

Town of Bridgewater Natural Hazard Vulnerability/Risk Assessment

Community Profile

The Town of Bridgewater is located within the “Greater Brockton” area of the Old Colony region and is approximately 8 miles south of Brockton and 28 miles south of Boston. It is bordered by East Bridgewater and West Bridgewater to the north, Halifax to the east, Middleborough to the south, and Raynham to the west.

Bridgewater covers an area of 28.36 square miles and has a population of 26,563 persons, according to the 2010 U.S. Census. The town’s population density was 936.63 persons per square mile in 2010. Bridgewater’s population increased by 5.47% between 2000 and 2010, compared to a population increase of 3.71% for the Old Colony region overall. In 2010 the median age in Bridgewater was 36.7 years, with 10.4% of the population being 65 years of age or older. Approximately 5.6% of the population’s income in the past twelve months was below the poverty level, according to the 2008-2012 American Community Survey.

In 2010 there were 8,336 housing units in town, with the average housing unit sheltering 3.18 persons. There is an average of 293.94 housing units per square mile. Bridgewater is part of the Bridgewater-Raynham Regional School District, which had an enrollment of 5,400 for the 2013-2014 academic school year. The district includes four elementary schools, two middle schools and one high school. Bridgewater is also home to Bridgewater State University, which had an enrollment of nearly 11,500 undergraduate and graduate students in the Fall of 2012.

Bridgewater is primarily a residential community with the predominant land uses in town being forest (35.7%), wetlands and water (24.4%), and residential (20.2%). Bridgewater’s natural features include the 354 acre Lake Nippenicket and parts of the 16,950 acre Hockomock Swamp Area of Critical Environmental Concern (ACEC). The Hockomock Swamp and associated wetlands and waterbodies create a unique environmental habitat in southeastern Massachusetts.

The majority of Bridgewater’s commercial development is concentrated around the intersection of Routes 18 and 28 in downtown Bridgewater. Other areas of commercial development in Bridgewater are scattered along the southern part of Route 18 south of the downtown Bridgewater as well as more recently the area of Route 104 and Route 24 in the western part of town.

Bridgewater’s municipal drinking water supply is drawn from nine wells at two locations in Bridgewater. One location consists of four wells off of High Street near the Matfield River and the other location consists of five wells located in the vicinity of Carver’s Pond. The wells are protected by a Zone II wellhead protection area and by Bridgewater’s Aquifer Protection District. Bridgewater does have access to municipal wastewater services and a wastewater treatment plant that can treat up to 1.44 million gallons per day (gpd), but is currently operating at 70% capacity, or one million gpd. Municipal wastewater services originally only served the traditional town center, but demand for services has increased over time as the town continues to grow.

Critical Facilities

The list of critical facilities has been updated since the completion of the previous plan, to reflect changes in the community as well as input received from town officials. The updated list of critical facilities is shown in Table 44 below. Located in Appendix 4 there are a series of five maps showing the relationship of these facilities to the following six hazards: flooding, hurricanes, snowfall, wildfire, landslide, and earthquakes.

Table 44: Relationship of Critical Facilities to Hazard Areas

ID #	Facility	Name	Address	FEMA Flood Zone	Locally Identified Flood Area	100 Year Wind Event	Average Annual Snowfall	Wildfire Susceptibility (Vegetation)	Landslide Risk	Peak Ground Acceleration Zone
1	Bridge	Bedford Street (Taunton River)	N/A	AE	No	120 MPH	36"-48"	N/A	Moderate	Zone 4
2	Bridge	Bridge Street (Matfield River)	N/A	AE	No	120 MPH	36"-48"	N/A	Moderate	Zone 4
3	Bridge	Broad Street (Town River)	N/A	N/A	No	120 MPH	36"-48"	N/A	Moderate	Zone 4
4	Bridge	Cherry Street (Taunton River)	N/A	AE	No	120 MPH	36"-48"	N/A	Moderate	Zone 4
5	Bridge	Green Street (Taunton River)	N/A	AE	No	120 MPH	36"-48"	N/A	Low	Zone 4
6	Bridge	Hayward Street (Town River)	N/A	AE	No	120 MPH	36"-48"	N/A	Moderate	Zone 4
7	Bridge	High Street (Matfield River)	N/A	AE	No	120 MPH	36"-48"	N/A	Moderate	Zone 4
8	Bridge	High Street (MBTA & CSX Railroad)	N/A	N/A	No	120 MPH	36"-48"	N/A	Moderate	Zone 4
9	Bridge	Interstate 495 NB (Route 24 SB)	N/A	N/A	No	120 MPH	36"-48"	N/A	Low	Zone 4
10	Bridge	Interstate 495 SB (Route 24 SB)	N/A	N/A	No	120 MPH	36"-48"	N/A	Low	Zone 4
11	Bridge	Oak Street (Town River)	N/A	AE	No	120 MPH	36"-48"	N/A	Moderate	Zone 4
12	Bridge	Pleasant Street (Route 24)	N/A	N/A	No	120 MPH	36"-48"	N/A	Moderate	Zone 4
13	Bridge	Plymouth Street (Taunton River)	N/A	AE	No	120 MPH	36"-48"	N/A	Moderate	Zone 4
14	Bridge	Route 24 NB (Interstate 495)	N/A	N/A	No	120 MPH	36"-48"	N/A	Low	Zone 4
15	Bridge	Summer Street (MBTA & CSX Railroad)	N/A	N/A	No	120 MPH	36"-48"	N/A	Moderate	Zone 4

ID #	Facility	Name	Address	FEMA Flood Zone	Locally Identified Flood Area	100 Year Wind Event	Average Annual Snowfall	Wildfire Susceptibility (Vegetation)	Landslide Risk	Peak Ground Acceleration Zone
16	Bridge	Summer Street (Taunton River)	N/A	AE	No	120 MPH	36"-48"	N/A	Moderate	Zone 4
17	Bridge	Titicut Street (Taunton River)	N/A	AE	No	120 MPH	36"-48"	N/A	Moderate	Zone 4
18	Bridge	Vernon Street (Taunton River)	N/A	AE	No	120 MPH	36"-48"	N/A	Low	Zone 4
19	Dam	Blood Pond Dam (Blood Pond)	N/A	A	No	120 MPH	36"-48"	N/A	Moderate	Zone 4
20	Dam	Carver Pond Dam (Carver Pond)	N/A	N/A	No	120 MPH	36"-48"	Mixed Deciduous/Coniferous	Moderate	Zone 4
21	Dam	High Street-Jenkins Pond Channel Dam (Town River)	N/A	AE	No	120 MPH	36"-48"	N/A	Moderate	Zone 4
22	Dam	Jenkins Pond Dam	N/A	AE	No	120 MPH	36"-48"	N/A	Moderate	Zone 4
23	Dam	Mill Street Dam (Town River Pond)	N/A	AE	No	120 MPH	36"-48"	N/A	Moderate	Zone 4
24	Dam	South Brook Dam (South Brook)	N/A	AE	No	120 MPH	36"-48"	Coniferous Upland Forest	Moderate	Zone 4
25	Dam	South Street Pond Dam (South Street Pond)	N/A	AE	No	120 MPH	36"-48"	Coniferous Upland Forest	Low	Zone 4
26	Explosives Storage	Dyno New England	1965 Plymouth St.	N/A	No	120 MPH	36"-48"	N/A	Moderate	Zone 4
27	Fuel Station	A&A Gas	1001 Bedford St.	N/A	No	120 MPH	36"-48"	N/A	Moderate	Zone 4
28	Fuel Station	BP	724 Bedford St.	N/A	No	120 MPH	36"-48"	N/A	Moderate	Zone 4
29	Fuel Station	Cumberland Farms	33 Main St.	N/A	No	120 MPH	36"-48"	N/A	Moderate	Zone 4
30	Fuel Station	Irving	1385 Pleasant St.	N/A	No	120 MPH	36"-48"	N/A	Moderate	Zone 4
31	Fuel Station	Joe's Gas	380 Main St.	N/A	No	120 MPH	36"-48"	N/A	Moderate	Zone 4
32	Fuel Station	Lucky Star Gas	28 Central Sq.	N/A	No	120 MPH	36"-48"	N/A	Moderate	Zone 4
33	Fuel Station	Mobil	Route 24 NB	N/A	No	120 MPH	36"-48"	N/A	Low	Zone 4
34	Fuel Station	Mobil	Route 24 SB	N/A	No	120 MPH	36"-48"	N/A	Low	Zone 4
35	Fuel Station	Prime Energy	124 Broad St.	N/A	No	120 MPH	36"-48"	N/A	Moderate	Zone 4
36	Fuel Station	Rapid Refill	155 Broad St.	N/A	No	120 MPH	36"-48"	N/A	Moderate	Zone 4
37	NSTAR Electric Station	Mill Street Electric Power Substation	Mill St.	N/A	No	120 MPH	36"-48"	N/A	Moderate	Zone 4
38	NSTAR Electric Station	Montaup Electric Power Station	1233 Pleasant St.	N/A	No	120 MPH	36"-48"	N/A	Moderate	Zone 4
39	Library	Bridgewater Public Library	15 South St.	N/A	No	120 MPH	36"-48"	N/A	Moderate	Zone 4

ID #	Facility	Name	Address	FEMA Flood Zone	Locally Identified Flood Area	100 Year Wind Event	Average Annual Snowfall	Wildfire Susceptibility (Vegetation)	Landslide Risk	Peak Ground Acceleration Zone
40	Mass Care Shelter	Tinsley Center	335 Plymouth St.	N/A	No	120 MPH	36"-48"	N/A	Moderate	Zone 4
41	Public Works	Highway Department	151 High St.	N/A	No	120 MPH	36"-48"	N/A	Moderate	Zone 4
42	School, Mass Care Shelter	Bridgewater-Raynham Regional High School	415 Center St.	N/A	No	120 MPH	36"-48"	N/A	Moderate	Zone 4
43	Cultural Resource	Bridgewater Middle School	166 Mt. Prospect St.	N/A	No	120 MPH	36"-48"	N/A	Moderate	Zone 4
44	School	Bridgewater State University Operations Center	200 Great Hill Dr.	N/A	No	120 MPH	36"-48"	N/A	Moderate	Zone 4
45	School, Mass Care Shelter	Mitchell Elementary School	500 South St.	N/A	No	120 MPH	36"-48"	N/A	Moderate	Zone 4
46	School	Southbrook School	792 Plymouth St.	N/A	No	120 MPH	36"-48"	N/A	Moderate	Zone 4
47	School, Mass Care Shelter	Williams Intermediate School	200 South St.	N/A	No	120 MPH	36"-48"	N/A	Moderate	Zone 4
48	Senior Center	Council on Aging	10 Wally Krueger Way	N/A	No	120 MPH	36"-48"	N/A	Moderate	Zone 4
49	Town Hall	Town Hall	64 Central Sq.	N/A	No	120 MPH	36"-48"	N/A	Moderate	Zone 4
50	Transfer Station	Transfer Station	1200 Bedford St.	N/A	No	120 MPH	36"-48"	N/A	Moderate	Zone 4
51	Emergency Operations Center	Emergency Operations Center	66 Central Square	N/A	No	120 MPH	36"-48"	N/A	Moderate	Zone 4
52	Fire	Fire Station- Station #2	774 Plymouth St.	N/A	No	120 MPH	36"-48"	N/A	Moderate	Zone 4
53	Fire	Fire Station- Headquarters	22 School St.	N/A	No	120 MPH	36"-48"	N/A	Moderate	Zone 4
54	National Guard Armory	National Guard Armory	576 Bedford St.	N/A	No	120 MPH	36"-48"	N/A	Moderate	Zone 4
55	Police	Police Station	220 Pleasant St.	N/A	No	120 MPH	36"-48"	N/A	Moderate	Zone 4
56	Prison	Bridgewater State Hospital	20 Administration Rd.	N/A	No	120 MPH	36"-48"	N/A	Moderate	Zone 4
57	Prison	Massachusetts Treatment Center	30 Administration Rd.	N/A	No	120 MPH	36"-48"	N/A	Moderate	Zone 4
58	Prison	Old Colony Correctional Center	1 Administration Rd.	N/A	No	120 MPH	36"-48"	N/A	Moderate	Zone 4
59	Childcare	America's Little Angels	340 Pleasant St.	N/A	No	120 MPH	36"-48"	N/A	Moderate	Zone 4

ID #	Facility	Name	Address	FEMA Flood Zone	Locally Identified Flood Area	100 Year Wind Event	Average Annual Snowfall	Wildfire Susceptibility (Vegetation)	Landslide Risk	Peak Ground Acceleration Zone
60	Childcare	Bridgewater State University Children's Center	66 Hooper St.	N/A	No	120 MPH	36"-48"	N/A	Moderate	Zone 4
61	Childcare	Day Care Plus	2103 Old Plymouth St.	N/A	No	120 MPH	36"-48"	N/A	Moderate	Zone 4
62	Childcare	Joyful Learning	792 Plymouth St.	N/A	No	120 MPH	36"-48"	N/A	Moderate	Zone 4
63	Childcare	Pre-School Playmates, Inc.	244 Bedford St.	N/A	No	120 MPH	36"-48"	N/A	Moderate	Zone 4
64	Childcare	Sunshine Day Care Center	5 Wally Krueger Way, Ste. 5	N/A	No	120 MPH	36"-48"	N/A	Moderate	Zone 4
65	Cultural Resource	Bridgewater United Methodist Church	35 School St.	N/A	No	120 MPH	36"-48"	N/A	Moderate	Zone 4
66	Cultural Resource	Central Square Congregational Church	71 Central Sq.	N/A	No	120 MPH	36"-48"	N/A	Moderate	Zone 4
67	Cultural Resource	Christian Science Church	1 South St.	N/A	No	120 MPH	36"-48"	N/A	Moderate	Zone 4
68	Cultural Resource	Faith Chapel Assemblies of God	340 Pleasant St.	N/A	No	120 MPH	36"-48"	N/A	Moderate	Zone 4
69	Cultural Resource	First Baptist Church	20 Summer St.	N/A	No	120 MPH	36"-48"	N/A	Moderate	Zone 4
70	Cultural Resource	First Parish Unitarian Universalist	50 School St.	N/A	No	120 MPH	36"-48"	N/A	Moderate	Zone 4
71	Cultural Resource	New Jerusalem Church	88 Central Sq.	N/A	No	120 MPH	36"-48"	N/A	Moderate	Zone 4
72	Cultural Resource	Roche Bros. Supermarket	233 Broad St.	N/A	No	120 MPH	36"-48"	N/A	Moderate	Zone 4
73	Cultural Resource	Scotland Congregational Church	1000 Pleasant St.	N/A	No	120 MPH	36"-48"	N/A	Moderate	Zone 4
74	Cultural Resource	South Shore Community Church	415 Center St.	N/A	No	120 MPH	36"-48"	N/A	Moderate	Zone 4
75	Cultural Resource	St. Thomas Aquinas	103 Center St.	N/A	No	120 MPH	36"-48"	N/A	Moderate	Zone 4
76	Cultural Resource	Trinity Covenant Church	1095 South St.	N/A	No	120 MPH	36"-48"	N/A	Moderate	Zone 4
77	Cultural Resource	Trinity Episcopal Church	91 Main St.	N/A	No	120 MPH	36"-48"	N/A	Moderate	Zone 4
78	Housing Authority	Bridgewater Housing Authority	0 Hemlock Dr.	N/A	No	120 MPH	36"-48"	N/A	Moderate	Zone 4

ID #	Facility	Name	Address	FEMA Flood Zone	Locally Identified Flood Area	100 Year Wind Event	Average Annual Snowfall	Wildfire Susceptibility (Vegetation)	Landslide Risk	Peak Ground Acceleration Zone
79	Housing Authority	Bridgewater Housing Authority	0 Heritage Cr.	N/A	No	120 MPH	36"-48"	N/A	Moderate	Zone 4
80	Nursing Facility	Bridgewater Nursing Home	16 Pleasant St.	N/A	No	120 MPH	36"-48"	N/A	Moderate	Zone 4
81	Postal & Shipping	USPS Bridgewater Office	169 Broad St.	N/A	No	120 MPH	36"-48"	N/A	Moderate	Zone 4
82	Postal & Shipping	USPS Elmwood Office	734 Bedford St.	N/A	No	120 MPH	36"-48"	N/A	Moderate	Zone 4
83	Railroad	MBTA Bridgewater Station	85 Burrill Ave.	N/A	No	120 MPH	36"-48"	N/A	Moderate	Zone 4
84	Cable Television	Bridgewater Cable Access	80 Spring St.	N/A	No	120 MPH	36"-48"	N/A	Moderate	Zone 4
85	Wastewater Treatment Plant	Bridgewater Correctional Facility Plant	15 Administration Rd.	N/A	No	120 MPH	36"-48"	N/A	Moderate	Zone 4
86	Wastewater Treatment Plant	Bridgewater Wastewater Treatment Plant	100 Morris Ave.	N/A	No	120 MPH	36"-48"	N/A	Moderate	Zone 4
87	Water Supply Tank, Public Safety Repeater Site	Great Hill Water Tower	Great Hill Dr.	N/A	No	120 MPH	36"-48"	N/A	Moderate	Zone 4
88	Water Supply Tank, Public Safety Repeater Site	Sprague's Hill Water Tower	Broad St.	N/A	No	120 MPH	36"-48"	N/A	Moderate	Zone 4
89	Water Supply Tanks	Bridgewater Correctional Facility Water Supply Tanks	Titicut St.	N/A	No	120 MPH	36"-48"	N/A	Moderate	Zone 4
90	Water Well	Water Wells #1, 2, 4 & 5	100 Wellfield Dr. - 187R Conant St.	N/A	No	120 MPH	36"-48"	N/A	Moderate	Zone 4
91	Water Well	Water Wells #3, 6, 8 & 9	1425 High St.	AE	No	120 MPH	36"-48"	N/A	Moderate	Zone 4
92	Water Well	Water Wells #10A & 10B	1729 Plymouth St.	N/A	No	120 MPH	36"-48"	N/A	Moderate	Zone 4
93	Water Nitrate Plant	High Street Nitrate Plant	1400 High St.	N/A	No	120 MPH	36"-48"	N/A	Moderate	Zone 4
94	Sewer Pumping Station	Dartmouth Road Pumping Station	Dartmouth Rd. & Colby Rd.	N/A	No	120 MPH	36"-48"	N/A	Moderate	Zone 4

ID #	Facility	Name	Address	FEMA Flood Zone	Locally Identified Flood Area	100 Year Wind Event	Average Annual Snowfall	Wildfire Susceptibility (Vegetation)	Landslide Risk	Peak Ground Acceleration Zone
95	Sewer Pumping Station	Elm Street Pumping Station	103 Elm St.	N/A	No	120 MPH	36"-48"	N/A	Moderate	Zone 4
96	Sewer Pumping Station	Harvest Lane Pumping Station	185 Harvest Ln.	N/A	No	120 MPH	36"-48"	N/A	Moderate	Zone 4
97	Sewer Pumping Station	High Pond Estates Pumping Station	0 Country Dr.	N/A	No	120 MPH	36"-48"	N/A	Moderate	Zone 4
98	Sewer Pumping Station	Pleasant Street Pumping Station	1181 Pleasant St.	N/A	No	120 MPH	36"-48"	N/A	Moderate	Zone 4
99	Sewer Pumping Station	Wally Krueger Way Pumping Station	Wally Krueger Way	N/A	No	120 MPH	36"-48"	N/A	Moderate	Zone 4
100	Sewer Pumping Station	Water Street Pumping Station	7A Water St.	N/A	No	120 MPH	36"-48"	N/A	Moderate	Zone 4
101	MEMA Region 2	MEMA Region 2	12-1 Rear Administration Rd.	N/A	No	120 MPH	36"-48"	N/A	Moderate	Zone 4
102	School	Bridgewater State University Conant Math & Science Building	24 Park Ave.	N/A	No	120 MPH	36"-48"	N/A	Moderate	Zone 4

Natural Hazard Risk Assessment

Table 45 summarizes the hazard risks for Bridgewater. This evaluation takes into account the frequency of the hazard, historical records, and variations in land use. This analysis is based on input from the community team and utilizes the basis of the vulnerability assessment used in the 2013 Commonwealth of Massachusetts State Hazard Mitigation Plan. A brief description of Bridgewater’s vulnerability to each of these hazards is below.

Table 45: Bridgewater Vulnerability Risk Assessment

Hazard	Frequency	Severity	Hazard Ranking
Flooding	High	Serious	6
Winter Storms	High	Serious	6
Hurricanes/Tropical Storms	Medium	Serious	5
Extreme Temperatures	High	Minor	5
Wildfires	Medium	Minor	4
Tornadoes	Very Low	Serious	3
Earthquakes	Very Low	Serious	3
Landslides	Very Low	Minor	2
Major Urban Fires	Not Applicable	Not Applicable	Not Applicable
Coastal Erosion & Shoreline Change	Not Applicable	Not Applicable	Not Applicable
Tsunamis	Not Applicable	Not Applicable	Not Applicable

Vulnerability Analysis

Flooding

Flooding represents a high frequency, serious severity hazard for Bridgewater and is the most frequent hazard affecting Bridgewater. Flooding can occur as a result of strong tropical storms, winter storms, nor’easters, and periods of heavy rain during the spring and autumn months, all of which can produce very high volumes of rain, which can cause rivers and streams to overflow their banks as well as overwhelm the community’s stormwater infrastructure system. Impacts associated with minor flooding events typically include road closures and the flooding of recreational areas, whereas moderate flooding events can result in structures being flooded.

Flood Prone Areas

The areas identified as being most vulnerable to flooding are areas located within 100-year floodplains. According to FEMA Flood Insurance Rate Maps (FIRM), areas most vulnerable to flooding in Bridgewater are areas along the Matfield River, Town River, Taunton River, Sawmill Brook, South Brook, Blood Pond, Craver Pond, Lake Nippenicket, as well as the Hockomock Swamp Wildlife Management Area in northwest Bridgewater. In addition to these areas, town officials also noted the following locations where flooding has historically occurred, some of which flooded as a result of the March 2010 floods:

- Cherry Street at the Taunton River
- Summer Street at the Taunton River
- Titicut Street at the Taunton River
- Hayward Street at the Town River
- Hayward Street at the South Brook
- Water/Wood Street at the South Brook
- Cross Street at Snows Brook
- Roberts Street

Flooding Vulnerability Assessment

An analysis of FEMA flood hazard maps indicate that approximately 4,373 acres, or 24.1%, of Bridgewater is within a 100-year floodplain. Based on additional analysis, 214 acres, or 4.9%, of the floodplain is developed. To limit additional development from occurring within floodplains, Bridgewater adopted a Floodplain District. The district is intended to provide that lands in the Town of Bridgewater subject to seasonal or periodic flooding as described hereinafter shall not be used for residence or other purposes in such a manner as to endanger the health or safety, of the occupants thereof or of the public generally, or as to burden the public with costs resulting from unwise individual choices of land use; to protect, preserve and maintain the water table and water recharge areas within the Town so as to preserve present and potential water supplies for the public health and safety; to assure the continuation of the natural flow pattern of the water courses within the Town in order to provide adequate and safe floodwater storage capacity to protect persons and property against the hazards of flood inundation.

Of the 102 critical facilities identified in Bridgewater, 18 are located within a 100-year floodplain, including eleven bridges, six dams, and one of the town's water wells. There are no critical facilities located in any of the locally identified flood areas.

According to MEMA, there are currently 65 National Flood Insurance Program (NFIP) policies in-force in Bridgewater, with a total of 27 claims being made from 1978 to November 2013, totalling \$64,662. It should be noted that there are two residential Repetitive Loss (RL) properties in Bridgewater that have had four claims totalling \$17,160. There are no Severe Repetitive Loss Properties (SRL) in Bridgewater.

Bridges

Table 46 indicates that there are 12 bridges in Bridgewater that span waterways according to the Massachusetts Department of Transportation. A majority of these bridges span the Taunton River, which serves as the town line with Middleboro in the south and for southeastern portions of the town. While most of the bridges withstood the heavy rains during the March 2010 floods, the Bridge Street Bridge that crosses the Matfield River did not. Due to the heavy rains and flooding the bridge partially collapsed, which resulted in the bridge being closed for more than a year and a half while repairs were made to it.

Table 46: Bridgewater Bridges Spanning Waterways

Roadway	Waterway Spanned	Year Built	Year Rebuilt	AASHTO Rating	Deficiency
Bedford Street	Taunton River	2007	--	95.2	--
Bridge Street	Matfield River	1884	1978	74.4	FO
Broad Street	Town River	1926	--	91.6	--
Cherry Street	Taunton River	2002	--	90.2	--
Green Street	Taunton River	1922	--	65.1	FO
Hayward Street	Town River	1946	--	44.5	--
High Street	Matfield River	1886	1978	66.1	FO
Oak Street	Town River	1880	--	78.6	FO
Plymouth Street	Taunton River	1993	--	94.3	--
Summer Street	Taunton River	2011	--	79.1	--
Titicut Street	Taunton River	1850	1954	66.3	--

Roadway	Waterway Spanned	Year Built	Year Rebuilt	AASHTO Rating	Deficiency
Vernon Street	Taunton River	1956	--	74.8	FO

Dams

Table 47 indicates that there are seven dams in Bridgewater according to the Massachusetts Department of Conservation & Recreation Office of Dam Safety. Serious dam failures are unlikely in Bridgewater since only the Carver Pond Dam is listed as being in poor condition and most of the other dams hold back smaller ponds with less head and with minimally developed land immediately downstream. During heavy rain events the town takes proactive measures where appropriate (South Brook Dam) in lowering pond levels to accommodate the heavy rain, but in some instances that cannot be done (Carver Pond Dam, Jenkins Pond Dam), because the dams lowering mechanisms are inoperable due to age.

Table 47: Bridgewater Dams

Name	Impoundment	Waterway	Hazard Code	Owner
Blood Pond Dam	Blood Pond	Tr-Taunton River	Significant	Private
Carver Pond Dam	Carver Pond	South Brook	Significant	Under Review
High Street-Jenkins Pond Channel Dam	Town River	Town River	Significant	Private
Jenkins Pond Dam	Not Applicable	Town River	Significant	Private
South Brook Dam	South Brook	South Brook	Significant	Town
South Street Pond Dam	South Street Pond	Not Applicable	Significant	Town

The dam listed below is considered non-jurisdictional and does not fall under the Mass. Office of Dam Safety's regulatory authority and therefore the information provided is limited.

Name	Impoundment	Waterway	Hazard Code	Owner
Mill Street Dam	Town River Pond	Town River	Not Available	Unknown

Winter Storms

Winter storms represent a high frequency, serious severity hazard for Bridgewater. Bridgewater receives an average of 36"-48" of snow annually, with their being an approximately 48% chance of a NESIS ranked storm occurring annually. Winter storms are dangerous to the entire population, as the accumulation of snow and ice along with high winds can impact public safety as well as the local economy by disrupting transportation and commercial activities. The buildup on snow and ice on roadways also makes for dangerous travelling conditions. The accumulation of snow and ice on trees and power lines can cause them to sag and break, potentially closing roadways and cutting off electricity to homeowners and businesses. The accumulation of heavy snow over a long period of time can affect structures with flat roofs, as the weight of heavy snow can cause them to collapse. The entire community is vulnerable to the impacts of winter storms.

Hurricanes/Tropical Storms

Hurricanes/Tropical Storms represent a medium frequency, serious severity hazard for Bridgewater. Bridgewater is most vulnerable to hurricanes/tropical storms during the summer and autumn months. Bridgewater was in the path of Hurricane Bob in 1991, which caused widespread damage throughout town from its considerable winds. While the town has not been

in the path of a hurricane or tropical storm since Hurricane Bob, it has experienced the high winds and heavy rains associated with hurricanes and tropical storms that have crossed other parts of the region. Impacts from hurricanes include high winds and heavy rain, which can impact public safety as well as the local economy by disrupting transportation and commercial activities. Downed trees are the most common problem associated with hurricanes/tropical storms that occur in Bridgewater. They can block roadways as well as down power lines, cutting of electricity to homeowners and businesses for up to multiple days. The heavy rain associated with hurricanes/tropical storms can also produce flooding, which affects homeowners and businesses located in floodplains. When hurricanes/tropical storms do occur, they affect the entire town, making no locations more vulnerable than others to hurricanes/tropical storms.

Extreme Temperatures

Extreme temperatures represent a high frequency, minor severity hazard for Bridgewater. Bridgewater is most vulnerable to extreme temperatures during the summer and winter months. Extreme temperatures represent the highest hazard to young children, the elderly and people who are outside for any length of time, such as homeless persons, or persons who work outside. Persons who live in poorly insulated homes are also subject to the dangers associated with extreme temperatures. Dangers that can result from being exposed to extreme cold temperatures include frostnip, frostbite and hypothermia. Dangers from being exposed to extreme heat include heat cramps, heat exhaustion and heat stroke. If people suffering from any of these conditions are not treated immediately, their conditions will only worsen. When extreme temperatures do occur, the entire community is vulnerable to the impacts.

Wildfires

Wildfires represent a medium frequency, minor severity hazard for Bridgewater. While the town is moderately developed, there remains a considerable amount of forested land in town. Some of the more heavily forested areas that may be more vulnerable to wildfires include the Hockomock Swamp Wildlife Management Area in the western part of town and the forested land around the Bridgewater Correctional Complex in the southern part of town. While a significant wildfire has not occurred in either area, it does remain vulnerable to the threat of wildfires due to its sheer size. The largest threat of wildfire is in the Wildland-Urban Interface (WUI) (the area where structures and other human development meet or intermingle with undeveloped wildland or vegetative fuels).

Tornadoes

Tornadoes represent a very low frequency, serious severity hazard for Bridgewater. While Bridgewater has never experienced a recorded tornado, several communities surrounding Bridgewater have. Most of the tornadoes that have occurred in the region were low in intensity, with most being an EF-0 or EF-1 on the Enhanced Fujita Scale. Additionally, most of the tornadoes only lasted for a short period of time before they dissipated, limiting the amount of damage they caused. Based on historical events, future tornadoes in the Old Colony region will also likely be EF-0 or EF-1 tornadoes. Due the historic nature of the town (settled in 1650) there is the potential for a prolonged and more intense tornado to cause a moderate amount of damage, due to the large number of structures that were constructed prior to the establishment of building codes. As it is impossible to predict the exact locations of future tornadoes, the entire community is vulnerable to the impacts.

Earthquakes

Earthquakes represent a very low frequency, serious severity hazard for Bridgewater. Although the town has not experienced a recorded earthquake, earthquakes have occurred in other communities in the Old Colony region and they are likely to occur in the future. Based on historical events, earthquakes in the Old Colony region will likely be in the 2-3 magnitude range. According to the USGS, earthquake damage usually occurs with earthquakes in the 4-5 magnitude range, but many variables affect damage, such as building age, soil type, distance from the epicenter, etc. Due the historic nature of the town there is the potential for a moderate earthquake to do damage, especially to the older buildings in Bridgewater. As it is impossible to predict the exact locations of future earthquakes, the entire community is vulnerable to the impacts.

Landslides

Landslides represent a very low frequency, minor hazard for Bridgewater. Bridgewater has not experienced a recorded landslide and is not especially vulnerable to landslides due to its lack of hills and generally flat topography.

Major Urban Fires

Major urban fires do not pose a threat to Bridgewater, as there are no major urban areas in town.

Coastal Erosion & Shoreline Change

Coastal erosion and shoreline change do not pose a threat to Bridgewater, as it is not located along the coast.

Tsunamis

Tsunamis do not pose a threat to Bridgewater, as it is not located along the coast.