

CHITTENDEN COUNTY DATA COLLECTION GUIDE – DRAFT

WORKSHEET #6: THE MITIGATION STRATEGY – GOALS AND OBJECTIVES

STEP 1: Develop Hazard Mitigation Goals:

- The Planning Teams is being asked to participate in a visioning exercise to consider the community elements linked to hazard vulnerability.
- These include, but are not limited to, categories such as Government and Government Services; People; the Environment; the Economy; and the Community.
- Sample answers from another community are just that, examples. ***Focus on what is important in your community.***

A. What are Most Valuable Top Three Assets most vital to your community?

This list could include assets that fall into categories such as
 Planning Team members should brainstorm and identify many assets and then identify the top three.

Our Community's Top Assets	

Sample response from other communities

Our Community's Top Assets		
<ul style="list-style-type: none"> • Water, Wastewater, Electric Utility • Wastewater treatment plants, Lift stations, Pump stations, Elevated service tanks. • Control Center, Utility Staff • St. David's Hospital • Fire/EMS/Police/ 911 system • Schools, libraries, animal services 	<ul style="list-style-type: none"> • County seat • Local festival, waterways, parks and trails • Local University • Historic areas & local culture (not NY/LA/Chicago) • Strong workforce and trade area, civic groups, nonprofit & philanthropic community 	<ul style="list-style-type: none"> • Government communication and private communications: fiber optic lines, radio towers, cellular towers, utility Wi-Fi-max radio communications • Transportation, bridges, streets • City website City employees, public servants

• HEB, Holt CAT, Data centers, other businesses	• Firewise Program	• Local/national railroad lines, public transit, roadways, airport
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B. What are the *Three Biggest Challenges* facing your community?

- This list could include assets that fall into categories such as Government and Government Services; People; the Environment; the Economy; and the Community.
- Planning Team members should brainstorm and identify many challenges and then identify the top three.

Our Community's Three Biggest Challenges	

Sample response from other communities

Sample response from another community

<ul style="list-style-type: none"> • Resilient community-able to adapt to frequent changes and leverage opportunities • Movement to cloud based IT infrastructure will provide additional resiliency to disaster • Water replacement/upgrade programs • Strengthened secondary/post-secondary schools • Better alignment - state legislators & city council • 5G provides alternative broadband alternative • Traffic/movement cameras • Increased water treatment capacity • STEM program and Bio Tech • Increased public/private partnerships • Alternative transportation corridors • Slowing growth so infrastructure and utility services will catch up 	<ul style="list-style-type: none"> • Large community and 4-year colleges • Take the lead on developing infrastructure instead of waiting for the growth • Attract younger residents, lower median age Regional employment center • Mature office employment sector Workforce and trade development • More and more reliable internet options • increase in affordable assisted living centers as retirement communities age • improved mobility • Better flood awareness and control • CIP overhaul of wastewater collection system, especially in the old town area • increase our tree canopy and urban forest.
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A vision statement developed from a review of this community’s assets, vulnerabilities, and challenges is

Our community fosters a lifestyle of preparedness is a champion of resiliency

D. Develop the Chittenden County Vision Statement

- Review Chittenden County’s community’s assets, vulnerabilities, and challenges to develop a Vision Statement.
- The Chittenden County Vision Statements describe a clear, long-term desired change resulting from the community mitigation planning efforts
- The Mitigation Strategy will naturally flow from it of the community, may assist in defining the community’s strategy, including mitigation goals, objectives, and mitigation actions.
- A sample Vision Statement for Chittenden County might read:

Chittenden County is preparing for the future by protecting and current and future assets and amenities.

E. Identify Chittenden County Goals and Objectives

Considering this Vision Statement, the Planning Team is asked to review the proposed Goals and Objectives provided to determine whether they are:

- (1) Sufficient as stated, or (2) Require revision. If so, please recommend changes.

Chittenden County 2022 Hazard Mitigation Plan Goals and Objectives - DRAFT	
Goal 1:	Protect life and property from natural and manmade hazards

Chittenden County 2022 Hazard Mitigation Plan Goals and Objectives - DRAFT

Objective 1.1	Maximize the utilization of the latest technology to provide adequate warning, communication, and mitigation of hazard events
Objective 1.2	Reduce the danger to, and enhance protection of, high risk areas during hazard events
Objective 1.3	Protect and maintain critical facilities and services
Goal 2:	Protect new and existing properties
Objective 2.1	Reduce repetitive losses to the National Flood Insurance Program (NFIP)
Objective 2.2	Maximize insurance coverage, including NFIP, to provide financial protection against hazard events
Objective 2.3	Enact and enforce regulatory measures to ensure that development will not put people in harm's way or increase threats to existing properties
Goal 3:	Promote a Whole Community approach to understanding hazard risks and implementing mitigation initiatives
Objective 3.1	Heighten public awareness of the full range of natural and human-caused hazards faced locally and regionally
Objective 3.2	Educate the public on actions they can take to prevent or reduce the loss of life or property from all hazards.
Objective 3.3	Maximize participation of property owners in protecting their properties
Objective 3.4	Train and empower public officials and other community leaders on ways to build on current mitigation effort
Objective 3.5	Build and expand the cadre of committed volunteers to safeguard the community before, during, and after a disaster
Goal 4:	Foster countywide collaborative mitigation efforts to decrease hazard vulnerability
Objective 4.1	Build and support local partnerships to lessen vulnerability to hazards
Objective 4.2	Build hazard mitigation concerns into the county and town planning and budgeting processes
Goal 5:	Invest appropriately in areas planned for managed growth
Objective 5.1	Identify potential sites for reuse, rehabilitation, redevelopment, infill, and brownfield remediation that avoid hazard-prone areas
Objective 5.2	Support mitigation initiatives and policies that protect cultural, economic, and natural resources
Objective 5.3	Preserve natural systems within areas targeted for development
Objective 5.4	Support hazard mitigation research and development that helps identify additional mitigation opportunities and incorporates climate change considerations
Objective 5.5	Improve and strengthen regional economic systems to increase and promote business opportunities for employers and employees

F. After reviewing the goals and objectives and their alignment with types of mitigation actions, indicate whether you feel information presented validates, or does not validate, the goals provided:

___ The goals and objectives are comprehensive as they are presented and cover the scope of all potential hazard vulnerabilities and mitigation actions that should be included in the plan. In addition, **they are all applicable to my jurisdiction and no additional goals or objectives are needed for my jurisdiction.**

___ The goals and objectives are not comprehensive and need minor revision to cover the scope of all potential hazard vulnerabilities and mitigation actions that should be included in the plan. **With minor revision, they will also be applicable to my jurisdiction and no additional goals and objectives are needed.**

___ The goals are comprehensive as they relate to the county as a whole; however, **they do not sufficiently describe the goals and/or objectives for my jurisdiction.** Additional goals (and objectives) that should be considered for my jurisdiction are:

- Goal:
- Objective:
- Objective:
- Goal:
- Objective:
- Objective:
- Goal:
- Objective:
- Objective:

Worksheet #7: The Mitigation Strategy – Actions

Review the previously identified mitigation actions and projects from the Chittenden County 2017 HMP to assess progress of each action and suggest new actions/projects based 2022 Goals and Objectives. Briefly describe the actions that would effectively reduce future disaster losses from the identified hazards. This worksheet provides guidance about each category of mitigation actions to be considered and an Action Worksheet for a mitigation project as an example.

Types of Mitigation Actions

Types of Mitigation Measures and Sample Mitigation Actions		
Local Plans and Regulations		
Mitigation Measure	Examples	
<ul style="list-style-type: none"> Government authorities, policies, or codes that influence the way land and buildings are developed and built 	<ul style="list-style-type: none"> Comprehensive plans Land use ordinances Subdivision regulations Development Review Building codes and enforcement NFIP Community Rating System 	<ul style="list-style-type: none"> Capital improvement programs Open space preservation Stormwater management regulations and master plans Community wildfire protection plans, fuels Management & fire breaks
Structure and Infrastructure Projects		
Mitigation Measure	Examples	
<ul style="list-style-type: none"> Modifying existing public and certain private structures and infrastructure to protect or remove them from hazard areas. Create a built environment to reduce the impact of hazards. Many actions FEMA HMA eligible. 	<ul style="list-style-type: none"> Acquisitions and elevations of structures in flood prone areas Utility undergrounding Structural retrofits (e.g., shelters) Floodwalls and retaining walls 	<ul style="list-style-type: none"> Detention and retention structures Culverts Safe rooms
Natural Systems Protection		
Mitigation Measure	Examples	
<ul style="list-style-type: none"> Minimize damage and losses and preserve or restore the functions of natural systems. 	<ul style="list-style-type: none"> Sediment and erosion control Stream corridor restoration Forest management 	<ul style="list-style-type: none"> Conservation easements Wetland restoration and preservation
Education and Awareness Programs		
Mitigation Measure	Examples	
Educate citizens, elected officials, and property owners about hazards how to mitigation them. Participate in national programs: StormReady, Firewise, etc.	<ul style="list-style-type: none"> Radio or television spots Websites with maps and information Social media Real Estate disclosure 	<ul style="list-style-type: none"> Presentations to school groups or neighborhood organizations Mailings to residents in hazard-prone areas StormReady, Firewise

In addition to the mitigation action categories thus described, the plan will compile and present a summary of preparedness actions (which will not be used for compliance with DMA 2000) that have been taken or are in place to prepare for or respond to hazard incidents, such as:

- Evacuation and sheltering
- Emergency Planning
 - Activating resources for response
 - Pre-staging equipment
 - Shutting off power to threatened areas
 - Closing streets or bridges
 - Monitoring water levels
- Communications

Emergency Response Equipment (excluding emergency generators)

**Chittenden County Multi-Jurisdictional Hazard Mitigation Plan
Sample Blank Mitigation Action Worksheet**

(Name of Jurisdiction)

Action Worksheet

Project Name: _____

Project Number: _____

Risk / Vulnerability

Hazard of Concern: _____

Description of the Problem:

Action or Project Intended for Implementation

Description of the Solution:

Is this project related to a Critical Facility?

Yes

No

If yes, this project must intend to protect the Critical Facility to the 500-year flood event or the actual worst damage scenario, whichever is greater.

Level of Protection: _____

Useful Life: _____

Estimated Cost: _____

**Estimated Benefits
(losses avoided):**

Plan for Implementation

Prioritization: _____ **Desired Timeframe for Implementation:** _____

Estimated Project Timeline: _____ **Potential Funding Sources:** _____

Responsible Organization: _____ **Implementation through Integration with Local Planning Mechanisms.** _____

Three Alternatives Considered (including No Action)

Alternatives:	Action	Estimated Cost	Evaluation
		No Action	\$0

Progress Report (for plan maintenance)

Date of Status Report: _____

Report of Progress:

Update Evaluation of the Problem and/or Solution:

**Chittenden County Multi-Jurisdictional Hazard Mitigation Plan
Sample Completed Mitigation Action Worksheet**

Chittenden County

(Name of Jurisdiction)

Action Worksheet

Project Name:	Backup power for critical facilities		
Project Number:	CC-1		
Risk / Vulnerability			
Hazard of Concern:	All hazards: flood, high winds, severe winter storm, and others		
Description of the Problem:	Identify and rank in priority assets requiring backup power sources and determine processes for project funding allocation and order of projects implemented		
Action or Project Intended for Implementation			
Description of the Solution:	Develop a list of all fire, law enforcement, water treatment, government, and medical facilities that require back up power. Identify those currently protected and those that do not have generators or other backup. Develop cost estimates and rank facilities based on community needs and funding availability.		
Is this project related to a Critical Facility?		Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
If yes, this project must intend to protect the Critical Facility to the great of the two: 500-year flood event, or the actual worst damage scenario.			
Level of Protection:	500-year	Estimated Benefits (losses avoided):	Maintain continuity of operations for all services, minimize loss of life or property damage stemming from asset failure.
Useful Life:	30 years		
Estimated Cost:	Identify per project location		
Plan for Implementation			
Prioritization:	High	Desired Timeframe for Implementation:	One year
Estimated Project Timeline:	Two years	Potential Funding Sources:	BRIC, local match,
Responsible Organization:	Chittenden County Office of Emergency Management (can't find such an office)	Implementation through Integration with Local Planning Mechanisms.	Emergency Operations Plans, COOPs
Three Alternatives Considered (including No Action)			
Alternatives:	Action	Estimated Cost	Evaluation
	No Action	\$0	Potential for continued loss of life and property damage
	Implement program at all vulnerable sites at one time	\$ 25 million	Projects can only be completed as funding allows
	Select one facility from each jurisdiction to include in this effort	\$10 million	There are multiple critical projects in each jurisdiction
Progress Report (for plan maintenance)			
Date of Status Report:			
Report of Progress:			
Update Evaluation of the Problem and/or Solution:			

WORKSHEET #8: PRIORITIZE MITIGATION ACTIONS

The Chittenden Planning Committee will adopt a single prioritization methodology to be used by all jurisdictions to evaluate and rank each mitigation action. Each jurisdictions will use the same ranking system while evaluating its actions separately from the other jurisdictions, resulting in a jurisdiction-specific list of prioritized actions presented within the jurisdiction's annex.

All prioritized jurisdiction actions will be rolled-up into a single list of mitigation actions **that will be included as an appendix in the Base Plan**; however, each action described in the list will be specific to the proposing jurisdiction and will be consistent with the outcome of its hazard vulnerability assessment and ranking process.

The following Ranking System is proposed for use by each jurisdiction to prioritize each proposed mitigation action.

Step 1: Review Ranking System for Prioritizing Mitigation Actions

The Mitigation Ranking System is organized in seven (7) categories that link to the importance and timing for implementation.

Category	Points	Criteria
(1) Life Safety/Property Protection	4	Likely to protect more than 50% of the population and/or critical infrastructure and community assets.
	3	Likely to protect at least 50 % of the population and/or critical infrastructure and community assets.
	2	Could potentially protect up to 25 % of the population and could potentially protect critical infrastructure and community assets
	1	Could potentially protect up to 10 % of the population and could potentially protect critical infrastructure and community assets
	0	Potential for protecting lives and critical infrastructure and/or community assets cannot be determined at this time.
(2) Funding Availability	4	Little to no direct expenses
	3	Can be funded by operating budget
	2	Grant funding identified
	1	Grant funding needed
	0	Potential funding source unknown
(3) Probability of Matching Funds	4	Funding match is available, or funding match not required
	-	N/A
	2	Partial funding match available
	-	N/A
	0	No funding match available or funding match unknown
(4) Benefit Cost Review	4	Likely to meet Benefit Cost Review
	-	N/A
	2	Benefit Cost Review not required
	-	N/A
	0	Benefit Cost Review unknown
(5) Environmental Benefit	4	Environmentally sound and relatively easy to implement; or no adverse impact on environment.
	3	Environmentally acceptable and not anticipated to be difficult to implement
	2	Environmental concerns are somewhat difficult to implement because of complex requirements
	1	Difficult to implement because of significantly complex requirements and environmental permitting

Category	Points	Criteria
	0	Very difficult to implement due to extremely complex requirements and environmental permitting problems
(6) Technical Feasibility	4	Proven to be technically feasible
	-	N/A
	2	Expected to be technically feasible
	-	N/A
	0	Technical feasibility unknown or additional information needed
(7) Timeframe of implementation	4	1 year or less (Short Term)
	-	N/A
	2	2 – 5 years (Long-Term)
	-	N/A
	0	More than 5 years (Long-Term)
Minimum = 0 Maximum = 28	Ranking Level: Low: 0-10 Medium: 11-20 High: 21-28	

Step 2: Prioritize Mitigation Actions

The Prioritization Worksheet (below) provides the format to list each action your jurisdiction described on an Action Worksheet. Using the ranking criteria provided in **Step 1**, prioritize the action for implementation.

Instructions:

1. Provide the information requested in Columns (A), (B), and (C).
2. Using the Ranking System provided above, assign a numerical score for each category in Columns (1) through (7). If exact data is unavailable, a “best guess” is acceptable.
3. Add the individual scores in Columns (1) through (7) to determine a *Total Score* (Column 8).
4. The total score represents the action’s priority. Using the Ranking Level guide provided in the last row of the Mitigation Ranking System criteria (above), assign each action a ranking of high, medium, or low.

Action priorities may be re-considered at any time based on the plan maintenance schedule for monitoring and evaluation; availability of new data; or changes in scope, cost, time frame or other characteristics of the action.

***Abbreviations for Project Types:**

- LPR - Local Plans and Regulations
- SIP - Structure and Infrastructure Projects
- NSP - Natural Systems Protection
- EAP - Education and Awareness Program

