

Appendix D
Hazard Analysis & Assessment

TABLE OF CONTENTS

	<u>Page</u>
Table of Contents	i
<i>I. <u>Introduction</u></i>	
A. Purpose	1
B. Scope.....	1
C. Situation	1
<i>II. <u>Hazard Identification</u></i>	
A. Hazard Identification.....	3
<i>III. <u>Hazard Vulnerability</u></i>	
A. Vulnerability Matrix	4
B. Risk Rating Matrix.....	5
<i>IV. <u>Authorities and References</u></i>	
A. Plans.....	6

I. Introduction

a. Purpose

This Hazard Analysis and Assessment is the basis for both mitigation efforts and EOPs. Comprehensive hazard analysis merits its own document-length discussion. Consequently, the Town of Bristol plan has a Hazard Mitigation Plan (2003) for a detailed discussion on this topic.

From an emergency operations planning perspective, hazard analysis helps a planning team decide what hazards merit special attention, what actions must be planned for, and what resources are likely to be needed. For the purpose of emergency operations planning, basic considerations of this Appendix include the following:

1. Identify Hazards
2. Profile Hazard Vulnerability
3. Critical Facility Vulnerability

b. Scope

This document applies to all natural and manmade hazards in Bristol, NH that require response and recovery actions under the *EOP*.

c. Situation

1. **Government:** The Town of Bristol is governed by a 5 member Board of Selectmen and Town Administrator.
2. **Population:** The community has a stable population of approximately 3047* with a moderate seasonal increase in summer. There are 178.5* persons per square mile of land area.
3. **Emergency Services:** The town maintains a Fire Department which provides fire protection, rescue and emergency medical services. A Police Department provides law enforcement and the protection of life and property. The nearest hospital is Speare Memorial in Plymouth (14 miles).
4. **Transportation:** Route 104 and route 3A are the major roads within the Town of Bristol intersecting at Central Square. The nearest interstate is I-93, exit 23. Newfound Valley an airport with a single 1930 ft runway with no navigational aids is located in Bristol. The nearest commercial airport is Manchester.

3. Public Works: The town maintains a Highway Department and water supply and Sewer treatment is provided by the Water & Sewer Department.

4. Employment*:

Largest Employers*	Product/Service	Employees
Newfound Area Schools	Education	250
Freudenberg-NOK	Oil, Grease Seals, Molded Rubber	210
Town of Bristol	Municipal services	32 FT / 53 PT
Shop 'n Save	Grocery store	30
TD Bank	Banking	25
Homestead Restaurant	Restaurant	25
RP Williams & Sons	Retail lumber store	21
Shackett's Grocery	Grocery store	20

5. Educational Facilities*:

Primary & Secondary	Elementary	Middle/Junior High	High School	Private/Parochial
Number of Schools	1	1	1	1
Grade Levels	K, 1-5	6-8	9-12	K 1-3
Total Enrollment	264	288	428	5
Regional Career Technology Center(s):	Plymouth Regional High School			
NH Licensed Child Care Facilities, 2003:	Total Facilities: 3 Total Capacity: 71			
Nearest Community/Technical College:	New Hampshire Community College, Laconia			
Nearest Colleges or Universities:	Plymouth State University, Plymouth, Granite State College, Laconia			

*2011 Economic & Labor Market Information Bureau, NH Employment Security, Updated 3/28/13

II. Hazard Identification

Eighteen Hazards were identified for the development of this Emergency Operation Plan.

- | | |
|---|--------------------------|
| <i>1) Flooding</i> | <i>Conventional Bomb</i> |
| <i>2) Ice Events</i> | <i>Chemical Agent</i> |
| <i>3) Snow Events</i> | <i>Arson</i> |
| <i>4) Hazardous Materials (Transport)</i> | <i>Cyber-Terrorism</i> |
| <i>5) Wild land/Urban Fire</i> | <i>Agri-Terrorism</i> |
| <i>Civil Disorder</i> | <i>Radiological</i> |
| <i>Hazardous Materials (Fixed)</i> | <i>Nuclear Bomb</i> |
| <i>Nuclear Accident</i> | <i>Wind</i> |
| <i>Multiple Vehicle Accident</i> | |
| <i>Plane Crash</i> | |

Items 1-5 are identified as the primary hazards to the Town of Bristol in the Bristol Hazard Mitigation Plan (2003)

III. Hazard Vulnerability

Community Emergency Officials identified the following Vulnerability and Risk Rating Matrix identified in Table D.1 and D.2.

**Table D.1
Vulnerability Matrix**

Hazard	Flooding	Ice Events	Snow Events	HazMat (Transport)	Wild land / Urban Fire	Civil Disorder	Hazmat (Fixed)	Nuclear Accident	Multi Vehicle Accident	Plane Crash	Conventional Bombing	Chemical Agent	Arson	Cyber-Terrorism	Agri-Terrorism	Radiological	Nuclear Bomb	Wind
Danger/Destruction (High=3; Moderate=2; Low=1)	2	2	2	2	2	1	2	1	1	1	1	1	1	1	1	1	1	2
Economic (Permanent=3; Temporary=2; Immediate Short Term=1)	3	2	2	2	2	1	2	2	2	2	3	2	3	1	2	2	2	2
Environmental (High=3; Moderate=2; Low=1)	2	2	2	2	3	1	2	1	1	1	2	1	2	1	2	3	3	2
Social (High=3; Moderate=2; Low=1)	2	2	2	2	2	1	2	1	1	1	2	1	2	1	1	2	1	2
Political Planning Level (Local=1; Regional=2; Federal=3)	1	1	1	2	2	1	1	3	1	2	1	2	1	1	1	3	3	1
RANK																		
5 to 8 LOW						X		X	X	X		X		X	X			
9 to 11 MODERATE	X	X	X	X	X		X				X		X			X	X	X
12 to 15 HIGH																		

**Table D.2
Risk Rating Matrix**

Hazard	Probability of Occurrence			Vulnerability <i>(From Table 1)</i>			Risk
	Likely (3)	Possible (2)	Unlikely (1)	High (3)	Moderate (2)	Low (1)	Rating (probability x Vulnerability)
Flooding		2			2		4
Ice Events	3				2		6
Snow Events	3				2		6
Hazardous Material (Transport)		2			2		4
Wild land / Urban Fire		2			2		4
Civil Disorder			1			1	1
Hazardous Material (Fixed)		2			2		4
Nuclear Accident			1			1	1
Multiple Vehicle Accident			1			1	1
Plane Crash		2				1	2
Conventional Bombing			1		2		2
Chemical Agent			1			1	1
Arson		2			2		4
Cyber-Terrorism			1			1	1
Agri-Terrorism			1			1	1
Radiological			1		2		2
Nuclear Bomb			1		2		2
Wind		2			2		4

V. Authorities & References

A. Plans

Bristol Hazard Mitigation Plan (2009) on file with the Town Office.