

APPENDIX II

ESSEX GOALS AND IMPLEMENTATION

There are various options available to the Town of Essex for hazard mitigation. Town government officials, boards, commission, and agencies will be the overall responsible parties for educating the public on the need for mitigation and options for reducing damage from natural hazards. The following sections are divided into objectives to meet the goals listed. Listed are the supporting tasks with the board/ commission or individual responsible for implementation and timeline for consideration and the priority of the task. The priority are listed as very high, high, medium, and low based on priorities established by the town during draft review. Modifications may be made after public review and adoption. The primary responsibility will be the application for grant funding and budgeting where appropriate to implement these supporting tasks.

Planning Process: Essex municipal personnel were interviewed and consulted in the development of each town section for risk, vulnerabilities, municipal challenges, and mitigation objectives as described in the Natural Hazards Mitigation Regional Overview. (Pages 34-36). The following documents were referenced to identify existing mitigation strategies and proposed mitigation strategies:

- Town of Essex Subdivision Regulations
- Town of Essex Zoning Regulations
- Town of Essex Plan of Conservation and Development
- Essex Inland Wetlands and Watercourses Regulations
- FEMA Flood Study, Essex, CT – March, 1986

The town will make every effort to include or incorporate the mitigation goals , tasks, and plan into these plans, codes, regulations, and programs.

The individual town review was important for the development of goals and objectives within Essex. After the supporting tasks were compiled, town personnel evaluated each task using the STAPLEE criteria described in FEMA's "How-to Guide #3: Developing the Mitigation Plan" (FEMA 386-3. The evaluation yielded priority ratings based on the following: (Very High – if the task met 6-7 of the STAPLEE criteria), (High – if the task met 4-5 of the STAPLEE criteria), (Medium – if the task met 2-3 of the STAPLEE criteria), and (Low – if the task met 1 of the STAPLEE criteria)
Prioritization and timelines will be incorporated upon completion of the public hearing/ adoption process

Areas in yellow denote tasks which qualify for Community Rating System reward points. The National Flood Insurance Program's (NFIP) Community Rating System (CRS) is a voluntary incentive program that recognizes and encourages community floodplain management activities that exceed the minimum NFIP requirements. As a result, flood insurance premium rates are discounted to reflect the reduced flood risk resulting from

the community actions meeting the three goals of the CRS: (1) reduce flood losses; (2) facilitate accurate insurance rating; and (3) promote the awareness of flood insurance.

Goal 1. Ensure that public funds are used in the most efficient manner.

Objectives: Prioritize mitigation projects based on available funding starting with sites facing the greatest threat to life, health, and property.

| # | <u>Supporting Tasks</u> | <u>Who</u> | <u>Timeline</u> | <u>Priority</u> | <u>Completion Goal</u> | <u>CR</u> |
|---|---|---|-----------------|-------------------|------------------------|-----------|
| 1 | Develop a strategy for use of public funding to protect public services and critical facilities through municipal capitol improvement program and regional transportation program | Board of Selectmen/OEM/ Public Works | 2006 - 2011 | High (example) | 2006-2008 (example) | |
| 2 | Evaluate opportunities for public funding for projects on private property where the benefits exceed the costs | Board of Selectmen | 2006- 2011 | | | |
| 3 | Identify and apply for outside sources of funding | Board of Selectmen | 2006-2011 | | | |
| 4 | Promote owner participation in mitigation efforts to protect their own properties. | Board of Selectmen | | | | |

GOAL 2: Reduce the loss of life and property and associated economic impacts from floods, high winds, severe winter storms, earthquakes and dam failure.

Objective 1 - Ensure that critical facilities continue to function during a hazard event.

| # | <u>Supporting Tasks</u> | <u>Who</u> | <u>Timeline</u> | <u>Priority</u> | <u>Completion Goal</u> | <u>CR</u> |
|---|--|--------------------|-----------------|-----------------|------------------------|-----------|
| 1 | Update the flood zone study for the town to incorporate changed conditions upland and within the floodplain, and an expected sea level | Board of Selectmen | 2006-2010 | | | |

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| | rise over the next twenty years. | | | | | |
| 2 | Strengthen existing subdivision and zoning regulations to either optimally prevent road or house construction within the floodplain, or alternatively. | Planning/ Zoning | 2006- 2010 | | | |
| 3 | Ensure that flood proof construction standards for roads and structures within the flood plain are strictly enforced | Building Official/ Planning/ Zoning/ZBA/ Board of Selectmen | Ongoing | | | |
| 4 | Review and revise storage of critical files and electronics at the Town Municipal Center to ensure that damage will not destroy valuable records. Provide a back up GIS mapping system. Provide training to emergency management volunteers and officials on the use of GIS compatible mapping systems | Board of Selectmen/ OEM/ GIS Committee | 2006- 2010 | | | |
| 5 | Implement strategic enforcement actions to include engineering reports for structural expansion or alterations on properties within the 100 year flood zone. | Building Official | 2006- 2010 | | | |
| 6 | Access and incorporate regional Geographic Information System (GIS) mapping to coordinate for accuracy with HAZUS data maintained by the CRERPA GIS system. Updated town GIS layers yearly to reflect future property damage, access issues, and evacuation for residents from flooding events. | Board of Selectmen, Planning and Zoning, Assessor | 2006 – 2008 | | | |
| 7 | Encourage property owners listed in repetitive loss report to obtain assistance for hazard mitigation funding from DEP/FEMA for elevation of structures and repairs where applicable | Board of Selectmen, Public Works | 2006- 2011 | | | |
| 8 | Implement mapping and monitoring of storm-water outlets and infrastructure. Provide for yearly maintenance programs for storm-water facilities and encourage the update of regulations to provide for no-net runoff from development | Board of Selectmen, Public Works | 2006 - 2011 | | | |
| 9 | Conduct a full evaluation of dams in conjunction with state review which | Board of Selectmen | 2006- 2011 | | | |

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| | includes a timeline and allocation of funding for repairs. | | | | | |
| 10 | Continue to educate firefighters and develop a plan for wildfires and forest fires | | | | | |
| 11 | Evaluation of dams – work with property owners and State to repair as needed | | | | | |
| 12 | Create hierarchy of road and infrastructure improvements as identified in this plan with emphasis on roads used for evacuation | | | | | |
| 13 | Alleviate complacency on the part of these property owners includes education using up-to-date flood mapping and evidence of past events that occurred on the Connecticut River prior to 1978 in examination of site plans and building permits. Ensure that departments have up-to-date information on flood and natural resource data. | | | | | |
| 14 | Work with region and state to develop a SLOSH model should be developed for Essex to show areas of inundation from a hurricane's storm surge | | | | | |
| 15 | Review options for back up for sewer pump operation during floods | | | | | |
| 16 | Develop early warning system for tornado alerts within the town | | | | | |

Objective 2 – Educate the town residents about natural disasters, mitigation activities and preparedness

| # | <u>Supporting Tasks</u> | <u>Who</u> | <u>Timeline</u> | <u>Priority</u> | <u>Completed</u> | |
|---|---|---------------------------------------|-----------------|-----------------|------------------|--|
| 1 | Visit schools and educate children about the risks of floods, hurricanes, and other natural hazards and how to prepare for them | OEM, Police, Fire, Regional OEM board | Yearly | | | |
| 2 | Access existing literature prepare by regional groups and the chamber of commerce and FEMA and display for public distribution in Town Hall and Library | Planning, Zoning, Library | 2006-2011 | | | |
| 3 | Update town webpage with | Board of | Yearly | | | |

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| | section on Hazard Preparedness for the public. Include maps of evacuation route, storm surge areas, and shelters. Include options for mitigation for residential structures and business recovery and provide link to FEMA, NOAA, State OEM and CRERPA websites for additional information | Selectmen, OEM, RPO, State OEM | | | | |
| 4 | Provide pamphlets and refer to web-based information for property owners for hazards listed in this document to show options for obtaining additional insurance, structural alterations to protect against various hazard damage, and emergency procedures for families during a hazard even Include information for contractors and homeowners on the risks of building in hazard prone areas | Building/ Planning/ Zoning | 2006-2011 | | | |
| 5 | Identify refuges of last resort for those unable to reach designated shelters and review annually program for evacuation of persons without means of transport. | Board of Selectmen/OEM | Annual | | | |
| 6 | Distribute hurricane preparedness information including pet sheltering plans | Board of Selectmen/ OEM | Annual | | | |
| 7 | Participate in regional program for sheltering pets during hazard events | | | | | |
| 8 | During vulnerable periods, a system of warnings about campfires and open fires should be posted in public locations. | OEM/ Fire/ Police | Annual | | | |
| 9 | Consider establishing reverse 911 alert system or similar alert system | OEM/Fire | Annual | | | |
| 10 | Create a published hotline for public information and volunteer support: regional family to family assistance, | OEM/ Selectmen/ RPO | | | | |

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| | medical assistance, transportation for evacuees, etc. | | | | | |
| 11 | Review established chain of command for hazard mitigation and relief efforts and publish and promote for public knowledge. | | | | | |

Objective 3 - Institute long term goals to enhance short term – high priority mitigation

| # | <u>Supporting Tasks</u> | <u>Who</u> | <u>Timeline</u> | <u>Priority</u> | <u>Completed</u> |
|---|---|---|-----------------|-----------------|------------------|
| 1 | Advance an assertive open space acquisition plan for unprotected areas that are subject to flooding. | Board of Selectmen/ Conservation Commission | 2006-2011 | | |
| 2 | Implement a Tree Hazard Management Program to encourage responsible planting practices and minimized future storm damage to buildings, utilities, and streets | Board of Selectmen/ Tree Warden/ Utilities | 2006 - 2011 | | |
| 3 | Land-use planning that encourages groundwater retention within existing new, and redeveloping areas. | Planning/ Zoning/ Conservation Commissions | 2006-2011 | | |
| 4 | Review and formalize where necessary inter-local town agreements for response to large hazard events | Board of Selectmen | 2006-2011 | | |
| 5 | Advance planning for drought to minimize impacts includes frequent updates to town-wide groundwater studies | Board of Selectmen | 2006-2011 | | |
| 6 | Recommendations for future land use patterns including recharge into existing aquifers, including site design to encourage water conservation through such techniques as: strict regulation of vegetative buffers for stream and river corridors, rain gardens for site drainage, and prohibition of wetlands alteration. | Board of Selectmen/ Planning/ Zoning/ Conservation | 2006-2011 | | |
| 7 | Where water supplies are insufficient, new development | Board of Selectmen/ | 2006-2011 | | |

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| | should include dry hydrants. | Planning/ Zoning | | | | |
| 8 | During periods of drought, establish forestry practices that increase the ability of firefighters to access forest fires. | Board of Selectmen/ Fire/ Planning/ Zoning | 2006- 2011 | | | |
| 9 | Encourage neighborhood preservation/revitalization for wind damage retrofitting | Board of Selectmen/ Planning/ Zoning | 2006- 2011 | | | |
| 10 | Require the installation of underground/buried utilities for all new residential and commercial developments | Planning/Zoning | 2006- 2011 | | | |

Objective 4 – Create opportunities for public involvement and investment in hazard mitigation

| # | <u>Supporting Tasks</u> | <u>Who</u> | <u>Timeline</u> | <u>Priority</u> | <u>Completed</u> | |
|---|---|--|-----------------|-----------------|------------------|--|
| 1 | Develop a list of techniques for homeowner self-inspection especially for those located in coastal areas as listed below | Board of Selectmen/ OEM/ Building | 2006- 2011 | | | |
| 2 | Adopt regulations and promote low impact development (LID) methods that include storm water on individual lots. Include storm water absorption techniques such as rain gardens, creative use of wetlands, gallery systems to retain water on site for discharge into aquifers | Planning/ Zoning/ Conservation Commissions | 2006- 2011 | | | |
| 3 | Review mitigation goals and tasks with Essex residents and property owners annually | Board of Selectmen/ OEM | 2006- 2011 | | | |
| 4 | Publish materials on additional hazards, earthquake, wildfire, | Board of Selectmen/OEM | | | | |

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| | and tornado. Encourage additional insurance | | | | | |
| 5 | Enlist public participation through public workshops to develop methods for notification of emergencies | Board of Selectmen/OEM/Police/Fire | | | | |
| 6 | Develop business recovery plan cooperatively with other region's towns and distribute to town businesses | Board of Selectmen/Chamber of Commerce | | | | |
| 7 | Develop strategy and program for flood prone property owners who request a buyout | Board of Selectmen | | | | |

List of A-Z Strategies for Homeowners

- a. Wet floodproofing (Allow water to enter uninhabited areas of the house)
- b. Venting on roofs
- c. Dry floodproofing (Sealing the structure to prevent floodwaters from entering)
- d. Installation of in place shutters for glazed openings
- e. Bracings with struts on walls
- f. Elevation of structures by piers, posts or column
- g. Anchoring and connections in walls
- h. Reinforce entry doors
- i. Install hurricane straps and hurricane clips
- j. Garage doors with stiffer horizontal members
- k. Glider tracks and track supports should be strengthened
- l. Bracing struts pilaster columns in walls perpendicular to freestanding walls
- m. Renail sheathing
- n. Create a secondary water barrier
- o. Provide support for sliding glass doors and double doors opening to outside
- p. Improve anchorage of windows to openings
- q. Add ridge ventilators to reduce uplift of wood sheathing
- r. Strengthen garage doors
- s. Anchor adjacent structures, including fences, pool enclosures, and patio roofs
- t. Improve connections of porch roofs and overhangs
- u. Reinforce entry doors
- v. Buried utilities in new subdivision development and onsite within new commercial developments
- w. Landscaping practices that encourage the planting of species that are less susceptible to damage from ice storms to reduce to probability of damage structures
- x. Plan for inability or assistance needed to evacuate and strategies for pets.

- y. Evaluating dangers of being outside or traveling, the danger of carbon monoxide poisoning in motor vehicles and from portable heaters and power generators in homes, the danger of house fires.
- z. Evaluating danger of hypothermia from prolonged exposure to cold weather