

City of Laconia, New Hampshire Hazard Mitigation Plan Update: 2017

Prepared by the:

Laconia Hazard Mitigation Committee

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City of Laconia, New Hampshire Hazard Mitigation Plan Update: July 2017

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1. PLAN UPDATE SUMMARY

A. Plan Overview

The *Laconia Hazard Mitigation Plan* serves to reduce future losses from natural hazard events before they occur. Content for this plan update was developed by the Laconia Hazard Mitigation Planning Committee (LHMPC) with assistance from the Lakes Region Planning Commission (LRPC). During the update process the LHMPC determined the community's best interest is served by addressing man-made hazards in addition to natural hazards and by addressing emergency management and emergency response strategies in addition to mitigation strategies. This plan was adopted by the Laconia City Council and contains statements of policy.

B. Plan Update Defined Tasks

Generally, a community must review and revise an existing plan to reflect changes in development, progress in local mitigation efforts, and changes in priorities every five years. One of the most important update steps is to refine a community's mitigation strategy, particularly considering experiences gained from the implementation of the previous plan. Updated plans must reflect current conditions and progress in mitigation efforts. Guidance on the content for this plan was provided through the *Local Mitigation Planning Handbook, March 2013* prepared by the Federal Emergency Management Agency. The following outlines update specific tasks (in italics) followed by LHMPC actions to address each task:

C. Task 2: Building the Planning Team

Reconvene the team from previous planning process along with any additional individuals or organizations.

LRPC staff meet with Kenneth Erickson, Laconia Fire Chief, Emergency Management Director to discuss the plan update process and explore committee representation. Many staffing changes took place since the 2012 Plan update was conducted including the following key positions from local and regional agencies: Planning Director, Police Chief, Public Works Director and Homeland Security and Emergency Management (HSEM) Field Representative. Chief Erickson notified the City Manager to announce the need to reconstruct and reconvene the LHMPC.

A general review of your community's previously approved plan can provide a good starting point for identifying ideas for improvement and areas that may require more time and resources.

Copies of the plan were made available for LHMPC member review. Chief Erickson reminded members that all department have been provided copies of the plan in the past as well for departmental reference. Key plan elements (capability assessment, development trends, past hazards review and assessment, strategies) were provided as handouts and/or discussed in detail at the LHMPC meetings.

Updates must include documentation of the current planning process undertaken to update the plan.

LHMPC meeting notes are included in Appendix A of this plan for reference.

D. Task 3: Create an Outreach Strategy

The planning team should evaluate the stakeholders and the outreach activities involved in the previous planning process and identify any necessary changes.

Outreach documentation is included in Appendix B of this document. In addition to the diversity and professional experience of the LHMP, outreach included a letter to area Emergency Management Directors (EMD) informing them of the plan update and requesting their input related to shared resources and responsibilities. One EMD responded affirming plan contents, without recommending changes. An April 14, 2017 public informational session was advertised in the weekly city newsletter (Laconia Links) to encourage the public to learn about the plan update findings and provide input. No input was received at this forum. Laconia Links is distributed to 2,500 residents, schools, and parents of students. The City Council meeting where the plan was adopted provided another opportunity for public comment and input.

Updates must include documentation of the current planning process undertaken to update the plan – a simple narrative of the planning process can meet this requirement. It is helpful to provide other forms of documentation, such as copies of meeting minutes, agendas, sign-in sheets, and newspaper articles to help inform the reader.

For this plan update the following meetings were conducted:

- December 22 – LRPC Staff with Chief Erickson – discuss the plan update process, project timeline, and committee representation.
 - January 20 – LHMP Meeting 1 – review list of past hazard events 2012 to present prepared by LRPC, hazards identification, hazards risk assessment, sources of plan update information, and initial development trends discussion.
 - January 27 – LHMP Meeting 2 – LHMP consensus on risk assessment, reviewed and revised critical facilities list, development overview provided by LRPC.
 - February 3 – LHMP Meeting 3 – Finalized critical facilities discussion, review, and update past recommendations (completed, still relevant, no longer being considered), brainstorm additional strategies in four categories Public Education and Training, Equipment Needs, Prevention and Planning, and Communications.
 - February 17 – LHMP Meeting 4 – Strategies assessment based on established criteria known as STAPLEE method.
 - March 17 – LRPC Staff with Chief Erickson
 - April 14, 2017 - Public Informational and Comment Session (no comments received)
 - April 26 – LRPC Staff with Chief Erickson
 - April 30 – Letter to area Emergency Management Directors (EMD from Town of Meredith replied with no comments to be taken into consideration. No other jurisdictions replied to the email.)
-

E. Task 4: Review Community Capabilities

Updates must document any change in floodplain management programs.

The Floodplain District which guides the all new construction in the floodplain, as defined by the Laconia Zoning Ordinance (Chapter 235-18) was amended in 2014. The Federal Emergency Management Agency (FEMA) Flood Insurance Rate Study, Flood Insurance Rate Maps and Flood Boundary and Floodway Maps that define lands designated as special flood hazard areas and the Floodplain District were last updated in August 1980. The Laconia Planning Director or their designee is responsible for oversight of development within the Floodplain District. The New Hampshire Office of Energy and Planning (NH OEP) conducts periodic Community Assistance Visits to evaluate community performance in implementing NFIP floodplain management activities. The most recent visit was conducted in 2011.

The FEMA processed a total of ten map amendment letters from 2013-2016 in Laconia; eight of the requests resulted in existing structures being removed from the Special Flood Hazard Area defined around Jewett Brook. Repetitive flooding information provided by the NH Office of Energy and Planning was reviewed by the LHMPC as related to general areas of potential flooding concern.

The planning team ensures capabilities are documented sufficiently and highlights any capability changes from the previous plan.

The City of Laconia continues to develop capabilities that make the community a safer place and reduce loss of life and property. The city's capabilities span all core mitigation types: planning/ regulatory, administrative/technical, financial, and education/outreach. A list of 24 plans, regulations and practices identified in the 2012 Plan as city mitigation capabilities was reviewed and updated. Capabilities added to the list in this update resulted from committee input about other initiatives that make Laconia a safer place including: Drug and Education Program (Police Department and schools 2015-16); Lakes Region Citizen Emergency Response Team annual nine-week emergency preparedness course for residents; communications upgrade undergoing funding consideration in the 2016 Capital Improvements Program; updated Floodplain District Ordinance 2014; city personnel training through establishment of Emergency Operations Center at Central Fire Station and participation in tabletop exercises; underground utilities on Union Avenue and under construction in the Weirs; bridge rehabilitation projects; culvert inventory; and work on a storm drainage inventory.

F. Task 5: Conduct a Risk Assessment

Focus on how risk has changed since the previous plan, particularly changes related to land use development and new hazard information

Laconia has experienced several significant trends that may impact emergency response, emergency preparedness, and hazard mitigation planning. These trends include:

- Laconia experiences high seasonal population growth. Approximately one in four housing units in Laconia are seasonally occupied. The January versus July increase in service sector jobs adds 19 percent; an additional 1,100 jobs. While the year-round population remains at around 16,000 residents, the number of housing units has expanded and it is estimated that approximately 62 percent of the recent housing growth is for seasonal use.

- Residents 65 years of age and older represent 17 percent of the total population according to the American Community Survey (2009-2015). The NH Office of Energy and Planning forecasts this trend to continue, where by 2020 23 percent of Belknap County population will be 65-years of age or older; increasing to 30 percent by 2030.
- Data show significant traffic volume changes on Union Avenue and at the NH107/US3 Bypass interchange; where traffic volumes have increased by as much as 23 percent between 2009 to 2015.
- Drug use and associated overdoses have increased in the state and Laconia, leading to added demand for police services and use prevention and education programs. Laconia police chief said his department was seeing “3 to 10 cases of overdose a week at the beginning of 2015”; compared to ten heroin deaths in 2014.
- The addition of Pumpkin Festival in Laconia will continue for a third year in 2017; it is estimated between 30,000-40,000 visitors participate at what has been a week-end day event. Other events with the potential for high participation include: Multi-Cultural Day, Christmas Village, Homecoming Parade, Weirs Beach week-ends, and Farmers Market.

Incorporate any additional hazards that have been identified and any new data that has become available, such as new flood studies. Updates must include hazard events that have occurred since the last plan was completed.

Natural hazard declarations occurring since the 2012 update of this plan include the following in New Hampshire, Belknap County and within Laconia:

Number	Date	Natural Hazard Description	Declaration Type
4316	6/01/2017	Severe Winter Storm	Major Disaster Declaration
4105	3/19/2013	Severe Winter Storm and Snowstorm	Major Disaster Declaration
4095	11/28/2012	Hurricane Sandy	Major Disaster Declaration

In addition to the natural hazards, the LHMPC reflected on other manmade potential hazards including three air plane crashes at the Laconia Airport in Gilford at the Laconia City boundary.

Planning Team will update the asset inventory to reflect current conditions.

The list of critical facilities was reviewed and revised based on changes since 2012. The list includes: essential services, facilities to protect, populations to protect, secondary shelters, and evacuation routes. The building values provided by the Laconia Assessor aid in evaluating costs and benefits associated with mitigation strategies.

Must revise problem statements to reflect current risk assessment. This may include developing new statements and removing or revising ones that are no longer valid because mitigation projects have addressed the risk or other conditions have changed.

Talking points for each hazard addressed associated risks, likelihood, and vulnerabilities. Mitigation strategies identified in the 2012 plan were evaluated based on whether they are: completed, ongoing/still relevant, or no longer relevant. A detailed review is provided outlining the problems faced by the community for high risk hazards.

G. Task 6: Develop a Mitigation Strategy

Team should evaluate the previous goals and reaffirm or change them based on current conditions and priorities

The 2012 Plan goals and objectives were reviewed and updated for consistency with mitigation actions and based on input provided by Homeland Security and Emergency Management planning staff.

2. PLANNING PROCESS

A. Background

Communities are required to have an approved hazard mitigation plan as a condition of receiving hazard mitigation assistance funding, as well as funds from other federal programs. Such plans are locally developed and adopted. The New Hampshire Department of Safety, Division of Homeland Security and Emergency Management (HSEM) reviews and approves local plans prior to adoption. After adoption, the Federal Emergency Management Agency (FEMA) endorses local plans. The Division of HSEM makes funding available to assist communities with plan development and updates. The plan update process followed the update specific steps outlined the *Local Mitigation Planning Handbook, March 2013* (FEMA).

B. Authority

The city of Laconia Hazard Mitigation Plan was prepared pursuant to Section 322 Mitigation Planning, of the Robert T. Stafford Disaster Relief and Emergency Assistance Act. Accordingly, this Hazard Mitigation Plan will be referred to as the "Plan."

C. Funding Source

The Federal Emergency Management Agency through the New Hampshire Division of Homeland Security and Emergency Management funded this Plan update with matching funds from the City of Laconia.

D. Purpose

The Laconia Hazard Mitigation Plan is a planning tool to be used by the City of Laconia, as well as other local, state, and federal government entities, in their efforts to reduce the effects from natural and human-related hazards. The Plan contains statements of policy as outlined in the Mitigation Action Plan and in the Plan Adoption and Monitoring section. All other sections of this plan are support and documentation for informational purposes only and are not included as a statement of policy.

E. Scope of Plan

The scope of this Plan includes the identification of natural hazards affecting the City of Laconia, as identified by the LHMP. The hazards identified in the *State of New Hampshire Multi-Hazard Mitigation Plan Update 2013* were reviewed, noting the inclusion of man-made hazards. The LHMP chose to include man-made hazards in this update.

F. Laconia Hazard Mitigation Plan History and Update Methodology

The Laconia Hazard Mitigation Plan was initially adopted in January 2005. Since then, the Plan was updated September 2012 and June 2017. This 2017 plan update was guided by the *Local Mitigation Planning*

*Handbook March 2013.*¹ The LHMPC developed content for this Plan by following update specific tasks set forth in the handbook, and various mitigation planning resources on the FEMA website.² Committee meetings were established as needed to review and update the existing plan. The planning team reviewed each section of the plan and LRPC staff provided updated information on hazards in New Hampshire. Each section of the existing plan was revised according to update tasks.

G. Public Involvement

The Laconia Fire Chief and City Manager invited a variety of stakeholders to join the Laconia Hazard Mitigation Planning Committee. A letter soliciting input to the update process of the Plan was also sent to the Emergency Management Directors in the neighboring towns of Gilford, Meredith, Belmont, and Sanbornton. The Laconia Fire Chief held a public informational and input session to obtain additional feedback during plan development. The draft plan was available for review prior to adoption by the City Council, providing an opportunity for local and regional businesses, organizations, agencies, educational and health institutions in Laconia and surrounding towns to provide comments. Documentation regarding public involvement and community outreach can be referenced in Appendix B.

H. Acknowledgements

The Laconia City Council extends special thanks to those that assisted in the development of this Plan:

Kenneth Erickson, Laconia Fire Chief/EMD
 Amy Lovisek, Laconia Parks and Recreation, Assistant Recreation and Facilities Director
 Brandee Loughlin, Laconia Planning Department, Assistant Planner
 Wesley Anderson, Laconia Public Works, Director
 Daniel Albert, Laconia IT Department, Technician
 Kathleen Merriam, Partnership for Public Health - CERT, Volunteer Coordinator
 Seth Nuttelman, Laconia Water Works, Superintendent
 Donna Woodaman, Laconia Finance Department, Director
 Christine Blouin, NH School Administrative Unit 30, Business Administrator
 Allan Graton, Laconia Police Department, Lieutenant
 Christopher Adams, Laconia Police Department, Police Chief
 Scott Myers, City of Laconia, City Manager
 Nick Cantara, Laconia IT Department, Internet Technologies Specialist
 Kirk Beattie, Laconia Fire Department, Assistant Fire Chief
 Deborah Derrick, City of Laconia Assessing Department, Assessor
 Shawna-Leigh Morton, NH HSEM, Field Representative
 Michael Izard, Lakes Region Planning Commission, Principal Planner

¹ Source: [Local Mitigation Planning Handbook, March 2013, Federal Emergency Management Agency.](#)

² Source: [Hazard Mitigation Planning Resources, Accessed 2017, Federal Emergency Management Agency.](#)

3. COMMUNITY PROFILE



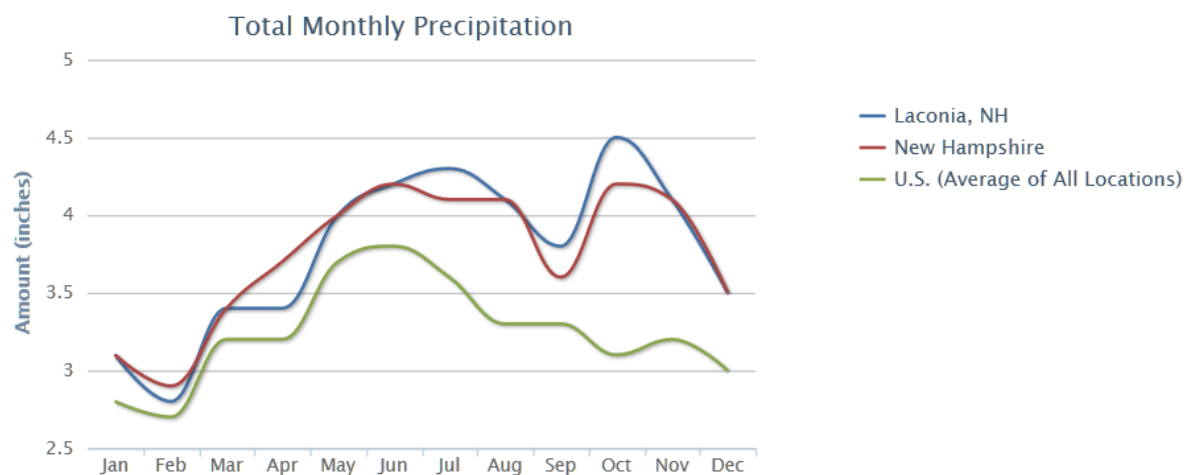
A. Geography

The City of Laconia is located near the geographic center of Belknap County, along the southwest embayment of Lake Winnepesaukee, the northeast shore of Lake Winnisquam, and surrounding Opechee and Paugus Bays in the heart of the Lakes Region of Central New Hampshire. Laconia consists of roughly 21 square miles of land area and 6 square miles of surface water; the lakes are obstacles for emergency response. The city is bordered by Meredith (north), Belmont (south), Gilford (east) and Sanbornton (west).

Laconia comprised of moderately sloping terrain. With ten percent of the land consisting of slopes 15 percent or greater, Laconia is less steep than most other Lakes Region communities. Slopes of 15 percent or greater comprise 33 percent of the land area in 27 of 30 Lakes Region communities.

B. Weather Conditions

Characteristic of New England, Laconia's temperatures and precipitation vary greatly. January temperatures range from an average high of 28.9 to an average low of 6.6 degrees Fahrenheit. In July, temperatures range from an average high of 80.4 degrees to an average low of 54.8 degrees Fahrenheit. Annual average precipitation is 45.2 inches. The wettest month of the year is October with an average rainfall of 4.5 inches. Laconia averages about 78.3 inches of snow per year.³



New Hampshire is in a 160 mile per hour wind zone; most of the southern portion of the state (including all of Belknap County) is in a hurricane susceptible region.

³ Source: USA.com, Accessed April 2017.

C. Public Utilities and Services

Laconia residents have access to drinking water through both private wells and municipal water supply. The municipal water supply source is an intake pipe located in the southern end of Paugus Bay. Water is pumped from the Union Street pumping station to treatment at Stark Street and gravity storage at the Lakeport, Longbay, Endicott, Weirs, Lighthouse, and Briarcrest storage tanks. Currently the municipal water system has a capacity of over 5 million gallons of water. Due to the exposed nature of the surface water supply, open contamination pathways from regional bulk shipping transportation corridors and marina-based in-lake fueling stations puts the municipal water supply at risk to contamination, though not at risk to shortages.

Laconia is part of the Winnepesaukee River Basin Program (WRBP), a state owned and operated regional wastewater system serving ten communities in the Lakes Region. The treatment facility is in Franklin, NH. Funding for the WRBS is provided through the sewer rates assessed by the member communities. Feeding into the WRBS infrastructure, Laconia manages 18 sewer pump stations and approximately 91 miles of gravity main and 13 miles of force main. Connection to the sanitary sewer system is required when an improved property is within 250' of the public sewer system. The point of measurement is from the closest part of any structure which contains plumbing to the sewer system. If easements are necessary, the distance would be measured along or across the shortest available easement.

The City of Laconia Department of Public Works, Operations Division is responsible for road construction, upkeep of 100 miles of city roads and adjacent sidewalks, storm drainage systems, and winter maintenance. Ancillary responsibilities include maintenance of parking meters, maintenance of the Weirs Public Docks, plumbing inspections, and management of the hazard tree program. Laconia has received the Tree City USA award from the Arbor Day Association for 27 years in a row based by meeting core standards of sound urban forestry management including: maintaining a tree board or department, having a community tree ordinance, and spending at least \$2 per capita on urban forestry.

The governing body of the City is an elected mayor and an elected Council. City-wide vote elects the Mayor. One Councilor is elected from each of the City's six wards. All members of the Council are elected to serve a two-year term and take office at the first scheduled council meeting the January following the November election. The Council is responsible for formulating policy, adopting an annual budget, enacting the laws of the City, and approving the use and care of City property, including buildings, streets, and other infrastructure projects.

The Lakes Region General Hospital, located in Laconia, is the largest hospital in the Lakes Region. The City and Hospital jointly operate the municipal emergency medical service for the community. The city also employs full- time fire and police departments. The police department has over 50 employees; the fire department has 40 employees. There are two fire stations, one located in Laconia, one in downtown and the other at the Weirs. The Community Center at the Weirs and the public Library both function as cooling centers where at-risk populations can find relief from extreme summer heat. There are five public schools, including the Laconia Middle School which serves as a primary shelter for the region, Laconia High School, the Elm Street School, Pleasant Street School, and Woodland Heights School. In addition, there are several private schools and the Lakes Region Community College.

D. Land Use and Development Trends

The population in Laconia has remained constant over the past several decades, hovering around 16,000 residents. The New Hampshire Office of Energy and Planning (NH OEP) population estimates indicate a growth rate of 1.5 percent from 2010 to 2015; an increase of 242 persons to 16,193.

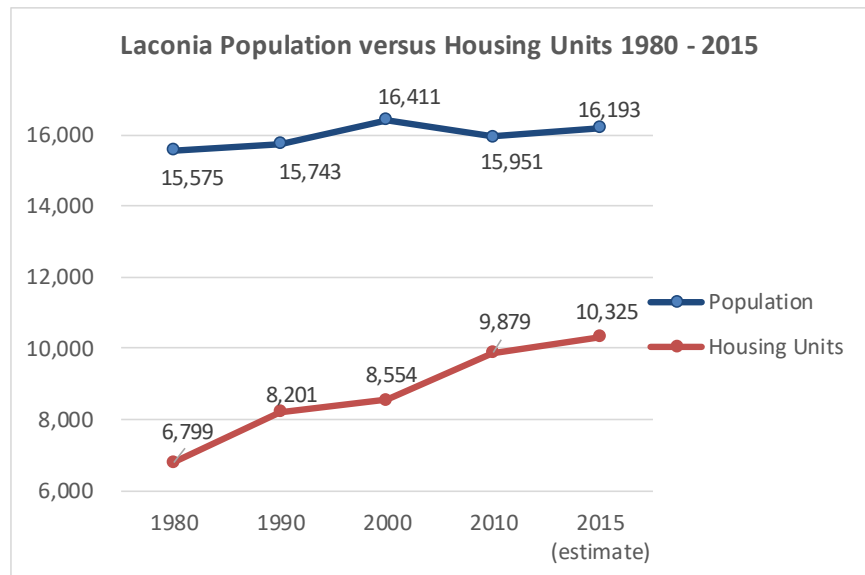
While the population has not changed significantly, the number of housing units has continued to increase. The housing stock consists of a third built before 1940. It is estimated that most of the recent housing are second homes; this is consistent with 2000-2010 US

Census data which indicates an increase of 816 seasonal units; representing 62 percent of the total housing stock growth.

Approximately one in four housing units in Laconia are seasonally occupied. The increase in seasonal units makes seasonal population spikes more pronounced. It is estimated the summer population can more than double. The exact summer seasonal population of the city is

not known, and it changes throughout the season, but anecdotal evidence and conventional wisdom suggests that the summer population may be roughly double the year-round population, with episodic spikes approaching triple the year-round population during peak weekends and events. Every year, the annual ten-day Motorcycle Week event draws several hundred thousand people over the course of the event. The July 4 celebration is one of the largest in the state. The number of registered boats floating on the lake each summer is a testament to this seasonal influx. Paugus Bay, for example, is home to more than 4,000 registered boats during the summer, and over 300 of these are live-aboard vessels. The January versus July increase in service sector jobs adds 19 percent; an additional 1,100 jobs. This seasonality is compounded by year-round employment and commerce influx driven by the County Seat status as well as being the service, financial, and trade center for the region. Year-round fire calls remain relatively constant, fluctuating slightly from an average of 15 calls per day June – August to 12 calls per day January – March.

Laconia's poverty level (16 percent) exceeds the state average (nine percent, 2010-2014). The aging population continues to increase as a percent of the over-all population. Residents 65 years of age and older represent 17 percent of the total population according the American Community Survey 2009-2015. NHOEP forecasts this trend to continue, where by 2020 the 65 years of age and older population will be 23 percent of Belknap County population and 30 percent by 2030. The demand for healthcare services is



anticipated to continue to increase. Drug use and associated overdoses have increased in the state and Laconia leading to added demand for police, fire, and EMD services and use prevention and education programs. Laconia police chief said his department was seeing “3 to 10 cases of overdose a week at the beginning of 2015”; in 2014, there were ten heroin deaths. Laconia Fire Department has documented a

185 percent increase in Narcan use and a 147 percent increase in overdoses between 2013 to 2016. The Fire Department now employs a part-time Recovery Coordinator to reduce drug addiction.

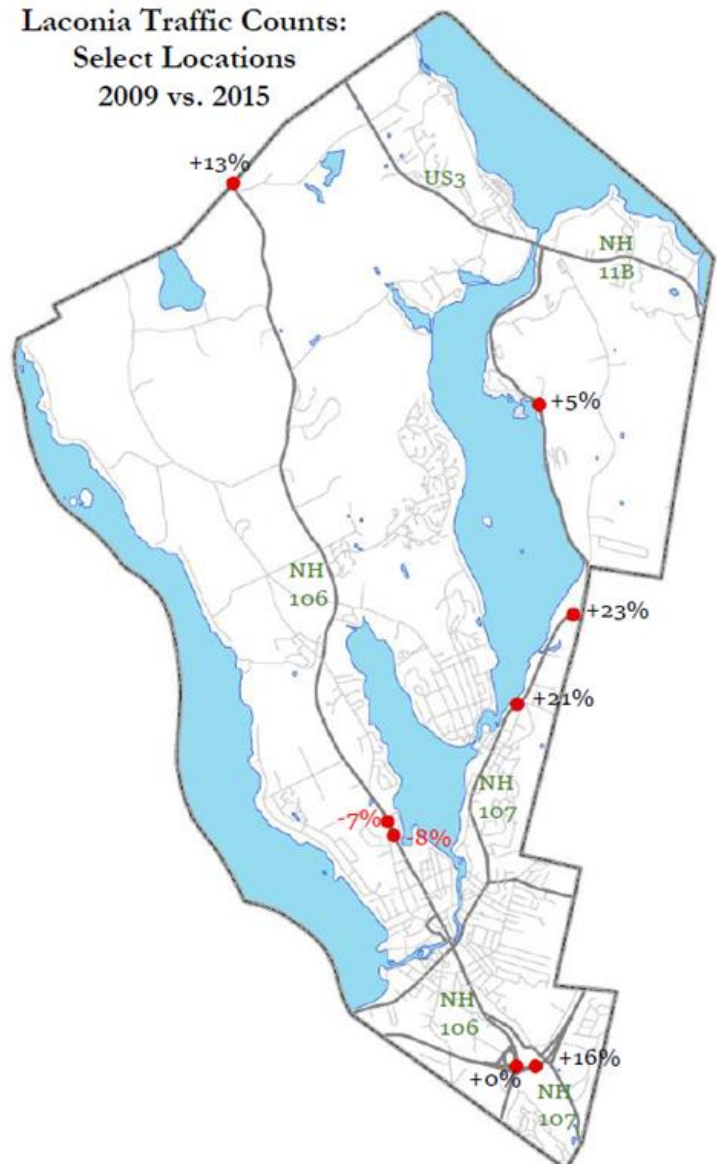
Recent commercial and institutional changes include: planning the reuse of the state complex on NH Route 106 – the 212-acre site of a medium security prison until closure in 2009 and the March 2016 start of renovations to the Colonial Theatre downtown. To promote economic and mix commercial development, the city continues to explore the available vacant land and a possible commercial corridor zoning change on US Route 3 and NH Route 11B from the Weirs to the Meredith town line; an area with most of the largest vacant lots in the city which total more than 430 acres. More than \$1 million is being invested on adjacent Lakeside Avenue for water, sewer, drainage, lighting, and underground utilities.

There are 34 manufacturing establishments in Laconia which represent about 16 percent of the jobs. Much of the industrial activity is centered in Gilford/Laconia business park and the industrial park off NH Route 106 north of downtown. Industry is not anticipated to increase through 2022.

Transportation patterns and volumes were explored in the draft 2016 Master Plan Transportation Chapter. Data show significant changes on Union Avenue and at the NH Route 107/US Route 3 Bypass interchange; where traffic volumes have increased by as much as 23 percent between 2009 to 2015. The movement of truck traffic on and through Union Avenue has been identified as a long-standing challenge. Recently re-classified as US3 Business Route.

The addition of Pumpkin Festival in Laconia will continue for a third year in 2017; it is estimated between 30,000-40,000 visitors participate what has been a week-end day event. Other events with the potential for high participation include:

**Laconia Traffic Counts:
Select Locations
2009 vs. 2015**



Multi-Cultural Day, Christmas Village, Homecoming Parade, Weirs Beach week-ends, and Farmers Market.

After consulting with Laconia's EMD, Chief Erickson of the Laconia Fire Department, the conclusion was made that the city's overall vulnerability has increased. The increase in vulnerability is not correlated with short comings in the 2012 Hazard Mitigation Plan but rather independent factors such as an aging population and the frequency of severe storm events. An aging population with the addition of an increase in severe storms ultimately raises concerns for the vulnerability of the community therefore leading to an increase in vulnerability since the city's last Hazard Mitigation Plan was formally approved in 2012.

4. COMMUNITY CAPABILITIES REVIEW

A. Current Plans, Policies, Programs, and Regulations

This section acknowledges the unique capabilities in the City of Laconia that serve to accomplish mitigation and reduce the community's vulnerability. The community capabilities review started with the list of plans, policies, programs, and regulations developed as part of the 2012 Plan. The following local tools were considered beneficial to hazard mitigation, followed by updated information where applicable:

Emergency Management Plan (2009): Details the communication structure, responsible parties, and plan of action in the event of various emergencies.

Hazard Mitigation Plan (2012): The local plan serves to reduce future losses from hazards before they occur. A FEMA approved hazard mitigation plan makes Laconia eligible for the full spectrum of available mitigation program funding.

Update: Plan updated 2017.

Zoning Ordinance: In addition to providing for orderly settlement of the city, the zoning ordinance contains articles specific to hazard mitigation, including a Floodplain District, Shoreland Protection District, Steep Slopes Ordinance, Water Supply Protection Overlay District, and Sewer Ordinance.

Update: Floodplain District ordinance update in January 2014.

Mass Casualty Plan: A collaborative effort between public safety, the healthcare community, and emergency management officials that addresses large-scale incidents.

All-Health Hazards Plan: A plan addressing public health emergencies.

Site Plan Review Regulations: The Site Plan Review Regulations address topics such as erosion and sediment control in the development of projects requiring a Conditional Use Permit, projects converting the use of an existing building to multifamily, or any project requiring a lot line adjustment, lot merger, boundary line agreement, or other subdivision.

Subdivision Regulations

Master Plan: Many of the recommended actions in the Laconia Master Plan relate directly to Hazard Mitigation.

Update: The city is currently engaged in a Master Plan revision. A draft Transportation Chapter covers the functional and structural adequacy of bridges, the value added from a stormwater management project using the example of the recently constructed stormwater demonstration project installed at Weirs Boulevard/White Oaks Road, and traffic safety generally related to motor vehicles, pedestrians, and bicyclist.

Capital Improvement Plan (CIP): This multi-year budgeting tool is actively used for addressing many of the city's infrastructure and equipment needs.

Update: A communications upgrade recommended in the 2012 Plan is currently being proposed for funding in the CIP.

Driveway permitting: Driveway permits are issued for new construction as well as to existing homeowners who are either paving any existing gravel/earth driveway, or resurfacing an existing paved driveway or access. The intention of the driveway permit is to assure proper drainage from the private driveway access to the public right-of-way on City accepted streets.

Motorcycle Week Propane Regulations: A permit program for temporary propane tanks of 50-100 gallons during motorcycle week.

Dam Emergency Action Plans: The Lakeport and Avery Dams have Emergency Action Plans on file with the NH Dam Bureau and these dams are regularly inspected. The Dam Action Plans detail the likely resultant damage from a dam breach, evacuation areas, and a communications structure for responding to dam related issues and potential dam failure.

Update: According to NH Department of Environmental Services (NHDES), the Avery and Lakeport Dams are currently rated as “Low” hazard dams. These dams are regulated by the Federal Energy Regulation Commission (FERC), owned by the NHDES, and leased to hydro-power companies use in power generation. Inundation pathways, the areas and structures that would be impacted in the event of a dam breach, are not required for low hazard dams. NHDES is currently re-evaluating the Lakeport Dam due to the potential for economic loss of structures or property in the event of a dam failure. Low hazard dams are inspected at six year intervals.

Building Codes and Code Enforcement: The City follows the BOCA and NFPA standards and has a Code Enforcement Officer.

Update: The city currently follows the following codes -

International Code Council

IBC2006 Commercial Building Code

IRC2006 Residential Building Code

National Fire Prevention Association

NEC2005 National Electric Code for Residential and Commercial Use

International Property and Maintenance Code

IPMC2006 Residential and Commercial structures code which also serves as the city's housing code.

Hazardous Materials Containment: The city has the capacity to respond to and provide initial containment for some hazardous materials spills. Spill booms can be used to contain hazardous materials spills when introduced to surface waters.

Training: Various city departments participate in regular tabletop drills, as well as field training for fire and rescue operations, and scenario training for police response.

Update: Emergency preparedness posters are displayed at City Hall. The Fire Chief participates in weekly WEMJ radio broadcasts to discuss all aspects of preparedness, response, and what the City is doing to increase safety in advance of hazard events. A Lakes Region Community Emergency Response Team (LR-CERT) booth disseminates emergency information at area events and conducts an annual nine-week course for residents on emergency preparedness.

School Emergency Evacuation Preparedness planning: Fire drill plan, lockdown plan, evacuation/transfer plan

Outreach and Education: The Fire Department puts out regular messages about fire safety and seasonal weather-related safety practices. Distribution of community-wide hazard/emergency informational materials on the City website and at community events.

Emergency Power Generation: The city has emergency power generation at many of the critical facilities, including the emergency shelter.

Mutual Aid Agreements: The goal of New Hampshire Mutual Aid agreements is to facilitate quick response to a variety of emergencies by creating an inter-community cooperative. The program creates a network of communities that will assist one another during emergency situations. This is done through the creation of partner agreements and fashioning a protocol for requesting and receiving mutual aid. The Fire Department actively participates in the Lakes Region Mutual Aid; the Police Department actively participates in the Belknap County Sheriff's Department Mutual Aid and has formal mutual aid agreements with surrounding towns.

Annual Household Hazardous Waste Collection (HHWC): Laconia's HHWC is held the first Saturday in August at the Laconia Department of Public Works, 27 Bisson Avenue.

Multi-Family Housing Inspection Guidebook: The Fire Department provides this guidebook to all owners of multi-family properties. The city goal is to inspect all multi-family units every three years. Multi-family fires as a percentage of all fires were down from 36 percent in 2006 to 29 percent in 2016.

Road and Drainage Maintenance: The City conducts road and drainage maintenance operations that keep culverts and drainage infrastructure functioning properly and that maintain roads surfaces and shoulders for safe vehicular travel.

Update: The Laconia Department of Public Works is in the process of conducting storm drain inventory in Geographical Information Systems (GIS). A past intern for the city compiled a paper inventory which is being updated and referenced electronically in map form. The city worked with Lakes Region Planning Commission in 2016 to conduct a GPS inventory of culverts on town roads (Class V) that are not served by storm drains. The inventory includes condition, age, composition, and deformation for more than 100 culverts in addition to their location.

Temporary Traffic Orders and Emergency Traffic Control Plans: A city wide network of traffic control points exists as well as emergency traffic control plans and portable barriers and signs that can be used in the event of an evacuation or re-routing of traffic away from a hazardous roadway or emergency. A goal is for more rapid deployment. Currently, the equipment is stored and needs to be loaded in a vehicle and driven to the incident to be deployed.

B. Improvements

This update acknowledges there is room for expansion of existing policies and programs. After reviewing the list of mitigation actions provided within this update, four new additions to this list have been identified. The four policies, programs, and/or regulations that the city is working to implement include:

- Cyber Attack prevention and response plan
- Develop Watershed Management Plan for Paugus Bay
- Develop stormwater regulations
- Develop emergency response ICS plans for schools

5. RISK ASSESSMENT

A. Hazards Identification

The City of Laconia is affected by a variety of natural hazards and may be impacted by manmade hazards as well. The State of New Hampshire Multi-Hazard Mitigation Plan Update 2013 was reviewed for hazards impacting the state generally. The Laconia Hazard Mitigation Planning Committee (LHMPC) revisited the 2012 Plan prioritized list of hazards for Laconia. Additional sources of information about past hazards included: review of community assistance request documentation, a variety of media archives and internet sources, annual report binder provided by the Laconia Fire Chief, and media archives. Past hazard declarations in New Hampshire affecting Belknap County are included in the following table.

New Hampshire Hazard Declarations since May 2012

Number	Date	Natural Hazard Description	Declaration Type
4316	6/01/2017	Severe Winter Storm	Major Disaster Declaration
4105	3/19/2013	Severe Winter Storm and Snowstorm	Major Disaster Declaration
4095	11/28/2012	Hurricane Sandy	Major Disaster Declaration

The City of Laconia requested and received Public Assistance for the March 2013 severe winter storm. Eligible costs exceeded \$60,000 for snowplowing, street treatment, and Fire Department response to downed power lines/branches. The storm produced record or near record snowfall with icing conditions beyond local/state capabilities to adequately respond. The Laconia Fire and Public Works Departments were the only responders to storm related incidents. The other two storms above did not require additional funding to remedy the damages left by the storms. Additional past events are listed by hazard type with a brief description in Appendix E.

B. Profiling Hazard Events

The identification of hazards affecting the City of Laconia was based on LHMPC member knowledge. The LHMPC reviewed and amended the list of hazards from the 2012 Plan. Discussion included the extent of impacts on the community. The Committee refined hazard types to better distinguish specific potential impacts. For example, breaking out ice storms and major snow storms as separate events with specific vulnerabilities, rather than keeping the past combined ‘Snow & Ice Storms’ hazard category. The Committee acknowledged an increase in the frequency and intensity of recent storm events and referenced a *Potential Hazards and Critical Facilities Map* including essential services, populations to protect, facilities to protect and shelters in their deliberations. Additional hazard specific information

about past occurrences, intensity scales, and descriptions are found in Appendix C. Talking points and changes to the hazards considered are listed below.

Water Contamination: Potential for intentional and accidental contamination. Primary water source Paugus Bay - serves approximately 95 percent of city residents.

Ice Storm: Added: Citywide/Regional - capabilities include future underground electric planned, redundant power and increased capacity for water supply.

Aircraft Accident: Increased capacity to serve larger aircraft carrying more fuel, takeoff and landing approaches may be beneficial to identify when the *Potential Hazards and Critical Facilities Map* is updated in the future.

Terrorism: Added: two major Laconia events consistent with state identified potential risk; high target facilities less likely.

Public Health Crisis / Pandemic: Changed: public health crisis added to pandemic event in consideration of ticks, drug use, flu, Zika virus, etc.

Dam Failure: Avery and Lakeport dams present highest potential impact on critical facilities; impact of other private dams discussed; resources included Dam Plan, required inspections/maintenance, and previously identified inundation pathways.

Chemical Accident: Four major chemicals of concern - how related to over the road transport and changing commercial/industrial users. Areas of concern = transportation corridors and site specific. Additional information needed by Planning and Fire Departments.

Mass Casualty Accident: May result from other identified hazards - capacity of services may be limited and require outside assistance.

Major Fire: Changed in consideration of capability to recover economically and increased capacity to defend; downtown leading area of concern based on condition and density of buildings.

Railroad Accident: Low volume/speed/use, supplements major event; who maintains the tracks?

Blizzard: Citywide/Regional - Laconia has managed this type of storm effectively in the past - high winds increase risk of power outages and need to shelter in place for up to several days; shelter capacity greater than historic demand.

Cyber Terrorism: Added: High dependency on computer services and risk of ransomware; cyber plan currently under development by the City Information Technology Department.

Power Outage: Sustained outage for extended periods has not happened historically and would likely be associated with a catastrophic event.

Drought: Current statewide drought condition has had little local impact.

Flooding: Areas of leading concern - Black and Jewett Brooks, repetitive loss information was reviewed.

Earthquake: Frequent events, low on intensity scale, NH Geologist characterizes NH events as less damaging than western fault shifts.

Severe Thunderstorm/ Lightning: Common - Laconia at lower risk of forest fire.

Major Snow Storm: Modified description (previously Snow and Ice Storms) to differentiate the risks and vulnerabilities associated with snow and ice storms.

Civil Disorder: Not considered likely at intensity or magnitude in major cities.

Hurricane: Localized flooding likely the most significant result.

Water Shortage: Increased capacity for water storage, source is plentiful (Lake Winnepesaukee), municipal service has expanded to serve Roller Coaster Road area; redundant power and pumps.

Tornado/ Downburst: Not common but could cause severe damage due to increased wind.

C. Critical Facilities and Infrastructure

The LHMPCC reviewed and updated the list of critical facilities and infrastructure identified in the 2012 Plan. The critical facilities and infrastructure is divided into four categories, 1) Essential Services – facilities essential in a hazard event; 2) Structures and Services – facilities to protect to minimize additional risk from hazards; 3) Primary and Secondary Shelters - emergency shelters within the community; 4) Populations to Protect – higher risk populations. The complete list of facilities and infrastructure is in Appendix D. Changes from 2012 to this Plan update are noted, including the Emergency Operations Center change from the Police Station to the Central Fire Station.

The 2012 *Potential Hazards and Critical Facilities Map* was used in visualizing the location of the critical facilities in relation to mapped hazard areas. The critical facilities identified in Laconia have a combined assessed value of approximately \$238 million, excluding contents. The estimated value does not necessarily reflect replacement costs and excludes the value of infrastructure such as streets, bridges, dams, curbs, sidewalks, drainage, and utility transmission lines. The populations to protect are captured by the value of the buildings that house them. These values can also be used to determine potential loss estimates if a natural or manmade hazard damages a part of or an entire facility. The estimates, generated by the Laconia City Assessor, are based on property 2017 tax documentation. Many of the facilities listed are privately owned but represent services that the LHMPCC considered essential in terms of mitigating vulnerability to hazards, such as the provision of food and fuel oil. *Potential Hazards and Critical Facilities Map* can be found in Appendix D.

D. Flood Plain Management and NFIP

The city of Laconia continues to participate in and comply with the National Flood Insurance Program (NFIP). Laconia's emergency entry into the program occurred on January 16, 1974 followed by the city's regular entry on August 15, 1980. An interactive version of FEMA flood insurance map for Laconia can be found online at the FEMA Flood Map Service Center (<https://msc.fema.gov/portal>).

Flood Insurance Occupancy Statistics as of August 31, 2016

	Policies in Force	Premium	Insurance in Force	Number of Closed Paid Losses	\$ of Closed Paid Losses	Adjustment Expense
Condo	37	\$21,340	\$5,822,000	2	\$32,570.82	\$1,430.00
Non-Condo	59	\$103,089	\$13,984,800	25	\$286,585.85	\$18,841.25
Total	96	\$124,429	\$19,806,800	27	\$319,155.00	\$20,271.00

	Policies in Force	Premium	Insurance in Force	Number of Closed Paid Losses	\$ of Closed Paid Losses	Adjustment Expense
Single Family	33	\$27,990	\$6,523,600	12	\$93,145.63	\$7,481.25
2-4 Family	3	\$3,719	\$408,000	5	\$139,139.32	\$5,970.00
All Other Residential	44	\$36,677	\$7,348,300	7	\$69,538.80	\$5,550.00
Non-Residential	16	\$56,043	\$5,526,900	3	\$17,332.92	\$1,270.00
Total	96	\$124,429	\$19,806,800	27	\$319,154.00	\$20,271.00

Community Residential Repetitive Losses

	AE, A1-30, AO, AH, A	VE, V1-30, V	B, C, X	Total
Total Buildings	3	0	1	4
Insured Buildings	2	0	1	3
Total Losses	10	0	3	13
Insured Losses	8	0	3	11
Total Payments	\$185,109.98	\$0.00	\$11,815.76	\$196,925.74
Building	\$185,109.98	\$0.00	\$11,815.76	\$196,925.74
Contents	\$0.00	\$0.00	\$0.00	\$0.00
Insured Payments	\$82,623.81	\$0.00	\$11,815.76	\$94,439.57
Buildings	\$82,623.81	\$0.00	\$11,815.76	\$94,439.57
Contents	\$0.00	\$0.00	\$0.00	\$0.00

E. Significant Local Hazards

Most hazards have the potential to impact anywhere within the bounds of the city for these hazards, the entire city is equally at risk. Location specific hazards are identified on the Hazards and Critical Facilities Map (Appendix D). The risk associated with potential natural and manmade hazards was evaluated based on probability of occurrence, vulnerability, and extent. Each criterion was defined based on a three-point scale as follows:

Probability - the likelihood this type event will impact Laconia: (3) Likely: 25 – 100 percent probability of occurring in the next year, recurrence interval of less ten years; (2) Possible: 1 – 25 percent probability of occurring in the next year, recurrence interval of 1 – 100 years; or (1) Unlikely: less than one percent probability of occurring in the next year, recurrence interval of 100 years or greater.

Vulnerability - how much/who/what can be damaged: (3) High - likely that injury or death will result damage to multiple properties, and essential municipal services will likely be interrupted for days; (2) Moderate - some likelihood of injury or death, some land and property damage likely, and some interruption of municipal services for hours of days; or (1) Low - little likelihood of injury or death, limited damage to land and property, unlikely interruption to municipal services.

Extent – the strength of the hazard based on historic worst magnitudes experienced and the resultant resources required to recover based on historic: (3) Severe - Federal/State; (2) Moderate - County/Regional; or (1) Minimal - local with limited or no outside assistance.

Risk - the product of ratings for each criterion Probability * Vulnerability * Extent

Since the last Laconia Hazard Mitigation Plan update was completed in 2012 the committee decided to omit several hazards from the 2017 plan update. The three hazards that have been omitted from this update are avalanche, landslide, and wildfire. Although they were previously listed in the 2012 plan update and the 2013 State of New Hampshire Multi-Hazard Mitigation plan the committee decided that these three specific hazards were not of concern to the city. The reasoning behind the omission of avalanche and landslide was because the city of Laconia has never seen either of these hazards occur in addition to the topography of the city not being ideal for these conditions to occur. Wildfire was not included in the plan update because the city and the state of New Hampshire itself has a few significant factors in deterring this hazardous event from taking place. These deterrents include the types of fuels that are used, a very short dry season, spring rains, snow melt, and the state of New Hampshire does not see dry lightning. These three individual hazards have been removed from this update per request of the committee and EMD.

It should be noted that the ranking of individual hazards for the purposes of planning discussion should not in any way diminish the potential severity of the impacts of a given hazard event. Further, hazards ranked as low risk may have the impact of increasing the risk of other hazards when they occur. For example, in the event of a drought, the risk of woodland fire may be greater. In combination, hazard events may have the impact of overwhelming existing emergency response systems. Similarly, the likelihood of each hazard addressed in this Plan is based on the extent of

historic events (hazards extent scales are found in Appendix F, Appendices - Page 36) and local knowledge.

The LHMPD members reached consensus on the risk rating for each hazard. Problem statements for high risk hazards are outlined below the hazard significance table.

Significance of Hazards in Laconia

Hazard	Significance
Water Contamination	High
Ice Storm	High
Aircraft Accident	High
Terrorism	High
Public Health Crisis/Pandemic	High
Dam Failure	Moderate
Chemical Accident	Moderate
Mass Casualty Accident	Moderate
Major Fire	Moderate
Railroad Accident	Low
Blizzard	Low
Cyber Terrorism	Low
Power Outage	Low
Drought	Low
Flooding	Low
Earthquake	Low
Severe Thunderstorm/Lightning	Low
Major Snow Storm	Low
Civil Disorder	Low
Hurricane	Low
Water Shortage	Low
Tornado/ Downburst	Low

Risk Rating: ≥ 12 = High; $\geq 6 - \leq 10$ = Moderate;
and ≤ 5 = Low Significance

F. High Risk Hazards

WATER CONTAMINATION

Specific Areas of Concern: Lake Winnepesaukee (public drinking water supply), numerous private wells

Critical Facilities: Populations to Protect, Essential Services

Probability of Occurrence: Possible

Vulnerability: High

Extent: Severe

Nearly one fourth of the total area of Laconia is comprised of surface water. Laconia depends on a portion of this resource to provide public drinking water to the community. As well, area tourism and water recreation are highly dependent on the availability of clean and attractive water resources. For these reasons, the protection of surface waters in Laconia is highly valued both as a necessity and for economic reasons. The leading potential sources of water contamination include in-transit and fixed hazardous materials. Combined, the risk of other hazards, such as a downed aircraft or a train accident increase the likelihood of a water contamination event. In addition to land based risks, the boating on the lake represents a separate set of risks to water quality. In 2003, over 600,000 gallons of gasoline were pumped directly into boats on the lakes from marinas in the city.

Several major north-south and east-west transportation connections to points throughout central New Hampshire and beyond are centered in Laconia. These major roadways and a passenger railway are in many places located near local water resources. The city is at risk of an over-land hazardous material spill that could cause infiltration of spilled hazardous materials into the water resources. The potential for water resources to be contaminated is increased by the miles of storm drains that outlet directly into surface water bodies.

ICE STORM

Specific Areas of Concern: Citywide. Potential for wide-spread power outages, interrupted/unsafe travel conditions, downed trees.

Critical Facilities: Populations to Protect, Essential Services

Probability of Occurrence: Likely

Vulnerability: Moderate

Extent: Severe

Ice storms coat trees, power lines, streets, vehicles, and roofs with slick and often heavy covering of ice. The major threats to Laconia from ice storms include structural damage due to heavy loads on roofs, interruptions of services such as electricity, fuel, water, and communications, as well as hazardous road conditions.

Winter storm Cato, the pre-Thanksgiving Day snow storm on November 26, 2014 had significant impacts across most of New England. Surface low pressure developed during the late evening hours on November 25 across northern Florida and quickly raced along the eastern seaboard on November 26. This tracked pushed enough Atlantic moisture back into our region, resulting in a tight northwest to southeast snowfall gradient. As snow started to fall on November 26, surface temperatures were near freezing, resulting in a heavy wet snow, which produced scattered power outages across southern Vermont and widespread outages in New Hampshire and Maine. At the peak, nearly 5,000 customers lost power in Vermont, with over 200,000 in New Hampshire and 100,000 Maine, which took nearly a week to restore. This was New Hampshire's fourth greatest power outage in state history.⁴ Laconia reported 16.5 inches of snow.

The most recent damaging ice storms impacting Laconia and the northeast general were in 1998 and 2008. The 2008 storm was deemed the worst in a decade and left 400,000 New Hampshire residents without power (five times as many as the 1998 ice storm, which was then considered the worst on record). Several deaths were associated with the 2008 storm, one of three carbon-monoxide poisoning deaths occurred in New Hampshire as the result of a gasoline generator used indoors. Two weeks

⁴ Source: http://www.weather.gov/media/btv/events/2014-11-26/2014-11-26_SnowStorm.pdf

after the December 12-13 storm, several thousand residents were still without power in NH.⁵

AIRCRAFT ACCIDENT

Location: Regional

Specific Areas of Concern: Citywide. Flight path over Laconia, roadways, waterbodies

Critical Facilities: Evacuation routes, water supply

Probability of Occurrence: Possible

Vulnerability: Moderate

Extent: Severe

A runway extension and reinforcement completed in 2007 now accommodates regional jets. While air travel is extremely safe, a plane crash at or near the Laconia Airport is possible. Dependent on the size of the plane, descent for landing begins within the 3 to 5 miles from the airport. Historically, the crashes have not led to fatalities other than the occupants of the plane. Three private airplane crashes were reported at the Laconia Airport since 2012; one resulted in the loss of life. Two planes crashed within the city limits in 2015, one resulted in a fatality.

TERRORISM

Specific Areas of Concern: Citywide. Major Events - Motorcycle Week, Loudon race events, Pumpkin Festival

Critical Facilities: Populations to Protect

Probability of Occurrence: Possible

Vulnerability: Moderate

Extent: Severe

The hundreds of thousands of attendees to the annual Motorcycle Week event in June descend on Laconia from all over the country and then depart. This unique situation places Laconia at risk for attracting terrorist activities. City law enforcement must consider this potential hazard and take available steps to identify potential hazards. The NH Department of Safety acknowledges New Hampshire is not a likely terrorist target, but provides the 1997 Colebrook shooting and the 1998 Concord Library bombing as past examples.⁶ The large events in Laconia are acknowledged as potential targets in the state hazards assessment plan. The heightened awareness that such activities could take place in unsuspected places requires planning and public education as well. Unified command is a key component to effective, multi-agency or multi-jurisdiction response and is typically detailed in a Local Emergency Operation Plans (LEOP). Law enforcement agencies should expect there to be modest communications barriers at times, but ultimately rely on trusting the tactical and agreed upon decisions coming from the unified command. In 2016, Laconia conducted a regional joint interoperable exercise for a high-risk event that was attended by area EMDs, state police, and other agencies.

PUBLIC HEALTH CRISIS / PANDEMIC

Specific Areas of Concern: Regional.

Critical Facilities: Populations to Protect

Probability of Occurrence: Possible

Vulnerability: Moderate

Extent: Severe

⁵ Source: https://en.wikipedia.org/wiki/December_2008_Northeastern_United_States_ice_storm

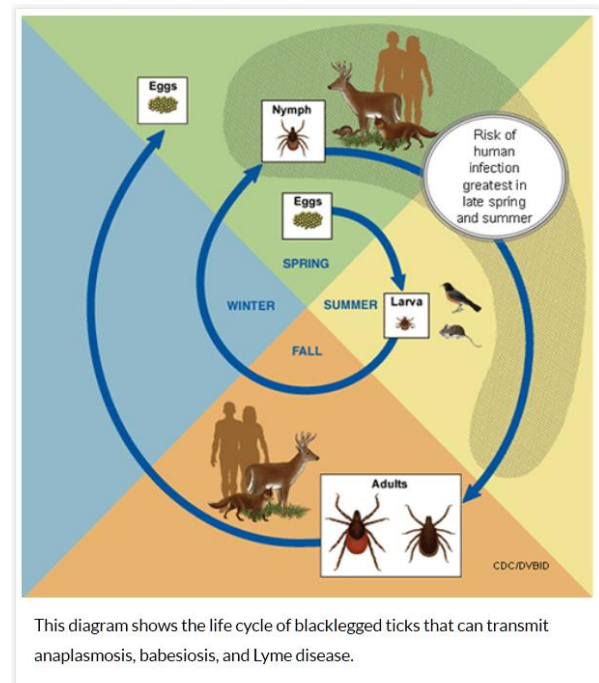
⁶ Source: <https://www.nh.gov/safety/divisions/hsem/Terrorism/>

“New Hampshire is experiencing one of the most significant public health crises in its history. The striking escalation of opiate use and opioid misuse over the last five years is impacting individuals, families, and communities throughout the state. In 2015, there were 439 total drug deaths, of which 397 deaths were caused by opiates/opioids; 2,724 emergency naloxone administrations; and 2,067 opioid-related emergency department visits—the highest-ever recorded in the state. Reducing substance use disorders and related problems is critical to the physical and mental health, safety, and overall quality of life of New Hampshire residents, as well as the state’s economy. Substance use disorders are preventable and treatable, and the State is implementing a comprehensive and lasting response to address this epidemic.”⁷ Drug use and associated overdoses increases in Laconia, have led to added demand for police services and use prevention and education programs. Laconia police chief said his department was seeing “3 to 10 cases of overdose a week at the beginning of 2015”.

The *State of New Hampshire Tickborne Disease Preventions Plan* was completed March 31, 2015. The plan provides information about behavioral and physical landscape modifications to reduce the risk of tickborne illnesses.⁸ According to the Centers for Disease Control and Prevention, all or portions of New Hampshire are within the geographic area of concern for the American Dog Tick, Blacklegged Tick, Brown Dog Tick, and Lone Star Tick (southern NH).

At the same time, major emerging infectious disease outbreaks, epidemics, and pandemics can spread worldwide. The United States has seen the importation of infectious diseases, such as West Nile Virus encephalitis, measles, multidrug-resistant tuberculosis, and malaria, from immigrants, from U.S. residents returning from foreign destinations, and via products of international commerce.

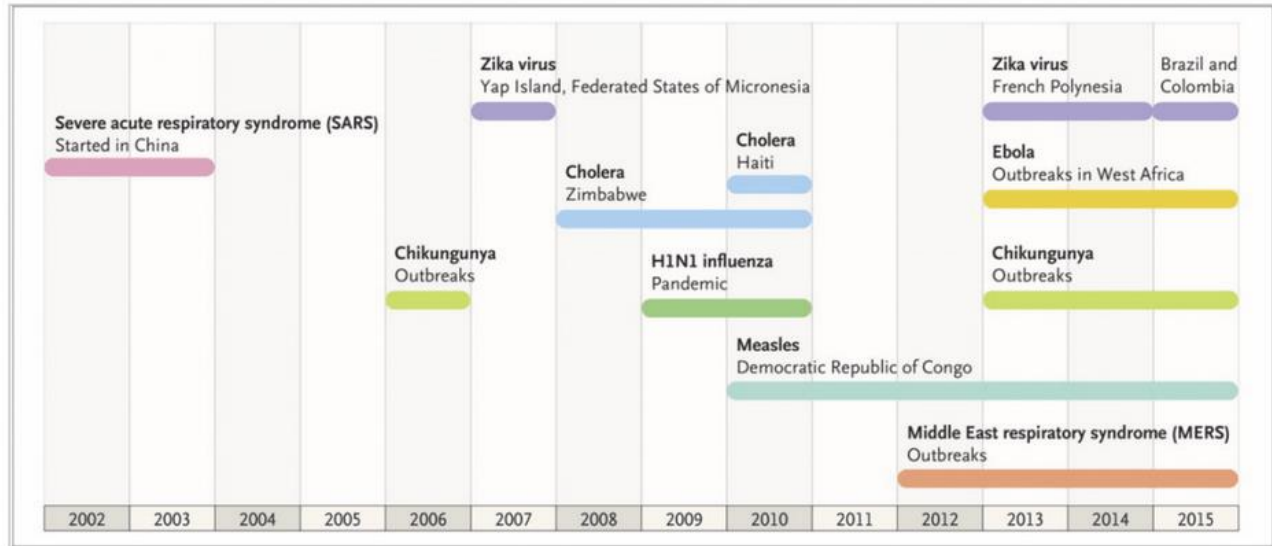
The public has a varied level of awareness on the complex mechanisms behind the emergency of infectious diseases threats and the risk that they represent to us as individuals or to the community at large. Today in the US, and especially in NH, infectious diseases are not the main threat to our well-being. A mix of factors including socio-economical situations (high average income, high level of education, and other demographic factors), well-respected public health strategies (availability of universal vaccination for children), general improvements in quality of life (potable water, sewage, general sanitation, food availability, etc.) are making the threats of epidemics a remote risk. In New Hampshire, the Department of Health and Human Services (DHHS) is the entity responsible for developing the programs and implementing the policies and procedures that will keep the threats of infectious diseases at bay. Except for Manchester and Nashua (the only cities with full service local



⁷ Source: <http://www.dhhs.nh.gov/dcbcs/bdas/documents/state-response-opioid-crisis.pdf>

⁸ Source: <http://www.dhhs.nh.gov/dphs/cdcs/lyme/documents/tbdpreventionplan.pdf>

health departments), all core public health activities are shouldered by DHHS.⁹



Major emerging and reemerging infectious-disease outbreaks, epidemics, and pandemics, 2002–2015. Source: *The New England Journal of Medicine* ©2016

⁹ Source: <https://www.nhbar.org/publications/display-journal-issue.asp?id=364>

6. MITIGATION STRATEGY: Goals, Objectives, Actions, Action Plan

A. State Mitigation Goals

Two sources of mitigation goals were reviewed for this Plan update. These included the state goals and Laconia mitigation goals defined in the 2012 Plan. The state goals were updated in 2013 by the New Hampshire Department of Safety, Homeland Security Emergency Management based on review of 2010 plan goals. While the state goals were varied slightly, there are still seven primary goals as in 2010 which span natural and manmade hazards, emergency operations, emergency response, and hazard mitigation. The state goals are referenced for consistency across content areas with the Laconia goals.

- Ensure the protection of the general population, citizens, and guests of the State of New Hampshire, before during and after a hazard.
- Protect existing properties and structures through mitigation activities.
- Provide resources to residents of New Hampshire to become more resilient to hazards that impact the State's Critical Support Services, Critical Facilities, Infrastructure, Economy, Environment, Historical & Cultural Treasures, and Private Property.
- Support the Presidential Policy Directive (PPD-8) through prevention, mitigation, preparedness, response, and recovery actions in all New Hampshire communities
- Work regionally to identify, introduce and implement cost effective Hazard Mitigation measures to accomplish the State's Goals.
- Develop and implement programs to promote hazard mitigation to protect infrastructure throughout the State to reduce the State's liability with respect to natural and Human-caused hazards generally.
- To address the challenges posed by climate change as they pertain to increasing risks in the State's infrastructure and natural environment.

B. Laconia Mitigation Goals and Objectives

The Laconia Hazard Mitigation Planning Committee (LHMPC) concurs with the State Hazard Mitigation goals. Mitigation actions were developed and provided to NH Homeland Security and Emergency Management (HSEM) staff for review as this plan was developed. Feedback from HSEM placed the draft mitigation actions in four general categories: 1) Preparedness/Response; 2) Local Plans and Regulations/Natural Systems Protection; 3) Structure and Infrastructure Projects; and 4) Education and Awareness Programs. The Laconia mitigation goals were revisited and revised for consistency. Based on the hazards studied, the assessment of current and proposed mitigation strategies, the Committee recommends the following hazard mitigation goals and objectives for the city of Laconia:

Goal 1. Improved Preparedness and Response

Objective 1. To maintain and improve upon the existing emergency response system.

Goal 2. Increased Education and Awareness Programs

Objective 1. To build an awareness of the identified hazard challenges in the community and the potential needs of all effected parties.

Objective 2. To build a higher level of public awareness with regards to hazard risks and proper actions and responses.

Objective 3. To build awareness of hazard mitigation efforts through coordination within Laconia and between other communities, the region, state, and federal government agencies and related organizations.

Goal 3. Updated Plans and Regulations / Natural Systems Protection

Objective 1. To strengthen the consistency of local plans by ensuring the appropriate resources are correctly identified and equipped to respond to specific emergency needs.

Goal 4. Updated Structure/Infrastructure Projects

Objective 1. To minimize the resultant public expenditures and damages caused by natural and manmade hazards to public and private buildings and infrastructure.

C. Identification and Analysis of Mitigation Actions

The LHMPCC reviewed all mitigation actions from the 2012 Plan. The committee noted that several mitigation strategies from the 2012 Plan have been completed or are no longer applicable due to changes in local circumstances. Completed and abandoned strategies or those no longer applicable were removed from the current list of potential mitigation strategies; the actions that are still relevant have been included with the list newly identified actions to reduce the effects of hazards on both new and existing buildings and infrastructure that resulted from a LHMPCC brainstorming session. All actions have been prioritized using the STAPLEE method which analyzes Social, Technical, Administrative, Political, Legal, Economical, and Environmental feasibility and benefits of a project and is commonly used by public administration officials and planners to make planning decisions. Higher priority is placed on recommendations that received a higher STAPLEE score. Though some recommended mitigation actions received high scores, the timeframe for implementation are dependent on staff availability and budgetary constraints.

D. Cost to Benefit Analysis

All mitigation actions (new and deferred from 2012) were combined and prioritized based on an assessment of the potential benefits to cost. A modified STAPLEE process was used (STALEEC) to evaluate mitigation actions; where Cost was evaluated in place of Political acceptability. For each

mitigation action, consideration was given to any hindrances to implementation based on the seven STALEEC criteria. The ratings for each of the seven criteria: Social, Technical, Administrative, Legal, Economic, Environmental, and Cost were based on whether each is **Favorable (+)**, **Not Applicable (N)**, or **Less Favorable (-)**. The following cost criterion questions were used by reviewers as a guide:

Costs

- ☐ What are the costs of this action?
- ☐ How will the costs be borne?
- ☐ Are state/federal grant programs applicable?
- ☐ Does the action fit into existing operating, capital improvements, or economic development budgets?

The actions which were evaluated as having the greatest benefit or being the most feasible were not necessarily the first actions to be completed. Some actions that can be accomplished with little time or money were given a lower priority because they were considered less important than other actions. Others that would be very helpful overall might not rank well if they don't help address immediate risk to hazards.

E. Implementation of Mitigation Actions

There are many factors that influence how a municipality chooses to spend its energy and resources implementing recommended actions. Factors include:

- | | |
|---|--|
| • Urgency | the action |
| • How quickly an action could be implemented | • Administrative burdens |
| • Likelihood that the action will reduce future emergencies | • Time (both paid and volunteer) |
| • Regulations required to implement | • Funding availability |
| | • Political acceptability of the action. |

In the context of these factors, the Committee discussed the mitigation actions and utilized the STALEEC method as a guide to reach consensus regarding their relative level of priority, recognizing that some actions are of greater priority to different town departments. This implementation schedule contains a matrix indicating the parties responsible for bringing about these actions, a timeframe, and potential funding sources. Though many recommended mitigation actions received high scores, the short, medium, and long-term timeframes for which the actions are executed are dependent on staff time and budgetary limitations. Many of mitigation actions in the 2012 were completed. All actions from 2012 were evaluated to determine if: completed, no longer relevant, or still relevant for inclusion with newly developed actions. The following tables highlight the status of previously identified actions and priority actions with implementation timeframes. The LHMPCC at their February 17, 2017 meeting defined the timeframe for implementing mitigation actions as follows: (ST) Short Term = 1-2 years; (MT) Medium Term = 3-5 years; and (LT) Long Term = 5 years or more. To keep the plan current, the implementation schedule should be updated and re-evaluated on a regular basis as outlined in the monitoring section of this plan. All actions taken by the city shall comply with federal, state, and local standards.

2012 Mitigation Actions Status

Mitigation Action	Status	Mitigation Action	Status
Map municipal sewage and drainage infrastructure	Operational Issue (not carried over to 2017)	Establish city-wide command channel for department heads to coordinate with one and other	Completed
Increase storage capacity of municipal water system	Operational Issue (not carried over to 2017)	Conduct annual review of NIMS ICS and tabletop drills for all hazards.	Carried Over to 2017 (completed a tabletop drill)
Purchase laptop computers and GIS software	Operational Issue (not carried over to 2017)	Develop Emergency Action Plans for elderly housing complexes	Carried Over to 2017 (Plans developed, need update)
Incorporate Hazard Mitigation Plan into Emergency Management Plan	Completed	Encourage schools, churches, and municipal department sites to post seasonal safety messages	Carried Over to 2017
Establish a standard format checklist for seasonal safety messages	Completed	Buy Emergency power equipment for City Hall and Weirs Fire Station	Carried Over to 2017
Replace Main Street Bridge	Completed	Conduct coordinated training on drinking water boom deployment	Carried Over to 2017
Acquire 3000' boom to protect drinking water intake and to contain a haz./mat. spill	Completed	Develop stormwater regulations	Carried Over to 2017
Assess pumping capabilities at Union Ave. pumping station	Completed	Develop Watershed Management Plan for Paugus Bay	Carried Over to 2017
Establish Emergency Operations Center (EOC)	Completed	Develop plan for long term power outage at DPW facility	Carried Over to 2017
Conduct geomorphic assessment of Jewett Brook	Completed	Upgrade backup power system at Maintenance Facility	Carried Over to 2017
Procure 17-foot inflatable rescue boat for Lake Winnisquam	Completed	Implement recommendations of smart growth audit	Carried Over to 2017
Upgrade Hilliard Road culvert capacity	Completed	Repair/replace Academy Street Bridge	Carried Over to 2017
Assess feasibility of putting electric and phone utilities underground in certain parts of the city	Completed	Conduct community wide hydrologic analysis for culvert sizing	Carried Over to 2017
Purchase portable barricades, signs, a van for regional traffic control	Completed	Increase staff to adequately enforce city codes (health, fire, building, zoning)	Carried Over to 2017
Creation of fire hydrant GIS layer	Completed	Establish communications plan/protocol via assessment and inventory of equipment, practice, and needs.	Carried Over to 2017
Purchase traffic control equipment and van	Completed	Continue with current winter safety and fire safety messaging and outreach	Carried Over to 2017
Purchase four-wheel drive vehicles	Completed	Plan for rapid deployment of traffic control equipment at any time.	Carried Over to 2017

2017 Mitigation Actions

Mitigation Action	Lead Party	Time Frame	STAPLEC Criteria	Committee Notes and Comments	Potential Funding Source
A) Explore establishing a city-wide command channel for department heads to coordinate with one another; and B) Establish communications plan/protocol via assessment and inventory of equipment, practices, and needs.	FD, PD, DPW	MT	High	Limitations to existing radios; programming training and best practices/protocol needed; limited dept. heads, schools, police, fire, DPW, recreation, and city hall	Dept. Budget
Buy emergency power equipment for City Hall.	IT	LT	High	Significant limitations to the existing system.	Grant/ City Budget
Continue to justify the need for staff to adequately enforce the city codes (Health, Fire, Building, Zoning).	CE, FD	ST	High	Continue to justify the need for staff.	City Budget
Update code enforcement related to housing inspections and property maintenance; increase staffing.	City Manager, FD	MT/LT	High	Staffing issue	TBD
Conduct NIMS ICS and tabletop drills for multi-hazards.	Fire Department	ST	Moderate	Ongoing; not an annual exercise; costs are high.	Dept. Budget
Upgrade backup power system at Maintenance Facility.	DPW	MT/LT	Moderate	N/A	Grant/ City Budget
Install security cameras at SAU, DPW, Water Works, and Community Center.	SAU, DPW, Parks	MT	Moderate	Grants for schools, other buildings need to be a designated shelter.	Grant/Dept. Budget
Police Department – Mobile/Portable/Temporary cameras.	PD	ST	Moderate	Possible grants	Grant/Dept. Budget
Conduct a propane response tabletop drill.	FD, PD	MT	Moderate	Grants	Grant
Improve radio system for police and fire (repeater stations).	FD, PD	MT	Moderate	Currently in CIP, requires significant funds to install repeater stations for improved interoperability.	City Budget
Conduct coordinated training on drinking water boom deployment.	Water Works, FD	ST	Low	Booms previously purchased. Possible summer 2017 training.	Dept. Budget
A) Continue with current winter safety and fire safety messaging and outreach; and B) Encourage schools, churches, and municipal department sites to post seasonal safety messages.	PD, FD	ST	Low	Current Examples include: Fire safety, ice safety	Dept. Budget
Develop stormwater Regulations.	Planning Department	ST/ MT	Low	N/A	Dept. Budget
Develop Watershed Management Plan for Paugus Bay.	Planning Department	LT	Low	Paugus Bay emergency spill plan.	Dept. Budget
Develop a plan for long term power outage at DPW facility.	DPW	MT	Low	N/A	Dept. Budget
Implement mitigation related recommendations of smart growth audit.	Planning Board	MT	Low	Audit needs to be evaluated for mitigation linkages.	Dept. Budget

(ST) Short Term = 1-2 years; (MT) Medium Term = 3-5 years; and (LT) Long Term = 5 years or more

2017 Mitigation Actions (continued)

Mitigation Action	Lead Party	Time Frame	STAPLEC Criteria	Committee Notes and Comments	Potential Funding Source
Repair / Replace Academy Street bridge.	DPW	MT/LT	Low	Academy St. bridge is in the Ten-Year Plan for replacement in 2020; other Redlist projects include the Court St. over Durkee Brook (2022); US 3 over NH railroad Rehabilitation / Superstructure replacement (2019).	NH DOT/ City Budget
Conduct a community wide hydrologic analysis for culvert sizing.	Planning, DPW	MT	Low	N/A	Dept./ City Budget
Plan for rapid deployment of traffic control equipment at any time.	PD	MT	Low	N/A	Grant/ City Budget
Update emergency Actions Plans for elderly housing complexes.	FD	ST/MT	Low	N/A	Dept. Budget
Develop Emergency Response ICS plans for schools.	SAU, FD, PD	ST	Low	N/A	Grant
Develop consistent safety operations plans for schools.	SAU, FD, PD	MT	Low	N/A	Grant
Identify school and city government employees and conduct CPR training.	City Manager, FD	ST	Low	N/A	Dept. Budget
Broaden depth of Emergency Operations Center and train additional participants.	FD	Current	Low	In the process of completing this action.	Dept. Budget/Grant
Improve DPW fire protection.	DPW	LT	Low	Identify and specify needs.	Dept. Budget
Implement employee identification badges for all city departments.	City Manager	ST	Low	Grant funding for ID maker.	Dept. Budget
Strengthen and enhance doors and entryways at schools.	SAU	LT	Low	N/A	Dept. Budget
Install security fencing for Police Department campus.	PD	MT	Low	N/A	Grant/Dept. Budget
Cyber Attack Prevention and Response Plan – currently under development by IT department.	IT Department	ST	Low	N/A	Dept. Budget
Identify and document ICS best practices for schools.	SAU	ST	Low	SAU has a standing safety committee.	Dept. Budget
Establish after hours security protocol for City Hall.	City Manager	ST	Low	N/A	Dept. Budget
Establish building entry protocols for schools.	SAU	ST	Low	SAU has a standing safety committee.	Dept. Budget
Evaluate call response times for police department to schools.	SAU, PD	ST	Low	N/A	Dept. Budget
Identify brooks, streams, feeder creeks and remove impediments to water flow regularly.	DPW, Planning	MT/LT	Low	N/A	Dept. Budget

(ST) Short Term = 1-2 years; (MT) Medium Term = 3-5 years; and (LT) Long Term = 5 years or more

7. PLAN ADOPTION and MONITORING

A. Implementation

The Laconia Hazard Mitigation Planning Committee will meet annually to review the Plan and provide a mechanism for ensuring that an attempt is made to incorporate the actions identified in the Plan into ongoing municipal planning activities. Essential elements of implementation require all responsible parties for the various recommendations understand what is expected of them, and that they are willing to fulfill their role in implementation. It is therefore important to have the responsible parties clearly identified when the city adopts the final plan. Where appropriate it would be helpful to have any hazard mitigation activities identified in job descriptions.

NH RSA 674:2(e) makes the recommendation a natural hazard section may be included in the local master plan. Inclusion of this document as an addendum to the Laconia Master Plan provides an opportunity for issues addressed in this Plan to be taken into consideration when planning for development within the community. The capital improvement planning that occurs in the future will also contribute to the goals in the Hazard Mitigation Plan. When appropriate, an effort will be made to incorporate this Plan into the Laconia Master Plan, the Laconia Capital Improvements Plan, and the Emergency Operations Plan. Within a year after the city officially adopts the 2017 update to the Hazard Mitigation Plan, an attempt will be made to have hazard mitigation strategies integrated into these existing mechanisms and into other ongoing city planning activities.

B. Plan Maintenance and Public Involvement

The Laconia Hazard Mitigation Planning Committee and the City Council, to track progress and update the mitigation strategies identified in this Plan, will review the Laconia Hazard Mitigation Plan every year or after a hazard event. City of Laconia Emergency Management Director is responsible for initiating this review and needs to consult with members of the Laconia Hazard Mitigation Planning Committee identified in this Plan. Changes will be made to the Plan to accommodate projects that have failed, or are no longer: (1) consistent with the timeframe identified, (2) the community's priority, (3) or that lack funding resources. Priorities that were not ranked high, but identified as potential mitigation strategies, will be reviewed as well during the monitoring and update of this Plan to determine feasibility of future implementation. In keeping with the process of adopting the Plan, a public hearing will be held to receive public comment on the Plan. Maintenance and updating will be held during the annual review period, best suggested time is mid-year, and the final product adopted by the City Council. The Committee will meet annually as part of this plan maintenance. The Emergency Management Director is also responsible for updating and resubmitting the plan to HSEM to be re-approved every five years. The EMD will convene a plan update committee early in 2022 to begin updating this plan before it expires.

On behalf of the Hazard Mitigation Committee, the Emergency Management Director, under direction of the City Council, will be responsible for ensuring that city departments and the public have adequate opportunity to participate in the planning process. Administrative staff may be utilized to assist with the public involvement process.

For each committee meeting, and the annual update process, techniques that will be utilized for public involvement include:

- Provide invitations to Budget Committee members;
- Provide invitations to city department heads;
- Post notices of meetings at City Hall, Fire Station, Libraries, and on city website;
- Post flyers of the project at City Hall, Fire Station, and Libraries; and
- Submit press releases for publication in local newspapers

Entities to invite to future Hazard Mitigation plan updates include the Emergency Management Directors of the neighboring communities of Gilford, Belmont, Meredith, and Sanbornton, and the School Superintendent. The Hazard Mitigation Committee will ensure that the city website is updated with the Hazard Mitigation meeting notices. The Hazard Mitigation Plan and it's a description of the planning process will be posted on the city website. All public meetings will be posted on the website.

C. Adoption

Certificate of Adoption – City of Laconia A resolution adopting the Laconia Hazard Mitigation Plan Update, 2017

Plan dated: July 2017

Conditionally approved: July 28, 2017

WHEREAS, the City of Laconia received funding from the NH Office of Homeland Security and Emergency Management under a Flood Mitigation Project Assistance Grant and assistance from the Lakes Region Planning Commission for the preparation of the Laconia Hazard Mitigation Plan Update 2016; and

WHEREAS, several public planning meetings were held between in 2017 regarding the development and review of the Laconia Hazard Mitigation Plan Update 2017; and

WHEREAS, the Laconia Hazard Mitigation Plan Update, 2017 contains several potential future projects to mitigate hazard damage in the city of Laconia and,

WHEREAS, a duly noticed public meeting was held by the City Commissioners on September 25, 2017 to formally approve and adopt the Laconia Hazard Mitigation Plan Update, 2017.

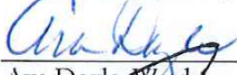
NOW, THEREFORE BE IT RESOLVED that the Laconia City Council adopts the Laconia Hazard Mitigation Plan Update, 2017.

ADOPTED AND SIGNED this day of September 25, 2017.

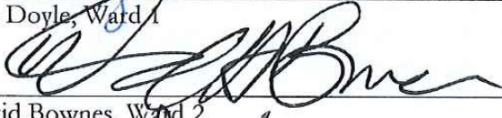
LACONIA CITY COUNCIL



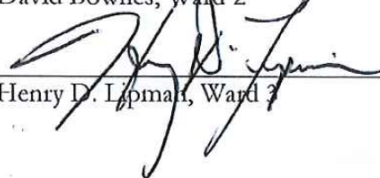
Edward Engler, Mayor



Ava Doyle, Ward 1



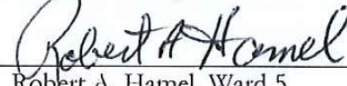
David Bownes, Ward 2



Henry D. Lyman, Ward 3



Brenda R. Baer, Ward 4



Robert A. Hamel, Ward 5



Armand Bolduc, Ward 6

Date: 9/25/2017