# Boscawen Hazard Risk Assessment 2018

		rd Risk Assessment 2018	PLAN TABLE					Meeting 1 10/23/2017
Ονε	rall Risk Ranking	of Hazards in Boscawen			R/	NK		
		REVIEW & UPDATE POTENTIAL HAZARD LOCATIONS	RANK		· · · · · · · · · · · · · · · · · · ·	the Town		
	ural, hnological, and	Susceptible (Existing) Hazard Locations in the Town	Probability of Occurrence	Human Injury Impact	Critical Services and Infrastructure Impact	Property Damage Impact	Severity of Impact	Overall Risk
Human Hazard Events		Assessment (CCFVA) for specific sites, addresses, phone numbers and primary hazards.	1= Unlikely 2= Possible 3= Likely	See scale below 1= Limited 2= Significant 3= Critical 4= Catastrophic	See scale below 1= Limited 2= Significant 3= Critical	See scale below 1= Limited 2= Significant 3= Critical 4= Catastrophic	Avg. of Human + Services + Property	Relative Threat RANKED 1-16
Flooding	Floods Floods	Entire Town, floodplains of Merrimack River result in expanded flooding, Tannery Brook, Town House Brook, Pond Brook, Beaverdam Brook, Stirrup Iron Brook, Hirst Marsh, Patenaude's Pond, Walker Pond are the largest waterbodies and watercourses. Runoff from roadways or heavy rain can cause floods over the Entire Town. Regular road washouts include: • Commercial Street • Corn Hill Road • Crescent Street • Eel Street • Forest Lane (drainage) • Long Street • North Water Street • Queen Street (washout) • River Road • Route 3 (State) • Route 4 (State) • Water Street (State) Several of these roads have closed at least 3 to 4 times since the 2006 floods. Close proximity to the Franklin Falls and Blackwater Dams via the Merrimack and Contoocook Rivers and the condition of State-owned bridge culverts along Routes 3/4 and Water Street means increased flooding potential. Homes near the Merrimack are at risk. Merrimack floodplain hosts 750 acres of crops along River Road that can be damaged. Jaime Welch Park rec area on Depot St off of Route 3/King Street along the River could experience significant river flooding damages. The culverts on NH Routes 3 and 4 are undersized and need to be upgraded. Its existing culverts and drainage system requires regular cleaning and maintenance because it always floods (State responsibility). Tannery Brook's human-made dam is at risk due to non-maintenance. The Hodges apartments and Fessenden MHP off of Routes 3/4 ach have only 1 private road entrance into the development. Shared waterway caused the large flooding in 2007- water flows under the roads through non-maintained undersized culverts. Town has no jurisdiction to maintain or to mandate a second egress. Penacook- Boscawen Water Precinct is vulnerable to flood events.						0.0
Flooding	Rapid Snow Pack Melt	Melt runoff from <b>impervious surfaces and roadways or from tree cover</b> <b>and fields</b> can cause floods over the Entire Town. Susceptible areas include regular road washouts at the roads mentioned above. Homes near the Merrimack River, especially in low-lying areas, are at risk. Crescent Street, Eel Street and Commercial Street homes and businesses may be at risk of flooding in the case of rapid snow pack melt. Roads in general are always susceptible to the effects of winter snow melts. The Penacook-Boscawen Water Precinct is vulnerable to flood events.						0.0
Flooding	River Ice Jams	Contoocook River. Crescent Street, Eel Street, River Road, and Commercial Street homes and businesses may be at risk of flooding in the case of river ice jams. Roads in general are always susceptible to the effects of winter ice and snow melts. The Town is susceptible to river ice jams because of the close proximity to the Franklin Falls and Blackwater Dams via the Merrimack River and Contoocook River. Homes near the Merrimack River, especially in low-lying areas, could be at risk, although the Merrimack River has had no reported ice jams in the Central NH Region since 1936 (Bow/Pembroke).						0.0
Flooding	Riverine Scouring, Erosion, Channel Movement	Floodplains of Merrimack River. Route 3 and King Street residents and businesses may be at risk from stream bank erosion and scouring. Farmland on River Road is very vulnerable, including the new California Fields development on Crescent Street. The vacant structures on Commercial Street may also be at risk. Tannery Brook, Town House Brook, Pond Brook, Beaverdam Brook, Stirrup Iron Brook, Hirst Marsh, Patenaude's Pond, Walker Pond are the largest waterbodies and watercourses in the Town and some run under or alongside local roads, with the possibility of eroding surrounding areas.						0.0

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Jve	erall Risk Ranking	s of Hazards in Boscawen	RANK					1
Natural, Technological, and Human Hazard Events		Susceptible (Existing) Hazard Locations in the Town	Probability of Occurrence	Human Injury Impact	Critical Services and Infrastructure Impact	the Town Property Damage Impact	Severity of Impact	Overall Risk
		Assessment (CCFVA) for specific sites, addresses, phone numbers and primary hazards.	See scale below 1= Unlikely 2= Possible 3= Likely 4= Highly Likely	See scale below 1= Limited 2= Significant 3= Critical 4= Catastrophic	See scale below 1= Limited 2= Significant 3= Critical 4= Catastrophic	See scale below 1= Limited 2= Significant 3= Critical 4= Catastrophic	Avg. of Human + Services + Property	Relative Threat RANKED 1-16
Wind	Tornadoes	Entire Town. <u>Most vulnerable areas</u> include: Elementary School, King Street Commercial Area, Church steeples, old Historic Library, Boscawen Municipal Building, Merrimack County Department of Corrections (max 246 immates, 200 staff). Merrimack County Nursing Home (290 res) and Gerrish Manor (29 res). <u>Manufactured Housing Parks</u> : Oxbow MHP (15 units), Woody Hollow Co-op MHP (32 units), Fontaine's MHP (8 units), The Nook MHP (? units), Justin Sherman MHP (4 units), Smith's MHP (4 units), Fessenden Park Realty (36 units), Boscawen MH Park Realty (19 units), Wildwind MHP (3 units), Honey's MHP (4 units), Sherman MHP (11 units), Bill-Bob Mobile Home Park (S1 units). <u>Apartment buildings</u> : Woodland Commons (? units), Boscawen Green (24 senior units), Village Apartments (? units), Riverbend/ Millhouse (19 res). <u>Wooded and forested sections of</u> <u>Town</u> : NH State Forest Nursery (US Route 3), Forest Lane neighborhood, Town Forest (Weir Rd), Keegan Tree Farm (Corn Hill Rd), Colby Tree Farm (High St), Black Forest Nursery (King St), Forest Lane neighborhood, <u>Dead</u> <u>end roads</u> : LIST. <u>Telecommunications towers</u> : two cell towers in Boscawen, one off Robin Street and on Daniel Webster Hwy. A tall telecommunications interruption or failure resulting from damage to the tower could affect the capabilities of emergency personnel. <u>Electrical power</u> . The power grid on Depot Street is an important utility that if damaged would have a negative impact on the Town. The Route 3 & 4 corridor supplies power to the entire Town. <u>Farms, orchards, agricultural</u> <u>businesses</u> : Highway View Farm (Crete)-dairy, corn (River Rd), Richardson's Farm-fruits & vegetables (Water St), Pustizi Fruit Farm- blueberries (Corn Hill Rd), Marshall Pumpkin Farm- pumpkin (Main St), Giovagnoli Farms- eggs (High St), Heatthfield Farm- dairy/honey (Corn Hill Rd), Rickleboro Orchards Boscawen Farm Stand- fruits & vegetables (King St/, Canterbury), Keegan Tree Farm (Corn Hill Rd), Colby Tree Farm (High St), Black Forest Nursery (King St), Hastthfield Farm- dairy/						0.0
Wind	Downbursts	Entire Town. <u>Most vulnerable areas</u> include: Elementary School, King Street Commercial Area, Church steeples, old Historic Library, Boscawen Municipal Building, Merrimack County Department of Corrections (max 246 inmates, 200 staff), Merrimack County Department of Corrections (max 246 inmates, 200 staff), Merrimack County Dursing Home (290 res) and Gerrish Manor (29 res). <u>Manufactured Housing Parks</u> ; Oxbow MHP (15 units), Woody Hollow Co-op MHP (32 units), Fontaine's MHP (8 units), The Nook MHP (? units), Justin Sherman MHP (4 units), Smith's MHP (4 units), Fessenden Park Realty (36 units), Boscawen MH Park Realty (19 units), Wildwind MHP (3 units), Honey's MHP (4 units), Sherman MHP (11 units), Bill-Bob Mobile Home Park (51 units). <u>Apartment buildings</u> : Woodland Commons (? units), Boscawen Green (24 senior units), Village Apartments (? units), Riverbend/ Millhouse (19 res). <u>Wooded and forested sections of</u> <u>Town</u> : NH State Forest Nursery (US Route 3), Forest Lane neighborhood, <u>Dead</u> <u>end roads</u> ; LIST. <u>Telecommunications towers</u> ; two cell towers in Boscawen, one off Robin Street and on Daniel Webster Hwy. A tall telecommunications tower could possibly be damaged by a severe storms. A communications interruption or failure resulting from damage to the tower could affect the capabilities of emergency personnel. <u>Electrical power</u> : The power grid on Depot Street is an important utility that if damaged would have a negative impact on the Town. The Route 3 & 4 corridor supplies power to the entire Town. <u>Farms, orchards, agricultural</u> <u>businesses</u> : Highway View Farm (Crete)-dairy, corn (River Rd), Richardson's <u>Farm</u> -fruits & vegetables (Water St), Pustizzi Fruit Farm blueberries (Corn Hill Rd), Marshall Pumpkin Farm- pumpkin (Main St), Giovagnoli Farms- eggs (High St), Heatthfied Farm- dair/Yhoney (Corn Hill Rd), Hackleboro Orchards Boscawen Farm Stand- fruits & vegetables (King St/Canterbury), Keegan Tree Farm (Corn Hill Rd), Colby Tree Farm (High St), Black Forest Nursery (King St), NH State Forest Nursery						0.0

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)ve	erall Risk Ranking	of Hazards in Boscawen	PLAN TABLE		RA	NK		10/23/201
		REVIEW & UPDATE POTENTIAL HAZARD LOCATIONS	RANK		Impact to	the Town		1
	ural, hnological, and	Susceptible (Existing) Hazard Locations in the Town	Probability of Occurrence	Human Injury Impact	Critical Services	Property Damage Impact	Severity of Impact	Overall Ris
un	nan Hazard nts	See also the Community and Critical Facility Vulnerabilty Assessment (CCFVA) for specific sites, addresses, phone numbers and primary hazards.	See scale below 1= Unlikely 2= Possible 3= Likely 4= Highly Likely	See scale below 1= Limited 2= Significant 3= Critical 4= Catastrophic	See scale below 1= Limited 2= Significant 3= Critical 4= Catastrophic	See scale below 1= Limited 2= Significant 3= Critical 4= Catastrophic	Avg. of Human + Services + Property	Relative Thi RANKED 1-
DUINA	Hurricanes and Tropical Storms	Entire Town. <u>Most vulnerable areas</u> include: Elementary School, King Street Commercial Area, Church steeples, old Historic Library, Boscawen Municipal Building, Merrimack County Department of Corrections (max 246 inmates, 200 staff), Merrimack County Nursing Home (290 res) and Gerrish Manor (29 res). <u>Manufactured Housing Parks</u> : Oxbow MHP (15 units), Woody Hollow Co-op MHP (32 units), Fontaine's MHP (8 units), The Nook MHP (2 units), Justin Sherman MHP (4 units), Smith's MHP (4 units), Eessenden Park Realty (36 units), Boscawen MH Park Realty (19 units), Wildwind MHP (3 units), Honey's MHP (4 units), Sherman MHP (11 units), Bill-Bob Mobile Home Park (51 units). <u>Apartment buildings</u> : Woodland Commons (? units), Boscawen Green (24 senior units), Village Apartments (? units), Boscawen Green (24 senior units), Village Apartments (? units), Bacscawen Green (24 senior units), Village Apartments (? units), Bacscawen Green (24 senior units), Village Apartments (? units), Bacs Forest Nursery (US Route 3), Forest Lane neighborhood, Town Forest (Weir Rd), Keegan Tree Farm (Corn Hill Rd), Colby Tree Farm (High St), Black Forest Nursery (King St), Forest Lane neighborhood, <u>Dead</u> end roads: LIST. <u>Telecommunications towers</u> : two cell towers in Boscawen, one off Robin Street and on Daniel Webster Hwy. A tall telecommunications interruption or failure resulting from damage to the tower could affect the capabilities of emergency personnel. <u>Electrical</u> <u>power</u> : The power grid on Depot Street is an important utility that if damaged would have a negative impact on the Town. The Route 3 & 4 corridor supplies power to the entire Town. <u>Farms, orchards, agricultural</u> <u>businesses</u> : Highway View Farm (Crete)-dairy, corn (River Rd), Richardson's Farm- fruits & vegetables (Water St), Pustizi Fruit Farm- blueberries (Corn Hill Rd), Marshall Pumpkin Farm- pumpkin (Main St), Giovagnoli Farms- eggs (High St), Heathfield Farm- dairy/honey (Corn Hill Rd), Hackleboro Orchards Boscawen Farm Stand- fruits & vegetables (King St/Canterbury), K						0.0
DUINA	Severe Winds, Rain Storms and Thunder Storms	Entire Town. <u>Most vulnerable areas</u> include: Elementary School, King Street Commercial Area, Church steeples, old Historic Library, Boscawen Municipal Building, Merrimack County Department of Corrections (max 246 inmates, 200 staff), Merrimack County Department of Corrections (max 246 inmates, 200 staff), Merrimack County Nursing Home (290 res) and Gerrish Manor (29 res). <u>Manufactured Housing Parks</u> : Oxbow MHP (15 units), Woody Hollow Co-op MHP (32 units), Fontaine's MHP (8 units), The Nook MHP (? units), Justin Sherman MHP (4 units), Smith's MHP (4 units), Fessenden Park Realty (36 units), Boscawen MH Park Realty (19 units), Wildwind MHP (3 units), Honey's MHP (4 units), Sherman MHP (11 units), Bill-Bob Mobile Home Park (51 units). <u>Apartment buildings</u> : Woodland Commons (? units), Boscawen Green (24 senior units), Village Apartments (? units), Riverbend/ Millhouse (19 res). <u>Wooded and forested sections of</u> <u>Town</u> : NH State Forest Nursery (US Route 3), Forest Lane neighborhood. <u>Dead</u> <u>end roads</u> : LIST. <u>Telecommunications towers</u> : two cell towers in Boscawen, one off Robin Street and on Daniel Webster Hwy. A tall telecommunications tower could possibly be damaged by a severe storms. A communications interruption or failure resulting from damage to the tower could affect the capabilities of mergency personnel. <u>Electrical power</u> : The power grid on Depot Street is an important utility that if damaged would have a negative impact on the Town. The Route 3 & 4 corridor supplies power to the entire Town. <u>Farms, orchards, agricultural</u> <u>businesses</u> : Highway View Farm (Crete)-dairy, corn (River Rd), Richardson's Farm- fruits & vegetables (Water St), Pustizzi Fruit Farm- blueberries (Corn Hill Rd), Marshall Pumpkin Farm- pumpkin (Main St), Giovagnoli Farms- eggs (High St), Heathfield Farm- dairy/honey (Corn Hill Rd), Hackleboro Orchards Boscawen Farm Stand- fruits & vegetables (King St/Canterbury), Keegan Tree Farm (Corn Hill Rd), Colby Tree Farm (High St), Black Forest Nursery (King St), NH State Forest Nursery (						0.0

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ve	erall Risk Ranking	of Hazards in Boscawen			RA	ANK		
Natural, Technological, and Human Hazard		See also the Community and Critical Facility Vulnerability	Occurrence Ir See scale below S	Human Injury Impact See scale below	Critical Services and Infrastructure Impact See scale below	Property Damage Impact See scale below	Severity of Impact <sup>Avg.</sup> of Human +	Overall Risk Relative Threa
ve	nts	numbers and primary hazards.		1= Limited 2= Significant 3= Critical 4= Catastrophic	1= Limited 2= Significant 3= Critical 4= Catastrophic	1= Limited 2= Significant 3= Critical 4= Catastrophic	Services + Property	RANKED 1-1
Fire	Lightning	Entire Town. Areas most susceptible include <u>points of higher elevation</u> <u>than surrounding area</u> : Congregational Church/Old Town Hall (US 3/4), Masonic Temple, Historical Society, old Historic Library, Boscawen Municipal Building, Merrimack County Department of Corrections, Merrimack County Nursing Home and Gerrish Manor. <u>Forested areas</u> , <u>parks, conservation areas can be dangerous to people and property</u> : Jamie Welch Park (Depot St), NH State Forest Nursery (US Route 3), Forest Lane neighborhood, Town Forest (Weir Rd), Keegan Tree Farm (Corn Hill Rd), Colby Tree Farm (High St). <u>Areas inaccessible by vehicle include</u> : Water Street area, Walker Pond, Patenaude's Pond, Chadwick Hill, and Queen Street area. <u>Aboveground utilities</u> : transformers (power grid on Depot St), the 2 telecommunications towers (Robin St and on Daniel Webster Hwy), and power lines (especially Route 3 & 4 corridor). Those buildings without lightning rods would be more susceptible to damage from a strike than those buildings with the rods.						0.0
LIE	Wildfire	Entire Town. Areas most vulnerable include historic and/or heavily occupied buildings: Congregational Church/Old Town Hall (US 3/4), Masonic Temple, Historical Society, old Historic Library, Boscawen Municipal Building, Merrimack County Department of Corrections, Merrimack County Nursing Home and Gerrish Manor. <u>Forested areas</u> , <u>parks, conservation areas</u> can be dangerous to people and property: Jamie Welch Park (Depot St), NH State Forest Nursery (US Route 3), Forest Lane neighborhood, Town Forest (Weir Rd), Keegan Tree Farm (Corn Hill Rd), Colby Tree Farm (High St). <u>Areas inaccessible by vehicle include</u> : Water Street area. <u>Aboveground utilities</u> : transformers (power grid on Depot St), the 2 telecommunications towers (Robin St and on Daniel Webster Hwy), and power lines (especially Route 3 & 4 corridor). Inaccessible locations are vulnerable to wildfire because fire crews and emergency personnel have greater difficulty responding quickly to fires in these locations.						0.0
	Severe Winter Weather, Wind Chill and Ice Storms	Entire Town. <u>Particular areas of concern</u> include: Elementary School, King Street Commercial Area, Church steeples, old Historic Library, Boscawen Municipal Building (snow load) Merrimack County Department of Corrections, Merrimack County Nursing Home and Gerrish Manor (severe cold & chill), old vacant Tannery buildings (snow load). <u>Manufactured</u> <u>Housing Parks (chill and snow load):</u> Oxbow MHP, Woody Hollow Co-op MHP, Fontaine's MHP, The Nook MHP, Justin Sherman MHP, Smith's MHP, Fessenden Park Realty, Boscawen MH Park Realty, Wildwind MHP, Honey's MHP, Sherman MHP, Bill-Bob Mobile Home Park. <u>Wooded and forested</u> <u>sections of Town</u> are vulnerable to loss of power and debris on roads: Forest Lane neighborhood. <u>Dead end roads</u> : LIST. <u>Telecommunications</u> <u>towers</u> : two cell towers in Boscawen, one off Robin Street and on Daniel Webster Hwy. A tall telecommunications tower could possibly be damaged by a severe storms. A communications interruption or failure resulting from damage to the tower could affect the capabilities of emergency personnel. <u>Electrical power</u> : The power grid on Depot Street is an important utility that if damaged would have a negative impact on the Town. The Route 3 & 4 corridor supplies power to the entire Town. <u>Road</u> <u>network</u> (fallen trees and electrical power lines) is susceptible to damage to debris impacted infrastructure. Areas of the Town would be difficult to access with excessive tree fall. People may be subject to cold temperature, snow isolation, transportation accidents, power failure and communications failure during winter storm events.						0.0

## PLAN TABLE

Bos	scawen Haza	rd Risk Assessment 2018	PLAN TABLE					Meeting 1 10/23/2017	
)ve	rall Risk Ranking	of Hazards in Boscawen			R/	NK			
		REVIEW & UPDATE POTENTIAL HAZARD LOCATIONS	RANK			the Town			
	ural, hnological, and	Susceptible (Existing) Hazard Locations in the Town	Probability of Occurrence	Human Injury Impact	Critical Services and Infrastructure Impact	Property Damage Impact	Severity of Impact	Overall Risk	
Human Hazard Events		Assessment (CCFVA) for specific sites, addresses, phone numbers and primary hazards.	3= Likely	1= Unlikely 1: 2= Possible 2: 3= Likely 3:	1= Limited 2= Significant 3= Critical	Limited 1= Limited Significant 2= Significant Critical 3= Critical	1= Limited     Services       2= Significant     Property       3= Critical	Avg. of Human + Services + Property	Relative Threa RANKED 1-16
Extreme Temperature	Drought	Entire Town / Region. <u>Areas susceptible include farms and orchards:</u> Highway View Farm (Crete)-dairy, corn (River Rd), Richardson's Farm- fruits & vegetables (Water St), Pustizi Fruit Farm- blueberries (Corn Hill Rd), Marshall Pumpkin Farm- pumpkin (Main St), Giovagnoli Farms-eggs (High St), Heathfield Farm- dairy/honey (Corn Hill Rd), Hackleboro Orchards Boscawen Farm Stand- fruits & vegetables (King St/Canterbury), Keegan Tree Farm (Corn Hill Rd), Colby Tree Farm (High St), Black Forest Nursery (King St), NH State Forest Nursery (US Route 3). <u>Water Supplies</u> ; residences with private dug wells and Town water supplies (Penacook-Boscawen Water Precinct). Drought means increased risk of brush fire with dry vegetation (see Wildfire). Gravel roads are affected because Town can't grade them when water is low. Fire ponds can run dangerously low.						0.0	
Extreme Temperature	Excessive Heat	Entire Town / Region. <u>Areas vulnerable to extreme heat include farms and orchards</u> ; Highway View Farm (Crete)-dairy, corn (River Rd), Richardson's Farm-fruits & vegetables (Water St), Pustizzi Fruit Farm- blueberries (Corn Hill Rd), Marshall Pumpkin Farm- pumpkin (Main St), Giovagnoli Farms- eggs (High St), Heathfield Farm- dairy/honey (Corn Hill Rd), Hackleboro Orchards Boscawen Farm Stand- fruits & vegetables (King St/Canterbury), Keegan Tree Farm (Corn Hill Rd), Colby Tree Farm (High St), Black Forest Nursery (King St), NH State Forest Nursery (US Route 3). Senior housing and those residences without air conditioning are especially vulnerable to high heat events.						0.0	
Earth	Earthquake	Entire Town. The Central NH Region is seismically active and earthquakes are regularly felt from area epicenters. Damage to utility poles and wires, roadways and infrastructure (Depot Street station, Contoocook River Dam, Penacook-Boscawen Water Precinct) could be significant. Areas with underground utilities, community water systems, and the old/historic buildings, Town Buildings. County Nursing Home & Corrections Buildings, and the Elementary School are particuarly susceptible.						0.0	
Earth	Landslide	Slopes greater than 25%, including roads with steep ditching or embankments are most vulnerable to landslide. Landslide is a fairly uncommon hazard but one that can have devastating effects, including property damage and in some cases, loss of life. The gravel pits in Town are potential sites of landslide. Along Route 4, two areas of concern for potential landslide are the Tannery Brook crossing and the land behind National Lumber. Riverside erosion occurs on the Merrimack River banks. Road washouts and flash-flooding could cause landslides, but otherwise the Town is not particularly susceptible.						0.0	
often secondary hazards)	Dam Failure	Penacook Lower Falls Dam (state-owned) is a Significant (H) Hazard dam, the highest hazard in Town. Low Hazard (L) include Flagpole Pond (Patenaude's Pond) Dam, Tannery Brook Dam, Hirst Marsh Dam, and Flagpole Pond Dikes. These five dams in Town located at Tannery Brook, Crescent Street, Commercial Street, Patenaude's Pond, and Walker Pond may potentially breach or fail. It was speculated that at one time, the Tannery Brook dam may have breached. Some dams in the Town have been breached, but were not large enough to have caused a problem, and are in ruins.						0.0	

### PLAN TABLE Meeting 1

#### **Boscawen Hazard Risk Assessment 2018** PLAN TABLE 10/23/2017 RANK **Overall Risk Ranking of Hazards in Boscawen REVIEW & UPDATE POTENTIAL HAZARD LOCATIONS** RANK Impact to the Town Critical Services Property Damage Susceptible (Existing) Hazard Locations in the Town Natural, Probability of man Iniury Severity of **Overall Risk** nd Infrastructure npact mpact Occurrence Impact Technological, and mpact See also the Community and Critical Facility Vulnerabilty Avg. of Human + Human Hazard See scale below ee scale below See scale below ee scale belov **Relative Threa** Assessment (CCFVA) for specific sites, addresses, phone 1= Unlikelv 1= Limited 1= Limited 1= Limited Services RANKED 1-16 Events numbers and primary hazards. 2= Significant 2= Significant 2= Significant Property 2= Possible B= Critical B= Critical B= Critical 3= Likelv = Catastrophic 4= Catastrophic 4= Catastrophic 4= Highly Likely Power/Utility Failure Entire Town, including Vulnerable Populations: Merrimack County not rated not rated not rated not rated not rated not rated Department of Corrections, Merrimack County Nursing Home and Gerrish Manor, Wooded, forested and remote areas can experience tree fall and become isolated, inaccessible by vehicle: Water Street area, Walker Pond, often secondary hazards Patenaude's Pond, Chadwick Hill, and Queen Street area. Aboveground **Technological Hazards** utilities: transformers (power grid on Depot St), the 2 telecommunication towers (Robin St and on Daniel Webster Hwy), and power lines (especially Route 3 & 4 corridor). Inaccessible locations are vulnerable to wildfire because fire crews and emergency personnel have greater difficulty responding quickly to fires in these locations. Power outages may last for several days before service is restored in a large event. The substation on Depot Street is a critical facility in Town. The overwhelming majority of the residents are customers of Unitil Power, with only six houses on Corn Hill Road as customers of PSNH. Communications Entire Town, Telecommunications Tower, Communications systems are not rated not rated not rated not rated not rated not rated detailed in the Community Vulnerability Assessment tables. Systems Failure Communications systems interruptions are unlikely to occur or affect the residents of Boscawen because of the diversity of communications system available within the town. However, systems failures could affect Town often secondary hazards **Technological Hazards** businesses and local government on an isolated scale. In Boscawen, one communications tower and cable/Internet providers are available for residents. Cell phones are good alternatives to telephones, but some residents do not have computers. Communications failure would be worse if it occurred at the Fire and Police Depts, Highway Department or Town Offices, especially during a holiday, or inhibited emergency dispatch and EOC operations. Most Town radios are interoperable, and they are used i more than one location. The Town is serviced by the Capital Area Mutual Aid Compact, which does all the emergency medical service and Fire dispatching. They have redundant capabilities and are currently upgrading their systems Debris Impacted Most dams, culverts, and bridges could experience debris impacted not rated not rated not rated not rated not rated not rated Infrastructure infrastructure. The bridges, tunnels, and culverts on Raymond's Road, Long Street and River Road may be at risk from debris impacted infrastructure often secondary hazards There are five concrete small tunnels under Commercial Street that have Technological Hazards not been well maintained and have been weakened over time by passing trucks and vehicles. These tunnels could create a debris impact hazard. The Corn Hill Road Bridge could also potentially dislodge. If the undersized culverts were regularly maintained, the Town feels that this action would take care of half the flooding problems in Boscawen. Roads with culverts that regularly washout are listed above under Flooding. DIS can also refer to roadways blocked by downed trees and powerlines during storms. Route 3, Route 4, Roundabout, King Street, intersections. Serious Transportation not rated not rated not rated not rated not rated not rated transportation accidents involving hazardous materials have the greatest **Fechnologica** Accidents possibility of occurring along Routes 3 and 4. Numerous trucks use these Hazards routes daily to transport many kinds of materials, goods, chemicals, waste and gasses. Ross Trucking on North Main Street is a local freight hauler which creates regular truck traffic Routes 3 & 4, along with businesses in Town that deal with the Hazardous and not rated not rated not rated not rated not rated not rated transportation or storage of hazardous materials include Allstate Asphalt Radiological Materials on Depot Street and the construction at California Fields (brownfields) on Spills Crescent Street. Filling stations are also potential sites for a hazardous materials spill. Filling stations in Town include the Sunoco, Cumberland Farms, Citgo and TK's. There is a former landfill which is now capped on. Concern also exists over trucks transporting hazardous material through town on Routes 3 and 4. The largest or most dangerous stationary sites that store and/or handle haz mat on site (fertilizer, pesticides, fuel, etc) are listed in Appendix A. Occupational haz mat sites where spills could occur include: health care facilities, schools, manufacturing, etc.

## **PLAN TABLE**

		rd Risk Assessment 2018	PLAN TABLE					Meeting 1 10/23/2017
Dve	erall Risk Ranking	of Hazards in Boscawen				NK		
		See also the Community and Critical Facility Vulnerabilty Assessment (CCFVA) for specific sites, addresses, phone numbers and primary hazards.	RANK Probability of Occurrence	Impact to the Town           Human Injury         Critical Services         Property Damage         Severity of           Impact         and Infrastructure         Impact         Impact			Severity of Impact	Overall Risk
			See scale below 1= Unlikely 2= Possible	See scale below 1= Limited 2= Significant 3= Critical 4= Catastrophic	mited 1= Limited gnificant 2= Significant ritical 3= Critical	See scale below 1= Limited 2= Significant 3= Critical 4= Catastrophic	Avg. of Human + Services + Property	Relative Threa RANKED 1-16
Human	Public Health Epidemic	Congregate populations. Elementary School, health clinics, restaurants, populated areas, large employers, apartments, senior housing, stores and public assembly venues listed in Appendix A - all of these locations increase the risk of exposure to and transfer of illness. The forests, conservation areas, agriculture, wooded areas, ponds can host ticks and mosquitos.	not rated	not rated	not rated	not rated	not rated	not rated
Human	Fire (Vehicle, Structure, Arson)	Several businesses around Town are potential sites for explosions and serious fires. The vacant Tannery buildings on Commercial Street are potential fire and explosion sites. There are numerous other sites in town that store tires and that have the potential for prolonged burning. These sites include many farms and at the transfer station. Propane tanks that exist at the fire station create a potential for explosion and a large quantity of wood at the Tibo lumber yard has the potential for a large fire. Areas most susceptible include: Downtown, vacant or vulnerable sites, foreclosed homes or seasonal buildings, buildings in densly populated areas or residential manufactured home parks. Vehicle fires could occur anywhere, parking lots, driveways, roadways. See also Appendix A	not rated	not rated	not rated	not rated	not rated	not rated
Human	Terrorism	Unlikely, but Town or County Facilities are potential targets. Most susceptible sites could include: Town Offices, Merrimack County Correctional Facilities, Merrimack County Nursing Home, Contoocook River Dam, Penacook Boscawen Water Precinct, Elementary School, Post Office, all other governmental facilities, state facilities, political offices, churches, telecommunication towers, banks, major employers (especially those large quantities of haz materials), health clinics, grocery or convenience stores, restaurants.	not rated	not rated	not rated	not rated	not rated	not rated
Human	Sabotage/Vandalism	Town or County Facilities. Sabotage would be most likely to occur at electric utilities, Town/County computer systems & website, Town/County buildings, School, dams, water supplies, cemeteries, vacant buildings (Tannery), under bridges.	not rated	not rated	not rated	not rated	not rated	not rated
Human	Hostage Situation	Unlikely, Isolated events. Locations where hostages could be taken include: Town Offices, Merrimack County Correctional Facilities, Merrimack County Nursing Home, Contoocook River Dam, Penacook Boscawen Water Precinct, Elementary School, Post Office, all other governmental facilities, state facilities, political offices, churches, telecommunication towers, banks, major employers (especially those large quantities of haz materials), health clinics, grocery or convenience stores, restaurants, and domestic home situations.	not rated	not rated	not rated	not rated	not rated	not rated
Human	Civil Disturbance/ Public Unrest	Limited locations, Routes 3 & 4 area, Town and County Facilities. Locations include: Town Offices, Merrimack County Correctional Facilities, Merrimack County Nursing Home, Veteran's Cemetery, Contoccook River Dam, Penacook Boscawen Water Precinct, Elementary School, Post Office, all other governmental facilities, state facilities, political offices, churches, telecommunication towers, banks, major employers, health clinics, grocery or convenience stores, restaurants and establishments serving alcohol. Occasions include: Town Meetings, voting day, local board meetings, during visits from political candidates, at large events such as Old Home Day or Veteran's Parade, School sports events or graduation. Small groups of protestors are likely to continue to demonstrate at the Veterans Cemetery.	not rated	not rated	not rated	not rated	not rated	not rated
		REVIEW & UPDATE POTENTIAL HAZARD LOCATIONS	RANK		RA	NK		<u> </u>

NHHSEM's State Multi-Hazard Mitigation Plan 2013 also contains Snow Avalanche and Coastal Flooding. Neither of these are pertinent to the Town. Radon is no longer considered a hazard in NH's Plan and therefore was not included in this local Plan.

## Town of Boscawen, NH Hazard Mitigation Plan Update 2018

## **Boscawen Hazard Risk Assessment 2018**

#### PLAN TABLE

PLAN TABLE	P	LA	Ν	TA	B	LE
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Meeting 1

		PLAIN TABLE					10/23/2017
Overall Risk Ranking of Hazards in Boscawen			RANK				
	REVIEW & UPDATE POTENTIAL HAZARD LOCATIONS	RANK		Impact to	the Town		
Natural, Technological, and	Susceptible (Existing) Hazard Locations in the Town	Probability of Occurrence		Critical Services and Infrastructure Impact	Impact	Severity of Impact	Overall Risk
Human Hazard Events	See also the Community and Critical Facility Vulnerabilty Assessment (CCFVA) for specific sites, addresses, phone numbers and primary hazards.	1= Unlikely 2= Possible 3= Likely	1= Limited 2= Significant 3= Critical	1= Limited 2= Significant	1= Limited 2= Significant 3= Critical	Avg. of Human + Services + Property	Relative Threat RANKED 1-16

Probability of Occurrence

1	Unlikely=	0 - 25% chance	in 10 years
2	Possible=	25 - 50% chance	in 10 years
3	Likely=	51 - 75% chance	in 10 years
4	Highly Likely=	76 - 100% chance	in 10 years

#### Impact to the Town

1	Limited=	Human:	<ul> <li>Injuries treatable with first aid.</li> </ul>
		Critical Facilities Services/Infrastrastructure:	Minor "quality of life" disturbance, shutdown for 3 days or less.
		Property Damage:	◆ Less than 10%.
2	Significant=	Human:	<ul> <li>Significant injuries or illnesses result in no permanent disability.</li> </ul>
		Critical Facilities/Services/Infrastrastructure:	Shutdown for up to 2 weeks.
		Property Damage:	◆ 10% to 25%.
3	Critical=	Human:	<ul> <li>Significant injuries or illnesses result in permanent disability.</li> </ul>
		Critical Facilities/ Services/Infrastrastructure:	<ul> <li>Complete shutdown for at least 2 weeks.</li> </ul>
		Property Damage:	◆ 25% to 50%.
4	Catastrophic=	Human:	Death or multiple deaths.
		Critical Facilities/ Services/Infrastrastructure:	<ul> <li>Complete shutdown for 30 days or more.</li> </ul>
		Property Damage:	♦ Greater than 50%.