

HANCOCK COUNTY HAZARD MITIGATION PLAN

IV. RISK ASSESSMENT

§201.6(c)(2) of the Rule outlines specific information that Hancock 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 six subsections as follows:

- Identify Hazards
- Profiling Hazard Events
- Assessing Vulnerability: Identifying Assets
- Assessing Vulnerability: Estimating Potential Losses
- Assessing Vulnerability: Analyzing Development Trends
- Multi-jurisdictional Risk Assessment

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IDENTIFYING HAZARDS

Requirement §201.6(c)(2)(i):	The risk assessment shall include a description of the type ... of all natural hazards that can affect the jurisdiction...
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Hancock County Hazard Mitigation Planning Team identified several natural and manmade hazards that are addressed in the County Hazard Mitigation Plan. These hazards were identified through an extensive process that utilized input from the Hazard Mitigation Planning Team members (comprised of representatives from state, county and municipal governments, the regional planning commission, and private, business and legal sectors), public input, researching past disaster declarations in the County, a review of current maps, and a risk assessment completed by the Hancock County Emergency Management Agency and the Hazard Mitigation Planning Team. The risk assessment is shown on pages 19-20 and are labeled as Worksheet #1.

The following table identifies the natural hazards to be profiled.

Hazard	How identified	Why identified
Flooding	Review of FIRM Maps Input from residents Review of past disaster declarations Identification of repetitive losses Review of SLOSH Maps. Risk Assessment on page 21	Associated with the effects of coastal storms and spring runoff. Several repetitive loss properties and roadways are located in the County. The County contains two major rivers and many streams and lakes, and is located along the coast.
Severe Storm Events (Winter & Summer)	Review of past disaster declarations Inputs from residents Risk Assessment on page 21 Review of library historical data	Maine is frequently hit with blizzards and Northeaster storms and summer coastal storms. The Maine coastal communities are often subject to ice storms.
*see note below Disease & Epidemic	Based on historical information, information from the World Health Organization & US Center for Disease Control and with the spread of Avian Flu H5N1 virus among the bird populations & limited spread to humans primarily in Asia, Europe and Africa from 2003-2007.	The World Health Organization feels that it is very likely that there will be another occurrence of pandemic influenza caused by a new virus, such as the pandemics of 1918 "Spanish Flu, 1957 "Asian flu" and 1968 "Hong Kong flu".
Wildfire	Review of Maine Forest Service records Inputs from residents Risk Assessment on page 21	Much of the County is covered with forests. One of the worst fires in Maine history burned a large portion of the County in October 1947.

*Note: Pandemic Influenza was profiled and added to the 2004 Hazard Analysis based on information obtained from the CDC and current concerns surrounding the outbreaks of H5Ni form of Avian Virus. The goals and objectives were developed by the pandemic influenza planning committee formed by the Hancock County EMA in June of 2006The following table identifies the manmade hazards to be profiled.

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Hazardous Materials Incident	Review of Maine DEP records Input from residents County HazMat Plan Traffic Commodity Studies	Two of the States busiest state routes run through County; a great deal of HazMat is transported through County. There are 13 EHS facilities.
Transportation - Mass Casualty Accident	Input from residents Risk Assessment on page 22 Planning Team's future expectations	Bar Harbor is seeing a surge in Cruise Line ships arriving. Bays are becoming congested. Also, tourist buses and passenger vehicles are growing quickly. The largest Federal Park, east of the Mississippi River is located here.

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 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 certify that any of these events will not or could not occur and cause great damage. It was decided by the Hancock County Hazard Mitigation Planning Team to keep our first plan simple by only profiling the top five hazards.

Armed Attacks	Review of Historical Records Risk Assessment on page 22	It is unlikely that another nation will attack or invade the United States by striking at Maine.
Avalanche	Review of USGS Maps	There are no county mtns that hold amounts of snow which would create avalanches.
Blight/ Infestation	Review of State Entomological Office historical records Inputs from residents Risk Assessments on page 21	Though the County is heavily dependent on its agricultural production, to include forestry, blueberries, and fishing, there is no historical records of major damage to these products that have caused serious economic conditions.
Building Collapse	Risk Assessment on page 22 Inputs from Fire Chiefs	The only likely building collapses will come from urban fire and there have been no incidents of deaths from this cause.
Coastal Erosion	Input from State Planning Office Input from NRCS Input from Maine DEP Input from residents	The County is undergoing development pressure along the coast. Coastline stabilization measures have been implemented in the past year. Subcategory of severe storms.
Dam Failure	Review of Historical Records Risk Assessment on page 22	There have been only one dam failure in the history of the county (1923), & it caused only minor localized flooding.
Drought	Review of State EMA records Review of NOAA records	Rainfall data doesn't show serious problem. The drought effects have never been sufficient enough to create disaster conditions.
Earthquake	Review of Maine Geological Survey records	Although Earthquakes are common in Maine, no significant damaging movement has occurred in 20,000 years. Numerous minor quakes, none exceeding a 4.2 magnitude, occurred in the Mt Desert area of Hancock County in 2006.

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Hurricane	Review of past disaster declarations Review of library historical data Input from residents Risk assessments on page 21	The County is hit about every decade by a hurricane. Most hurricanes are not very powerful by the time they hit Hancock. They do not cause any significant damage to personal and property. Flooding from this event will be discussed under the Flooding Hazard.
Landslide	Review of Maine Geological Survey	Landslides are not common in Hancock County.
Subsidence	Review of Maine Geological Survey	No known cases of subsidence within the County.
Terrorism	WMD risk assessment completed by County & State.	Heightened sense of security since Sept 2001. However, there have been no acts of terrorism.
Tornado & Severe Wind Storms	Review of NWS records	On average 1-2 tornadoes occur in Maine each year. There has been no loss of life or major damages in many years.
Urban Fire	Risk Assessment on page 22	The City of Ellsworth had a city-wide fire in 1933.

HISTORICAL CHART OF HAZARD EVENTS IN HANCOCK COUNTY

The following chart is a compilation of the Hancock County Hazard Mitigation Team's research efforts to determine what disaster events have occurred in Hancock County in the last century. We found few disasters during the first half of the 20th Century. This is due in part from the poor records that were kept; the fact that there was very little development in the County before 1950; and the fact that the residents mostly lived in homes built in the 19th Century which were built to withstand winter storms and were built out of known flood areas. After 1950, people started moving in from outside the State and these people began to build in flood-prone areas and in less hardy structures. Additionally, there was very little threat from wildfires before the 1950s, because most of the land had been cleared for farmland. After 1950, the farms fell to ruin and the fields have since grown up into forests.

YEAR	MONTH	DAY	HANCOCK DAMAGE	STATEWIDE DAMAGE	TYPE OF DAMAGE	DECLARATION
1923	April	30		\$2,000,000	Flooding	
1928	August			1 Death	Heat	
1933	May	8		200 homes	Urban Fire	
1947	October	23		\$30,000,000	Forest Fire	
1954	September	11		\$7,000,000	Hurricane Edna	Presidential
1960	September	5			Forest Fire	
1963	October	29			Hurricane Ginny	
1972	February	19			Winter Storm	State Aid
1972	September	28		\$400,000	Red Tide Infestation	Presidential
1974	September	29			Red Tide Infestation	SBA
1978	February	8		\$20,693,181	Flooding	Presidential
1978	January	9			Power Outage	
1978	January	10			Winter Storm	
1979	September	6			Hurricane David	
1980	August			\$1,818,000	Red Tide Infestation	State Aid
1985					Hurricane Gloria	
1987	April				Flooding	
1993	April		\$69,828		Flooding	
1993	March	15	\$22,888		Winter Storm	Emergency
1998	January	13	\$1,300,450		Ice Storm	Disaster
2001	March	5	\$56,400		Winter Storm	Emergency
2003	May				Winter Storm	Presidential

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The following worksheets were used by the Hancock County Hazard Mitigation Planning to review the known natural and manmade disaster events and to analyze the severity and likelihood of these events. The team prioritized the events and profiled the top five hazards.

Worksheet #1 Identify the Hazards step 1

Date: December 16, 2002

Natural Disasters

Type of Hazard	Hazard Events (Dates/Casualties/Damages)	Source of Information	Rating	Priority
Blight/Infestation	Crop Diseases Forest Parasites	Dept of Conservation Dept of Agriculture	2B	5
Coastal Erosion	Tremont road lost 320 miles of unstable bluffs	Maine Coastal Program	2A	3
Dam Failure	1923 Union River Dam 2 FERC Dams in County	Newspaper	3C	4
Drought	2001 Drought	MEMA NWS	1.5C	6
Flooding	May 1993	FIRM	2A	3
Hurricanes/ Severe Summer Storms	5 CAT-1 storms in 20 th Century	NWS	3B	2
Landslide	No good evidence		1.5C	7
Severe Winter Storm	Ice Storm 98 Typical Blizzards	NWS	3A	1
Wildfire	October 1947 Fire	Maine Forest Service	3B	2

Rating: Severe (Multiple deaths, Mass casualties, or Millions of dollars in damages) = 3
 High (Deaths or Injuries, or 100,000s of dollars in damages) = 2.5
 Moderate (Single death or several injuries, or 10,000s of dollars in damages) = 2
 Low (Injuries or a 1,000s of dollars in damages) = 1.5
 Slight (No deaths, single injury, or 100s of dollars in damages) = 1

Very Likely = A
 Possible = B
 Very Unlikely = C

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Worksheet #1 Identify the Hazards

step 1

Date: December 16, 2002

Man-Made Disasters

Type of Hazard	Hazard Events (Dates/Casualties/Damages)	Source of Information	Rating	Priority
Bridge/Building Collapse	None	State Planning Office	1C	6
Economic Emergency	The Great Depression	Ellsworth Library	1C	7
Environmental Contamination	Leaking Landfills	Maine DEP	2C	5
HazMat Incident	Multiple events/year	Maine DEP	2A	2
Terrorism	NYC & Pentagon Attacks	News	2C	4
Transportation MCI	Cars, Buses, Aircraft, Ships	News	2.5A	1
Utility Emergency	Ice Storm 98		2A	3

Rating: Severe (Multiple deaths, Mass casualties, or Millions of dollars in damages) = 3
 High (Deaths or Injuries, or 100,000s of dollars in damages) = 2.5
 Moderate (Single death or several injuries, or 10,000s of dollars in damages) = 2
 Low (Injuries or a 1,000s of dollars in damages) = 1.5
 Slight (No deaths, single injury, or 100s of dollars in damages) = 1

Very Likely = A
 Possible = B
 Very Unlikely = C

HANCOCK COUNTY HAZARD MITIGATION PLAN

PROFILING HAZARD EVENTS

Requirement §201.6(c)(2)(i):	The risk assessment shall include a description of the ... location and extent of all natural hazards that can affect the jurisdiction. The plan shall include information on previous occurrences of hazard events and on the probability of future hazard events.
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Severe Storm Events - Winter and Summer

Hancock County is subject to severe winter and summer storm events. The entire county is subject to major snowfall events, however, the northern half of the county typically will receive greater snowfall amounts. Again, the entire County can experience a major ice storm, as it did in January 1998, however, the coastal communities on the mainland and on the islands, which contain the vast majority of the population, experience ice storms more frequently. Finally, the entire County is very susceptible to "Northeaster" winter storms and severe coastal summer 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. Air streams containing much colder air flows down from Canada and collides with the Gulf Stream over the New England region. There have been three Federally-declared winter storm disaster events in the last 9 years. The worst storm in the past decade occurred in January 1998 and caused \$1,300,450 in damage throughout the entire County. This storm, which nearly destroyed 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. However, most winter storms in the County are large snow storms which over task the highway snow removal operations and cause localized power outages. Frost heaves have also caused damages to road surfaces.

It is expected that a severe summer or winter storm will create damage in Hancock County at least once every three years. Storm events are shown in the County Base Map section.

Wildfire

Hancock County is subject to wildland fire events. Nearly 90% of the County is forest land and the northern half of the County contains vast tracks of unbroken forests. The County has been hit with 248 wildland fires in the last 5 years. These fires have burnt over 288 acres of forest land. The most severe wildland fire in the County's recent history occurred in October of 1947. This fire burnt 17,846 acres and approximately 400 homes and caused 3 deaths on Mount Desert Island.

All parts of the County are subject to wildland fires, however the northern portion of the county presents the greatest acreage of productive forestland and the southern portion, especially Acadia National Forest on Mount Desert Island, presents the greatest danger to destruction of homes and businesses.

It is expected that a major wildland fire event will cause major destruction in Hancock County at least once every decade. Wildfire danger areas are shown on the County Base Maps included in this section.

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Flooding

Hancock County is 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 two major rivers located in or along Hancock County. The Penobscot River and Bay borders on the towns of Bucksport, Verona Island, Orland, Penobscot, and Castine. The most susceptible to Penobscot riverine flooding is Bucksport. There are no dams on this river in Hancock County, although there are a large number of dams on the river, north in Penobscot County. The majority of the dams are small and would not have a major flooding impact to the Hancock County towns, however, if a large dam, such as the Dolby dam were to catastrophically fail, it would take several days for the flooding to occur in Bucksport. The Union River discharges from Graham Lake and flows through the City of Ellsworth and discharges into the Union River Bay with shores in the towns of Trenton and Surry. The Union River Dam did fail in April 1923 and caused major flooding in downtown Ellsworth and destroyed a bridge. The present dam is in very good shape and procedures are in place for effective flood management. Flooding from the Penobscot and Union rivers is not expected to be likely, however, it would be catastrophic if it were to occur.

Most of the population of Hancock County resides near the coast and is therefore susceptible to storm surge created by a severe storm. The towns of Bar Harbor, Blue Hill, Brooklin, Brooksville, Castine, Cranberry Isle, Deer Isle, Gouldsboro, Hancock, Lamoine, Mount Desert, Penobscot, Sedgwick, Sorrento, Southwest Harbor, Stonington, Sullivan, Surry, Swans Island, Tremont, Trenton and Winter Harbor all have inhabited coastlines. The flooding caused by storm surges have also aggravated the coastal erosion problems in several towns. Recently, Bar Harbor has experienced erosion damages on the Old Bar Harbor Road; Castine has experienced erosion in the Back Shore Beach and Wadsworth Cove area; Cranberry Isle is subject to coastal flooding throughout town; Frenchboro has erosion and flooding at the Head of the Harbor area; Hancock has erosion at Carter's Beach; Lamoine has wash outs on the Berry Cove Road; Penobscot has erosion on the Northern Bay Road; Sedgwick has flooding and erosion in the Steam Boat Landing area; Tremont has erosion on the Cape road; and Winter Harbor has a flooding problem in the Bay Street area. This is an annual problem in many of the towns. Deer Isle and Stonington can be cut off from the mainland when Sunshine Causeway is flooded by a storm surge event.

The majority of the flood damage in the County is caused by winter runoff in the spring time which undercuts or overtops rural roads. When Maine has an above average snowfall for the winter and then warmer temperatures and rainfall suddenly arrive in the spring, the snow pack melts off quicker than the watersheds can handle. This causes local waterbodies to overflow their boundaries and flood nearby road surfaces. This has happened in the towns of Aurora, Bar Harbor, Brooklin, Bucksport, Castine, Eastbrook, Ellsworth, Franklin, Hancock, Lamoine, Mariaville, Osborn, Penobscot, and Sedgwick. Typically, this road damage is not major, though it can absorb the municipal road maintenance budget for an entire year and does happen in several if the towns every year.

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The Town of Dedham sustained \$30,000 of damage to the Mountain Pond Road. The City of Ellsworth has had repetitive washouts on the Shore Road, Winkcumpaugh Road, Happytown Road, Spindle Road, Union Street, Boggy Brook Road, Scotts Neck Way, Cove Way, Nicolin Road, and Bohn Road. The Town of Mariaville has erosion on the River Road. The Town of Mount Desert has had flooding at Bruey Cove and Seal Harbor beach. The Town of Sullivan has roadway flooding issues on Long Cove, Preble Cove, Sullivan Harbor, and Vista Way, and culvert overflow problems on Thorne Road, Morancy Road, and Bert Gray Road.

Storm surges cause localized flooding and erosion along the coast and on Mount Desert Island. There have been five Category One hurricanes that have hit the Maine coast in the past century. These have caused flooding along the coast and on the islands and the high winds have damaged large amounts of trees, which in turn have created major electrical outages.

It is expected that a major flood event will cause mostly road damage in Hancock County at least once every decade. Flood zones are shown on the Municipal Base Maps included in this section.

Transportation - Mass Casualty Incidents

The primary locations for a transportation-related mass casualty incident are for land vehicles along U.S. Route 1 and 1A, and on Mount Desert Island, aircraft out of Blue Hill, Stonington, and Trenton airfields and cruise ships and ferries at the port in Bar Harbor.

A land vehicle accident which could cause mass casualties is most likely with the large numbers of tour buses that arrive from around the country that come to visit Mount Desert Island and Acadia National Park. More than 3,000,000 visitors arrive each year. There have been bus accidents in the past, however, they did not create mass casualty situations. A single catastrophic tour bus accident though could easily overtax the emergency medical services for the entire county.

Small aircraft operate out of Blue Hill, Stonington, and Trenton airfields on a daily basis. There have been numerous fatal aircraft accidents, although to date, the deaths are typically limited to 2-4 people. If however, a small aircraft were to crash into a populated area, then this would easily overtax the emergency medical services for the entire county. Due to the proximity to the coast of these three airfields, the fields are susceptible to foggy conditions. It is expected that such an incident will happen in the next 5-10 years.

A new phenomenon for Hancock County is the arrival of the cruise ships to Bar Harbor. These ships carry thousands of passengers on each ship. The number of arrivals is increasing each year. In 2002, sixty-four ships arrived. If a ship were to catch fire, run aground, or sink, the catastrophe would overtax the entire State of Maine, let alone Hancock County. Though it is not likely to occur, it is possible and it is an event that would be overwhelming.

It is expected that a major transportation-related incident will cause mass casualties at some point in Hancock County in the next 3-5 years.

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Hazardous Materials Incidents

A Hazardous Material incident could occur at a fixed facility, pipeline, or by tractor trailer trucks. Hancock County has 13 EHS facilities, 114 Hazardous Substances facilities, 1 natural gas pipeline, and the U.S Route 1 and 1A and State Route 9 and 102 traffic corridors. The facilities, pipeline and traffic corridors are indicated on the Municipal Base maps located in this section.

There have been 1747 hazmat accidents in the last 18 years, 94% have involved petroleum or transformer oil. To date, the vast majority of the HazMat Incidents caused very few casualties, however due to the amount and steadily increasing amounts of hazmat traffic, it is felt that it is only a matter of time before a mass casualty event will occur.

It is expected that a HazMat incident with significant casualties will happen in the next 5-10 years.

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COUNTY BASE MAP

This section contains a base map of the entire geographic area of Hancock County. The base map were completed in ArclInfo GIS format by a student project team from Unity College and contain the following layers:

- County and Municipal Boundaries
- State and Local Roadways

- Wildfire Hazard Areas
- Winter Storm Hazard Areas
- Transportation Corridors

Neither the State of Maine, nor the National Weather Service, maintain data on snowfall and ice storm on a town by town basis. Normally there are only one or two locations within a Maine County that records weather data. For Hancock County, the only weather station is located on Mount Desert Island. Therefore, the entire county is modeled as one entire hazard area for severe winter storms.

The State of Maine Department of Conservation does not maintain wildland fire data on specific areas within a municipality, but rates each town as Low, Moderate, or High Risk for wildland fires. This risk was determined using the predominant type of trees, the population density, and the number of past wildfires the municipality has experienced in the past. Therefore, each town is modeled as one entire hazard area for wildfires.

The County Maps may be used to orient the user of this plan to the locations of the municipalities in relation to each other.

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MUNICIPAL BASE MAPS

This section contains base maps of the 37 towns and cities and 15 Unorganized Townships of Hancock County. The maps were completed in ArcInfo GIS format by a student work team from Unity College and contain the following layers:

- Municipal Boundaries
- State and Local Roads
- USGS Topographical Contours
- Lakes, Ponds, Rivers, Streams, and Wetlands
- Locations of critical facilities

- FEMA FIRM Flood zone Areas
- FEMA/ACE Hurricane Surge Inundation
- HazMat Plumes and Transportation Corridors

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

There is very little Municipal Comprehensive Land Use Plan data for Hancock County communities maintained in GIS format.

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ASSESSING VULNERABILITY: IDENTIFYING ASSETS

Requirement §201.6(c)(2) (ii)(A):	The risk assessment shall include a description of the jurisdiction’s vulnerability to the hazards described in paragraph (c)(2)(i) of this section. This description shall include an overall summary of each hazard and its impact on the community. The plan should describe vulnerability in terms of: The types and numbers of existing and future buildings, infrastructure, and critical facilities located in the identified hazard areas
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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 Hancock County are municipal offices, fire and police stations, post offices, town garages and salt/sand sheds, hospitals and clinics, electric and communication utilities, water and wastewater treatment facilities, hazardous material sites, and schools.

Existing Critical Facilities:

The Hancock County Emergency Management Agency used existing Maine GIS map data and a handheld GPS data collector to map and locate the county’s critical facilities and determine which are most likely to be affected by hazards. The five hazards most likely to impact the County are severe storm events (winter and summer), wildland fires, flooding, transportation-related mass casualty incidents, and hazardous materials incidents. The analysis revealed the following:

Severe Winter and Summer Storm Hazard: A “Northeaster”, blizzard, ice storm or severe coastal storm of the severity that occurs at least once every 3-5 years would have an impact on all roads in the County and on all overhead electrical power and telephone lines. Roads may be covered in snow, washed out, or blocked with tree debris. Utility lines and poles will be felled. No critical structures were identified as in danger from a severe winter or summer storm. A coastal storm could cause general erosion and wind damage to coastal areas and buildings.

Wildland Fire Hazard: Forest fires would have an tremendous impact on the large number of homes located in the wildland-urban interface. We estimated that nearly 11,200 homes or 34% of the homes in Hancock County are located in the Wildland-Urban Interface.

Flooding Hazard: A 100-year flood would have an impact on many roadway surfaces, two major highway bridges, a municipal dock, a municipal sewer system, four fire stations, a municipal office, and a library. The most likely coastal flooding will occur with a Category 1 Hurricane. The downtown areas of Bar Harbor, Blue Hill, Castine, Gouldsboro (Prospect Harbor), Sedgwick, Southwest Harbor, Tremont and Winter Harbor, residential areas in Blue Hill, Brooksville, Castine, Cranberry Isles, Deer Isle, Frenchboro, Gouldsboro, Hancock, Lamoine, Orland, Penobscot, Sedgwick, Sorrento, Stonington, Sullivan, Surry, Swan’s Island, Trenton and Winter Harbor will be impacted by a Category 1 Hurricane. Bar Harbor, Castine Village, Deer Isle, Mount Desert, Southwest Harbor, Stonington and Tremont would be cut off from the rest of the mainland.

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Transportation-related Mass Casualty Incident: A motor vehicle transportation accident would most likely have an impact on the tourist routes of U.S. Route 1 and 1A and State Route 3 and 9. An aircraft accident could impact anywhere in the county, but the worst case scenario would be located in a populated area. A cruise ship accident would take place at the pier in Bar Harbor or off the coast of Hancock County.

Hazardous Materials Incident Hazard: A HazMat Incident could occur along U.S. Routes 1 and 1A, State Route 9, on several major collector roads and at thirteen major industrial facilities. The facilities include:

<u>Town</u>	<u>Facility Name</u>	<u>RQ Chemical</u>
Bar Harbor	Waste Water Treatment Plant	Sodium Hypochlorite & Chlorine
Bar Harbor	Verizon	Sulfuric Acid
Bucksport	International Paper Company	Aluminum Sulfate & Sulfuric Acid Sodium Aluminate & Hydroxide
Ellsworth	Allen's Blueberry Freezer, Inc.	Anhydrous Ammonia
Ellsworth	Verizon	Sulfuric Acid
Franklin	Agvest, Inc.	Anhydrous Ammonia
Gouldsboro	Stinson Seafood Company	Anhydrous Ammonia
Hancock	Hancock Foods, Inc.	Anhydrous Ammonia
Hancock	Merrill Blueberry Farms, Inc.	Anhydrous Ammonia
Orland	G.M. Allen & Son	Anhydrous Ammonia
Otis	Bangor Water District	Anhydrous Ammonia & Chlorine
Sedgwick	Verizon	Sulfuric Acid
Southwest Harbor	Water Company	Hydrochloric Acid & Sodium Hypochlorite

The majority of the extremely hazardous materials that are produced, used, or transported through Hancock County are gases. Although, these materials could cause severe harm to people and animals, they will not destroy or damage any critical public facilities. The primary effect to the critical facilities will be to cause a temporary stop in the operations at these facilities. The effect of a EHS hazardous materials release will be lifesaving and not property protection in nature.

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

An analysis of the local municipal comprehensive plans and general growth patterns for the Hancock County communities indicate that there will be a slight but constant increase (5-10%) in residents expected over the next 10 years.

The majority of the residential development and population increase for Hancock County in the last 10 years has occurred in the coastal communities. Commercial growth in the past 10 years has been primarily located in the City of Ellsworth, on Mount Desert Island, and along the "Acadia" transportation route. This trend is expected to continue. This development could be impacted by any of the identified hazards (severe winter & summer storms, wildland fires, flooding, hazmat incidents, and transportation mass-casualty incidents).

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Future Critical Facilities:

Assessing where future development will occur in the towns in Hancock County is difficult due to a lack of municipal data, policies and programs. Most of the Hancock County towns are very small and rural and do not have planning departments, building codes or even a full time code enforcement officer. There is very little commercial, industrial and public construction completed in many 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. Floodplain ordinances, State mandated shoreland zoning ordinance and septic system designs are about the only controlling guidance.

Severe Winter or Summer Storm Hazard: It is very unlikely that a severe winter or summer storm will have any impact on future structures. This hazard primarily impacts local roads and overhead utility lines.

Wildland Fire Hazard: Forest fires in Hancock County towns primarily threaten residential structures in the wildland-urban interface. In all Hancock County communities, homes are allowed to be built anywhere, in any land use zone. Some communities may decided to provide wildland fire protection information to new residents who wish to built new homes at the time they are issued a land use permit.

Flooding Hazard: The majority of damages from flooding in Hancock County is to roads, not structures. We were unable to find any records of structures being lost in the County due to flooding in the last 60 years. However, most towns do have floodplain ordinances that provide some control over development in flood zones. Those towns that do not have flood zone ordinances, do not have any special flood hazard areas that could ever flood structures – they are primarily streams that could potentially overtop local roads (most old gravel roads with insufficient storm drainage).

Hazardous Materials Incident: A Hazardous Materials incident in Hancock County will occur on a major transportation route or at an EHS facility. Because most of the HazMat is either petroleum products or inhalation hazards, there is little possibility of damages occurring to future structures. However, the land use type for future facilities such as schools and hospitals could be impacted. Most communities have Planning Boards and it is assumed that such issues would be brought forward for consideration by these boards.

Transportation-related Mass Casualty Incident: It is very unlikely that a transportation-related mass casualty incident will have any impact on future structures. This hazard primarily causes traffic jams and casualties and overtaxes the first responders.

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ASSESSING VULNERABILITY: ESTIMATING POTENTIAL LOSSES

Requirement §201.6(c)(2) (ii)(B):	The plan should describe vulnerability in terms of an estimate of the potential dollar losses to vulnerable structures identified in paragraph (c)(2)(i)(A) of this section and a description of the methodology used to prepare the estimate...
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The Hancock County Emergency Management Agency and Hazard Mitigation Planning Team, with assistance from Unity College in Maine used GIS modeling, GPS data collection, field inspections, and historical data to estimate the potential dollar losses if the County were to experience severe winter and summer storms, flooding, wildfires, hazardous material incidents, and transportation-related mass casualty incidents, the most likely hazards to occur in the County. 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.

The Hancock County Hazard Mitigation Planning Team estimated the potential losses from Severe Winter and Summer Storms, Flooding and Wildfires. The results are listed on the following pages:

HANCOCK COUNTY HAZARD MITIGATION PLAN

Potential Severe Winter and Summer Storm losses:

The primary damage losses that are expected in Hancock County during a “Northeaster”, blizzard, ice storm or coastal storm would be to overhead utility lines and local roads. In calculating the damage costs, the Planning Team assumed that all local roads would be covered in snow or ice or blocked with tree and utility line debris. The Team used a figure of \$500/mile for road debris clearance or snow removal. The Team also assumed, as a worst case scenario, the total loss of all utility lines and poles from a major winter disaster. The following cost figures were supplied by Central Maine Power Company and Northland Telephone Company:

1. Electrical Power Lines and Utility Poles
 - a. 22,000V Lines = \$32,000/mile to replace
 - b. 34,500V Lines = \$300,000/mile to replace
 - c. 46,000V Lines = \$500,000/mile to replace
 - d. 115,00V Lines = \$700,000/mile to replace
 - e. 345,000V Lines = \$1,300,000/mile to replace
2. Telephone Lines = \$2,000/mile to replace

No critical structures were identified as in danger from a severe storm in Hancock County.

Municipality	Critical Facility	Function Lost	Quantity (Miles)	Damage Cost
Amherst	Electrical Power Lines	Electricity	14.97	\$479,040
	Telephone Lines	Communications	14.97	\$29,940
	Paved Road Surfaces	Transportation	8.94	\$4,470
	Gravel Road Surfaces	Transportation	6.03	\$3,015

Aurora	Electrical Power Lines	Electricity	15.92	\$509,440
	Telephone Lines	Communications	15.92	\$31,840
	Paved Road Surfaces	Transportation	9.6	\$4,800
	Gravel Road Surfaces	Transportation	6.32	\$3,180

Bar Harbor	Electrical Power Lines	Electricity (+34.5kv)	78.14	\$3,832,440
	Telephone Lines	Communications	73.17	\$146,340
	Paved Road Surfaces	Transportation	73.17	\$36,585
	Gravel Road Surfaces	Transportation	0	\$0

Blue Hill	Electrical Power Lines	Electricity (+46kv)	69.58	\$6,433,880
	Telephone Lines	Communications	60.59	\$121,180
	Paved Road Surfaces	Transportation	60.59	\$30,295
	Gravel Road Surfaces	Transportation	0	\$0

HANCOCK COUNTY HAZARD MITIGATION PLAN

Municipality	Critical Facility	Function Lost	Quantity (Miles)	Damage Cost
Brooklin	Electrical Power Lines	Electricity	40.43	\$1,293,760
	Telephone Lines	Communications	40.43	\$80,860
	Paved Road Surfaces	Transportation	40.43	\$20,215
	Gravel Road Surfaces	Transportation	0	\$0

Brooksville	Electrical Power Lines	Electricity	65	\$2,080,000
	Telephone Lines	Communications	65	\$130,000
	Paved Road Surfaces	Transportation	55	\$27,500
	Gravel Road Surfaces	Transportation	10	\$5,000

Bucksport	Electrical Power Lines	Electricity (+115kv)	76.83	\$5,672,280
	Telephone Lines	Communications	72.04	\$144,080
	Paved Road Surfaces	Transportation	70.89	\$35,445
	Gravel Road Surfaces	Transportation	1.15	\$575

Castine	Electrical Power Lines	Electricity	17.25	\$522,000
	Telephone Lines	Communications	17.25	\$34,500
	Paved Road Surfaces	Transportation	17	\$8,500
	Gravel Road Surfaces	Transportation	0.25	\$125
	Water Lines	Utilities		\$4,000

Cranberry Isles	Electrical Power Lines	Electricity	7.09	\$226,880
	Telephone Lines	Communications	7.09	\$14,180
	Paved Road Surfaces	Transportation	7.09	\$3,545
	Gravel Road Surfaces	Transportation	0	\$0

Dedham	Electrical Power Lines	Electric (+46/115kv)	74.12	\$8,954,000
	Telephone Lines	Communications	62	\$124,000
	Paved Road Surfaces	Transportation	32	\$16,000
	Gravel Road Surfaces	Transportation	30	\$15,000

Deer Isle	Electrical Power Lines	Electricity	75	\$2,400,000
	Telephone Lines	Communications	75	\$150,000
	Paved Road Surfaces	Transportation	60	\$30,000
	Gravel Road Surfaces	Transportation	15	\$7,500

Eastbrook	Electrical Power Lines	Electricity (+115kv)	19.97	\$4,481,440
	Telephone Lines	Communications	14.25	\$28,500
	Paved Road Surfaces	Transportation	14.25	\$7,125
	Gravel Road Surfaces	Transportation	0	\$0

HANCOCK COUNTY HAZARD MITIGATION PLAN

Municipality	Critical Facility	Function Lost	Quantity (Miles)	Damage Cost
Ellsworth	Electrical Power Lines	Electricity (+high kv)	155.13	\$24,583,520
	Telephone Lines	Communications	116.39	\$232,780
	Paved Road Surfaces	Transportation	101.39	\$50,695
	Gravel Road Surfaces	Transportation	15	\$7,500

Franklin	Electrical Power Lines	Electricity (+34.5kv)	38.84	\$3,239,480
	Telephone Lines	Communications	31.39	\$62,780
	Paved Road Surfaces	Transportation	31.39	\$15,695
	Gravel Road Surfaces	Transportation	0	\$0

Frenchboro	Electrical Power Lines	Electricity	2.55	\$81,600
	Telephone Lines	Communications	2.55	\$5,100
	Paved Road Surfaces	Transportation	0	\$0
	Gravel Road Surfaces	Transportation	2.55	\$1,275

Gouldsboro	Electrical Power Lines	Electricity (+34.5kv)	62.35	\$2,625,000
	Telephone Lines	Communications	60	\$120,000
	Paved Road Surfaces	Transportation	40	\$20,000
	Gravel Road Surfaces	Transportation	20	\$10,000

Great Pond	Electrical Power Lines	Electricity	2.74	\$87,680
	Telephone Lines	Communications	2.74	\$5,480
	Paved Road Surfaces	Transportation	0	\$0
	Gravel Road Surfaces	Transportation	2.74	\$1,370

Hancock	Electrical Power Lines	Electricity (+34.5 kv)	44.3	\$3,030,960
	Telephone Lines	Communications	38.28	\$76,560
	Paved Road Surfaces	Transportation	36.28	\$18,140
	Gravel Road Surfaces	Transportation	2	\$1,000

Lamoine	Electrical Power Lines	Electricity	37	\$1,184,000
	Telephone Lines	Communications	37	\$74,000
	Paved Road Surfaces	Transportation	37	\$18,500
	Gravel Road Surfaces	Transportation	0	\$0

Mariaville	Electrical Power Lines	Electricity (+115kv)	26.47	\$5,169,000
	Telephone Lines	Communications	20	\$40,000
	Paved Road Surfaces	Transportation	16	\$8,000
	Gravel Road Surfaces	Transportation	4	\$2,000

HANCOCK COUNTY HAZARD MITIGATION PLAN

Municipality	Critical Facility	Function Lost	Quantity (Miles)	Damage Cost
Mount Desert	Electrical Power Lines	Electricity	52.89	\$1,692,480
	Telephone Lines	Communications	52.89	\$105,780
	Paved Road Surfaces	Transportation	52.89	\$26,445
	Gravel Road Surfaces	Transportation	0	\$0

Orland	Electrical Power Lines	Electricity (+115kv)	52.63	\$2,926,640
	Telephone Lines	Communications	50.77	\$101,540
	Paved Road Surfaces	Transportation	50.77	\$25,385
	Gravel Road Surfaces	Transportation	0	\$0

Osborn	Electrical Power Lines	Electricity (+115kv)	3.63	\$617,160
	Telephone Lines	Communications	2.88	\$5,760
	Paved Road Surfaces	Transportation	0	\$0
	Gravel Road Surfaces	Transportation	2.88	\$1,440

Otis	Electrical Power Lines	Electricity (+115kv)	48.82	\$5,717,200
	Telephone Lines	Communications	42.6	\$85,200
	Paved Road Surfaces	Transportation	10.8	\$5,400
	Gravel Road Surfaces	Transportation	31.8	\$15,900

Penobscot	Electrical Power Lines	Electricity	36.75	\$1,176,000
	Telephone Lines	Communications	36.75	\$73,500
	Paved Road Surfaces	Transportation	34.55	\$17,275
	Gravel Road Surfaces	Transportation	2.2	\$1,100

Sedgwick	Electrical Power Lines	Electricity (+46kv)	42.34	\$3,049,040
	Telephone Lines	Communications	38.72	\$77,440
	Paved Road Surfaces	Transportation	38.72	\$19,360
	Gravel Road Surfaces	Transportation	0	\$0

Sorrento	Electrical Power Lines	Electricity	13.37	\$427,840
	Telephone Lines	Communications	13.37	\$26,740
	Paved Road Surfaces	Transportation	13.37	\$6,685
	Gravel Road Surfaces	Transportation	0	\$0

SW Harbor	Electrical Power Lines	Electricity	40.9	\$1,308,800
	Telephone Lines	Communications	40.9	\$81,800
	Paved Road Surfaces	Transportation	35.2	\$17,600
	Gravel Road Surfaces	Transportation	5.7	\$2,850

HANCOCK COUNTY HAZARD MITIGATION PLAN

Municipality	Critical Facility	Function Lost	Quantity (Miles)	Damage Cost
Stonington	Electrical Power Lines	Electricity	20.62	\$659,840
	Telephone Lines	Communications	20.62	\$41,240
	Paved Road Surfaces	Transportation	20.62	\$10,310
	Gravel Road Surfaces	Transportation	0	\$0

Sullivan	Electrical Power Lines	Electricity (+34.5kv)	36.97	\$2,783,000
	Telephone Lines	Communications	31	\$62,000
	Paved Road Surfaces	Transportation	30.5	\$15,250
	Gravel Road Surfaces	Transportation	0.5	\$250

Surry	Electrical Power Lines	Electricity (+46kv)	37.33	\$3,370,760
	Telephone Lines	Communications	32.68	\$65,360
	Paved Road Surfaces	Transportation	32.68	\$16,640
	Gravel Road Surfaces	Transportation	0	\$0

Swans Island	Electrical Power Lines	Electricity	22	\$704,000
	Telephone Lines	Communications	22	\$44,000
	Paved Road Surfaces	Transportation	14	\$7,000
	Gravel Road Surfaces	Transportation	8	\$4,000

Tremont	Electrical Power Lines	Electricity	30.84	\$986,880
	Telephone Lines	Communications	30.84	\$61,680
	Paved Road Surfaces	Transportation	25.06	\$12,530
	Gravel Road Surfaces	Transportation	5.78	\$2,890

Trenton	Electrical Power Lines	Electricity (+34.5kv)	24.51	\$1,968,880
	Telephone Lines	Communications	20.09	\$40,180
	Paved Road Surfaces	Transportation	20.09	\$10,045
	Gravel Road Surfaces	Transportation	0	\$0

Verona Island	Electrical Power Lines	Electricity	11.5	\$368,000
	Telephone Lines	Communications	11.5	\$23,000
	Paved Road Surfaces	Transportation	11.5	\$5,750
	Gravel Road Surfaces	Transportation	0	\$0

Waltham	Electrical Power Lines	Electricity (+115kv)	17.39	\$2,313,320
	Telephone Lines	Communications	14.76	\$29,520
	Paved Road Surfaces	Transportation	14.76	\$7,380
	Gravel Road Surfaces	Transportation	0	\$0

HANCOCK COUNTY HAZARD MITIGATION PLAN

Municipality	Critical Facility	Function Lost	Quantity (Miles)	Damage Cost
Winter Harbor	Electrical Power Lines	Electricity	14.85	\$475,200
	Telephone Lines	Communications	14.85	\$29,700
	Paved Road Surfaces	Transportation	13.85	\$6,925
	Gravel Road Surfaces	Transportation	1	\$500

T3 ND	Electrical Power Lines	Electricity	5.62	\$179,840
	Telephone Lines	Communications	5.62	\$11,240
	Paved Road Surfaces	Transportation	0	\$0
	Gravel Road Surfaces	Transportation	5.62	\$2,810

T4 ND	Electrical Power Lines	Electricity	0	\$0
	Telephone Lines	Communications	0	\$0
	Paved Road Surfaces	Transportation	0	\$0
	Gravel Road Surfaces	Transportation	0	\$0

T7 SD	Electrical Power Lines	Electricity (+34.5kv)	9.07	\$2,415,480
	Telephone Lines	Communications	1.14	\$2,280
	Paved Road Surfaces	Transportation	1.14	\$570
	Gravel Road Surfaces	Transportation	0	\$0

T8 SD	Electrical Power Lines	Electricity	2.15	\$68,800
	Telephone Lines	Communications	2.15	\$4,300
	Paved Road Surfaces	Transportation	2.15	\$1,075
	Gravel Road Surfaces	Transportation	0	\$0

T9 SD	Electrical Power Lines	Electricity	2.52	\$80,640
	Telephone Lines	Communications	2.52	\$5,040
	Paved Road Surfaces	Transportation	1.6	\$800
	Gravel Road Surfaces	Transportation	0.92	\$460

T10 SD	Electrical Power Lines	Electricity	7.77	\$248,640
	Telephone Lines	Communications	7.77	\$15,540
	Paved Road Surfaces	Transportation	7.77	\$3,885
	Gravel Road Surfaces	Transportation	0	\$0

T16 MD	Electrical Power Lines	Electricity (+115kv)	6.8	\$4,760,000
	Telephone Lines	Communications	0	\$0
	Paved Road Surfaces	Transportation	0	\$0
	Gravel Road Surfaces	Transportation	0	\$0

HANCOCK COUNTY HAZARD MITIGATION PLAN

Municipality	Critical Facility	Function Lost	Quantity (Miles)	Damage Cost
T22 MD	Electrical Power Lines	Electricity	5	\$160,000
	Telephone Lines	Communications	5	\$10,000
	Paved Road Surfaces	Transportation	5	\$2,500
	Gravel Road Surfaces	Transportation	0	\$0

T28 MD	Electrical Power Lines	Electricity	3.92	\$125,440
	Telephone Lines	Communications	3.92	\$7,840
	Paved Road Surfaces	Transportation	2.76	\$1,380
	Gravel Road Surfaces	Transportation	1.16	\$580

T32 MD	Electrical Power Lines	Electricity	1.05	\$33,600
	Telephone Lines	Communications	1.05	\$2,100
	Paved Road Surfaces	Transportation	0	\$0
	Gravel Road Surfaces	Transportation	1.05	\$525

T34 MD	Electrical Power Lines	Electricity	0	\$0
	Telephone Lines	Communications	0	\$0
	Paved Road Surfaces	Transportation	0	\$0
	Gravel Road Surfaces	Transportation	0	\$0

T35 MD	Electrical Power Lines	Electricity	0	\$0
	Telephone Lines	Communications	0	\$0
	Paved Road Surfaces	Transportation	0	\$0
	Gravel Road Surfaces	Transportation	0	\$0

T39 MD	Electrical Power Lines	Electricity	0	\$0
	Telephone Lines	Communications	0	\$0
	Paved Road Surfaces	Transportation	0	\$0
	Gravel Road Surfaces	Transportation	0	\$0

T40 MD	Electrical Power Lines	Electricity	0	\$0
	Telephone Lines	Communications	0	\$0
	Paved Road Surfaces	Transportation	0	\$0
	Gravel Road Surfaces	Transportation	0	\$0

T41 MD	Electrical Power Lines	Electricity	0	\$0
	Telephone Lines	Communications	0	\$0
	Paved Road Surfaces	Transportation	0	\$0
	Gravel Road Surfaces	Transportation	0	\$0

HANCOCK COUNTY HAZARD MITIGATION PLAN

Total County	Electrical Power Lines	Electricity	1,474.92	\$115,503,880
	Telephone Lines	Communications	1,332.45	\$2,664,900
	Paved Road Surfaces	Transportation	1,150.80	\$575,400
	Gravel Road Surfaces	Transportation	181.65	\$90,825
Grand Total				\$118,835,005

HANCOCK COUNTY HAZARD MITIGATION PLAN

Potential flood losses:

The primary damage losses that are expected in Hancock County during any flood event would be damage to local roads. In calculating the damage costs, the Planning Team assumed all roads that were either in the 100 year flood zone or had experienced flooding in the past would be effected. The Team used a figure of \$250,000/mile for rebuilding paved roads and \$130,000/mile for rebuilding gravel roads. The Team also assumed that any major structure or critical facility located in the 100 year flood zone would be effected. The following cost figures were supplied by Thorndike Engineering, Inc.

Municipality	Critical Facility	Function Lost	Level of Damage	Damage Cost
Amherst	None		0	\$0
Aurora	None		0	\$0
Bar Harbor \$800,100	Barnacle Lane	Transportation	1,800 LF	\$85,200
	Bridge Street		100 LF	\$4,700
	Crooked Street		2,400 LF	\$113,600
	Eden Street		300 LF	\$14,200
	Gilbert Farm Road		1,250 LF	\$59,200
	Norway Drive		2,250 LF	\$106,500
	Ocean Drive Road		500 LF	\$23,700
	Park Loop Road		900 LF	\$42,600
	Tuscany Road		800 LF	\$37,900
	State Route 3		2,400 LF	\$113,600
State Routes 102/198	4,200 LF	\$198,900		
Blue Hill \$260,400	Carleton Stream Lane	Transportation	200 LF	\$9,500
	Grindleville Road		700 LF	\$33,100
	Milliken Road		200 LF	\$9,500
	Parker Point Road		2,300 LF	\$108,900
	Salt Pond Road		700 LF	\$33,100
	State Route 15/172/176		300 LF	\$14,200
	State Route 172		200 LF	\$9,500
	State Route 176		900 LF	\$42,600
Brooklin \$4,700	Hales Wood Road	Transportation	100 LF	\$4,700
Brooksville \$1,124,500	Back Road	Transportation	1,350 LF	\$63,900
	Cape Rosier Road		6,000 LF	\$284,100
	Coastal Road		1,800 LF	\$85,200
	Dog Island Road		3,500 LF	\$165,700
	Goose Falls Road		1,300 LF	\$61,600
	Harbor side Road		1,750 LF	\$82,900
	Horseshoe Cove Road		1,500 LF	\$71,000
	Indian Bar Road		300 LF	\$14,200
	Varnum Road		600 LF	\$28,400
	Weir Cove Road		4,000 LF	\$189,400
	State Route 175		100 LF	\$4,700
	State Route 176		1,550 LF	\$73,400

*LF = Linear Foot

HANCOCK COUNTY HAZARD MITIGATION PLAN

Municipality	Critical Facility	Function Lost	Level of Damage	Damage Cost
Bucksport \$5,001,500	Penobscot Narrows Bridge	Transportation	1	\$85,000,000
	Buck Street		50 LF	\$2,400
	Central Street		100 LF	\$4,700
	Duck Cove Road		3,500 LF	\$165,700
	Franklin Street		150 LF	\$7,100
	Hinks Road		200 LF	\$9,500
	Jacob Buck Pond Road		200 LF	\$9,500
	Main Street		5,500 LF	\$260,400
	Mast Hill Road		2,500 LF	\$118,400
	Mill Street		200 LF	\$9,500
	Millvale Road		200 LF	\$9,500
	Outer Bucks Mills Road		200 LF	\$9,500
	Pine Street		100 LF	\$4,700
	Pond Street		100 LF	\$4,700
	Russell Hill Road		750 LF	\$35,500
Silver Lake Road	1,400 LF	\$66,300		
State Route 46	6,000 LF	\$284,100		
Castine \$1,614,700	Residential	Shelter	10	\$1,215,000
	Commercial	Economic	2	\$240,000
	Town Dock & Beach	Economic/Social	1	\$1,500
	Municipal Sewer Infiltration	Utilities	Multiple	\$2,000
	Back Cove Road	Transportation	1,000 LF	\$47,300
	Castine Road		1,000 LF	\$47,300
	Wadsworth Cove Road		1,300 LF	\$61,600
Cranberry Isle \$94,700	Main Road	Transportation	2,000 LF	\$94,700
Dedham \$36,900	Green Lake Road	Transportation	1,500 LF	\$36,900
Deer Isle \$59,255,900	Residential	Shelter	800	\$55,761,000
	Utilities	Utilities	3	\$1,660,000
	Fire Station	Emergency Svcs	1	\$350,000
	Library	Public Services	1	\$100,000
	Dow Road	Transportation	1,500 LF	\$71,000
	Dunham Point Road		1,300 LF	\$61,600
	Eggemoggin Road		3,100 LF	\$146,800
	Ferry Road		200 LF	\$9,500
	Fish Creek Road		7,500 LF	\$355,100
	Greenlawn District Road		700 LF	\$33,100
	North Deer Isle Road		4,750 LF	\$224,900
	Pressey Village Road		1,100 LF	\$52,100
	Reach Road		3,000 LF	\$142,000
Sunset Road		600 LF	\$28,400	
Sunshine Road		5,500 LF	\$260,400	
Eastbrook \$9,500	Molasses Pond Road	Transportation	200 LF	\$9,500

HANCOCK COUNTY HAZARD MITIGATION PLAN

Municipality	Critical Facility	Function Lost	Level of Damage	Damage Cost
Ellsworth \$15,800,300	Residential	Shelter	51	\$4,750,000
	Commercial	Economic	17	\$1,476,000
	Non-Pro/Gov/Ed/Religious	Public Services	6	\$3,000,000
	Utilities	Utilities	2	\$1,800,000
	Union River Bridge	Transportation	1	\$4,000,000
	Bayside Road		200 LF	\$9,500
	Boggy Brook Road		500 LF	\$23,700
	Branch Lake Road		500 LF	\$23,700
	Central Street		400 LF	\$18,900
	Cook Lane		300 LF	\$14,200
	Dean Street		600 LF	\$28,400
	Gary Moore Road		500 LF	\$23,700
	Grant Street		3,200 LF	\$151,500
	High Street		350 LF	\$16,600
	Infant Street		800 LF	\$37,900
	Mae Street		200 LF	\$9,500
	Nicolin Road		500 LF	\$23,700
	Old Bangor Road		300 LF	\$14,200
	Pump Station Road		350 LF	\$16,600
	Royal Street		200 LF	\$9,500
	Russ Smith Road		100 LF	\$4,700
	Shore Road		3,200 LF	\$151,500
	Spindle Road		100 LF	\$4,700
	Washington Street		50 LF	\$2,400
Winkumpaugh Road		200 LF	\$9,500	
State Route 179		3,000 LF	\$142,000	
US Route 1A		800 LF	\$37,900	
Franklin \$818,700	Fire Station	Emergency Svcs	1	\$350,000
	Donnell Pond Road	Transportation	200 LF	\$9,500
	Great Pond Road		300 LF	\$14,200
	Macomber Mill Road		1,700 LF	\$80,500
	Old Route 182		300 LF	\$14,200
	Shipyard Point Road		500 LF	\$23,700
	West Franklin Road		3,000 LF	\$142,000
	Winter Cove Road		400 LF	\$18,900
	State Route 182		3,100 LF	\$146,800
	State Route 200		400 LF	\$18,900
Frenchboro	None		0	\$0

HANCOCK COUNTY HAZARD MITIGATION PLAN

Municipality	Critical Facility	Function Lost	Level of Damage	Damage Cost
Gouldsboro \$1,010,800	Municipal Office	Public Services	1	\$150,000
	Fire Station	Emergency Svcs	1	\$300,000
	Cranberry Point Road	Transportation	800 LF	\$37,900
	East Schoodic Drive		1,800 LF	\$85,200
	Gouldsboro Point Road		600 LF	\$28,400
	Ground Marsh Bay Road		1,200 LF	\$56,800
	Guzzle Road		1,000 LF	\$47,300
	Lighthouse Point Road		200 LF	\$9,500
	Main Street		1,100 LF	\$52,000
	Old US Route 1		300 LF	\$14,200
	Summer Point Road		1,100 LF	\$52,000
	West Bay Road		1,200 LF	\$56,800
	State Route 186		1,500 LF	\$71,000
	State Route 195		300 LF	\$14,200
	US Route 1		750 LF	\$35,500
Great Pond	None		0	\$0
Hancock \$5,362,100	Hancock-Sullivan Bridge		1	\$5,000,000
	Bay Avenue		2,000 LF	\$94,700
	Blue Star Memorial Hwy	Transportation	1,500 LF	\$142,000
	East Side Road		500 LF	\$23,700
	Ferry Road		750 LF	\$35,500
	Fire Road 13		1,000 LF	\$47,300
	Fire Road 15		400 LF	\$18,900
Lamoine \$14,428,300	Residential	Shelter	200	\$13,600,000
	Commercial	Economic	1	\$120,000
	Jordan River Road	Transportation	2,100 LF	\$99,400
	Mud Creek Road		5,500 LF	\$206,400
	Pinkhams Flat Road		4,000 LF	\$189,400
	Woodcock Lane		4,000 LF	\$189,400
State Route 204		500 LF	\$23,700	
Mariaville \$4,174,200	Residential	Shelter	112	\$4,160,000
	State Route 181	Transportation	300 LF	\$14,200
Mount Desert \$858,600	Government	Public Services	1	\$266,800
	Bartlett Landing Road	Transportation	1,500 LF	\$71,000
	Cooksey Road		100 LF	\$4,700
	Indian Point		6,000 LF	\$284,100
	Main Street		1,500 LF	\$71,000
	Ocean Drive		500 LF	\$23,700
	Old County Road		200 LF	\$9,500
	Sargent Drive		500 LF	\$23,700
	Stanley Road		300 LF	\$14,200
	Upper Dunbar Road		400 LF	\$18,900
State Route 3		1,500 LF	\$71,000	
Osborn	None		0	\$0

HANCOCK COUNTY HAZARD MITIGATION PLAN

Municipality	Critical Facility	Function Lost	Level of Damage	Damage Cost
Orland \$108,900	Castine Road	Transportation	400 LF	\$18,900
	Mast Hill Road		500 LF	\$23,700
	North Orland Road		800 LF	\$37,900
	State Route 3/15		600 LF	\$28,400
Otis	None		0	\$0
Penobscot \$142,000	State Route 166	Transportation	400 LF	\$18,900
	State Route 175/199		2,400 LF	\$113,600
	State Route 199		200 LF	\$9,500
Sedgwick \$577,700	Byards Point Road	Transportation	2,500 LF	\$118,400
	Carter Point Road		2,500 LF	\$118,400
	Christy Hill Road		750 LF	\$35,500
	Hales Hill Road		750 LF	\$35,500
	Highland Avenue		200 LF	\$9,500
	Old County Road		200 LF	\$9,500
	Main Street		250 LF	\$11,800
	Mill Road		100 LF	\$4,700
	North Sedgwick Road		2,750 LF	\$130,200
	Shore Road		200 LF	\$9,500
	Snows Cove Road		800 LF	\$37,900
	State Route 15		1,000 LF	\$47,300
State Route 176	200 LF	\$9,500		
Sorrento \$71,000	Treasurer Island Road	Transportation	1,000 LF	\$47,300
	State Route 185		500 LF	\$23,700
Southwest Harbor \$444,422	Bass Harbor Road	Transportation	750 LF	\$35,500
	Clarke Point Road		2000 LF	\$94,700
	Fernals Point Road		500 LF	\$23,700
	Long Pond Road		1,500 LF	\$71,000
	Main Street		500 LF	\$23,700
	Seal Cove Road		1,500 LF	\$85,200
	Seawall Road		2,000 LF	\$94,700
Shore Road	635 LF	\$30,100		
Stonington \$506,600	Airport Road	Transportation	1,500 LF	\$71,000
	Atlantic Avenue		50 LF	\$2,400
	Bay View Street		300 LF	\$14,200
	Burnt Cove Road		600 LF	\$28,400
	Cross Road		800 LF	\$37,900
	Fifield Point Road		500 LF	\$23,700
	Green Head Road		800 LF	\$37,900
	Indian Point Road		200 LF	\$9,500
	Oceanville Road		3,200 LF	\$151,500
	Sand Beach Road		800 LF	\$37,900
	Sunset Avenue		750 LF	\$35,500
	West Main Street		100 LF	\$4,700
	West Stonington Road		600 LF	\$28,400
Whitman Road	400 LF	\$18,900		
State Route 15	100 LF	\$4,700		

HANCOCK COUNTY HAZARD MITIGATION PLAN

Municipality	Critical Facility	Function Lost	Level of Damage	Damage Cost
Sullivan \$21,042,753	Residential	Shelter	350	\$19,821,270
	Agricultural	Economic	1	\$264,650
	Government	Public Service	10	\$956,833
Surry \$265,200	Newbury Neck Road	Transportation	3,400 LF	\$161,000
	North Bend Road		300 LF	\$14,200
	State Route 172		600 LF	\$28,400
	State Route 176		1,300 LF	\$61,600
Swans Island \$1,026,050	North Road	Transportation	1,000 LF	\$47,300
	Church/Non-Profit	Social	1 ea	\$65,000
	Public Facilities	Public Services	6 ea	\$745,000
	Utilities	Public Services	2 ea	\$168,750
Tremont \$16,438,300	Residential	Shelter	76	\$10,200,000
	Commercial	Economic	14	\$5,500,000
	Government	Public Services	3	\$530,000
	Cape Road	Transportation	2,000 LF	\$94,700
	Crockett Point Road		100 LF	\$4,700
	Dix Point Road		100 LF	\$4,700
	Dodge Point Road		350 LF	\$16,600
	Granville Road		100 LF	\$4,700
	Lopaus Point Road		600 LF	\$28,400
	Moose Isle Bar Road		200 LF	\$9,500
	Rice Road		50 LF	\$2,400
State Route 102	900 LF		\$42,600	
Trenton \$322,000	Bar Harbor Road		Transportation	3,000 LF
	Bayside Road	600 LF		\$28,400
	Oak Point Road	200 LF		\$9,500
Verona Island	None		0	\$0
Waltham \$104,100	State Route 179	Transportation	1,800 LF	\$85,200
	State Route 200		400 LF	\$18,900
Winter Harbor \$1,782,400	Fire Station	Transportation	1	\$350,000
	Beach Street		2,800 LF	\$132,600
	East Schoodic Drive		12,000 LF	\$568,200
	Harbor Road		50 LF	\$2,400
	Main Street		2,100 LF	\$99,400
	Moore Road		8,500 LF	\$402,500
	Schoodic Point Road		2,000 LF	\$94,700
	Shore Road		1,400 LF	\$66,300
	Summer Harbor Road		500 LF	\$23,700
State Route 186	900 LF	\$42,600		
Total				\$153,487,125

HANCOCK COUNTY HAZARD MITIGATION PLAN

Potential Wildfire losses:

The primary damage losses that are expected in Hancock County during any wildfire event would be destruction of single-family residential structures. In calculating the damage costs, the Planning Team assumed all homes located in the wildland-urban interface would be destroyed in a worst case wildfire scenario. The Team used the actual total municipal assessment figures for the residential structures in their communities. The following percentages were used to determine an estimated number of homes that could be potential losses. For each community, the "Community Size" value was added to the "Land Cover" and "Number of Fires" values.

Community Size
 Very Rural = +25%
 Semi-Rural = +10%
 Sub-Urban = +5%

Land Cover Value
 Moderate = +25%
 Low = +10%

Number of fires in 7 years
 Over 30 = +35%
 20-29 = +25%
 10-19 = +15%
 1-9 = +5%

Municipality	Critical Facility	Function Lost	Level of Damage	Damage Cost
Amherst	Homes (55%)	Shelter	84	\$3,147,000
Aurora	Homes (55%)	Shelter	65	\$2,305,000
Bar Harbor	Homes (20%)	Shelter	560	\$66,365,000
Blue Hill	Homes (25%)	Shelter	372	\$42,220,000
Brooklin	Homes (40%)	Shelter	280	\$31,980,000
Brooksville	Homes (40%)	Shelter	316	\$37,170,000
Bucksport	Homes (40%)	Shelter	800	\$44,800,000
	Commercial	Economic	2	\$660,000
	Industrial	Economic	5	\$100,000,000
	Agricultural	Economic	1	\$167,000
	Religious, NonP	Social	1	\$100,000
	Government	Public Services	6	\$370,000
	Schools	Educational	2	\$5,000,000
Castine	Homes (20%)	Shelter	123	\$14,954,000
Cranberry Isle	Homes (35%)	Shelter	120	\$16,800,000
Dedham	Homes (35%)	Shelter	535	\$31,675,000
Deer Isle	Homes (30%)	Shelter	472	\$31,365,000
Eastbrook	Homes (55%)	Shelter	234	\$7,333,000
Ellsworth	Homes (40%)	Shelter	1220	\$68,160,000
Franklin	Homes (50%)	Shelter	450	\$18,910,000
Frenchboro	Homes (35%)	Shelter	21	\$1,864,000
Gouldsboro	Homes (25%)	Shelter	515	\$35,833,000
Great Pond	Homes (40%)	Shelter	27	\$1,400,000
Hancock	Homes (20%)	Shelter	240	\$11,692,000
Lamoine	Homes (25%)	Shelter	200	\$13,600,000
	Commercial	Economic	5	\$600,000
	Religious	Social	3	\$255,000
	Government	Public Services	4	\$362,000
	Schools	Education	1	\$850,000

HANCOCK COUNTY HAZARD MITIGATION PLAN

Municipality	Critical Facility	Function Lost	Level of Damage	Damage Cost
Mariaville	Homes (40%)	Shelter	122	\$4,532,000
	Commercial	Economic	5	\$287,000
	Religious/N-Prof	Social	1	\$140,000
	Government	Public Services	2	\$87,000
Mount Desert	Homes (15%)	Shelter	360	\$58,146,000
	Commercial	Economic	47	\$13,249,000
	Agricultural	Economic	1	\$343,000
	Religious/N-Prof	Social	3	\$1,682,000
	Government	Public Services	7	\$1,868,000
	Utilities	Public Services	3	\$2,800,000
Orland	Homes (30%)	Shelter	376	\$15,798,000
Osborn	Homes (40%)	Shelter	43	\$1,582,000
Otis	Homes (40%)	Shelter	370	\$21,006,000
Penobscot	Homes (45%)	Shelter	325	\$16,616,000
Sedgwick	Homes (35%)	Shelter	235	\$15,467,000
Sorrento	Homes (40%)	Shelter	113	\$10,903,000
Southwest Harbor	Homes (25%)	Shelter	322	\$10,998,000
Stonington	Homes (25%)	Shelter	227	\$17,425,000
Sullivan	Homes (75%)	Shelter	526	\$29,732,000
	Commercial	Economic	69	\$8,771,000
	Agricultural	Economic	2	\$529,000
	Government	Public Services	24	\$2,296,000
	Educational	Public Services	2	\$2,212,000
Surry	Homes (40%)	Shelter	365	\$28,876,000
Swans Island	Homes (35%)	Shelter	147	\$10,998,000
Tremont	Homes (25%)	Shelter	270	\$39,757,000
Trenton	Homes (25%)	Shelter	258	\$27,917,000
Verona Island	Homes (40%)	Shelter	105	\$6,172,000
Waltham	Homes (55%)	Shelter	97	\$3,888,000
Winter Harbor	Homes (40%)	Shelter	223	\$14,486,000
Unorganized Townships	Homes (55%)	Shelter	60	\$3,500,000
Total County				\$962,000,000

HANCOCK COUNTY HAZARD MITIGATION PLAN

Potential EHS HazMat Incident impacts:

It is very doubtful that an incident involving the types of Extremely Hazardous Substances (EHS) hazardous materials (HazMat) present in Hancock County will cause structural damage to any critical facilities.

The EHS materials present in Hancock County are Anhydrous Ammonia, Hydrochloric Acid, Sulfuric Acid, Chlorine, and Sodium Hypochlorite. These chemicals are primarily corrosive gases and liquids that will not travel far from their containers unless in gaseous form. They will not damage facilities. The primary hazard is an inhalation hazard for people caught in the cloud plume.

However, the following critical facilities are located in the transportation corridors and fixed facility cordons of EHS materials in the County. These facilities may need to be evacuated and the services they provide may be curtailed until the incident is stabilized.

The most critical facilities listed below will be the emergency services facilities of fire, police, and ambulance and the special needs population facilities such as the schools. The emergency responders could themselves be caught up in the hazardous plume before they could respond and therefore stabilize the incident. Evacuation of the schools, because of the large numbers of children will be difficult.

Municipality	Critical Facility
Amherst	Municipal Office
Aurora	Municipal Office, Fire Station, Elementary School
Bar Harbor	Municipal Office, 2 Fire Stations, Library, Elementary School, College, YMCA/YWCA, Ferry Service, Biological Lab, Hospital, Red Cross, Police Station, Public Works, and Waste Water Treatment Plant
Bucksport	Municipal Office, Library, Post Office, 3 Schools, Health Center, and Fire & Police Station
Dedham	Fire Station and Elementary School
Ellsworth	County Courthouse & Jail, City Hall, EMS, Fire and Police Station, Library, Technical Center, 4 Schools, Hospital, Red Cross & Recycling Center
Franklin	Library
Gouldsboro	Clinic & Library
Hancock	Municipal Office, School, 2 Fire Stations, Recycling Center, Post Office
Mount Desert	Municipal Office, Recreation Center, 2 Libraries, 2 Fire Stations, EMS
Orland	Municipal Office, Fire Station, Post Office and Elementary School
Sullivan	Municipal Office, 2 Fire Stations, Library, High School
Trenton	Municipal Office, Regional Airport, Elementary School
Verona Island	Municipal Office

HANCOCK COUNTY HAZARD MITIGATION PLAN

Potential Transportation Mass Casualty Incident losses:

It is very unlikely, though not impossible, that an incident involving a cruise ship, tour bus, or passenger aircraft would cause structural damage to any critical facilities. The Planning Team had no statistical method to estimate the potential of an aircraft or bus striking a critical facility.

The primary losses that are expected in Hancock County from a transportation accident involving a cruise ship, tour bus or passenger aircraft will be loss of life.

We assumed a single catastrophic accident in our potential loss estimate.

Cruise Ship Fatalities & Injuries	1-1000
Tourist Bus Fatalities & Injuries	1-25
Aircraft Crash Fatalities & Injuries	1-25
Tourism Economy	Tens of Thousands daily
Property destroyed in incident	\$10,000-\$100,000,000

HANCOCK COUNTY HAZARD MITIGATION PLAN

ASSESSING VULNERABILITY: ANALYZING DEVELOPMENT TRENDS

Requirement §201.6(c)(2) (ii)(C):	The plan should describe vulnerability in terms of 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.
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Hancock County is located along the down-east coastline of Maine and is largely rural. A majority of the County's land use is designated as Rural and is primarily forestland or farmland. The largest city, Ellsworth, which has a year-round population of 6,456, is located in the southern half of the 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 requires each community to develop a Municipal Comprehensive Plan. 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 must review existing conditions and predict future needs in order to develop their own plans, policies, and ordinances. Most municipalities in Hancock County have enacted Flood zone, Shoreland Zone, and other land use ordinances, however only 2 or 3 municipal land use ordinances are consistent with State Planning Office guidelines.

Severe winter storms will have an impact on all land use areas and zones within the 37 communities in Hancock County. This hazard has the primary impact of shutting down transportation and power, which will shut down business, industry, commerce and schools and stop all social and emergency services.

Flooding will have an impact on all land use areas and zones within the 37 communities in Hancock County. This hazard has the primary impact of shutting down transportation, since it is primarily the roads that are the object of flooding in the County. This could impact business, industry, commerce and schools and delay many social and emergency services.

The majority of the municipalities (30 of 37) and all 15 Unorganized Townships in Hancock County have enacted floodplain ordinances to prevent new commercial, industrial, and institutional development within flood zones. Six towns are not members of the NFIP program; these are: Aurora, Amherst, Dedham, Eastbrook, Franklin, Verona Island and Waltham. There are some existing commercial developments within flood zones in the County, however many of these are fishing related. These business have been in place for many years and are upgraded to meet floodplain ordinances as the structures are renovated or replaced. Additionally, there are a number of homes and seasonal camps that are within the flood zones. Likewise, as these properties are mortgaged, they are required to be upgraded in order to meet the ordinances.

Wildfires will have an impact on the residential properties located within the Wildland-Urban Interface. Because Hancock County is a very densely forested, sparsely populated area, there are a great number of homes that are at risk to destruction by forest fires. Currently, no municipality in Hancock County has wildfire restrictions or requirements on residential development.

HANCOCK COUNTY HAZARD MITIGATION PLAN

Hazardous Materials will have an impact on all land use areas and zones within a ½ mile foot buffer around U.S. Route 1, U.S. Route 1A, State Route 9 and the 13 EHS facilities. This hazard has the primary impact of causing mass evacuations, mass sheltering in place or traffic stoppages. This will shut all activities in the hazard area for a short period of time. Seventeen of the 37 communities can be directly effected by a hazardous material incident.

Mass Casualty Incident will have an impact on all land use areas and zones in the immediate vicinity of U.S. Route 1, U.S. Route 1A, State Route 9 in the event of a ground vehicle related mass casualty accident and the surrounding area of an aircraft accident. Maritime zones could be impacted by a maritime vehicle accident such as a ferry or cruise ship. This hazard has the primary impact of disrupting traffic and overtaking emergency medical services. This will most likely only cause disruption in one or two communities at a time.

The Hancock County Planning Commission has found that “Hancock County is facing very uneven growth, with the coastal communities having a relatively slow rate of year-round population while inland communities grew rapidly. For example, the Mount Desert Island towns had a 7 percent population increase between 1990 and 2000 compared to a 50 percent increase for the same time period for Mariaville. Overall, the county’s year-round population increased by about 50 percent between 1970 and 2000 compared to a 28 percent increase for the state as a whole. This imbalance is due in part to high coastal real estate prices that force more people to move to less costly inland locations and have long commutes to the coastal employment centers.”

The Hancock County Planning Commission also determined that "another land development issue is the rapid increase in the number of second homes, whose numbers increased from 5,536 in 1970 to 10,672 in 2000. Most of these have been built in waterfront and water view locations. In many cases, these homes have been built on roads with poor access for emergency services. These homes are often converted to year-round use when the owners retire.”

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

Municipality	Land Use & Shoreland Zoning Types	Growth Areas
Amherst	Resource Protection, Stream Protection	None
Aurora	Resource Protection, Stream Protection, Limited Residential, Limited Commercial, General Development, Resource Management, Shoreland Residential	Limited Commercial, General Development
Bar Harbor	General Commercial Development, Limited Commercial/Transient Accommodations, Higher Intensity Residential Development, Moderate Intensity Residential Development, Industrial & Scientific Research & Production, Rural, and Conservation Districts	Hulls Cove, Town Hill, Bar Harbor Corridor, Ireson Hill Corridor, Scientific Research
Blue Hill	Wetlands, Commercial Fisheries & Maritime Activities, Resource Protection, Limited Residential, Limited Commercial, Stream Protection	Commercial Fisheries & Maritime Activities, Limited Commercial
Brooklin	Resource Protection, Limited Residential-Recreational, General Development, Split	General Development

HANCOCK COUNTY HAZARD MITIGATION PLAN

Municipality	Land Use & Shoreland Zoning Types	Growth Areas
Brooksville	Shoreland, Resource Protection	None
Bucksport	Commercial Fisheries, Downtown Shoreland, General Industrial, Limited Residential, Rte 1 Shoreland, Resource Protection, Rte 15 Residential & Commercial, Downtown, Rte 1 Commercial, Heavy Industrial, Industrial Park, Residential Growth, Village, Stream Protection	General Industrial, Rte 15 Residential & Commercial, Rte 1 Commercial, Industrial Park, Residential Growth
Castine	Village, Rural, Commercial, Institutional, Resource Protection, Watershed Protection Overlay	Commercial
Cranberry Isle	Water Dependent Commercial-Residential, Resource Protection, Low Density Residential, Mixed Residential, Business, Significant Wetlands	Mixed Residential, Business
Dedham	Resource Protection, Rural Residential, Commercial, Growth	Commercial, Growth
Deer Isle	Maritime, Resource Protection, General Development, Harbor, Public Use, Ponds and Islands	General Development
Eastbrook	Resource Protection, Shoreland, Rural Residential	None
Ellsworth	Urban Residential, Rural Residential, Farming, Natural Resources, Business Park, Commercial, Retail, Service, Industrial	Urban Residential, Business Park, Commercial, Retail, Service, Industrial
Franklin	Residential, Seasonal Residential, Commercial, Industrial, Municipal Facilities, Parks, Organizations, Public Utilities, Tree Growth, Agricultural, Conservation Easement, Federal	Commercial, Industrial
Frenchboro	Village	None
Gouldsboro	Resource Protection, Shoreland, General Development	U.S. Route 1 Traffic Corridor
Great Pond	Resource Protection, Stream Protection, Limited Residential, Limited Commercial, General Management, General Development	Limited Commercial, General Management, General Development
Hancock	Resource Protection, Aquifer Protection, Stream Protection, Shoreland Residential, Shoreland Development, Rural Residential, Commercial, Mobile Home, Industrial, Rural Undeveloped	Shoreland Development, Commercial, Mobile Home, Industrial
Lamoine	Rural, Agricultural, Residential Development, Limited Residential, Limited Commercial, Resource Protection, Commercial Fisheries & Maritime Activities	Residential Development, Limited Commercial
Mariaville	Resource Protection, Limited Resource Protection, Forest Resource Management, Roadside Rural Residential, Rural Development	Roadside Rural Residential
Mount Desert	Village Commercial, Shoreland Commercial, Village Residential, Residential, Shoreland Residential, Rural or Woodland, Resource Protection, Conservation	Village Commercial
Orland	Limited Residential, Limited Commercial, Commercial Fisheries & Maritime Activities, Resource Protection, Stream Protection, General Development	Limited Commercial, General Development

HANCOCK COUNTY HAZARD MITIGATION PLAN

Municipality	Land Use & Shoreland Zoning Types	Growth Areas
Osborn	Resource Protection, Stream Protection	None
Otis	Resource Protection, Limited Residential, Stream Protection	None
Penobscot	Resource Protection, Limited Residential, Stream Protection, Limited Commercial, General Development, Fisheries, Maritime	Limited Commercial, General Development
Sedgwick	Limited Residential-Recreational, Resource Protection, Water	None
Sorrento	Wetlands, Resource Protection, Limited Residential, General Development, Commercial Fisheries	General Development
Southwest Harbor	Residential Shoreland, Harbor, Marine Activity, Acadia National Park, & Resource Protection	None
Stonington	Resource Protection, Limited Residential, Stream Protection, Limited Commercial, General Development, Commercial Fisheries & Maritime Activities	Limited Commercial, General Development
Sullivan	Wetland, Stream Protection, Resource Protection, General Development, Limited Residential, Limited Commercial, Commercial Fisheries/Maritime Activity	General Development
Surry	Village, Roadside Commercial, Residential Growth, Forest & Agriculture, Water	Village, Roadside Commercial, Residential Growth
Swans Island	Fishery, Residential, Resource Protection	None
Tremont		
Trenton	Airport/Commercial/Industrial, Business Park, Gateway Commercial, Rural Commercial, Rural Development, Resource Protection, Resident, Village, Shoreland Zone	Airport/Commercial/Industrial, Business Park, Gateway Commercial, Rural Commercial, Rural Development, Village
Verona Island	Stream Protection, Resource Protection	None
Waltham	Stream Protection, Resource Protection, Limited Residential-Recreational	None
Winter Harbor	Resource Protection, Stream Protection, Residential-Recreation, Limited Residential, General Development, Rural, Federal	General Development

HANCOCK COUNTY HAZARD MITIGATION PLAN

MULTI-JURISDICTIONAL RISK ASSESSMENT

Requirement §201.6(c)(2) (iii):	For multi-jurisdictional plans, the risk assessment section must assess each jurisdiction's risks where they vary from the risks facing the entire planning area.
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Hancock County is a mid-sized county of 51,714 people living in **1,522** square miles located along the coast of Maine within the eastern half of the state. There are 37 municipalities and 15 Unorganized Townships within the County. All thirty-seven municipalities contributed to the risk assessment analyses performed for the Hancock County Hazard Mitigation Plan.

The Planning Team identified severe winter storms as the most significant natural risk to the entire County, followed in severity by wildland fire, then by severe summer (coastal) storms, and by generalized flooding. However, the risks vary between the two primary regions of the County - the coastal communities and the inland communities.

Although all areas are at risk from flooding caused by coastal storms and hurricanes, it is the coastal and island communities that face the greatest potential losses. The towns of Bar Harbor, Blue Hill, Brooklin, Brooksville, Castine, Cranberry Isle, Deer Isle, Gouldsboro, Hancock, Lamoine, Mount Desert, Penobscot, Sedgwick, Sorrento, Southwest Harbor, Stonington, Sullivan, Surry, Swans Island, Tremont, Trenton and Winter Harbor all have inhabited coastlines. Additionally, these communities contain 67% of the County's summer population, many who are seasonal visitors. The remediation of severe storms, and the subsequent risks from coastal erosion and storm surge flooding identified in the Mitigation Plan is limited to these communities.

Although all areas are at risk from forest fires, it is the sparsely-populated areas of the northern parts of the county that face extensive acreage losses and the communities in and around Acadia National Park, which contains 10,000 acres of forestland, that face extensive damages to homes and businesses. The northern part of the county contains fifteen unorganized territories and the towns of Amherst, Aurora, Eastbrook, Great Pond, Mariaville, Osborn, and Waltham. These communities account for 3% of the County's year round population. The resources for wildland fire fighting from the municipal departments is very limited. The communities of Mount Desert Island still vividly remember the "Fire of '47" when 400 homes were lost. The residential population density is several times greater today.

A HazMat or Mass Casualty incident will mostly occur along U.S Routes 1 and 1A, on State Route 3 or on one of the local roads on Mount Desert Island. This will impact the communities of Bar Harbor, Bucksport, Dedham, Ellsworth, Gouldsboro, Hancock, Lamoine, Mount Desert, Orland, Southwest Harbor, Sullivan, Tremont, Trenton, and Verona Island. It is doubtful that there would be significant damages to structures; this would be a mass casualty event or would cause environmental damage.

The towns of Bar Harbor, Bucksport, Ellsworth, Franklin, Gouldsboro, Hancock, Orland, Otis, Sedgwick and Southwest Harbor contain Extremely Hazardous Substance (EHS) Facilities. These communities face the risk of an accidental release of a chemical that could cause serious harm to residents that are down wind of the release. It is doubtful that there would be significant damages to structures; this would be a mass casualty event or would cause environmental damage.

HANCOCK COUNTY HAZARD MITIGATION PLAN

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