

## **Recommended Strategies for 2016 version of Chittenden County AHMP:**

### **6.5 Implementation and Monitoring of Mitigation Strategies**

The following table will aid responsible entities in implementing the mitigation actions for Chittenden County, and facilitate annual monitoring of the plan. Strategies are organized by type of hazard, either NATURAL, TECHNOLOGICAL OR SOCIETAL.

Hazards received a RISK RATING out of possible high score of 80 as follows:

#### NATURAL HAZARDS:

Winter Storm (45), Severe Thunderstorm (45), Flooding (32), Extreme Temperatures (32), Fluvial Erosion (24), Wildfire (6)

#### TECHNOLOGICAL HAZARDS:

Hazardous Material Incident (45), Water Pollution (28), Multi-Structure Fire (24), Sewer Service Loss (20), Water Supply Loss (20), Invasive Species (20), Natural Gas Service Loss (15), Telecommunications Failure (15), Major Transportation Incident (12), Power Loss (7), Other Fuel Service Loss (4)

#### SOCIETAL HAZARDS

Economic Recession (28), Terrorism (27), Crime (24), Epidemic (24), Civil Disturbance (20), Key Employer Loss (16)

As discussed earlier, municipal governments, state agencies and utility companies are the most appropriate entities in the County to develop and implement mitigation strategies to address these hazards. However, at the regional level, the following hazards can also be addressed via mitigation strategies implemented by regional agencies, primarily the CCRPC.

NATURAL HAZARDS: Winter Storm, Severe Thunderstorm, Flooding, and Fluvial Erosion

TECHNOLOGICAL HAZARDS: Water Pollution

SOCIETAL HAZARDS: Economic Recession

Table 6-1 Chittenden County Multi-Jurisdictional All-Hazards Mitigation Plan Implementation Matrix

Mitigation Strategy & Hazards Addressed	AHM P Page #	Primary Responsible Entity and Partners	Task	Brief Description
<p><b>#1 Assist municipalities with development of plans, policies and zoning regulations that mitigate the following Hazards:</b></p> <p><b>Severe Thunderstorm Flooding</b>  <b>Fluvial Erosion</b>  <b>Water Pollution</b></p>		CCRPC ANR Municipalities	Flood Resilience Planning	Provide assistance with drafting of required Flood Resiliency chapters in municipal plans as well as drafting of language and maps regarding fluvial erosion and flooding.
		CCRPC ANR Municipalities	River Corridor Protection	As requested, Provide assistance with mapping and development of regulatory language to preclude or minimize development within mapped River Corridors or fluvial erosion hazard areas.
		CCRPC ANR LC SeaGrant Municipalities	Water Quality Bylaws	Provide outreach, and mapping and technical assistance to municipalities concerning adoption of zoning bylaws and other measures to improve water quality. Promote the use of Low Impact Development principles and Green Stormwater Infrastructure techniques in municipal Land Development Regulations to restore or maintain pre-development ecological and hydrological function through the protection, enhancement, or mimicry of natural processes.
		CCRPC ANR LC SeaGrant Municipalities	Storm Water Master Planning	Outreach & education to municipalities on benefits of stormwater master planning
		CCRPC ANR LC SeaGrant Municipalities	Private Green Infrastructure	Provide information to assist property owners in incorporation of Green Stormwater Infrastructure techniques

Mitigation Strategy & Hazards Addressed	AHMP Page #	Primary Responsible Entity and Partners	Task	Brief Description
<p><b>#2 Promote municipal and public participation in development and implementation of Tactical Basin Plans to mitigate the following Hazards:</b></p> <p><b>Severe Thunderstorm Flooding</b>  <b>Fluvial Erosion</b>  <b>Water Pollution</b></p>		CCRPC ANR AOT Municipalities	Project Prioritization Mapping Tool	Review the relevant transportation and river management data/plans for a watershed (or sub-watershed depending on size), and then geo-reference the data to help municipalities, VTrans, and ANR in prioritizing investments that address transportation, environmental and hazard mitigation needs concurrently.
		CCRPC ANR Municipalities	Project Prioritization Process	CCRPC will assist in prioritizing Basin Plan projects in conjunction with ANR and municipalities. .
		CCRPC ANR Municipalities Non-profit orgs. Landowners	Shovel Ready CCRPC ANR Municipalities Projects	The CCRPC may assist in creation of a “shovel ready projects” database. The CCRPC shall provide information such as project name, location, type, and results of criteria evaluation, for incorporation into the tactical basin plan implementation table.

Mitigation Strategy & Hazards Addressed	AHMP Page #	Primary Responsible Entity and Partners	Task	Brief Description
<p><b>#3 Assist municipalities to develop infrastructure projects</b></p>		CCRPC ANR AOT	Municipal Roads General Permit	Assist municipalities with compiling existing inventories of stormwater infrastructure, stream geomorphic information, culvert inventories, road erosion inventories and capital budgets, and Road Erosion Risk Analysis

<b>that mitigate the following Hazards:</b>  <b>Severe Thunderstorm</b> <b>Flooding</b> <b>Fluvial Erosion</b> <b>Water Pollution</b>		Municipalities		maps to assist in developing implementation priorities under the municipal roads general permit.
		CCRPC ANR AOT Municipalities	Transportation Infrastructure Mitigation Project Scoping	Assist with finding funds to develop conceptual design & construction cost estimates for transportation infrastructure upgrade or replacement such as culverts, bridges, ditches, grading, etc. to reduce damages from hazard events.

Mitigation Strategy & Hazards Addressed	AHMP Page #	Primary Responsible Entity and Partners	Task	Brief Description
#4 Assist municipalities in protecting people, buildings and facilities where development already exists in vulnerable areas.		CCRPC Municipalities	Reduce Future Flooding Risk for Existing Development	Assist municipalities in relocating structures to less vulnerable areas or elevating structures well above the BFE in vulnerable areas.
			Create New Flood Storage Capacity	Assist municipalities in creating new flood storage capacity through redevelopment. (Notes for main text if we keep this. This is from the Vermont SGIA Guidance Document: “New flood storage capacity could mean creating parks and other open space in vulnerable locations, replacing a vertical wall along a river bank with a more gradual slope to create more room in the river channel for rising water, creating a shallow depression in the lawn that can accommodate inundation, or redesigning buildings to enable the first floor or basement to flood rather than armoring the buildings to repel rising waters.”)

The following strategies are not Mitigation Actions but the CCRPC and its municipalities propose to retain these strategies to illustrate other regional programs that promote effective Emergency Management as a whole:

Emergency Management Activity	AHMP Page #	Primary Responsible Entity and Partners	Task	Brief Description
Identify hazardous materials transport information and train for transportation-related hazardous materials incidents.		CCRPC, LEPC #1	Hazardous Materials Transportation	Retained from 2011 Plan. Participate in the development of the state wide hazardous commodities flow study planned for FFY16-FFY17.
Emergency Management Planning Program		CCRPC, LEPC #1	LEPC#1 Operations	Continue to operate monthly meetings of Local Emergency Planning Committee #1 to maintain and increase awareness of Emergency Management issues in the County and State.
		CCRPC	EMPG program	Continue to implement various deliverables of EMPG contract with State DEMHS
			RPC-VDEHMS MOU	Upon request, provide assistance to State and Municipalities with Preparedness, Response, Recovery & Mitigation activities in response to impending, current and past disasters or emergency events.