

HAZARD MITIGATION PLAN

SECTION D - RISK ASSESSMENT

§201.6(c)(2) of the Rule outlines specific information that Waldo County must consider when completing the risk assessment portion of this mitigation plan. Our local risk assessments provide sufficient information to enable the jurisdiction to identify and prioritize appropriate mitigation actions to reduce losses from identified hazards. This plan includes detailed descriptions of all the potential hazards that could affect the jurisdiction along with an analysis of the jurisdiction's vulnerability to those identified hazards. Specific information about numbers and types of structures, potential dollar losses, and an overall description of land use trends in the jurisdiction are included in this analysis. Because this is a multi-jurisdictional plan, the risks that affect only certain regions of the County were assessed separately in the context of the affected region.

This section includes the following seven subsections as follows:

- Identifying Hazards
- Profiling Hazards
- Assessing Vulnerability: Overview
- Assessing Vulnerability: Identifying Structures
- Assessing Vulnerability: Estimating Potential Losses
- Assessing Vulnerability: Analyzing Development Trends
- Multi-jurisdictional Risk Assessment

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HAZARD IDENTIFICATION

Requirement §201.6(c)(2)(i):	A risk assessment that provides the factual basis for activities proposed in the strategy to reduce losses from identified hazards. Local risk assessments must provide sufficient information to enable the jurisdiction to identify and prioritize appropriate mitigation actions to reduce losses from identified hazards.
Element B1	a. Does the plan describe all natural hazards that can affect the jurisdiction(s) in the planning area, and does it provide the rationale if omitting any natural hazards that are commonly recognized to affect the jurisdiction(s) in the planning area?

The County Emergency Management Agency and the Regional Hazard Mitigation Planning Team reviewed the various natural hazards that could impact the participating jurisdictions. These hazards were identified through an extensive process that utilized input from the municipal emergency management programs, local officials, public input, researching past disaster declarations in the County, a review of current maps, climatology and geologic data, and a hazard identification and risk assessment completed by the Waldo County Emergency Management Agency.

List of Potential Hazards. The following list of hazards has been developed using various information from the following sources:

- 2016 NFPA 1600
- FEMA 386-1: Understanding Your Risks
- IFSTA, First Edition, Emergency Management Handbook
- Risk Identification and Analysis: A Guide for Small Public Entities, Public Risk Entity Institute
- Maine Emergency Management Agency: Hazard Identification and Vulnerability Assessment for Local/County Governments Workbook

The List of Natural Hazards include:

- Avalanche
- Coastal Erosion
- Coastal Storm
- Drought
- Earthquake
- Extreme Heat
- Famine
- Flood
- Geomagnetic Storm
- Glacier
- Hailstorm
- Landslide
- Tornado
- Tropical Cyclone (Depression/Storm/Hurricane)
- Tsunami
- Volcanic Eruption
- Windstorm (Thunderstorm/Microburst/Other)
- Winter Storm (Nor'easter/Ice Storm)
- Wildfire

Due to climate and geography, it is not possible for several of these hazards to occur (within our lifetimes) in the planning area. These include:

- Avalanche
- Glacier
- Volcanic Eruption

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The following table identifies the hazards that were eliminated from further consideration in the plan, due to a lack of historical evidence, lack of overall county-wide severity, lack of climate data or a low likelihood for the event to occur. However, although these disaster events were not profiled in the hazard mitigation plan, it does not “guarantee” that any of these events will not or could not occur and cause great damage.

Drought	Review of State EMA records Review of NOAA records	Historical climate and rainfall data doesn't show a problem sufficient to create disaster conditions. Effects of occasional droughts are limited to a few dry dug wells and lower crop outputs. These are not managed by the jurisdictions. USDA works with local farmers with regular routine programs.
Earthquake	Review of Maine Geological Survey records	Although small earthquakes are common in Maine, no significant damaging movement has occurred in 20,000 years. No damages or injuries have ever been recorded in Waldo County due to earthquakes.
Extreme Heat	Review of NOAA Records	The highest average temperature for Waldo County is 75° F. The highest temperature on record is 104° F, set on August 19, 1935. (https://temperature.weatherdb.com/l/1812/Belfast-Maine) In most years, there are only brief spells where the temperatures reach the upper 80's F, with an occasion day or two in the 90's F. The probability for dangerously high temperatures to be maintained for a period of time is very unlikely.
Famine	Review of historical data	There are no geographical areas in Waldo County that have experienced famine in modern times
Hailstorm	Review of NOAA records Review of Maine EMA records	Although we have periodically experienced hailstorms, they are rare and minor. We have no records of a hailstorm causing any damage in the County.
Landslide	Review of Maine Geological Survey records Historical data.	There have been 11 landslides that have caused damage to homes or roads in Maine since 1868; none in Waldo County. On June 26, 2009, a coastal landslide occurred in Fort Point Cove, in the Town of Stockton Springs. There was no damage or injuries. There is a mapped potential landslide area on low coastal bluffs in Searsport. There is no significant property at severe risk.
Tornado	Review of NOAA records	In Waldo County, there have been two confirmed tornadoes; an F2 on July 7, 1954, and a F1 on July 1, 1968 both on Islesboro. There have been none in the planning area.
Tsunami	Review of NOAA records	There have been no recorded tsunamis occurring in the planning area in recorded history. NOAA data shows that due to the coastal water topography anything over 3 feet is improbable.

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Natural hazards Identified as having a significant effect on the jurisdiction(s) in the planning area therefore include:

- Coastal Erosion
- Coastal Storm
- Flood
- Geomagnetic Storm
- Tropical Cyclone (Depression/Storm/Hurricane)
- Windstorm (Thunderstorm/Microburst/Other)
- Winter Storm (Nor'easter/Ice Storm)
- Wildfire

Many of these hazards share consequences with other identified hazards. The following table will group hazard effects. The consequences identified from these hazards are:

Identified Hazards	Consequences			
	Loss of Buildings	Damage to Water/Sewer Systems	Loss of Roads	Loss of Grid Power
Coastal Erosion + Coastal Storm (Surge & Flooding)	Coastal Building flooded	Coastal wastewater facilities flooded	Coastal roads washed out	Very limited losses due to floods
(Non-coastal) Flooding caused by severe rainstorms, which include all Tropical Cyclones , Nor-easters, and spring runoff.	Flooded Basements	None	Roads washed out	Vert limited losses due to floods
Geomagnetic Storm	None	Loss of Operation	None	Long Term Grid Failure
Tropical Cyclone (Wind) + Coastal Storm (Wind) + Windstorms	Some damage to roofs and siding	None	Roads blocked by tree and powerline debris	Short to Long Term Grid Failure
Winter Storm (Ice Storm)	Minor	None	Temporary	Short Term Grid Failure
Wildfire , Major	Buildings in WUI	None	Temporary	Localized

In the following sections, each of the natural hazards identified that have a significant effect on the jurisdiction(s) in the planning area will be profiled to describe the severity and probability of each hazard. However, in the vulnerability analysis, categories will be established and defined for each of the consequences of Loss of Buildings, Damage to Water and Wastewater System, Loss of Roads and Loss of Grid Power.

All these hazards will be classified as severe summer and winter storms, geomagnetic storms and wildfires.

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Element B1

d. Does the plan include the history of previous hazard events for each identified hazard?

HISTORICAL HAZARD EVENTS IN WALDO COUNTY

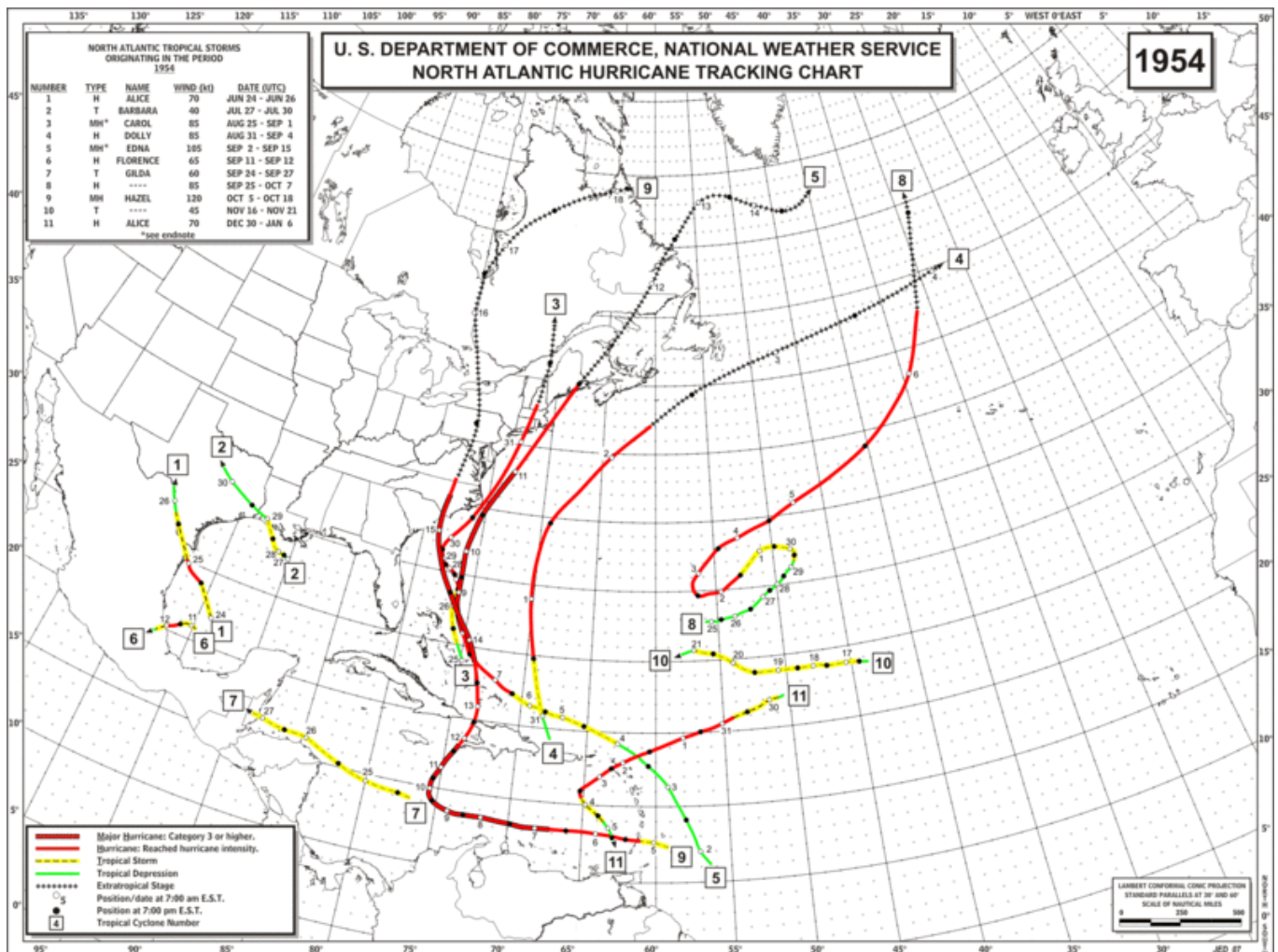
YEAR	MONTH	DAY	DAMAGE ESTIMATE	HAZARD TYPE	DECLARED
1888	March	12	?	Great White Hurricane	
1898	November	26	?	The Great Portland Gale	
1900	October	15	?	Extratropical Depression	
1938	September	21	?	Great New England Hurricane	
1938	October	23	?	Extratropical Depression	
1944	September	15	?	Hurricane Cat 2	
1945	September	12	?	Extratropical Depression	
1949	August	23	?	Extratropical Depression	
1952	February	2	?	Extratropical Depression	
1952	August	18	?	Tropical Depression Able	
1954	August	31	?	Hurricane Carol	SBA
1954	September	11	?	Hurricane Edna (Storm of Record)	DR-24
1960	September	12	?	Hurricane Donna	
1963	October	29	?	Hurricane Ginny	
1969	December	25	\$198,479	Flooding	DR-284
1972	February		?	Coastal Storm	DR-326
1973	April	24	?	Flooding	DR-384
1973	July	1	?	Flooding	SBA
1973	December	16	?	Flooding	FDA Storm #410
1974	May	29	\$240,110	Flooding	
1976	February	2	?	Coastal Storm	
1978	January	10	?	Winter Storm	
1978	February	8	?	Major Flooding	Disaster
1979	September	6	?	Hurricane David	
1980	October	25	?	Coastal Storm	SBA
1985	September	27	?	Hurricane Gloria	
1987	March	30	\$180,149	Flooding (Storm of Record)	DR-788
1991	August	20	?	Tropical Storm Bob	DR-915
1992	March	27	\$551,479	Flooding	DR-940
1993	March	15	\$85,823	Winter Storm	DR-988
1994	April	15	?	Flooding	DR-1029
1996	January	19	\$834,887	Flooding	DR-1106
1998	January	13	\$2,530,680	Ice Storm (Storm of Record)	DR-1198
2003	December	11	\$322,151	Flooding	DR-1508
2005	March	29	\$664,806	Flooding	DR-1591
2007	March	17	\$335,734	Flooding	DR-1691
2007	April	16	\$970,140	Flooding	DR-1693
2008	April	29	\$296,550	Flooding	DR-1755
2009	January	9	\$225,158	Snowstorm	DR-1815
2009	April	6	\$618,118	Flooding	
2009	June	18	\$424,660	Flooding	DR-1852
2013	December	24	\$600,000	Ice Storm	

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2017	October	30	\$87,644	Windstorm	DR-4354
2020	All Year		\$34,631	Pandemic	EM-3444
2021	October	30	171,368	Rainstorm Flooding	DR-4647
2022	December	23	\$568,000	Rainstorm with winds/flooding	DR-4696
2023	April	30	\$262,000	Rainstorm with winds/flooding	DR-4719
2023	December	18	\$253,000	Rainstorm with winds/flooding	DR-4754
2024	January	10	1,266,000	Coastal Storm Flooding	DR-4764

Due to the lack of verifiable data, we were only able to go back to 1888 for information on any type of major natural hazard event. Damage levels as determined by government assessments go back to 1987, or around the passing of the Stafford Act. Poor record retention was kept up to the 1950s. Additionally, there was very little development until the 1960s. As such, most of the data we have is from 1960 on. (Damage assessments are for Waldo County and are not adjusted for inflation).

Historically, the primary hazards have been severe storms that involve high winds and large amounts of rainfall. Between 1938 and 1991 there were at least 17 tropical cyclones that affected the mid-coast of Maine. The most severe storms that affected mid-coast Maine were the two hurricanes, Carol and Edna, that struck in 1954. Primary damages are road washouts and damaged powerlines and trees.



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HAZARD PROFILES

Element B1	b. Does the plan include information on the location of identified hazard?
	c. Does the plan describe the extent for each identified hazard?
	e. Does the plan include the probability of future events for each identified hazard? Does the plan describe the effects of future conditions, including climate change (e.g. long-term weather patterns, average temperature and sea levels), on the type, location and range of anticipated intensities of identified hazards?

Severe Winter Storm Events (Blizzards, Nor-easters, Ice Storms)

LOCATION & EXTENT: All the communities in Waldo County are subject to severe winter storm events. All communities are subject to major snowfall events; however, the northern half of the county may occasionally receive slightly larger snowfall amounts. The entire County can experience a major ice storm, as it did in January 1998 and December 2013; however, the coastal communities on the mainland and on the islands, which contain the majority of the County's population, experience ice in their winter storms slightly more often. Finally, the entire County is very susceptible to "Northeast" storms, especially from the very high winds that are involved in such a storm. The Gulf Stream follows a path up the eastern seaboard bringing major storms with it to the Gulf of Maine. Much colder air flows down from Canada and collides with the Gulf Stream over the New England region.

PREVIOUS OCCURRENCES: There have been four Federally declared winter storm disaster events since 2000. The worst storm in the past 26 years was an ice storm that occurred in January 1998 and caused \$2,530,680 in damage throughout the entire County. Three inches of ice resulted. This storm, which severely damaged the electrical transmission system in the State of Maine, caused major damage to the forests, covered many roadways with debris and ice, and caused some limited building damages. In December 2013, the County was hit with an ice storm which accumulated 1-1/2 inches of ice. Power was lost for three days and caused \$525,912 in local public damages. However, most winter storms in the County are windstorms (Nor'easter or blizzard) which cause localized power outages.

PROBABILITY: It is expected that a severe winter storm could cause damage in Waldo County at least once every three to five years. If the results of climate change are that the County experiences generally slightly warmer temperatures (1 to 3 degrees F), then the potential impacts from winter storms will be somewhat less snow accumulation and more potential for ice or wet storms. Ice storms tend to result in more regional power outages, but far less roadway snow removal. Both require sand, salt and calcium chloride to treat the roads.

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Severe Summer Storms (Tropical Cyclones/Windstorms/Microbursts/Intense Rainstorms)

LOCATION & EXTENT: The communities in Waldo County are susceptible to severe rainstorms, windstorms and tropical storm events. Waldo County is a coastal county located on Penobscot Bay in mid-coast Maine. The County has been affected by 17 tropical storms between 1938 and 1991. In the latter half of the 20th century, the County averaged a tropical storm every three years. However, it has been 33 years since the last hurricane impacted Waldo County. The last tropical storm (Irene) that had a minor effect, was in 2011.

Since the County is only about 25 miles deep from the coast, all parts of the County are subject to the effects of a Hurricane. However the coastal towns will be hardest hit during the storm with storm surge and very high winds and rainfall. The northern half of the county will experience heavy rainfalls that will overwhelm rudimentary storm water control systems and will experience trees on power lines and in the roads.

PREVIOUS OCCURRENCES: Hurricanes Carol and Edna in September and October 1954 were not only the most destructive hurricanes to have impacted Waldo County in recorded times, they were separated by less than 2 weeks. The area had not even begun to recover when the second major storm struck. Two lives were lost in Unity, Maine during Hurricane Edna, due to drowning. In 1985, Hurricane Gloria brushed past Waldo County causing power outages and some localized flooding. In 1991, the Hurricane Bob path went directly over Waldo County, but had downgraded to a tropical storm.

PROBABILITY: It is expected that a Category 1 hurricane could cause major damage in Waldo County at some point within the next decade. It is expected that with a warming climate, there could be a higher probability of tropical storms occurring. However, the waters in the Gulf of Maine are cold enough that even a several degree temperature increase is not enough to see a significant increase in the severity of the tropical storms. Though 17 tropical storms occurred between 1938 and 1991, we have only experienced 1 tropical depression in the last 33 years.

Flooding

LOCATION & EXTENT: The communities in Waldo County are subject to riverine, storm surge, and wetland area flooding. The County EMA has reviewed the County's Flood Insurance Rate Maps (FIRMs) and Flood Insurance Study (FIS) to compile a profile of the flooding hazard in the County. The EMA staff completed research on flooding history in the County and indicated this data on the GIS base maps. The Municipal Base Maps show the areas susceptible to potential flooding. This provides a clear picture of areas and structures most vulnerable to flooding.

There are three major rivers located along the border of Waldo County. The Penobscot River and Bay borders the towns of Belfast, Frankfort, Islesboro, Lincolnton, Northport, Prospect, Searsport, Stockton Springs and Winterport. (Planning Area) The Sebastacook River is bordered by the Town of Burnham. A smaller river, the Passagassawakeg River flows through the City of Belfast. There are no dams on the Penobscot River along Waldo County, although there is a number of dams on the river, north in Penobscot County. The majority of the Waldo County dams are small and located at the outlets of lakes and ponds and would not have a major flooding impact. If a large dam on the Penobscot River, such as the Dolby dam in northern Maine were to catastrophically fail, it would take a day and a half for the flooding to occur along the Penobscot River section in Waldo County. This would provide us with sufficient warning time to prepare for the floodwaters. There is one dam in Waldo County on the Sebastacook River, however, that section adjacent to the river in Burnham is an undeveloped boggy area. This Dam is in excellent

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condition and procedures are in place for effective flood management. Flooding from the Penobscot and Sebastacook rivers is not expected to be likely; however, flooding along the Penobscot River would cause damage to a handful of residential structures if it were to occur.

The most susceptible communities to coastal flooding are Islesboro and Lincolntonville. Lincolntonville Beach, which is also the home of a State of Maine Ferry Service, is susceptible to flooding and several Lincolntonville Beach area businesses have experienced minor flooding in the past.

Most of the flood damage in the County is caused by stormwater runoff from a major rain event which undercuts or overtops rural roads. When Maine has an above average snowfall for the winter and quickly warming temperatures and rainfall suddenly arrive in early spring, the snowpack melts off quicker than the watersheds can handle. This causes local water bodies to overflow their boundaries and flood nearby road surfaces. Coastal storm flooding can impact properties directly adjacent to the ocean. We do not get coastal flooding more than a hundred feet inland, except at Lincolntonville Beach.

PREVIOUS OCCURRENCES: There have been 39 flooding events occurring in the last 100 years. Most have not resulted in federal disaster declarations. The most destructive flooding events in recent years occurred in 2007 within four weeks of one another. The St Patrick's Day Flood was caused by snowpack melting and heavy rains, especially to the eastern half of the County. Nearly all of the damages were to roads and storm water management systems. Four weeks later, the Patriot's Day Storm caused nearly three times the level of damages and impacted the entire County, although the majority of the damages occurred in the eastern half of the County. Again, nearly all of the damages were to roads and storm water management systems.

PROBABILITY: It is expected that a major flood event could cause road damage in Waldo County at least once every 2-3 years. Flood zones are shown on the Municipal Base Maps included in this section. With a warming climate, there could be more storm events that cause flooding. This could result in more road damage due to flooding. Because of our coastal and inland topography, it will not increase the likelihood of homes and businesses being flooded.

NORTHPORT - Could we add a sentence or two about the frequency of 25-year rain events? NOAA data seems to suggest that Belfast/Lincolntonville/Swanville have had 3 or 4 25-year rainstorms in the past 10 years (9/29/15, 10/1/15, 10/8/23, and 10/31/21). A greater than expected frequency of 25-year events suggests that we might be more likely to experience flooding in the future.

EMA – The fallacy with the 25-year storm descriptive is that it actually means a 4% chance in any given year, not that there can only be one storm every 25 years. In 1973 alone, there were three 100-year storms, but this does not mean that the frequency of flooding is increasing. Of the rain events mentioned, these three rain events all resulted in very minor road flooding, though the 2021 storm was almost exclusively a Northport event.

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Wildfire

LOCATION & EXTENT: All parts of the County are subject to wildfires, however the northern portion of the county has the least accessibility to productive forestland due to the lack of roads and development. The southern portion of the County has a larger number of homes and businesses within the Urban-Wildland Interface. Nearly 90% of the County is forest land. To date, there have been very few homes lost during a wildfire. It is more likely that a structure fire will cause a minor wildfire.

Need to get up to date data from the forest service

PREVIOUS OCCURRENCES: The County experienced 317 wildland fires from 1995 to 2001, most have been an acre or less. In May 2001, a forest fire that burned 100 acres in Northport resulting in \$67,957.80 in wildfire suppression costs. In May 2015, a wildfire burned 50 acres on the Jackson Road in Searsport. In October 2017, a wildfire burned 17 acres near Half Moon Pond in Prospect. The most severe forest fire season in the State's recorded history occurred in October of 1947. These fires burned 205,678 acres and caused 16 deaths throughout the State of Maine. However, Waldo County did not have any large wildfires during that 1947 fire season.

Wildfire Damages 2022 to 2023 (Need to incorporate data from 2019-2021)

Town	# Fires	# Acres Burned	Homes Destroyed	Other Structures Destroyed
Brooks	2	0.2	1	0
Freedom	2	3.1	0	0
Liberty	2	2.9	0	0
Lincolntonville	0	0	0	0
Montville	2	1.3	0	1
Northport	0	0	0	0
Palermo	3	0.5	0	0
Prospect	0	0	0	0
Searsport	5	1.1	0	0
Swanville	1	0.1	0	0
TOTAL	17	9.2	1	1

PROBABILITY: It is expected that a major wildfire event could cause significant level of damage (greater than 50 acres) in Waldo County at least once every ? years. Wildfire danger areas are shown on the County Base Maps included in this section. A warming climate in Maine is expected to bring more rain and this has been the experience over the last decade.

NORTHPORT - Could we add a couple of sentences about the impact of invasive pests (woolly adelgid, emerald ash borer, beech leaf disease, browntail moths) on the health of forests and the fact that more dead trees may provide more fuel for fires? See <https://readyforwildfire.org/prepare-for-wildfire/dead-tree-removal/> and <https://www.fire.ca.gov/What-We-Do/Natural-Resource-Management/Forest-Entomology-and-Pathology-Program> and https://www.invasivespeciescentre.ca/wildfires-climate-change-and-invasive-species/?fbclid=IwZXh0bgNhZW0CMTEAAAR3cLuPYIFNZAy7YVLpmdMwxXlk4cykc3pQQF8m5vV5dtFs6hF5LpnSiQg8_aem_Xf96vpfBL_1s_kKGA6mUWq for the effects of invasives on forest health and the contribution of fuel to wildfires.

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Geomagnetic Storm

LOCATION & EXTENT: A geomagnetic storm is a temporary disturbance of the Earth's magnetosphere caused by a solar wind shock wave and/or cloud of magnetic field that interacts with the Earth's magnetic field. A coronal mass ejection (or CME) is a giant cloud of solar plasma drenched with magnetic field lines that are blown away from the Sun during strong, long-duration solar flares and filament eruptions. CME can cause Geomagnetic Storms at Earth and induce extra currents in the ground that can degrade power grid operations. (Space Weather Prediction Center). There is a 15-96 hour arrival of the CME impact with a 15-60 minute warning that a given location could be impacted.

A Geomagnetic Storm/CME can impact the entire Earth. If a CME strike is sufficient to cause damage to a power grid system, it will most likely be regional or national in scope. Areas of high risk include a northern latitude, closeness to ocean salinity and a granite bedrock. Maine has all these risk factors.

A "Carrington Event" could severely damage the electrical grid by destroying 345-kvolt transformers located in Maine. These transformers could take months to replace.

PREVIOUS OCCURANCES

Starting on September 2, 1859, a powerful geomagnetic storm known as the Carrington Event disrupted telegraph services and caused several fires to telegraph stations. In Portland, Maine, telegraph operators disconnected their equipment from their batteries and continued to send messages using the current on the lines created by the ground induced currents. The undersea telegraph cable that stretched from the United States to Europe was damaged and had to be replaced.

From May 13 to 15, 1921 a geomagnetic storm known as the New York Railroad Storm resulted in damages and problems with railroad signal devices and telegraph systems in the U.S. and Europe.

On March 31, 1989, a CME event with about half the strength of the 1859 event caused the collapse of the Hydro-Québec power network in Québec, Canada. On July 23, 2014 a CME of the 1859 strength passed through Earth's orbit and missed the Earth by one week.

PROBABILITY

In AGU100, Jan 2020, S.C. Chapman, et al, estimated annual probabilities of severe, great, and Carrington size storms at 28%, 4%, and 0.7%, respectively. Based on these figures the probabilities of at least one of these events in a person's lifetime are near certain, 96%, and 42%, respectively. These are averages determined over 14 solar cycles. Within a solar cycle the probability is greater/lower during the maximum/minimum of the cycle.

Climate change itself will not increase solar storm activity. However, increased solar activity can cause climate change and has over the last 4 billion years. However, increasing temperatures will reduce the electrical load in the winter (less heating) and more electrical load in the summer (more cooling). However, the drive to electrify cooking, heating, cooling and transportation and taking reliable electrical generation system out of service is having a much greater impact on the electrical grid in Maine than climate change.

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Element B1

f. For participating jurisdictions in a multi-jurisdictional plan, does the plan describe any hazards that are unique to and/or vary from those impacting the overall planning area?

Towns that are impacted by the profiled natural hazards.

Town	Coastal Flooding	Storm Water Flooding	High Winds	Ice Storm	GMD Storm	Wildfire
Brooks	No	Yes	Yes	Yes	Yes	Yes
Freedom	No	Yes	Yes	Yes	Yes	Yes
Liberty	No	Yes	Yes	Yes	Yes	Yes
Lincolnvillev	Yes	Yes	Yes	Yes	Yes	Yes
Montville	No	Yes	Yes	Yes	Yes	Yes
Northport	Yes	Yes	Yes	Yes	Yes	Yes
Palermo	No	Yes	Yes	Yes	Yes	Yes
Prospect	Yes	Yes	Yes	Yes	Yes	Yes
Searsport	Yes	Yes	Yes	Yes	Yes	Yes
Swanville	No	Yes	Yes	Yes	Yes	Yes

All the profiled natural hazards will impact all the municipalities, except Coastal Flooding. This is unique to the towns of Lincolnvillev, Northport, Prospect and Searsport. The towns of Lincolnvillev, Northport and Searsport are located on Penobscot Bay. The town of Prospect is in the tidal area of the Penobscot River.

The coastal hazard is limited to those land areas immediately adjacent to the coastal waters. It does not extend inland from the coast because the area is not flat but rises fairly quickly as you move away from the coast.

The primary consequences of coastal storms are coastal structures such as docks, piers, wharfs, moorings, seawalls, and breakwaters. There have been a few homes that are being threatened by coastal erosion caused by coastal storms. There are no other unique to various parts of the planning area.

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<p>Requirement §201.6(c)(2) (ii):</p>	<p>A description of the jurisdiction’s vulnerability to the hazards described in paragraph (c)(2)(i) of this section. This description must include an overall summary of each hazard and its impact on the community. All plans approved after October 1, 2008, must also address NFIP insured structures that have been repetitively damaged by floods. The plan should describe vulnerability in terms of:</p> <p>A. The types and numbers of existing and future buildings, infrastructure, and critical facilities located in the identified hazard areas.</p> <p>B. An estimate of the potential dollar losses to vulnerable structures identified in paragraph (c)(2)(ii)(A) of this section and a description of the methodology used to prepare the estimate.</p> <p>C. Providing a general description of land uses and development trends within the community so that mitigation options can be considered in future land use decisions.</p>
<p>Element B2</p>	<p>Does the plan include a summary of the jurisdiction’s vulnerability and the impacts on the community from the identified hazards? Does this summary also address NFIP-insured structures that have been repetitively damaged by floods?</p> <p>a. Does the plan provide an overall summary of each of each jurisdiction’s vulnerability to the identified hazards?</p>

ASSESSING VULNERABILITY: OVERALL SUMMARY

The Hazard Mitigation Plan identified critical facilities located within the County and the hazards to which these facilities are susceptible. A critical facility is defined as a facility in either the public or private sector that provides essential products and services to the general public, is otherwise necessary to preserve the welfare and quality of life in the County, or fulfills important public safety, emergency response, and/or disaster recovery functions.

The critical facilities identified in Waldo County are municipal offices, fire and police stations, ambulance garages, post offices, town garages and sand/salt sheds, hospitals and clinics, electric and communication utilities, water and wastewater treatment facilities, hazardous material sites, large employers and public schools.

Severe Winter Storm Events (Blizzards, Nor-easters, Ice Storms)

Severe winter storms will primarily impact power and telecommunications hard lines and roadways. Electrical and telephone lines may be torn down due to falling trees. Roadways will either be covered in deep snow, ice, or tree and utility line debris. Although residents will be impacted by utility outages, the power and telephone utility companies are private and utility repairs are not a responsibility of the municipal governments. Municipal governments will look to provide emergency power for public facilities and mass care for its residents.

Severe Summer Storms (Tropical Cyclones/Windstorms/Microbursts/Intense Rainstorms)

Tropical cyclones, windstorms, microbursts or intense heavy rainstorms will impact power and telecommunications hard lines and roadways and cause some roadways to be washed out. Electrical and telephone lines may be torn down due to falling trees. Roadways may be covered with utility line debris or heavily eroded. High winds could cause trees to fall on homes,

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businesses and public buildings. There is no history of hurricane winds in Waldo County severely damaging structures. However, public safety radio communications towers could be damaged.

Flooding

Flooding can result at any time throughout the year from both winter and summer storms. Flooding will primarily impact roadways and storm water management systems that become overwhelmed by the storm water runoff. Roadways, culverts, and ditches become flooded and damaged. There are various locations around local lakes that could cause minor flooding to homes and camps along the lakes, especially during spring runoff. Hurricanes may cause local coastal flooding from storm surge to coastal businesses and homes.

Wildfires

Wildfires will endanger residential structures that are in forested areas and do not have adequate setback from stands of trees. There are no critical infrastructure or public facilities located in forested areas without more than sufficient setback from large stands of trees. It is very rare that homes are lost in wildfires in Waldo County. It is more likely that a structure fire initiates a wildfire. The largest known wildfire in Waldo County has been the 100-acre wildfire in the Town of Northport. 100 acres is 0.15625 square miles. There are 50 people/sq mile. This equates to an average of 7.8 people being impacted. There are approximately 2.4 people per household. This equates to about 3 potential homes that could be damaged. Of note, there were no homes damaged in the Northport 100-acre fire.

Geomagnetic Storms

A geomagnetic storm is a solar coronal mass ejection (CME) that strikes the earth and results in ground induced currents. Due to latitude, topography, geology and salinity, the east coast states are more susceptible than most of the United States. In Maine, the southern- and mid-coast counties, of which Waldo is included, are the higher risk areas in Maine. The vulnerability to the planning area is due to damage to the power grid, which could be regional or national in scope. All critical infrastructure, community lifelines and residents will be impacted should a total grid failure of an extended timeframe occur. Though a geomagnetic storm would not cause physical damage to most buildings and infrastructure, it could cause physical damage to electrical transformers and any electrical appliances and equipment connected to the commercial power grid.

HAZARD MITIGATION PLAN

Element B2	b. For each participating jurisdiction, does the plan describe the potential impacts of each of the identified hazards on each participating jurisdiction.
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PLANNING AREA MAPS

This section contains maps of the jurisdictions in Waldo County that participated in the Mitigation Plan. The maps were completed in ArcInfo GIS format by the Waldo County EMA.

There is no common map scale for any of the maps; the largest view of each town was used. The maps are for reference purposes only and not for detailed measurements.

Although there are 26 municipalities in Waldo County, only 10 decided to participate in the development of and adopt the 2024 version of this plan.

Neither the State of Maine nor the National Weather Service maintain data on wind or ice on a town-by-town basis. For Waldo County, the only NWS weather station is in Belfast. Therefore, the entire county is modeled as one entire hazard area for severe storms.

The National Weather Service (NWS) "Maine Weather Regions" is also attached for reference purposes. Waldo County is subdivided into two weather regions – "Interior" and "Midcoast". Throughout this plan, discussion is made as to the two separate weather patterns that split Waldo County into the "northern" or "interior" and into the "southern" or "coastal".

GIS Layers and Data include:

- Municipal Boundaries
- State and Local Roads and Bridges
- USGS Topographical Contours
- Ocean, Lakes, Ponds, Rivers, Streams, and Wetlands
- Locations of critical facilities
- Georeferenced Aerial Photos
- FIRM Flood zone Areas
- Hurricane Surge Inundation Areas

The purpose of these maps is to graphically identify those facilities that overlap with flood and coastal surge zone hazard areas to determine what assets are potentially impacted.

For those municipalities that had critical facilities impacted by potential flood zones or hurricane inundation areas, a second map was created of the potential hazard area which zoomed in on that area. Text balloons were added to these "zoomed in maps" to indicate the facilities or systems that could be impacted.

HAZARD MITIGATION PLAN

Insert Map for Town of Brooks

HAZARD MITIGATION PLAN

Insert Map for Town of Freedom

HAZARD MITIGATION PLAN

Insert Map for Town of Liberty

HAZARD MITIGATION PLAN

Insert Map for Town of Lincolnville

HAZARD MITIGATION PLAN

Insert Map for Lincolnville Beach

HAZARD MITIGATION PLAN

Insert Map for Town of Montville

HAZARD MITIGATION PLAN

Insert Map for Town of Northport

HAZARD MITIGATION PLAN

Insert Map for Town of Palermo

HAZARD MITIGATION PLAN

Insert Map for Town of Prospect

HAZARD MITIGATION PLAN

Insert Map for Town of Searsport

HAZARD MITIGATION PLAN

Insert Map for Searsport Coastline

HAZARD MITIGATION PLAN

Insert Map for Town of Swanville

HAZARD MITIGATION PLAN

ASSESSING VULNERABILITY: IDENTIFYING STRUCTURES

Existing Critical Facilities: The Waldo County Emergency Management Agency (EMA) used existing Maine GIS map data to map and locate the planning area's critical facilities and determine which are most likely to be affected by hazards – severe winter storms, severe summer storms, flooding, wildfire and geomagnetic storms. The analysis revealed the following:

Severe Winter Storm Hazard: A “Northeaster”, blizzard or ice storm of the severity that occurs at least once every 3-5 years could impact most roads and overhead electrical power and telephone lines in the planning area. Roads may be washed out or blocked with tree debris. Utility lines and poles damaged and in the roads. No critical structures/buildings were identified as in danger from a severe winter storm.

Severe Summer Storm Hazard: A coastal tropical cyclone (depression, storm or Cat 1 hurricane) or any severe rain and/or windstorm (which occurs at least once every 5-10 years) could impact the majority of roads and overhead electrical power and telephone lines in the planning area. Roads may be washed out or blocked with tree debris. Utility lines and poles damaged and in the roads. No critical structures/buildings were identified as in danger from a severe summer storm.

Flooding Hazard: A coastal storm could impact the Searsport and Lincolnville docks and wastewater treatment plants. It could also impact the commercial areas of Lincolnville Beach and Searsport. Some coastal residential properties in Lincolnville, Northport, and Searsport could be partially flooded by a Category 1 Hurricane. A Category 1 hurricane could flood parts of the Lincolnville Beach Fire Station and the Mack Point Cargo Terminal. Though a Category 2 hurricane is very unlikely, this storm level could flood the Lincolnville Beach Post Office.

However, the most likely flooding damage in the County from a severe rainstorm event (which occurs at least once every two years) is erosion damage to local roads.

Wildfire

No critical structures/buildings were identified as in danger from a large wildfire. Wildfire is primarily a threat to residential structures on a limited scale. Electrical transmission and distribution lines could be damaged by a large wildfire. This has not occurred to date.

Geomagnetic Storm

No critical structures/buildings were identified as in danger from a geomagnetic storm, except for electrical transformer substation. A geomagnetic storm is primarily a threat to “long wires” such as electrical power lines, telephone lines and pipelines. This has not yet occurred.

Other Vulnerability Considerations

In addition to critical facilities, Waldo County contains at-risk populations that should be factored into a vulnerability assessment. These include a relatively large population of elderly residents who live alone in very rural areas and who may have limited mobility.

An analysis of local municipal comprehensive plans and general growth patterns for the Waldo County communities indicates that there will be a slight but constant increase (2 to 3%) in residents expected over the next 10 years. Commercial growth in the Plans Planning Area is limited to slight growth in small businesses.

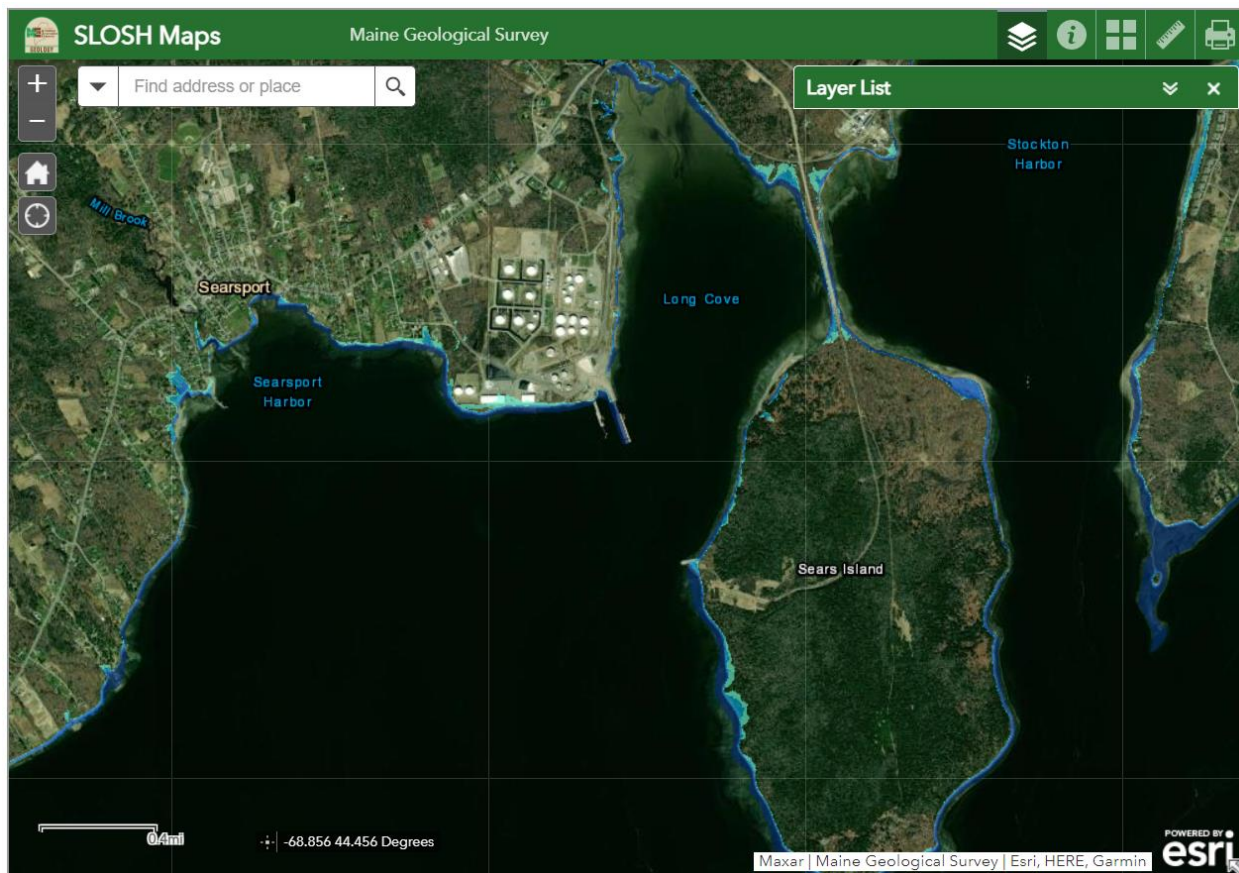
HAZARD MITIGATION PLAN

Future Critical Facilities: All of the municipalities in the Plan's planning area have very small populations, with the largest population being the Town of Searsport with 2,649 residents. The Town of Prospect is the smallest with 698.

These towns are very rural and do not have planning departments, enforce building codes or employ a full-time code enforcement officer (CEO). The State of Maine has a state building code based on the International Building Code. However, only towns with a population of 4,000 or greater are required to enforce the State Building Code. As such none of the towns in the Planning Area are required to enforce building codes.

Assessing where future development will occur in the Planning Area is difficult due to a lack of municipal data, planning, policies and programs. There is very little commercial, industrial, and public construction present in most of these communities. There is some residential construction; however, there is very little controlling guidance on single-family home construction in the State of Maine at any level of government. Shore-land zoning, floodplain ordinances, and septic system designs are about the only controlling guidance in residential construction.

A proposal exists for the Town of Searsport to be the site of a new \$500,000,000 port and manufacturing facility for building and launching floating offshore wind turbines. This would be located near a category 1 hurricane inundation area on Sears Island.



Include any other future buildings, infrastructure, and critical facilities expected in your communities.

HAZARD MITIGATION PLAN

Flooding (All Causes)

Due to floodplain management in place since the 1970s and the interest in sea level rise caused by climate change, it is not expected that any future critical buildings and infrastructure are expected to be constructed in areas that could be flooded.

High Winds (All Causes)

Though Maine can see high winds, those winds are not expected to be greater than 70 mph sustained and would not cause serious damage to critical facilities and infrastructure except for new electrical distribution lines and solar panel farms. Power lines have been a common item for damage in windstorms. There has been significant growth in solar panel farms, and this is expected to continue. Solar panels could be damaged by flying debris.

Wildfire

Wildfire has not historically and is not expected to significantly impact future critical buildings and infrastructure. Future residential structures (single family homes) could continue to be built in forested areas and therefore could be threatened by future wildfires.

Geomagnetic Storm and all causes of Grid Failure

An extended loss of electrical power will shut down all equipment and systems that are energized by electricity, unless they have backup power generation and have a constant supply of fuel. Future public and commercial buildings, infrastructure, and critical facilities should be built with backup power generators or battery systems. Except for a few systems, such as telecommunications facilities, this is not a mandatory requirement. However, it is expected that most future public and commercial buildings, infrastructure, and critical facilities will be provided with such generators or batteries.

Public and commercial buildings, infrastructure, and critical facilities could receive damage to electrical equipment connected to commercial power from a low-frequency E3 pulse caused by solar magnetic disturbances, if not protected from such a pulse or if not warned to disconnect from the grid.

HAZARD MITIGATION PLAN

Critical Asset Inventory by Municipality within the Planning Area

Town	Municipal Office	Fire Station	Police Station	Public Works	Water Treatment	Waste Water Treatment	Library	Schools	Hospital/Clinic	Nursing Home	Airport	Seaport	Dams	HazMat Facilities	Pipelines	Electrical Substations	What else?
Brooks	1	1	0	0	0	0	0	1	1	0	0	0	0	0			
Freedom	1	1	0	1	0	0	0	0	0	0	0	0	1	0	0		
Liberty	1	1	0	1	0	0	1	1	1	0	0	0	1	0			
Lincolnville	1	2	0	1	0	1	1	1	1	0	0	2	0	0	0		
Montville	1	1	0	1	0	0	0	0	0	0	0	0	0	0			
Northport	1	2	0	0	0	0	0	1	0	0	0	0	0	0	0		
Palermo	1	1	0	0	0	0	1	1	0	0	0	0	0	0			
Prospect	1	1	0	0	0	0	0	0	0	0	0	0	0	0			
Searsport	1	2	1	1	1	1	1	3	1	1	0	2	1	1	1		
Swanville	1	0	0	0	0	0	0	1	0	0	0	0	1	0	0		
TOTAL	10	12	1	5	1	2	4	9	4	1	0	4	4	1			

Critical Facilities and Infrastructure Impacted by Profiled Hazards

Note: All Towns have impacts to Public Roads (Floods & Wind/Ice Storm Debris), Homes (Wildfire), and All Critical Infrastructure (Grid Failure). The chart below identifies all other Facilities/Infrastructure impacted by Flooding (tropical, coastal, winter, summer).

Brooks	None
Freedom	None
Liberty	None
Lincolnville	Lincolnville Beach Fire Station and Post Office (Coastal Flooding) Lincoln Ferry Terminal (State-owned)
Montville	None
Northport	None
Palermo	None
Prospect	None
Searsport	Mack Point Cargo Terminal (Coastal Storm)
Swanville	None

HAZARD MITIGATION PLAN

ASSESSING VULNERABILITY: ESTIMATING POTENTIAL LOSSES

The Waldo County Emergency Management Agency and the Regional Hazard Mitigation Planning Team used GIS modeling, GPS data collection, field inspections, and historical data to estimate the potential dollar losses if the Planning Area were to experience the hazards profiled in the plan. Average costs from tree clearance in public ways were provided by those towns that participated in this version of the plan. The vulnerable structures and facilities were identified earlier in the planning process. See the County and Municipal Base Maps to locate the Facilities impacted by the Hazard Areas.

This plan only determines the cost of potential losses to public property owned by the municipalities in the Planning Area. Numbers of residential structures in flood zones were calculated and significant private infrastructure is listed. However, costs due to losses for federal or state government, private facilities and commercial utilities were not included. The municipalities in the Planning Area are not responsible (financially or statutorily) for those facilities and infrastructure and will not develop mitigation actions for them.

HAZARD MITIGATION PLAN

Potential Loses due to Road Debris (Ice Storms and all Wind Events)

The primary damages expected to occur in the Planning Area due to an ice storm or a severe windstorm, resulting from a “Northeaster”, blizzard, high winds, hurricane, tropical storm, or microburst is damage to overhead utility lines and fallen trees, both located in roadways. In calculating the damage costs, the Planning Team assumed that all local roads would be covered in tree and utility line debris.

Damage estimates were not completed for electrical power lines, telephone lines, and cable TV lines because all of these utilities are privately owned and insured. Only the costs to cleanup tree debris will be included.

No critical structures or non-overhead line critical infrastructure were identified as in danger from a severe windstorm in the Waldo County planning area.

The following table includes centerline road miles in each town as provided by the Maine Department of Transportation. The figures are current as of January 1, 2017.

Town	State Aid	Town Way	Town All	State Hwy	Other Roads	Total All Roads
Brooks	5.12	24.9	30.02	6.12	0	36.14
Freedom	6.98	17.84	24.82	4.76	0	29.58
Liberty	10.78	20.67	31.45	4.2	0.59	36.24
Lincolntonville	17.95	35.41	53.36	4.15	2.88	60.39
Montville	14.01	41.42	55.43	3.93	0	59.36
Northport	2.54	35.72	38.26	8.15	0	46.41
Palermo	9.5	37.21	46.71	5.84	0	52.55
Prospect	3.6	14.29	17.89	7.92	0	25.81
Searsport	11.52	33.13	44.65	8.88	0.48	54.01
Swanville	13.6	18.26	31.86	0	0.70	32.56
Total	95.6	278.85	374.45	53.95	4.65	433.05

1) State Aid Highways are generally maintained by the Maine Department of Transportation. However, the Towns are responsible for debris removal on these roads. The road miles will be included for tree removal costs from storms.

2) Town Ways are the responsibility of the Towns. All damage cost estimates will be included.

3) State Highways are fully maintained by the Maine Department of Transportation. These road miles will not be included in the damage cost estimates, since none of the Towns in Waldo County are responsible for them.

4) Other Roads are State Park roads and are fully maintained by the Maine Department of Agriculture, Conservation and Forestry. These road miles will not be included in the damage cost estimates, since none of the Towns in Waldo County are responsible for them.

HAZARD MITIGATION PLAN

Tree Debris Cleanup Cost Estimates

Each town in the Planning Area provided their average cost to clear tree debris from town roads following a storm that caused debris in the roads. A worst-case scenario (Category 2 Hurricane) of 25% of all roads covered in tree debris was used to determine final costs.

Town	Total Road Miles to Clear	Tree Debris Cleanup Cost per Mile	Total Cost	25% of all roads covered
Brooks	30.02			
Freedom	24.82			
Liberty	31.45			
Lincolnton	53.36			
Montville	55.43			
Northport	38.26			
Palermo	46.71			
Prospect	17.89			
Searsport	44.65			
Swanville	31.86			
TOTAL	374.45		\$	\$

The total estimated loss for cleaning up road debris following a major wind event is \$xxxxxxx.

HAZARD MITIGATION PLAN

Potential Flood Losses

(sea level rise, storm surge erosion, heavy rain events, winter runoff, tropical storms, etc)

The primary damage losses that are expected in the Waldo County planning area during any flood event would be damage to local roads. The Planning Team calculated the cost of roadwork using an average of **\$350,000/mile (\$66/linear foot)** for rebuilding Town roads. Figures were rounded to the nearest \$1,000.

Very few homes in Waldo County have been damaged by flooding. Those homes that are in a flood zone experience flooded basements. There have only been 2 homes and 1 business in the county of 16,431 homes that have experienced repetitive flood damages in the last 46 years which resulted in NFIP payouts. There have been 87 NFIP payments totaling \$1,315,353 in the last 46 years. This is an average of 1.9 structures/year and a payout of \$28,000/year.

A figure of 10% potential damages value or replacement value is used for structure damage for public facilities. Only the cost of potential damages to public facilities will be included in chart below.

The following cost figures for roads and public facilities were determined. (Costs need to be updated)

Municipality	Critical Facility	Amt of Damage	Damage Cost
Brooks \$?		
Freedom \$362,500	Mitchell Road Bridge	1	\$325,000
	Mitchell Road	?	\$12,000
	Rollins Road	1,200 LF	\$18,000
	Beaver Ridge Road	?	\$7,500
Liberty \$158,000	Stevens Pond inlet	1	\$100,000
Lincolnvilleville \$	McKay Road	LF	
	Youngtown Road Drainage Structures	5	
	Beach Fire Station	1	
	Beach Bathroom Structure	1	
	Municipal Pier	1	
	Harbor Boat Launching Ramp	1	
	Penobscot Park shoreline	LF	
	Beach Parking Lot Seawall	LF	
	Route 1 Sidewalk	LF	
	Lincolnvilleville Beach properties	?	
Beach Wastewater Treatment System	1		
Montville \$209,000	Halldale Road Culvert	1	\$60,000
	Haystack Mt Road Culvert	1	\$10,000
	Hogback Mt Road Culvert	1	\$3,000
	Morrill Road Culvert	1	\$60,000
	North Ridge Road Culvert	1	\$30,000
	Randlett Road Culvert	1	\$25,000
Northport \$200,000	Bayside Dock	1	\$50,000
	Saturday Cove Dock	1	\$50,000
	Bayside Wastewater Treatment System	1	\$100,000

HAZARD MITIGATION PLAN

Palermo			
Prospect\$	Hawes Bridge Road Bridge	1	\$
Searsport\$	Cottage Street Culvert	200 LF	
Swanville			
Total			\$

Estimated Losses for Public Roads = \$

Estimated Losses to Municipal Property = \$

Total Damages = \$

HAZARD MITIGATION PLAN

Potential Wildfire losses

The primary damage losses that are expected in the Waldo County planning area during any wildfire event would be destruction of single-family residential structures.

Meet with Maine Forest Service to determine how to calculate the wildfire losses

Municipality				
Brooks				
Freedom				
Liberty				
Lincolnton				
Montville				
Northport				
Palermo				
Prospect				
Searsport				
Swanville				
Total				

HAZARD MITIGATION PLAN

Potential Losses Geomagnetic Storm

HAZARD MITIGATION PLAN

ASSESSING VULNERABILITY: ANALYZING DEVELOPMENT TRENDS

Waldo County is located along the mid-coastline of Maine and is largely rural. Much of the County's land use is designated as rural and is primarily forestland or farmland. The largest city, Belfast, which has a year-round population of 6,938 is located on the coast in the southern half of the County. There are no suburbs in Waldo County. The land uses within the county generally consist of: Residential, Resource Protection, Agricultural, Industrial, Institutional and Commercial areas.

The State of Maine Legislature enacted the Growth Management Act in 1989 (Title 30-A, Chapter 187, subchapter 2) which made it voluntary for each community to develop a Municipal Comprehensive Plan. Because it is not mandatory, not every town has a comprehensive plan, as a matter of fact, most do not. The municipal comprehensive plans allow development to occur in appropriate areas taking into account the environment, physical constraints, location of utility services, similarity to existing development, and proximity to flood zone areas.

The municipalities may review existing conditions and predict future needs in order to develop their own plans, policies, and ordinances. All municipalities in Waldo County have enacted Shoreland Zone ordinances, due to the fact that this is a state law requirement. All towns in the Planning Area have enacted floodplain ordinances and are in the NFIP, except for the Town of Prospect. Further breakdown of the land use designations is shown on the following chart.

The Planning Area is expected to undergo a slight increase in residential development. Wildfires could have a greater impact if many of these homes are built in forested areas.

The Searsport Comprehensive Plan indicates that segments of industrial and residential zones are located in coastal storm surge areas. The town designated some of these areas to be Marine and Conservation Districts.

The Land Use Types and Growth Areas that have been designated in Waldo County are:

Municipality	Land Use Types	Designated Growth Areas
Brooks		
Freedom	Resource Protection, Limited Residential, Limited Commercial, Stream Protection	None
Liberty	Wetland Preservation, Resource Protection, Limited Residential, Limited Commercial, Stream Protection, Wetland Conservation	None
Lincolnville	General District, Harbor, Limited Commercial, Limited Residential, Resource Conservation, Resource Protection, & Stream Protection	General District
Montville	Limited Residential, Resource Protection	None
Northport	Residential, Commercial	Commercial
Palermo		
Prospect	Rural Residential, Limited Residential, Stream Protection, Resource Protection, Aquifer Protection	None
Searsport	Commercial, Industrial, Residential, Marine, and Conservation, Resource Protection	Commercial, Industrial, Residential
Swanville		

HAZARD MITIGATION PLAN

ASSESSING VULNERABILITY: ADDRESSING REPETITIVE LOSS PROPERTIES

Element B2	c. Does plan address National Flood Insurance Program (NFIP) insured structures within each jurisdiction that have been repetitively damaged by floods?
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The Director of the Maine Floodplain Management Program, an office within the Department of Agriculture, Conservation and Forestry, was consulted regarding NFIP insured structures that have been repetitively damaged by floods. The Director provided the information, with the stipulation that the addresses of the properties are not published in the plan, due to privacy issues.

There are 88 NFIP insurance policies in Waldo County, about 0.4 % of the total homes (21,566) in the County. In 2024, total coverage is \$25,573,000, with total premiums of \$76,755.00. The total number of claims since 1978 is 87, an average of 1.9 claims per year. Total claims paid has been \$1,315,353.00 since 1978; an average of \$28,595.00 per year. The average paid per claim is \$14,947.00.

There were only three repetitive loss properties in all of Waldo County. One is a business located in the Town of Lincolnville. Two are residences, one in the Town of Unity and one in the City of Belfast. The properties in Lincolnville and Belfast were damaged by coastal flooding and the property in Unity was damaged by lakeside flooding.