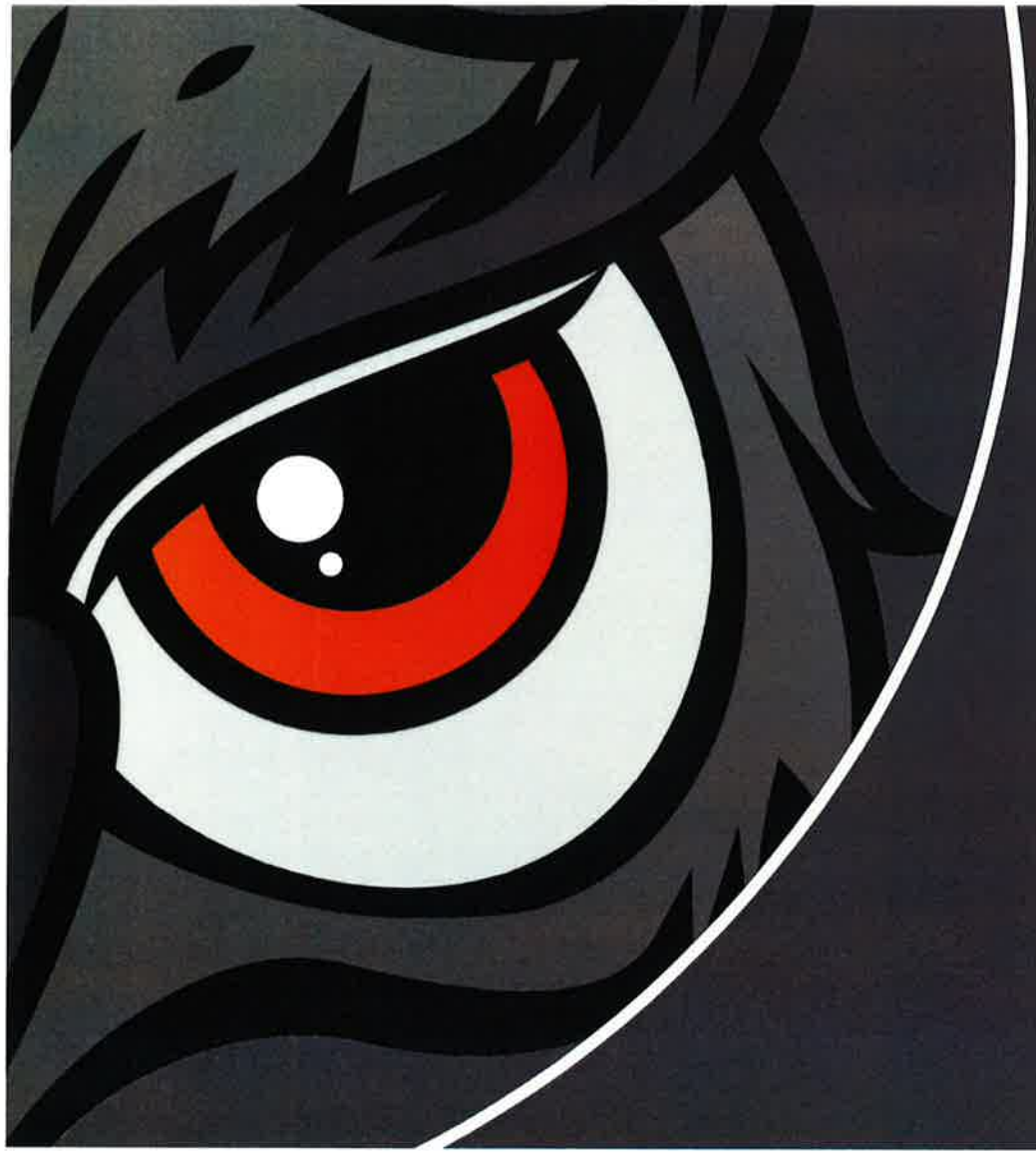


Local Hazard Mitigation Plan Update

Hazard Review Meeting

2 August 2023

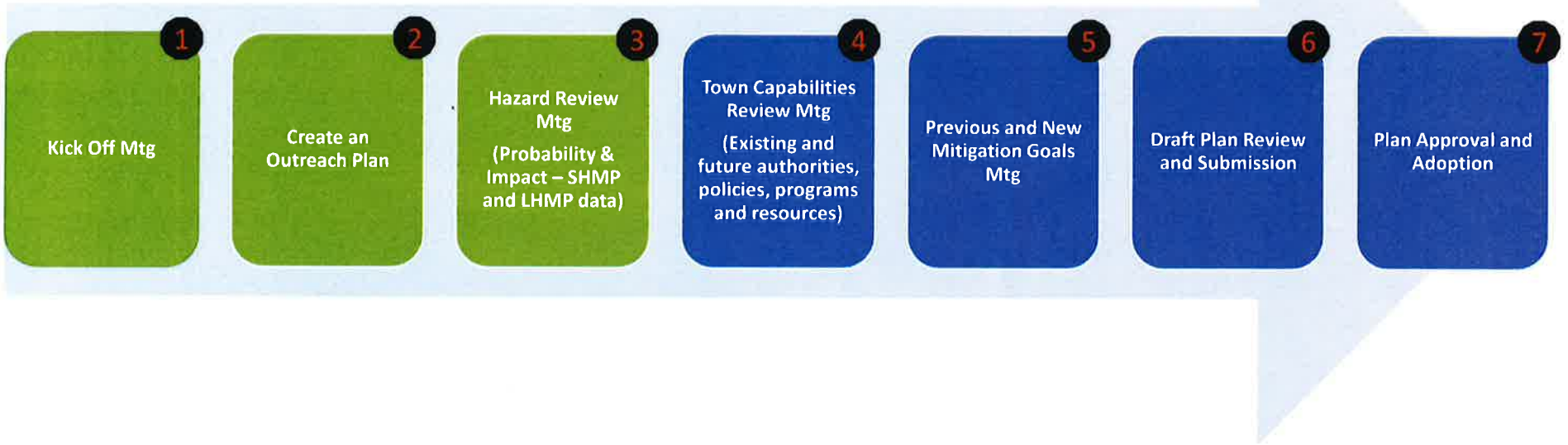
Local Hazard Mitigation Plan Update Hazards Meeting

Agenda

- **Timeline of Deliverables Review**
- **Review LHMP Hazards**
- **Review SHMP Hazards**
- **Hazard Analysis**
- **Next Steps**

Local Hazard Mitigation Plan Update Hazards Meeting

Timeline of Deliverables



Local Hazard Mitigation Plan Update Hazards Meeting

LHMP Hazards

- **Probability of Future Events + Warning Time + Potential Impact = Hazard Score (28 total hazards)**
- **Probability of Future Events:** This is the likelihood of future events occurring, taking into account how often events have occurred in the past as well as development trends the town is experiencing. This also takes into account the effects of climate change and the community's knowledge of those potential impacts.
  - 1 = Unlikely <1% probability of occurrence in the next 100 years (less than 1 occurrence in 100 years)
  - 2 = Occasionally 1–10% probability of occurrence per year
  - 3 = Likely >10% but <100% probability per year (at least 1 chance in next 10 years)
  - 4 = Highly Likely 100% probable in a year (an annual occurrence)
- **Warning Time:** Amount of time generally given to alert people to hazard
  - 1 = More than 12 hours
  - 2 = 6–12 hours
  - 3 = 3–6 hours
  - 4 = None–Minimal
- The **Potential Impact** (percentage of the community affected) or magnitude of the impact of the hazard can be classed as follows:
  - 1 = Negligible Isolated occurrences of minor property damage, minor disruption of critical facilities and infrastructure, and potential for minor injuries
  - 2 = Minor Isolated occurrences of moderate to severe property damage, brief disruption of critical facilities and infrastructure, and potential for injuries
  - 3 = Moderate Severe property damage on a neighborhood scale, temporary shutdown of critical facilities, and/or injuries or fatalities
  - 4 = Major Severe property damage on a town-wide or regional scale, shutdown of critical facilities, and/or multiple injuries or fatalities

Local Hazard Mitigation Plan Update Hazards Meeting

LHMP Hazards (1 of 4)

Possible Hazard	Probability of Future Events	Warning Time	Potential Impact	Score	Most vulnerable facilities and populations
Power Failure	4	4	3	11	Elderly and second home owners are most at risk. There are number of both in Whitingham.
Structure Fire	3	4	3	10	
Flood	3	3	4	10	Plan participants noted that there are more hard quick rain storms occurring than in the past. Burrington Hill Road by the gravel pit (old beaver ponds) is vulnerable. Jacksonville Village.
Fluvial Erosion / Landslide	3	3	4	10	On Holbrook Road there is a large constant slide caused by fluvial erosion. It is most active in April with mud season. The road crew has to clean out culverts frequently in that area. The slide is above the road. At times it has come down across the road and into the river before. Road cut caused the slide initially but the road has been there for many years. This is the only landslide in town.

Local Hazard Mitigation Plan Update Hazards Meeting

LHMP Hazards (2 of 4)

Possible Hazard	Probability of Future Events	Warning Time	Potential Impact	Score	Most vulnerable facilities and populations
Invasive Species / Infestation	4	1	4	9	Species of particular concern are Japanese knotweed and on Sadawga Lake there is milfoil. Emerald Ash Borer is present in Whitingham. This is a big concern of the town.
Highway Accidents	3	4	2	9	
Radiological Incident	1	4	4	9	Yankee Rowe in Rowe, MA is a decommissioned reactor (2002) with dry fuel storage casks present. Whitingham is outside the decommissioned Vermont Yankee Emergency Planning Zone.
High Wind	4	2	2	8	
Hazardous material spill	2	4	2	8	
Hail Storm	3	3	2	8	
Tornado/Microburst	2	3	2	7	
Wildfire	2	4	1	7	
School Safety Issues	1	4	2	7	The one school in town has a school crisis plan in place.

Local Hazard Mitigation Plan Update Hazards Meeting

LHMP Hazards (3 of 4)

Possible Hazard	Probability of Future Events	Warning Time	Potential Impact	Score	Most vulnerable facilities and populations
Air crash	1	4	2	7	
Terrorism	1	4	2	7	
Extreme Cold	4	1	2	7	
Beaver dams	2	4	1	7	Gates Pond has a beaver dam. There are hundreds of beavers in town; most are in the woods and causing no problem. Up off Stone House and Parsons Road, near the intersection, there is a beaver dam that has broken and caused some road damage. On Route 100 at the intersection of Shippee road, there is a state owned culvert that gets frequently plugged and a beaver fence may be helpful there.
Winter & Ice Storm	3	1	2	6	Storms do occur but they are a part of life in Vermont and are handled. There was a December 2007 ice storm that is particularly memorable.
Earthquake	1	4	1	6	Small quakes occasionally occur.
Hurricane	2	1	3	6	
Ice Jams	3	1	2	6	North River has some issues with ice jams and the road crew sometimes has to break them up.
Water Supply Contamination	1	4	1	6	No public water supply in Whitingham.
Dam Failure	1	2	2	5	Harriman Dam is owned by Great River Hydro. Lake Sadawga has two dams. Ryder Pond has a dam. Jacksonville Pond has a dam. Lake Clara has a dam. Gates Pond has a dam. There are 6 public dams total in town and this is not including Pine Lake private dam.

Local Hazard Mitigation Plan Update Hazards Meeting

LHMP Hazards (4 of 4)

Possible Hazard	Probability of Future Events	Warning Time	Potential Impact	Score	Most vulnerable facilities and populations
Drought	2	1	1	4	
Extreme Heat	1	1	1	3	
Railroad Accidents				0	NA
Tsunami				0	NA
Volcano				0	NA

Local Hazard Mitigation Plan Update Hazards Meeting

SHMP Hazards

- **Probability x Average Potential Impact = Hazard Score (14 total hazards)**

Table 17: Hazard Assessment Ranking Criteria		
	Frequency of Occurrence: Probability of a plausibly significant event	**Potential Impact:** Severity and extent of damage and disruption to population, property, environment and the economy
1	Unlikely: <1% probability of occurrence per year	Negligible: isolated occurrences of minor property and environmental damage, potential for minor injuries, no to minimal economic disruption
2	Occasionally: 1–10% probability of occurrence per year, or at least one chance in next 100 years	Minor: isolated occurrences of moderate to severe property and environmental damage, potential for injuries, minor economic disruption
3	Likely: >10% but <75% probability per year, at least 1 chance in next 10 years	Moderate: severe property and environmental damage on a community scale, injuries or fatalities, short-term economic impact
4	Highly Likely: >75% probability in a year	Major: severe property and environmental damage on a community or regional scale, multiple injuries or fatalities, significant economic impact

Local Hazard Mitigation Plan Update Hazards Meeting

SHMP Hazards

Table 3: Hazard Assessment							
Hazard Impacts	**Probability**	**Potential Impact**					**Score*:**
		Infrastructure	Life	Economy	Environment	**Average:**	
Fluvial Erosion	4	4	3	4	4	3.75	15
Inundation Flooding	4	4	3	4	2	3.25	13
Ice	3	3	3	3	2	2	8.25
Snow	4	1	3	2	1	1.75	7
Wind	4	2	2	1	1	1.5	6
Heat	3	1	3	2	2	2	6
Cold	3	1	3	2	2	2	6
Drought	3	1	2	2	3	2	6
Landslides	3	3	2	1	2	2	6
Wildfire	2	3	3	3	2	2.75	5.5
Earthquake	2	3	3	3	2	2.75	5.5
Invasive Species	2	1	1	2	3	1.75	3.5
Infectious Disease Outbreak	2	1	3	2	1	1.75	3.5
Hail	3	1	1	1	1	1	3

*Score = Probability x Average Potential Impact

Local Hazard Mitigation Plan Update Hazards Meeting

Hazard Analysis

- **Updating Options:**
  - Update previous LHMP hazard vulnerability analysis
  - Adopt SHMP hazard vulnerability analysis w/ town tweaks (adding hazards, changing scores, etc.)

Local Hazard Mitigation Plan Update Hazards Meeting

Next Steps

- **Next Meeting: Town Capabilities Review Meeting**
- **Date: ?**
- **Action items: ?**

Local Hazard Mitigation Plan Update Hazards Meeting

Questions?