3	3	3	3	2	2	2	1	1	1	2	2	1
Pandemic	4	5	2	1	1	1	1	2	4	4	2	3	2	5	5	4
Agriculture/ Livestock Disease	2	1	1	1	2	1	1	5	4	4	2	2	1	1	1	1
Geomagnetic Storm	2	2	3	2	1	1	3	1	2	3	1	3	2	3	3	2
Sinkhole	1	1	2	3	1	3	3	1	2	2	1	3	2	2	2	1
Climate Change	1	1	1	1	2	1	1	1	1	1	2	2	1	1	1	1
Cyber Attack	4	4	5	5	1	3	4	1	4	4	1	5	4	5	5	5
Terrorism	5	5	4	3	3	2	2	2	4	4	3	3	4	3	4	3
Nuclear Facility Incident	2	2	2	2	4	2	2	5	4	4	5	3	2	2	3	2
Civil Unrest	3	3	4	4	1	4	4	2	4	4	2	4	4	3	3	3
Mass Migration	1	1	2	1	1	2	1	3	3	1	2	2	4	4	4	2
Transportation Incident	2	2	1	2	1	1	1	1	3	3	3	2	5	3	3	1
Hazardous Material Release	3	3	3	2	4	3	3	4	3	4	5	2	4	3	4	2

1 = Little or no impact – no loss of service
2 = Small impact, rare service interruptions, some small inconveniences throughout the asset categories with slight increase in response efforts
3 = Moderate impact, scattered service interruptions, increased demand for assistance, road closures, businesses interrupted, longer response times, some personnel missing from work, decreased productivity, buildings damaged
4 = High impact, widespread services loss, heavy demand for assistance, major road closures, many business halted, delayed emergency response, personnel absent, heavy damage, outside assistance required, shelters required
5 = Significant impact, most services down, overwhelming demand for assistance, buildings destroyed or compromised, response halted or deterred, personnel cannot travel, significant roads and infrastructure compromised, widespread geographical impact

HAZARD RISK SCORE TABLE

Hazard	Overall Score	Likelihood of Occurrence	Capacity to Cause Damage	Geographic Impact	Speed of Onset	Population Affected	Potential for Casualties	Potential for Negative Economic Impact	Duration of Event	Seasonal Pattern	Environment Impact	Predictability	Mitigation Potential	Warning System Capability	Corollary Effects
Tropical Cyclone	43	5	4	3	2	3	2	3	4	3	3	5	2	0	4
Flooding	40	5	4	3	3	3	1	1	4	3	2	5	1	1	4
Tornado	37	5	4	2	2	2	2	2	2	3	3	3	3	3	1
Wildfire	37	5	3	3	3	2	2	2	2	3	4	3	1	3	1
Severe Thunderstorm	34	5	2	2	4	4	1	0	1	4	1	3	4	0	3
Pandemic	32	2	1	4	1	2	2	3	5	2	1	2	3	3	1
Agriculture/ Livestock Disease	31	2	3	3	2	1	1	4	3	1	4	0	3	1	3
Geomagnetic Storm	28	3	4	4	4	4	0	3	1	1	0	1	0	0	3
Sinkhole	21	1	1	1	4	1	1	1	2	0	1	0	3	4	1
Climate Change	19	1	1	3	0	2	0	1	2	3	2	1	1	0	2
Cyber Attack	39	5	3	3	4	3	1	5	1	0	2	4	1	3	4
Terrorism	37	1	5	3	3	4	5	5	3	0	3	1	1	2	1
Nuclear Facility Incident	36	1	2	2	4	4	3	3	3	0	4	1	4	0	5
Civil Unrest	33	2	3	1	4	2	1	4	2	1	1	3	3	4	2
Mass Migration	30	2	2	3	3	2	1	1	5	1	1	2	3	1	3
Transportation Incident	28	3	2	2	5	2	3	2	1	0	1	1	1	3	2
Hazardous Material Release	27	2	3	1	4	2	2	1	3	0	2	0	2	3	2





Osceola County
Office of Emergency Management
Richard A. Halquist, FPEM, CFM
October 2020

Tropical Cyclone (Rating: 43)

Hazard Assessment	5	4	3	2	1	0	
Likelihood of Occurrence	5						
Capacity to cause damage		4					
Geographic Impact			3				
Speed of onset (warning time)				2			
Percent of population affected			3				
Potential for causing casualties				2			
Potential for causing negative economic impact			3				
Duration of event		4					
Seasonal pattern			3				
Environmental impact			3				
Predictability of hazard	5						
Impact mitigation potential (reverse rating)				2			
Warning system capability						0	
Corollary effects		4					
TOTAL	10	12	15	6	0	0	=**43**

Flooding (Rating: 40)

Hazard Assessment	5	4	3	2	1	0	
Likelihood of Occurrence	5						
Capacity to cause damage		4					
Geographic Impact			3				
Speed of onset (warning time)			3				
Percent of population affected			3				
Potential for causing casualties					1		
Potential for causing negative economic impact					1		
Duration of event		4					
Seasonal pattern			3				
Environmental impact				2			
Predictability of hazard	5						
Impact mitigation potential (reverse rating)					1		
Warning system capability					1		
Corollary effects		4					
TOTAL	10	12	12	2	4	0	**=40**

Tornado (Rating: 37)

Hazard Assessment	5	4	3	2	1	0	
Likelihood of Occurrence	5						
Capacity to cause damage		4					
Geographic Impact				2			
Speed of onset (warning time)				2			
Percent of population affected				2			
Potential for causing casualties				2			
Potential for causing negative economic impact				2			
Duration of event				2			
Seasonal pattern			3				
Environmental impact			3				
Predictability of hazard			3				
Impact mitigation potential (reverse rating)			3				
Warning system capability			3				
Corollary effects					1		
TOTAL	5	4	15	12	1	0	=**37**

Wildfire (Rating: 37)

Hazard Assessment	5	4	3	2	1	0	
Likelihood of Occurrence	5						
Capacity to cause damage			3				
Geographic Impact			3				
Speed of onset (warning time)			3				
Percent of population affected				2			
Potential for causing casualties				2			
Potential for causing negative economic impact				2			
Duration of event				2			
Seasonal pattern			3				
Environmental impact		4					
Predictability of hazard			3				
Impact mitigation potential (reverse rating)					1		
Warning system capability			3				
Corollary effects					1		
TOTAL	5	4	18	8	2	0	**=37**

Severe Thunderstorm (Rating: 34)

Hazard Assessment	5	4	3	2	1	0	
Likelihood of Occurrence	5						
Capacity to cause damage				2			
Geographic Impact				2			
Speed of onset (warning time)		4					
Percent of population affected		4					
Potential for causing casualties					1		
Potential for causing negative economic impact						0	
Duration of event					1		
Seasonal pattern		4					
Environmental impact					1		
Predictability of hazard			3				
Impact mitigation potential (reverse rating)		4					
Warning system capability						0	
Corollary effects			3				
TOTAL	5	16	6	4	3	0	**=34**

Pandemic (Rating: 32)

Hazard Assessment	5	4	3	2	1	0
Likelihood of Occurrence				2		
Capacity to cause damage					1	
Geographic Impact		4				
Speed of onset (warning time)					1	
Percent of population affected				2		
Potential for causing casualties				2		
Potential for causing negative economic impact			3			
Duration of event	5					
Seasonal pattern				2		
Environmental impact					1	
Predictability of hazard				2		
Impact mitigation potential (reverse rating)			3			
Warning system capability			3			
Corollary effects					1	
TOTAL	5	4	9	10	4	0

=32

Agriculture & Livestock Disease (Rating: 31)

Hazard Assessment	5	4	3	2	1	0	
Likelihood of Occurrence				2			
Capacity to cause damage			3				
Geographic Impact			3				
Speed of onset (warning time)				2			
Percent of population affected					1		
Potential for causing casualties					1		
Potential for causing negative economic impact		4					
Duration of event			3				
Seasonal pattern					1		
Environmental impact		4					
Predictability of hazard						0	
Impact mitigation potential (reverse rating)			3				
Warning system capability					1		
Corollary effects			3				
TOTAL	0	8	15	4	4	0	**=31**

Geomagnetic Storm (Rating: 28)

Hazard Assessment	5	4	3	2	1	0	
Likelihood of Occurrence			3				
Capacity to cause damage		4					
Geographic Impact		4					
Speed of onset (warning time)		4					
Percent of population affected		4					
Potential for causing casualties						0	
Potential for causing negative economic impact			3				
Duration of event					1		
Seasonal pattern					1		
Environmental impact						0	
Predictability of hazard					1		
Impact mitigation potential (reverse rating)						0	
Warning system capability						0	
Corollary effects			3				
TOTAL	0	16	9	0	3	0	=**28**

Sinkhole (Rating: 21)

Hazard Assessment	5	4	3	2	1	0	
Likelihood of Occurrence					1		
Capacity to cause damage					1		
Geographic Impact					1		
Speed of onset (warning time)		4					
Percent of population affected					1		
Potential for causing casualties					1		
Potential for causing negative economic impact					1		
Duration of event				2			
Seasonal pattern						0	
Environmental impact					1		
Predictability of hazard						0	
Impact mitigation potential (reverse rating)			3				
Warning system capability		4					
Corollary effects					1		
TOTAL	0	8	3	2	8	0	**=21**

Climate Change (Rating: 19)

Hazard Assessment	5	4	3	2	1	0	
Likelihood of Occurrence					1		
Capacity to cause damage					1		
Geographic Impact			3				
Speed of onset (warning time)						0	
Percent of population affected				2			
Potential for causing casualties						0	
Potential for causing negative economic impact					1		
Duration of event				2			
Seasonal pattern			3				
Environmental impact				2			
Predictability of hazard					1		
Impact mitigation potential (reverse rating)					1		
Warning system capability						0	
Corollary effects				2			
TOTAL	0	0	6	8	5	0	**=19**

Cyber Attack (Rating: 39)

Hazard Assessment	5	4	3	2	1	0	
Likelihood of Occurrence	5						
Capacity to cause damage			3				
Geographic Impact			3				
Speed of onset (warning time)		4					
Percent of population affected			3				
Potential for causing casualties					1		
Potential for causing negative economic impact	5						
Duration of event					1		
Seasonal pattern						0	
Environmental impact				2			
Predictability of hazard		4					
Impact mitigation potential (reverse rating)					1		
Warning system capability			3				
Corollary effects		4					
TOTAL	10	12	12	2	3	0	=**39**

Terrorism (Rating: 37)

Hazard Assessment	5	4	3	2	1	0
Likelihood of Occurrence					1	
Capacity to cause damage	5					
Geographic Impact			3			
Speed of onset (warning time)			3			
Population affected		4				
Potential for casualties	5					
Potential for negative economic impact	5					
Duration of event			3			
Seasonal pattern						0
Environmental impact			3			
Predictability of hazard					1	
Impact mitigation potential (reverse rating)					1	
Warning system capability				2		
Corollary effects					1	
TOTAL	15	4	12	2	4	0

=37

NUCLEAR FACILITY INCIDENT (Rating: 36)

Hazard Assessment	5	4	3	2	1	0
Likelihood of Occurrence					1	
Capacity to cause damage				2		
Geographic Impact				2		
Speed of onset (warning time)		4				
Percent of population affected		4				
Potential for causing casualties			3			
Potential for causing negative economic impact			3			
Duration of event			3			
Seasonal pattern						0
Environmental impact		4				
Predictability of hazard					1	
Impact mitigation potential (reverse rating)		4				
Warning system capability						0
Corollary effects	5					
TOTAL	5	16	9	4	2	0

=36

Civil Unrest (Rating: 33)

Hazard Assessment	5	4	3	2	1	0	
Likelihood of Occurrence				2			
Capacity to cause damage			3				
Geographic Impact					1		
Speed of onset (warning time)		4					
Percent of population affected				2			
Potential for causing casualties					1		
Potential for causing negative economic impact		4					
Duration of event				2			
Seasonal pattern					1		
Environmental impact					1		
Predictability of hazard			3				
Impact mitigation potential (reverse rating)			3				
Warning system capability		4					
Corollary effects				2			
TOTAL	0	12	9	8	4	0	=**33**

Mass Migration (Rating: 30)

Hazard Assessment	5	4	3	2	1	0	
Likelihood of Occurrence				2			
Capacity to cause damage				2			
Geographic Impact			3				
Speed of onset (warning time)			3				
Percent of population affected				2			
Potential for causing casualties					1		
Potential for causing negative economic impact					1		
Duration of event	5						
Seasonal pattern					1		
Environmental impact					1		
Predictability of hazard				2			
Impact mitigation potential (reverse rating)			3				
Warning system capability					1		
Corollary effects			3				
TOTAL	5	0	12	8	5	0	=**30**

Transportation Incident (Rating: 28)

Hazard Assessment	5	4	3	2	1	0	
Likelihood of Occurrence			3				
Capacity to cause damage				2			
Geographic Impact				2			
Speed of onset (warning time)	5						
Percent of population affected				2			
Potential for causing casualties			3				
Potential for causing negative economic impact				2			
Duration of event					1		
Seasonal pattern						0	
Environmental impact					1		
Predictability of hazard					1		
Impact mitigation potential (reverse rating)					1		
Warning system capability			3				
Corollary effects				2			
TOTAL	5	0	9	10	4	0	=**28**

Hazardous Material Release (Rating: 27)

Hazard Assessment	5	4	3	2	1	0	
Likelihood of Occurrence				2			
Capacity to cause damage			3				
Geographic Impact					1		
Speed of onset (warning time)		4					
Percent of population affected				2			
Potential for causing casualties				2			
Potential for causing negative economic impact					1		
Duration of event			3				
Seasonal pattern						0	
Environmental impact				2			
Predictability of hazard						0	
Impact mitigation potential (reverse rating)				2			
Warning system capability			3				
Corollary effects				2			
TOTAL	0	4	9	12	2	0	**=27**

LMS Approval and Adoption

- Submission
- Approval
- Adoption

Feedback

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