FACT CARDS!

Information about CHAT's Recommendations to the Town of Hampton to Increase Resilience to Flooding and Coastal Hazards

Contents

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Background

CHAT is a Hampton, NH-based workgroup comprised of representatives from boards and commissions in Hampton, Town of Hampton staff, Hampton Beach Area Commission, Hampton Beach Village District, the Seabrook-Hamptons Estuary Alliance (SHEA), and resident representatives. NHDES Coastal Program staff and a consultant provide support. SHEA serves as the administrator and fiscal agent of CHAT. Since January 2019, CHAT has met monthly to discuss and investigate the town's vulnerability to flooding and opportunities to increase resiliency.

3 Adaptation General Goals:

Keep the water out

Live with the water

Get out of the water's way

Source: NH DES

Background (con't)

CHAT has 3 key objectives:

1. Improve coordination of flood hazard management and adaptation efforts in Hampton.

2. Investigate, evaluate, and prioritize flood management and adaptation strategies and present recommendations to the municipal boards, commissions, and staff for consideration.

3. Conduct education and public outreach to inform residents about flood hazard adaptation strategies, inform residents about the management and adaptation options the Town is considering, and enable residents to provide input on management and adaptation options the Town is considering.

Background (con't)

CHAT has developed a Strategic Engagement Plan to guide a public outreach and engagement effort that is designed to inform and gather input about CHAT's recommendations CHAT has developed from residents, businesses, Town staff, boards, commissions, and committees, and other community members. This set of Fact Cards is an initial phase of the public engagement process. Learn more at: http://shea4nh.org/coastal-hazards-adaptation-team-chat.

Sea Level Rise and Flooding

Excerpts from Hampton's Coastal Resilience Master Plan Section

Local sea level in coastal NH is rising and projected to continue rising for centuries due to ocean warming and the melting of glaciers and ice sheets. Based on tide-gauge data from Seavey Island and Portland, Maine, local sea level in coastal New Hampshire has risen approximately 7.5 to 8.0 inches from 1912 through 2018, or about 0.7 feet in a century. In the future, this rate of local sea level rise is expected to accelerate.

According to Part I: Science, if global greenhouse gas concentrations stabilize by the end of the century, coastal New Hampshire is likely to experience between half a foot and 1.3 feet of sea level rise (relative to sea level in 2000) by 2050. It is less likely, but possible that sea-level rise could exceed 2.9 feet by 2050. After 2050, there is more uncertainty and a large range in possible projections. For example, by 2100, coastal New Hampshire is likely to experience between 1 and 3 feet of sea-level rise, but could see more than 8.7 feet of sea-level rise, again assuming that greenhouse gas concentrations stabilize. If global greenhouse gas concentrations continue to grow, sea-level rise projections are much higher (Source: NH Flood Risk Guidance, Hampton Coastal Resilience Content).

Image: Liz Durfee

CHAT's Recommendations

CHAT has developed a set of planning, policy, staffing, outreach, research, and regulatory recommendations after engaging in thoughtful and comprehensive discussions about strategies and options to address the challenges that the Town, residents, and property owners face with respect to current flooding and future sea level rise. The target audience of these recommendations is the Town, including departments, boards, commissions, and committees.

Information about what the recommendation means and why CHAT proposes this recommendation is included on the following pages of this fact card set.

Increase efforts to engage and inform the community of flood hazards, vulnerability, and opportunities to increase resilience.

What it means:

Town staff and board, commissions, and committees should provide meaningful opportunities for community members to learn about and discuss flood hazards, vulnerability, and opportunities to increase resilience. The Town should engage residents in identifying appropriate adaptation strategies and solutions and understanding the resources available to individuals and the municipality.

Resilience (coastal) can be defined as the ability of a community or system to proactively prepare for and bounce back (better) from hazardous events such as hurricanes, coastal storms, and long-term sea-level rise and associated flooding, rather than simply react and respond (Source: NH Coastal Flood Risk Guidance).

A

Why does CHAT recommend this?

Community members, including property owners, year-round and seasonal residents, business owners, people who work in Hampton, and others should be aware of current and future hazards and risks associated with flooding and sea level rise. Community members are integral participants in identifying appropriate adaptation strategies for the town. The Town can also play a role in helping educate community members about what they can do to reduce vulnerability of their property.

More information:

- Coastal hazards in Hampton: Hampton New Hampshire 2021 Master Plan Update Coastal Resilience Report
- Coastal flood risk and guidance for NH: New Hampshire Coastal Flood Risk Summary, Park II: Guidance for Using Scientific Projections
- Climate change in NH: New Hampshire Climate Assessment 2021
- Actions and projects that increase resilience in Hampton: Resilient Hampton video
- Your home (or business)'s risk factors: Riskfactor.com

Prohibit new construction within the Special Flood Hazard Area (SFHA).

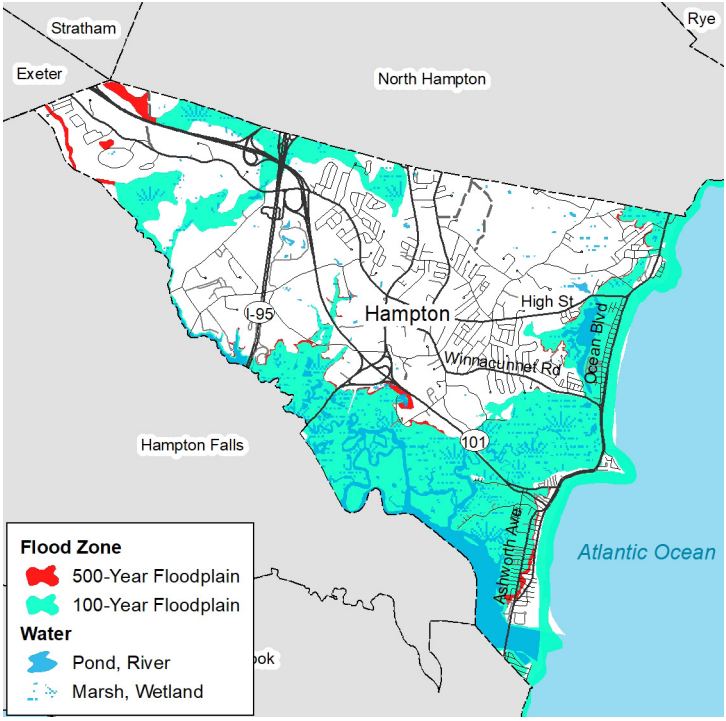
What it means:

New development should not be allowed within the Special Flood Hazard Area (SFHA), which is the area within the 100-year floodplain or area that has a 1% chance of flooding in any given year.

Why does CHAT recommend this?

The SFHA is an area that is currently vulnerable to flooding. In many areas of town, the risk of flooding will increase as sea level rises. About 16% of the SFHA is developed, which increases stormwater runoff and limits natural percolation. New development should be located in areas that are not at risk of flooding.

Extent of the 100-year (1% annual chance) and 500-year (0.2% annual chance) floodplain in Hampton.



Prohibit placement of fill within the Special Flood Hazard Area (SFHA) or require compensatory storage.

What it means:

Fill (soil or other material) should not be permitted to be added to land within the Special Flood Hazard Area (SFHA). Or, as an alternative, require that an amount equivalent to the amount placed in a certain area of the SFHA to be removed from the SFHA in another location so that there is no net gain of fill.

C

Why does CHAT recommend this?

Placing fill within the SFHA can limit the flood storage capacity, creating greater flood impacts on surrounding areas.

Image: Tom Bassett

Reduce the substantial improvement threshold from 50% to 40% of the market value of the structure.

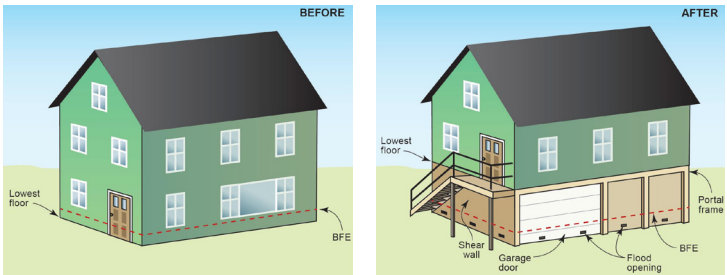
What it means:

The Town's ordinance defines *substantial improvement* as: any combination of repairs, reconstruction, alteration, or improvements to a structure in which the cumulative cost equals or exceeds fifty (50) percent of the market value of the structure. CHAT recommends reducing the threshold for what constitutes substantial development to forty (40) percent of the market value. This would mean that more projects (reinvestment/ improvements) within the SFHA would need to be brought into compliance with the Town's Floodplain Ordinance, such as elevating the lowest floor property to at least one foot above base flood elevation and floodproofing the structure.

D

Why does CHAT recommend this?

The intent of this recommendation is to reduce flood vulnerability by increasing the number of properties that meet the standards of the Town's floodplain ordinance.



Abandoning the lowest floor of a building has been proven to be effective at reducing damages to building elements and contents located below the base flood elevation (Source: FEMA)

Require that improvements and repairs be tracked cumulatively over a certain time period (i.e., 3,5, 10 yrs) to ensure that flood regulations are triggered with enough reinvestment in the building.

What it means:

The Town's ordinance defines substantial improvement as: any combination of repairs, reconstruction, alteration, or improvements to a structure in which the cumulative cost equals or exceeds fifty (50) percent of the market value of the structure. The ordinance does not define a time period for what cumulative improvements are. Defining a number of years would mean that when sizable improvements are proposed within a set time frame (such as 3, 5, or 10 years), that the costs of these improvements as a percentage of the market value of the property are added up within that time frame. If the total cost exceeds the threshold for substantial improvement, then the structure would need to be brought into compliance with the floodplain ordinance.

E

Why does CHAT recommend this?

Under current regulations, an applicant could propose several improvements over time that are individually less than 50%, but total more than 50% of the market value of the structure. If the improvements were proposed over several years, they would not trigger compliance with the floodplain ordinance. Changing this regulation would help ensure that when reinvestment occurs, that improvements reduce flood vulnerability.

Reduce impervious surface coverage limit within the Special Flood Hazard Area (SFHA) from 60-75% to 50% for all districts.

What it means:

The Town's Zoning Ordinance defines *impervious surface* as: any modified surface that cannot effectively absorb or infiltrate water. Examples of impervious surfaces include, but are not limited to roofs and, unless designed to effectively absorb or infiltrate water, decks, patios, and paved, gravel, or crushed stone driveways, parking area, and walkways. Currently the area of impervious surface allowed on a lot ranges from 60% to 75% of the area of the lot, depending on the underlying zoning district. This change would decrease the amount of imperviousness to 50% for all areas within the SFHA, regardless of the underlying zoning district.

F

Why does CHAT recommend this?

Impervious surfaces alter the natural hydrologic cycle, resulting in more stormwater runoff and less groundwater recharge. This can cause more frequent flooding and impacts to adjacent property. CHAT recommends that the town reduce the amount of impervious surfaces to allow for more natural drainage.

Learn More

https://www.hamptonnh.gov/178/Promoting-Green-Infrastructure

Image: EPA

Require 2 feet of freeboard or elevation based on the Design Flood Elevation determined using the NH Coastal Flood Risk Guidance.

What it means:

Freeboard is defined in the Town's floodplain ordinance as: an additional amount of height above the base flood elevation used as a factor of safety (e.g., 1 foot above the Base Flood) in determining the level at which a structure's lowest floor must be elevated or floodproofed to be in accordance with state or community floodplain management regulations. The Base Flood Elevation is the water surface elevation having a 1% chance of being equaled or exceeded in any given year. Town's existing floodplain ordinance requires 1 foot of freeboard above the base flood or 1 foot of elevation above the Base Flood Elevation. The proposed recommendation would require that projects must be elevated 2 feet above the base flood or elevated to a level determined using the process outlined in NH Coastal Flood Risk Summary, Part II: Guidance for Using Scientific Projections to determine the appropriate Design Flood Elevation (the total

What it means (con't)

flood elevation that a project is designed to protect for). This Guidance document identifies the Design Flood Elevation based on factors including tolerance for flood risk and the useful life of the structure/infrastructure.

Why does CHAT recommend this?

The Base Flood Elevation is based on historical precipitation records. Climate change is projected to result in more frequent and more severe precipitation events as well as sea level rise. Both will increase the risk of flooding. Elevating structures higher than 1 foot above the current Base Flood Elevation will reduce their vulnerability to flooding now and in the future. This is one way to account for future anticipated sea level rise. Coastal NH is likely (67% probability) to experience relative sea level rise of 0.5 to 1.3 feet between 2000 and 2050 and it is possible that relative sea level rise will exceed 2.9 feet by 2050. By 2100, 1.0 to 2.9 feet of relative sea level rise is likely and levels could reach 8.7 feet above 2000 levels.

Require that construction or substantial improvement of any structure within the Special Flood Hazard Area (SFHA) comply with the standards of section 2.4.11-C. This section of the floodplain ordinance currently applies to structures in the tidal wetland conservation district and in the VE Zone.

What it means:

Section 2.4.11-C of the Town's Floodplain Management Ordinance contains standards for new construction and substantial improvements to any structure located in the VE Zone. CHAT recommends that the ordinance be amended to require that development within any portion of the SFHA be required to comply with these standards, as opposed to only apply to areas within 50 feet of tidal wetlands.

H

Why does CHAT recommend this?

CHAT recommends that the higher standards applied to areas in proximity of tidal wetlands and within the VE zone be applied to all areas within the SFHA to better protect structures at risk of flooding. These standards include elevating structures and limiting use of the lowest floor for parking, building access, or storage.

More information:

Zoning Ordinance

Zoning Map

Image: Liz Durfee

Develop a new coastal hazard overlay district to regulate development in vulnerable areas.

What it means:

An overlay district is a zone that overlaps the underlying zoning districts (i.e. Hampton's Business, General, Industrial, Residence districts). Overlay districts are often used to create an extra layer of standards to protect natural resources where the attributes of the land warrant greater protection, or to allow certain uses that wouldn't otherwise be permitted in the underlying district. Hampton has several overlay districts, including an aquifer protection overlay, a wetlands conservation district, and a floodplain management overlay.

An overlay district is a tool the Town can use to better protect coastal resources, increase coastal resiliency, and reduce risk to structures, infrastructure, and people associated with coastal hazards and flooding. This mechanism would allow the Town to create specific standards, which are designed to reduce impacts of development on natural resources and the environment

What it means (con't):

as well as the impact of coastal hazards and flooding on development, within a determined geographic boundary. Determining the appropriate geographic boundary for the overlay district as well as the standards and restrictions would be critical steps in creating the overlay district.

Why does CHAT recommend this?

The floodplain ordinance is a good tool for regulating development within the areas that are designated by the Federal Emergency Management Agency (FEMA) as areas that have a 1% annual chance of flooding in any given year (also referred to as the 100-year floodplain). Many areas that are projected to be impacted by sea level rise and sea level rise induced groundwater rise are located outside the boundaries of the 100-year floodplain and therefore not subject to the standards in place to development. An overlay district could also help the town increase resilience to coastal hazards and flooding by enhancing protection of natural resources that provide important protection from flooding and storm surge.

More information:

Zoning Ordinance

Zoning Map

Restructure the development project review process to increase awareness of flood vulnerability.

What it means:

The Town of Hampton established a Plan Review Committee (PRC) to assist the Planning Board in addressing Site Plan/ Subdivision applications and plans before they are heard by the Planning Board. The PRC reviews proposals for compliance with Town Regulations and advises the applicant on any potential issues that may need to be addressed before proceeding any further with the project before the Planning Board. The PRC process ensures that Town Departments are aware of new projects and allows Departments the opportunity to voice input on said projects prior to being heard by the Planning Board. The Committee could formalize a process for evaluating flood vulnerability and making information about a project's flood vulnerability known to the Planning Board and other boards.

J

Why does CHAT recommend this?

CHAT sees an opportunity for the Coastal Resilience Specialist and other staff to educate applicants, as well as board members, about flood hazards associated with a particular project early in the project review stage.

More information:

https://www.hamptonnh.gov/479/Plan-Review-Committee

Image courtesy of NH CAW

Explore options to use land use ordinances and regulations to encourage and incentivize development in areas that are not vulnerable to current or future flooding, while discouraging development in areas that are vulnerable to current or future flooding.

What it means:

There are a variety of ways that municipalities can use land use ordinances and regulations to guide development towards the areas that are best suited for and away from areas that are least suited for development, such as those that are vulnerable to current or future flooding. CHAT recommends that the Town Planning Department and Planning Board explore these options. The Resilient Land Use Guide for NH, created by the Rockingham Planning Commission and partners, details several strategies to use land use planning to adapt to climate change and coastal hazards.

K

Why does CHAT recommend this?

Addressing the challenge of adapting to bigger storm events and higher sea levels will require that the Town and the community use a variety of strategies and tools to build resilience. Ordinances and land use regulations are tools available to communities to increase resilience to coastal hazards and flooding. Crafting new regulations is a process that the Planning Department and Board are familiar with and skilled at. Regulations can help ensure that new development and redevelopment does not exacerbate flooding on individual properties, neighboring properties, and the community. It is also a relatively low-cost action the Town can take to improve long-term resilience.

Allow parking in municipal parking lots when tides are in excess of 9.5 feet, as opposed to 10.0 feet.

What it means:

The Town of Hampton previously authorized parking in municipal parking lots during high tides that exceed 10.0 feet. Section 805-9(M)(1) of the Town of Hampton Code of Ordinances, last updated 8-23-22, allows owners and renters of residential property that is subject to flooding to park their personal vehicles in any municipal parking lot during periods when their residential property is expected to be flooded due to tides that are expected to be more than 10 feet or during storm flooding periods. A special, free parking placard is required. CHAT recommends that the threshold for parking in municipal lots with the special parking placard be lowered to 9.5 ft.

L

Why does CHAT recommend this?

NHDES analysis of water level measurements taken at a tide gauge in Hampton Harbor found that:

- At least one high tide over 10 feet Mean Lower Low Water (MLLW) was recorded on 30% to 40% of days each year between 2013 and 2020.
- High tide flooding occurs approximately 3 times more frequently on an annual basis than the NOAA tide charts predict, in part due to the influence of weather and storm surges.
- Sea level rise will dramatically increase the frequency and severity of flooding in coastal areas of Hampton, NH. Under a 2-foot sea level rise scenario, 95% of high tides annually will exceed 10 feet.

On average, 169 tides per year reach 10 feet or higher, which is more than the tide table predicts. These findings support observations by community members.

The top 24% of tides fall in the 9.56 feet MLLW to 10.5 ft MLLW range on the tide table predictions. Due to the prevalence of high tides that create flood conditions that are a threat to parked vehicles, CHAT recommends that the Town allow residents to park their vehicles in municipal lots when tides are more than 9.5 feet rather than not until tides reach 10.0 feet.

Integrate sea level rise impacts in the Comprehensive Master Plan and identify strategies for effectively responding to sea level rise and encouraging development in safe areas.

What it means:

When the Town of Hampton undertakes an update of the Master Plan, the plan should address current and projected sea level rise, using the best available science, and the implications of sea level rise on the community, including: health, wellbeing, and quality of life; livelihoods, local economy, and municipal tax base; infrastructure and utilities; natural resources and the environment; and sense of place in Hampton. The plan should identify appropriate strategies for adapting to sea level rise. This may include, for example, recommendations to amend land use regulations or use policies or incentives to encourage development in areas that are less vulnerable while discouraging development in areas that are more vulnerable to sea level rise.

Why does CHAT recommend this?

The Town's coastal location, low elevation, and tidal marsh put many areas in the community at risk to changes in water level and tides. Hampton neighborhoods already experience flooding during higher tides and storm events. Sea level has already increased and is projected to rise.

Sea level rise presents a significant threat to the community and will have wide reaching impacts on the Town, residents, and businesses. Adapting to sea level will take many years of planning and action. The Master Plan is and existing tool and process for long-range planning at the municipal level that involves extensive data collection and public input. Incorporating sea level rise into this plan will help the community and the municipality start to address and mitigate this challenge.

What is a Master Plan?

A master plan is a planning document that serves to guide the overall character, physical form and development of a community (RSA 674:2). It describes how, why, where and when to build or rebuild a city or town. It provides guidance to local officials making decisions on budgets, ordinances, capital improvements, zoning and subdivision matters, and other development-related issues. (Source: NH Office of Strategic Initiatives).

The Town initiated an update of Hampton's Comprehensive Master Plan in 2020. The first part of the update process included development of Coastal Resilience Content. CHAT recommends that future updates of the plan update and build off the information contained in this section.

Support an Implementation Committee to follow up on recommendations of the Master Plan.

What it means:

An Implementation Committee should be responsible for tracking and assisting with implementing recommendations contained in Comprehensive Master Plan.

Why does CHAT recommend this?

Having a plan in place is Step 1. Step 2 is implementing all the good ideas and recommendations in the plan. CHAT recognizes that the Planning Board intends to create an Implementation Committee to support the process of following up on recommendations and supports this. This will help ensure that recommendations related to coastal hazards, flooding, and sea level rise are acted on. Tracking which recommendations have been implemented will also help make the process of updating the plan in the future.

More information:

View the Master Plan at: https://www.hamptonnh.gov/516/Town-of-Hampton-Master-Plan

Start a visioning process to think about the long-term future of areas that are anticipated to be impacted by sea level rise.

What it means:

Engage the public and Town staff in proactively thinking about areas of the community that may be better suited for open space and recreational uses than housing, businesses, and infrastructure in the long term.

Image Courtesy of NH CAW

Why does CHAT recommend this?

It is possible that sea level rise and storm surge may outpace our ability to adapt to higher water levels and to continue to live, work, and travel to, from, and through certain areas of the town. Relocating to higher ground may become a necessity for economic, health, and safety reasons. Dedicating time now to envisioning alternative places for vulnerable businesses and residences to relocate, as well as desirable uses of flood prone property - such as publicly accessible open space, areas for wildlife, and recreational amenities - will help the community avoid a situation where residents are left with nowhere to go if their homes are destroyed by a storm or repeatedly flooded. If managed retreat becomes a necessity, it will take many years and significant resources. CHAT recommends that the Town begin a planning process to address all possible future scenarios now.

More information:

Georgetown Climate Center Managed Retreat Toolkit

Prioritize land conservation efforts in areas that can support marshes in the future.

What it means:

As sea level rises, marsh species will need higher ground to move to. Undeveloped land that is adjacent to existing marshes can be a suitable location for these plant and animal communities to shift to. However, if marshes are surrounded by roads and buildings, the marsh will have nowhere to go when water levels become too high for species to exist where they are now. Undeveloped land is critical to marsh survival.

Why does CHAT recommend this?

Marshes are an extremely valuable ecosystem. The Town should prioritize conserving land that contains or abuts salt marshes to protect the valuable habitat and ecosystem services that marshes provide. Tools like the Sea Level Affecting Marshes Model (SLAMM) for NH can help identify places where marshes may travel to.

More information:

Salt marshes are grass-dominated tidal wetlands existing in the transition zone between ocean and upland. They are among the most productive ecosystems in the world and provide great habitat for many bird species including American bittern, Nelson's sharp-tailed sparrow, salt marsh sharp-tailed sparrow, seaside sparrow, and semipalmated sandpiper. Salt marsh plants are salt-tolerant and adapted to fluctuating water levels. Nutrients that stimulate marsh plant growth are carried in with the tides, and organic matter that feeds fish and other organisms is carried out by the tides. Over time, organic matter accumulates on the marsh and forms peat. By building up more peat, salt marsh elevation can keep apace with rising sea level, unless the rate of sea-level rise becomes too great, such as is predicted from climate change. Salt marshes help protect coastal areas from storm surges, but an estimated 30-50% of New Hampshire's original salt marsh habitat has been lost to development. Some of the conservation strategies for salt marshes are restoring and protecting the remaining salt marsh habitat and surrounding upland buffer habitat (Source: NH Wildlife Action Plan).

Conduct an assessment to better understand and plan for the economic impacts (development, tourism, tax base, etc.) of sea level rise.

What it means:

Collect and analyze data to determine the economic impacts that sea level rise will have on the community, including impact to the cost of development, tourism, private property, and the Town's tax base.

The Town could initiate or support development of a grant application to conduct this analysis with project partners.

Why does CHAT recommend this?

New Hampshire has made great progress understanding the physical and ecological impacts of climate change but has yet to investigate the socio-economic impacts at the level of detail needed to inform local decisions. Quantifying the fiscal impacts of sea-level rise, storm surge, and groundwater rise at a community level would help the town better understand and

Why does CHAT recommend this (con't)?

prepare for changes in their tax base, operating expenses, and annual budgets.

This analysis could help answer questions like:

- What is the impact on property tax revenue for a town if properties are converted to open space, if property values increase due to implementation of protective measures, and/or if property values decrease because of an increased risk of flooding?
- What might the impacts of sea-level rise be on the local economy in respect to changes in retail/restaurant revenue and job losses/gains?
- How would the impacts of sea-level rise impact the tourism market in respect to hotel and rental income?
- How many residential properties might be lost due to sea-level rise, and are there other areas of Hampton available for homeowners to relocate?
- How might the physical changes at Hampton Beach affect a town's infrastructure, in respect to protective measures for critical facilities and changes in services required?

More information:

https://www.wellsreserve.org/writable/files/Economic-Analysis-of-sea-level-rise-final_12172020.pdf

Continue to pursue participation in the National Flood Insurance Program's Community Rating System.

What it means:

In order for the Town to be eligible to join the Community Rating System (CRS), which reduces flood insurance premium rates based on the community's efforts to increase resilience, properties that are not in compliance with the National Flood Insurance Program (NFIP) must first be brought into compliance.

The Community Rating System (CRS) is a voluntary incentive program that recognizes and encourages community floodplain management practices that exceed the minimum requirements of the National Flood Insurance Program (NFIP). Over 1,500 communities participate nationwide.

In CRS communities, flood insurance premium rates are discounted to reflect the reduced flood risk resulting from the community's efforts that address the three goals of the program:

1. Reduce and avoid flood damage to insurable property
2. Strengthen and support the insurance aspects of the National Flood Insurance Program
3. Foster comprehensive floodplain management

R

Why does CHAT recommend this?

Participation in the program would enable property owners to save on flood insurance premiums – as much as 45% depending on the number of credits the community receives for completing specific activities. The activities that towns can receive credit for provide community-wide benefits with respect to flood resilience. With the addition of the new Coastal Resilience Coordinator position, which is anticipated to be filled in the fall of 2022, the Town will have added capacity to complete the activities and documentation required for participation in CRS. Bringing out of compliance properties into compliance with NFIP requirements is the first step. Compliance is also important for properties to remain eligible for flood insurance.

More information:

Community Rating System, A Local Official's Guide to Saving Lives, Preventing Property Damage, and Reducing the Cost of Flood Insurance

Prohibit construction of critical facilities within high-risk Special Flood Hazard Area (SFHA) unless the project has been reviewed using the NH Coastal Flood Risk Guidance and certain criteria are met.

What it means:

Construction of a critical facility, such as a wastewater treatment plant, police station, school, hospital, or other critical facility, should not be allowed within the Special Flood Hazard Area (SFHA) designated by the Federal Emergency Management Agency (FEMA) without applying the guidance in the NH Coastal Flood Risk Guidance. Additionally, the following criteria must be met to locate a critical facility in a flood prone area: (i) there is no feasible alternative location, (ii) the facility is designed to higher flood protection standards, (iii) a flood evacuation plan for the facility has been developed.

Critical Facilities (e.g., hospitals, police stations, schools) and their access routes should be located and elevated to prevent damage and inaccessibility to these facilities during a flood event. A critical facility provides services and functions essential to a community, especially during and after a disaster. For a critical facility to function, building systems and equipment must remain operational. Therefore, if at all possible, critical facilities should be located

What it means (con't):

outside all high-risk special flood hazard areas, including Zones A, AE, AO, and VE. If a critical facility must be located in a special flood hazard area, it should be designed to higher protection standards and have flood evacuation plans (Source: NH OSI).

Why does CHAT recommend this?

Critical facilities are a type of development has a low tolerance for flood risk because they have high value or high replacement cost, are critical to public function or safety, and/or are highly sensitive to flood inundation (Source: NH Coastal Flood Risk Guidance). Siting critical facilities in areas that are vulnerable to flooding should be avoided.

The Town of Hampton does not have to follow its own zoning ordinance when performing government functions unless there is a regulation requiring municipal compliance. This means that critical facilities can be constructed in areas that are vulnerable to flooding, without sufficient flood protection standards in place. By creating such a regulation, the Town would be required to comply with the standards of the Floodplain Ordinance as well as the above mentioned guidance from the NH Coastal Flood Risk Guidance. This would reduce risk for the structure and operation of the facility as well as reduce the potential for taxpayer dollars to be used for development in areas at risk of flooding.

More information:

https://www.nhmunicipal.org/town-city-article/when-does-zoning-apply-governmental-use-land

Identify sources of funding to build town-wide flood resilience. Funding sources may include a dedicated local fund.

What it means:

Look for grants and identify strategies ways to fund projects and/provide match or seed funding for projects that increase flood resilience. In addition to pursing state and federal grants, funding mechanism to investigate include:

- Capital reserve fund (RSA 35)
- Community Resilience Incentive Zone (RSA 79-E)
- Trust Fund (RSA 31-19-a)
- Stormwater Utility (RSA 149-1:6)
- Bonds, Municipal Finance Act (RSA 33)

T

Why does CHAT recommend this?

The Town has been successful in receiving grants for projects including flood engineering studies and the coastal hazards content of the Master Plan. However, many grant opportunities require match or cost share. Having a dedicated fund available to use as match or project funding would help the Town be more competitive in applying for funds. In some cases, the schedule for a grant application does not align with Town budgeting processes or annual Town Meeting. A separate fund would increase the Town's nimbleness in seeking funds.

More information:

Land use tools that can generate funds for projects or result in improvements are summarized in the Resilient Land Use Guide.

Projects in the Capital Improvement Plan should identify and account for climate change impacts.

What it means:

The Town of Hampton's Capital Improvement Plan (CIP) is a document that focuses on the current and future needs of the community by identifying projects that exceed $75,000. The intention of the plan is to assist the community in planning to address these significant needs over a given period to ease the financial burden on taxpayers. When departments and boards submit items for inclusion in the CIP, they should first evaluate how climate change may impact or affect the proposed project. The Planning Board or the Capital Improvements Subcommittee could add criteria for this review to their process of identifying and selecting projects for the CIP.

U

Why does CHAT recommend this?

The Town should not make significant investments of taxpayer dollars without first considering how near and future impacts of climate change may impact a public improvement, such as a new facility or purchase of land for a new facility. This is a necessary step in ensuring that funds are wisely spent and that the community's assets are resilient to future change.

More information:

The Best Planning Tools You Aren't Using: Capital Improvements Plans

A Capital Improvements Plan is Not Just a Wish List

Town of Kittery Capital Improvement Program 2023-2027

Integrating Resilience into Local Capital Improvement Programs

Hire a full time Coastal Resilience staff position.

What it means:

Create a staff position to provide added capacity to assist the community with increasing resilience to coastal hazards and flooding.

Image Courtesy of NH CAW

V

Why does CHAT recommend this?

While several staff members participate in coastal resilience work in Hampton, the Town lacks a point person for providing one-on-one assistance to residents, businesses, and homeowners. The Town needs additional capacity to provide these services to community members, to conduct more outreach and engagement, and to continue to actively build resilience to coastal hazards like flooding, storm surge, and sea level rise. This person would enhance coordination across departments and would participate in local and regional resilience efforts. The position would also be responsible for identifying and seeking funding for planning, engineering, and other projects that increase resilience.

More information:

CHAT developed a draft position description for this position and shared this with municipal staff. In coordination with the NH Department of Environmental Services Coastal Program, municipal staff sought funding through the National Oceanic and Atmospheric Administration's Coastal Zone Management Projects of Special Merritt Competition for a Coastal Resilience Coordinator position. Funding was received and as of November 2022, the Town is in the process of hiring someone to fill this 18-month, grant funded position.

Future modeling efforts and studies should build off findings of the flood engineering studies and Master Plan.

What it means:

The Town has dedicated time and resources to pursuing several studies and planning efforts to better understand, plan for, and mitigate flood impacts in the community. The Town should continue to pursue these studies and planning efforts. Future efforts should continue and build off the findings of these analyses.

Why does CHAT recommend this?

The Town has gained considerable information and momentum in addressing coastal hazards and flooding. CHAT would like to see that momentum continue and future projects and plans build off the findings from past efforts.

More information:

Comprehensive Master Plan

Local Land Use Regulations Audit and Amendments

Hampton Flood Mitigation Analysis (Meadow Pond Flood Study)

Hampton Harbor Flooding Evaluation

Image Courtesy of NH CAW

Look for and apply for funding to continue engineering and hydrogeological studies and address flooding and drainage issues.

What it means:

Hydrogeological studies provide information about groundwater movement and inform the design of wells, pumps, and drains. The Town should pursue grants and other funding to continue these studies and to address flooding and drainage issues.

X

Why does CHAT recommend this?

The Town has been successful in seeking and receiving grant funding to conduct engineering studies. These studies are critical to understanding the dynamic systems that shape and influence flooding and flood mitigation efforts. Further analysis is needed to continue to gather information that helps identify how to best address coastal hazards and flooding and to conduct on the ground projects.

More information:

Comprehensive Master Plan

Local Land Use Regulations Audit and Amendments

Hampton Flood Mitigation Analysis (Meadow Pond Flood Study)

Hampton Harbor Flooding Evaluation

Advocate options to require flood risk disclosure, including, but not limited, to statewide legislation that requires that current and future flood risk is disclosed so that future owners are aware of the potential risk.

What it means:

A flood-risk disclosure should be required during real-estate transactions. Property disclosure statements outline any flaws that the home sellers (and their real estate agents) are aware of that could negatively affect the home's value.

Y

Why does CHAT recommend this?

Disclosing flood risk information during real estate transactions is a timely and effective way to enable homeowners to make better risk-informed investment decisions. Currently, no federal statutes require property sellers to disclose information about flood risk or prior flood damage. However, states can take action to protect home buyers in their state by enacting laws and implementing practices that require disclosure of flood risk.

States often enact real estate disclosure laws that require written statements from a seller that disclose any facts about the property that are material to its value, such as prior flood damage and flood risk. New Hampshire does not have a requirement that property owners or realtors disclose information about current or future flood risk. Requiring this information to be shared with perspective buyers can help people make informed choices about risk. A disclosure could increase awareness of the potential for flood impacts or the need to floodproof or raise a property to reduce flood risk. Knowing the risk of flooding is the first step toward adequately protecting lives and property.

More information:

Flood Risk Disclosure, Model State Requirements for Disclosing Flood Risk During Real Estate Transactions

What Can You Do?

- Join a CHAT meeting to learn about flooding and coastal hazards and what CHAT and the Town are doing to increase resilience to flooding and to share your input. CHAT meetings are open to the public and are held over Zoom every 3rd Tuesday of the month from 1-3pm. Find agendas and log in information at http://shea4nh.org/coastal-hazards-adaptation-team-chat/.

- Get in touch with the Town's new Coastal Resilience Coordinator with questions about floodplain management and flood insurance.

- Attend public meetings to learn about Hampton flood studies, the Master Plan update, updates to the Floodplain Ordinance, and other ongoing work.

- Participate in programs offered through the New Hampshire Department of Environmental Services Coastal Program like the Flood Ready Neighborhood Program and the Coastal Landowner Technical Assistance Program.

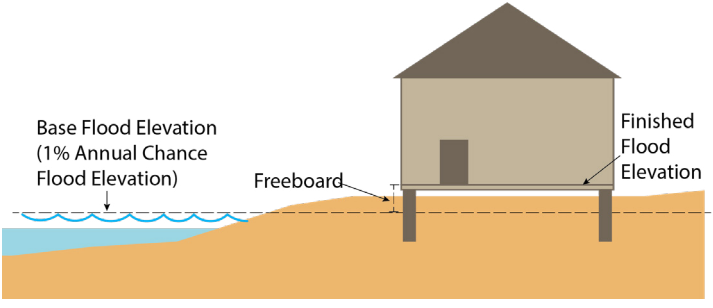
What Can You Do?

- Photo document flood events and share these with CHAT. Please include the time, date, location, and, if possible, geographic coordinates of photos.
- Share information with CHAT, the Town, and your neighbors about measures you have taken to make your property less vulnerable to flooding.

Glossary

Base Flood Elevation - The elevation of surface water resulting from a flood that has a 1% chance of equaling or exceeding that level in any given year. The BFE is shown on the Flood Insurance Rate Map (FIRM) for zones AE, AH, A1–A30, AR, AR/A, AR/AE, AR/A1– A30, AR/AH, AR/AO, V1–V30 and VE (Source: FEMA)

Freeboard - An additional amount of height above the Base Flood Elevation used as a factor of safety (e.g., 2 feet above the Base Flood) in determining the level at which a structure's lowest floor must be elevated or floodproofed to be in accordance with state or community floodplain management regulations (Source: FEMA).



Glossary

Mean Lower Low Water (MLLW) - The average of the lower low water height of each tidal day observed over the National Tidal Datum Epoch. For stations with shorter series, comparison of simultaneous observations with a control tide station is made in order to derive the equivalent datum of the National Tidal Datum Epoch.

Special Flood Hazard Area (SFHA) - An area having special flood, mudflow or flood-related erosion hazards and shown on a Flood Hazard Boundary Map (FHBM) or a Flood Insurance Rate Map (FIRM) Zone A, AO, A1-A30, AE, A99, AH, AR, AR/A, AR/AE, AR/AH, AR/AO, AR/A1-A30, V1-V30, VE or V. The SFHA is the area where the National Flood Insurance Program's (NFIP's) floodplain management regulations must be enforced and the area where the mandatory purchase of flood insurance applies. For the purpose of determining Community Rating System (CRS) premium discounts, all AR and A99 zones are treated as non-SFHAs.