

## SECTION V – MITIGATION STRATEGY

### LOCAL HAZARD MITIGATION GOALS

|                              |   |
|------------------------------|---|
| Requirement §201.6(c)(3)(i): | The hazard mitigation strategy shall include a] description of mitigation goals to reduce or avoid long-term vulnerabilities to the identified hazards. |
|------------------------------|---|

The following pages contain goals and strategic mitigation actions for each of the hazards identified earlier in this plan, followed by a town-by-town summary of prioritized projects. Within the municipalities, their priorities are based on local knowledge of their risks/vulnerabilities and available budget and potential funding to address them. If a town wishes to apply for grant funding, officials understand that they will need to use FEMA’s Benefit/Cost Analysis (BCA) process and the County will support their efforts by providing information and/or guidance.

The goals for the 2017 Plan remain the same. Because Maine is a home rule State and counties can only promote and educate to specific activities, some objectives have been deleted.

The following presents a list of the mitigation goals and actions planned to reduce or avoid long-term vulnerability in the County thereby reducing the impact of natural disasters on people, property, a infrastructure, and the environment.

#### Goal #1: Reduce damage, injury and loss of life resulting from flooding in Cumberland County.

| <b>Hazard: Flooding</b>   |                        |                                  |                          |
|---|------------------------|----------------------------------|--------------------------|
| <b>Actions</b>  | <b>Time Frame</b>      | <b>Status</b>                    | <b>Responsible Party</b> |
| 1.1 Provide information to the public concerning the dangers of flooding through brochures (such as those from the National Weather Service) posted on the county website and social media, (measured through “hits” and “engagements” on these sites) and distributed at public events (See Appendix for samples of brochures) | Annually and As Needed | New                              | CCEMA                    |
| 1.2 Review Emergency Action Plans for High and Significant Hazard dams on an annual basis and update contact information  | Annually               | Completed As Planned and Ongoing | CCEMA/LEMD               |
| 1.3 Provide Flood insurance Program updates to local EMA directors and town officials through local director meetings and monthly newsletter  | An needed              | New                              | CCEMA                    |
| 1.4 Promote community participation in NFIP's Community Rating System through local director meetings monthly newsletter and community outreach   | Annually               | Completed As Planned and Ongoing | CCEMA                    |
| 1.5 Provide information to local directors and town officials about green infrastructure solutions to urban runoff/flooding through local director meetings and monthly newsletter  | Annually               | New                              | CCEMA                    |
| 1.6 Promote river/stream corridor and wetland protection through education of local EMA directors and municipal officials, and monthly newsletter.  | Annually               | Completed As Planned and Ongoing | CCEMA                    |

**Goal #2: Reduce damage, injury and loss of life resulting from severe summer and winter storms in Cumberland County.**

| <b>Hazard: Severe Summer and Winter Storms</b>  |                        |               |                          |
|---|------------------------|---------------|--------------------------|
| <b>Action</b>   | <b>Timeframe</b>       | <b>Status</b> | <b>Responsible Party</b> |
| 2.1 Provide information to the public concerning the dangers of severe summer and winter storms through hazard-specific brochures (such as those from the National Weather Service) posted on the county website and social media, (measured through “hits” and “engagements” on these sites) and distributed at public events (See Appendix) | Annually and As Needed | New           | CCEMA                    |
| 2.2 Support towns and eligible non-profits in applying for generator grants to protect their critical functions   | Annually               | New           | CCEMA/LEMD               |
| 2.3 Use social media and Vulnerable Population Communication Network to inform public of impending storms/hazardous conditions (See Appendix)   | As needed              | New           | CCEMA                    |
| 2.4 Track mitigation projects through surveys with local EMA directors/Public Works directors   | Annually               | New           | CCEMA/LEMD               |
| 2.5 Support municipalities in development/maintenance of warming/cooling center plans   | Annually               | New           | CCEMA                    |

**Goal #3: Reduce damage, injury and loss of life resulting from wildfires in Cumberland County**

| <b>Hazard: Wildfires</b>  |                        |               |                          |
|---|------------------------|---------------|--------------------------|
| <b>Action</b>   | <b>Timeframe</b>       | <b>Status</b> | <b>Responsible Party</b> |
| 3.1 Promote participation in wildfire prevention programs such as FireWise through local director meetings, monthly newsletter and community outreach   | Annually               | New           | CCEMA/LEMD/TO            |
| 3.2 Promote participation in Maine Forest Service workshops and consultations through education of local directors and municipal officials through local director meetings and monthly newsletter.  | Annually and As Needed | New           | CCEMA/LEMD               |
| 3.3 Provide information to the public concerning the dangers of wildfires through brochures (such as those from the National Weather Service and the Maine Forest Service) posted on the county website and social media, (measured through “hits” and “engagements” on these sites) and distributed at public events | Annually and As Needed | New           | CCEMA                    |

**Goal #4 Reduce damage, injury and loss of life resulting from coastal erosion in Cumberland County.**

| <b>Hazard: Coastal Erosion</b>  |                        |               |                          |
|---|------------------------|---------------|--------------------------|
| <b>Action</b>   | <b>Timeframe</b>       | <b>Status</b> | <b>Responsible Party</b> |
| 4.1 Update local emergency managers concerning storm surge mapping and relevant evacuation zones                  | Annually and As Needed | New           | CCEMA                    |
| 4.2 Inform local emergency management directors of grant availability for mitigation of vulnerable infrastructure | When Available         | New           | CCEMA                    |

|   |                        |     |               |
|---|------------------------|-----|---------------|
| 4.3 Work with local emergency managers and town officials to develop a tracking methodology for coastal erosion separately from other storm damages | Annually and As Needed | New | CCEMA/LEMD/TO |
|---|------------------------|-----|---------------|

**IDENTIFICATION AND ANALYSIS OF MITIGATION ACTIONS**

|                                |   |
|--------------------------------|---|
| Requirement §201.6(c)(3)(ii):  | The mitigation strategy shall include a section that identifies and analyzes a comprehensive range of specific mitigation actions and projects being considered to reduce the effects of each hazard, with particular emphasis on new and existing buildings and infrastructure.  |
| Requirement §201.6(c)(3)(ii):  | [The mitigation strategy] must also address the jurisdiction’s participation in the National Flood Insurance Program (NFIP), and continued compliance with NFIP requirements, as appropriate.   |
| Requirement §201.6(c)(3)(iii): | [The mitigation strategy shall include] an action plan describing how the actions identified in section (c)(3)(ii) will be prioritized, implemented, and administered by the local jurisdictions. Prioritization shall include a special emphasis on the extent to which benefits are maximized according to a cost benefit review of the proposed projects and their associated costs. |
| Requirement §201.6(c)(3)(iv):  | For multi-jurisdictional plans, there must be identifiable action items specific to the jurisdiction requesting FEMA approval or credit of the plan.  |

Currently, all 28 communities within Cumberland County participate in the National Flood Insurance Program (NFIP). Their continued compliance with the program is encouraged at all levels of the County’s mitigation strategy. Two communities participate in the Community Rating System at Level Eight (Portland and Cape Elizabeth). Each community will continue to enforce its existing floodplain ordinance

The list of local projects contained in the following table was developed and prioritized separately by each municipality. Projects were chosen based on local knowledge of the frequency and extent of local damages, local knowledge of which projects were of the highest priority (based on frequency and severity of damages), local knowledge of weather, the geography and topography of the community, and the technical and financial abilities of their respective communities to address hazards and mitigate the impacts of hazards. Municipal capabilities could expand if other funding were to become available.

Many of the municipalities in Cumberland County are small towns that do not have the resources, staff or funding to prepare cost benefit analyses for their proposed projects. However, in virtually all cases involving expenditure of local funds for implementation, there will be a very rigorous, line-by-line analysis of cost effectiveness during the budget review process and subsequent public discussion through regular and special meetings. This review is at least equal to a formal benefit-cost calculation because each expenditure item will be scrutinized rather than simply plugged into a formula. Furthermore, MEMA and CCEMA have made it clear to local officials that a formal cost-benefit analysis must be prepared when they apply for mitigation funding.

The list of projects contained in the table below is largely the result of Cumberland County EMA’s collaboration with town officials, local EMA, and Public Works officials to first review and update their hazard mitigation project lists, and secondly, to continue their ongoing efforts to map specific locations that require mitigation. The table includes project data relevant to its identification/location, its prioritization, its cost, the timeframe estimated to complete, and the responsible agency. The timeframe includes the estimated completion period that starts when

funding is available and permitting has been obtained. Short term is 1 year, midterm is 2-3 years, and long term is 4-5 years before completion.

All municipalities understand that placing projects in the plan is no guarantee of their eligibility for grants or of federal funding.

In addition to stating whether the project is new, completed, deleted, or revised, the status column also identifies when FEMA funds were used for the project.

It should be noted that many urgently needed projects are not included here as they are on State roads and the towns do not have authority to do needed upgrades. In some instances, lengthy permitting processes are holding up needed work.

It should also be noted that in many instances, capabilities could expand if additional funding were to become available.

In the following projects list, completed projects move to the bottom of the list and newer projects are re-prioritized.

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| Municipality    | Project  | Est. Cost               | Timeframe | Responsible Official                 | Status                                  |
|-----------------|--|-------------------------|-----------|--------------------------------------|---|
| <b>Baldwin</b>  | 1) Wentworth Rd: paving, culverts, ditching, shoulder work, reclaim, rip-rap, cut trees  | \$175,000               | Long Term | Road Commissioner                    | New Project                             |
|                 | 2) Senator Black Rd: culverts, ditching, shoulder work, reclaim, rip-rap, cut trees  | \$600,000               | Long term | Road Commissioner                    | New Project                             |
|                 | 3) Saddleback West Rd.; Remove trees from ditch line 3,500' add ditch 650' add 24" x 40' N-12 cross culvert.   | \$9,000                 | Long term | Road Commissioner                    | Deferred – Lack of Funding              |
|                 | 4) Anderson Rd; Add (2) 18" x 40' N-12 culverts and riprap inlet and outlet.   | \$6,000                 | Mid tern  | Road Commissioner                    | Completed 2014 with Town funds          |
|                 | 5) Brown Rd; Elevate road 925' x 21' x 3' add 24" x 40' N-12 culvert and stabilize shoulders. H&H study, engineering design, upgrade to 24" HDPE culvert, upgrade two 24" culverts to 57"x38" squash pipe                | \$56,000<br>\$96,348.94 | 6 months  | Road Commissioner & engineering firm | HMGP project Completed Oct 2012         |
|                 | 6) Senator Black Rd; Ditch 150' and upsize existing culverts.  | n/a                     | 2 weeks   | Road Commissioner                    | Completed with Town funds per 2012 plan |
| <b>Bridgton</b> | 1) Post Office Square (Main St-Depot St.); Upsize existing 48" x 50' culvert with 4' x 10' x 50' bottomless box culvert to match culvert under US 302. Revised: needs study and permitting from DEP, EPA, NFIP and USACE | TBD                     | Long term | Road Commissioner Engineering Firm   | Revised from 2012 Plan                  |
|                 | 2) Mountain Rd; Upsize existing triple culverts with 4' x 10' x 40' bottomless box culvert and riprap inlet and outlet. Replaced existing culverts   | \$45,000                | 2 weeks   | Road Commissioner                    | Completed with Town Funds               |

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|-----------------------|---|---------------------------|----------------------|---|--|
| <b>Brunswick</b>      | 1) Bull Rock Rd; Ditch and armor 400' add (2) 15" x 40' N-12 driveway culverts & an 18" x 40' N-12 cross culvert riprap inlet and outlet.   | \$12,000                  | Long term            | Director of Public Works                  | Deferred – Lack of Funding   |
|                       | 2) Pleasant Hill Rd; Upsize twin 5' x 66' culverts w/ 12' x 6' x 70' bottomless box culvert w/ integrated headwalls.  | \$175,000-<br>\$200,000   | Long term            | Director of Public Works                  | Deferred – Lack of Funding   |
|                       | 3) Highland Rd. Upsize existing 24" x 40' culvert with 36" x40' N-12 culvert and riprap inlet and outlet.   | \$25,000                  | Long term            | Director of Public Works                  | Deferred – Lack of Funding   |
|                       | 4) Collins Brook Rd; Upsize existing 6' x 40' culvert with 8' x 5' x40' bottomless box culvert and riprap inlet and outlet.   | \$33,868.80               | 3 weeks              | Director of Public Works                  | Completed August 2014 town funds                                   |
| <b>Cape Elizabeth</b> | 1) Kettle Cove Rd. @ Crescent Beach; Rebuild road substructure/retaining wall that abuts Crescent Beach   | \$500,000                 | Long term            | Director of Public Works                  | Revised from 2012 Plan and still deferred: lack of municipal funds |
|                       | 2) Garden Circle. Improve gravity storm drain outfall and/or install stormwater pump station  | \$125,000-<br>\$1,100,000 | Mid term             | Director of Public Works                  | New Project  |
|                       | 3) Oakhurst Rd & Hemlock Hill Rd.; Upsize 200' underground drainage. Add downstream stormwater catch basins on adjacent public way (Hemlock Hill Rd.) and replace current outfall | \$125,000                 | Long term            | Director of Public Works                  | Revised from 2012 plan   |
|                       | 4) Sawyer St.; Elevate 600' x 22' x 18" add (3) 18" x 40' N-12 cross culverts, stabilize shoulders and repave.  | \$200,000                 | 4 weeks<br>Long term | Director of PW; Joint Project Scarborough | Deferred – Lack of Funding   |

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|--------------|--|-----------|----------|--------------------------|---|
|              | 5) Garden Circle; Install pump system with vault and backup generator to remove ponding. Portland Water District installed grinder sanitary pump station, replaced existing catch basin with 4' diameter pipe. Outflow pipe being replaced with project #2 | \$250,000 | 3 weeks  | Director of Public Works | completed 2014 with PWD funds           |
|              | 6) Spurwink Ave @ Spurwink River; Extend arch culvert.   | unknown   | unknown  | Director of Public Works | Completed with Town funds per 2012 Plan |
|              | 7) Sawyer St. @ Trout Brook; upsize existing culvert with metal arch.  | \$175,000 | 3 weeks  | Director of Public Works | Completed with Town funds per 2012 Plan |
|              | 8) Scott Dyer Rd./ Elizabeth Park: Enlarge stormwater discharge outfall pipe.  | unknown   | unknown  | Director of Public Works | Completed with Town funds per 2012 Plan |
|              | 9) Running Tide Rd; Sewer Rehabilitation project.  | unknown   | unknown  | Director of Public Works | Completed with Town funds per 2012 Plan |
|              | 10) Old Ocean House Rd. @ Alewife Brook: Culvert Upgrade.  | unknown   | unknown  | Director of Public Works | Completed with Town funds per 2012 Plan |
|              | 11) Spurwink Ave @ Trout Brook; Upsize existing culvert with metal arch culvert.   | \$85,000  | 3 weeks  | Director of Public Works | Completed with Town funds per 2012 Plan |
| <b>Casco</b> | 1) Point Sebago Rd. Site #1; Add 24" x 40' N-12 cross culvert, ditch and line 200' and repave  | \$4,000   | Mid term | Road Commissioner        | Deferred – Lack of Funding              |

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|-------------------------|--|---------------------------|----------------------|-----------------------------------|--|
|                         | 2) Johnson Hill Rd; Ditch and line 2,000', install check dams and upsize (4) 15" x 24' culverts w/ (4) 18" x 32' N-12 culverts. Road reconstruction scheduled          | \$23,000                  | Short term           | Road Commissioner                 | Deferred – Lack of Funding                       |
|                         | 3) Leach Rd; Upsize existing cross culvert with 6'x 4' x 40' box culvert.  | \$35,000                  | Long term            | Road Commissioner                 | Deferred – Lack of Funding                       |
|                         | 4) Edwards Rd Site #1; Elevate Road 300' x 2' x 21' upsize 36" x 40' corrugated metal pipe with 4' x 10' x 40' bottomless box culvert, repave and stabilize shoulders. | \$165,000                 | 3 weeks              | Road Commissioner                 | Completed 2013 with Town funds                   |
|                         | 5) Edwards Rd Site #2; Upsize existing 24" x 40' corrugated metal pipe with 36" x 40' N-12 culvert riprap outlet.  | \$5,000                   | 2 weeks              | Road Commissioner                 | Completed 2012 with Town Funds                   |
|                         | 6) Edwards Rd Site #3; Riprap existing culvert.  | \$1,000                   | 1 day                | Road Commissioner                 | Completed 2012 with Town Funds                   |
|                         | 7) Point Sebago Rd. Site #2; Riprap inlet and outlet of existing culvert.  | \$1,000                   | 1 day                | Road Commissioner                 | Completed 2014 with Town Funds                   |
|                         | 8) Libby Rd; Elevate 200' x 21' x 2' stabilize shoulder and repave. Road reconstructed   | \$18,000                  | 3 weeks              | Road Commissioner                 | Completed 2015 with Town funds                   |
|                         | 9) Crooked River Corridor; Acquire and/or elevate 12 houses.   | \$1,200,000-3,500,000     | 6 months             | Town Manager                      | Deferred - owners unwilling to sell at this time |
| <b>Chebeague Island</b> | 1) Stone Wharf. Replace or relocate Chebeague island Ferry landing. Vulnerability Study complete; Engineering Study ongoing  | \$300,000-<br>\$1,000,000 | Unknown<br>Long term | Town Manager<br>Road Commissioner | New Project                                      |



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|                   | 2) Bennett Cove. Engineering Study for improvements to stone block commercial boat ramp                                     | unknown      | Long term | Town Manager<br>Road Commissioner             | New Project  |
|                   | 3) Indian Point Rd; Install sheet pile 500' x 10'.  | \$14,000     | Mid term  | Road Commissioner                             | Deferred –<br>Lack of<br>Funding                             |
|                   | 4) Ongoing public education of homeowners about protection from wildfires.  | \$500        | 2016-2021 | Fire Department & Island<br>Institute Fellow. | Completed as<br>planned;<br>continuing                       |
| <b>Cumberland</b> | 1 ) Tuttle Rd Site 2; Elevate 200' x 21' x 3' stabilize shoulders and repave. Engineering Study completed                   | \$18,000     | Long term | Director of Public Works                      | Deferred –<br>Lack of<br>Funding                             |
|                   | 2) Middle Rd @ Hazeltines; Upsize existing 36" x 50' lined culvert with 42" x 50' N-12 culvert and riprap inlet and outlet. | \$17,000     | Long term | Director of Public Works                      | Deferred –<br>Lack of<br>Funding                             |
|                   | 3) Tuttle Rd Site 1; Upsize existing 36" x 40' culvert with 48" x 40' N-12 culvert and riprap inlet and outlet.             | \$14,000     | 2 weeks   | Director of Public Works                      | Completed<br>with Town<br>funds                              |
|                   | 4) Harris Rd; Upsize existing culvert with box and elevate road.  | \$294,216.94 | unknown   | Director of Public Works                      | Completed<br>with FEMA<br>PA/ Town<br>funds per 2012<br>Plan |
|                   | 5) Range Rd. (5) sites Upsize culverts and improve inlet and outlets.   | \$50,000     | 1 year    | Director of Public Works                      | Completed<br>with Town<br>funds per 2012<br>Plan             |

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|                 |   |           |           |                          |  |
|-----------------|---|-----------|-----------|--------------------------|--|
| <b>Falmouth</b> | 1) Northbrook Drive; Upsize existing 48" culvert with 8' x 4' x 80' bottomless box culvert and riprap inlet and outlet.                                     | \$200,000 | Long term | Director of Public Works | Deferred – Lack of Funding   |
|                 | 2) Middle Rd. @ Scittery Gussett Brook; Upsize triple 15" culverts with bottomless box culvert or as required by H&H study and riprap inlet and outlet.     | \$100,000 | Long term | Director of Public Works | Revised from 2012 Plan - held up for Army Corp of Engineering permit |
|                 | 3) Shoreline Drive Coastal Erosion; Stabilize bank 100' x 50' x 3' with large fractured stone Engineering study complete                                    | \$75,000  | Long term | Director of Public Works | Study -Town funds Deferred – Lack of Funding                         |
|                 | 4) Woodville Road Piscataqua River Crossing; upsize double culvert with bridge or box culvert   | \$500,000 | Unknown   | Director of Public Works | Completed with Town funds per 2012 Plan                              |
|                 | 5) Woodville Rd @ High School; upsize existing culverts   | \$50,000  | 1 week    | Director of Public Works | Completed with Town funds per 2012 Plan                              |
| <b>Freeport</b> | 1) Hunter Road. Upsize existing culvert with 24" culvert  | \$125,000 | Mid term  | Director of Public Works | New Project  |
|                 | 2) Percy Street. Upsize existing culvert with 24" culvert   | Unknown   | Mid term  | Director of Public Works | New project  |
|                 | 3) Richards Lane; Elevate 150' x 1' x 22' stabilize shoulders upsize twin 15" x 40' culverts with 6' x 3' x 40' bottomless box and riprap inlet and outlet. | Unknown   | Long term | Director of Public Works | Deferred – Lack of Funding   |
|                 | 4) Grant Rd; Upsize existing culvert with 24" x 40' N-12 culvert.   | \$4,000   | 3 days    | Director of Public Works | Completed with Town funds  |
|                 | 5) Webster/Old County Rd; Install 36" x 50' N-12 culvert and riprap inlet and outlet.   | \$5,000   | 1 week    | Director of Public Works | Completed with Town funds  |

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|                                | 6) Flying Point Rd; Enlarge existing corrugated metal pipe. Add additional culvert and elevate road and repave.   | \$200,000-500,000 | 1 week    | Director of Public Works                                    | Completed with Town funds per 2012 Plan |
|                                | 7) Cheehawk Rd; Added additional 18" x 40' N-12 culvert.  | \$2,500           | 3 days    | Director of Public Works                                    | Completed with Town funds per 2012 Plan |
| <b>Freeport Sewer District</b> | 1) move dry pit pump above ground and raise structure at least three feet.  | \$300,000         | Long Term | Board of Directors  | New Project                             |
| <b>Frye Island</b>             | 1) Monitor/mitigate hillside erosion in Recreation Area trail between Beach 10 and Long Beach. Site monitoring will continue in order to collect more information and determine the best approach to mitigating the hazard. | Unknown           | Long term | Director of Public Works                                    | New Project                             |
|                                | 2) Erosion at beach #6; Installed retention pond and added (2) culverts to divert flow from beach.  | \$10,000          | 2 weeks   | Town Manager  | Completed with Town funds per 2012 Plan |
| <b>Gorham</b>                  | 1) Mitchell Hill Rd; Elevate road 300' x 3' x 22' stabilize shoulders and upsize existing culvert with bridge approx. 100' x 22' with wing walls.   | \$600,000         | Long Term | Director of Public Works;<br>Joint project with Scarborough | Deferred – Lack of municipal funds      |
|                                | 2) Dingley Springs Rd.; Upsize existing multiple culverts with 12' x 6 x 40' bottomless box culvert and riprap inlet and outlets.   | \$80,000          | Long Term | Director of Public Works                                    | Deferred – Lack of Funding              |
|                                | 3) Wood Rd; Upsize existing multiple culverts with 12' x 6 x 40' bottomless box culvert and riprap inlet and outlets.   | \$80,000          | Long Term | Director of Public Works                                    | Deferred – Lack of Funding              |
|                                | 4) Wilson Rd: Upsize existing culvert with 10' x 5 x 40' bottomless box culvert and riprap inlet and outlets.   | \$60,000          | Long term | Director of Public Works                                    | Deferred – Lack of Funding              |

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| <b>Gorham, cont.</b> | 5) Buck St; Upsize existing multiple culverts with 20'x 8' x 40' bottomless box culvert and riprap inlet and outlets. Elevate road 200' x 21' x 3' and repave.   | \$130,000 | Long Term | Director of Public Works | Deferred –<br>Lack of<br>Funding                 |
|                      | 6) New Portland Rd; Upsize existing multiple culverts with 10' x 5' x 40' bottomless box culvert and riprap inlet and outlets.   | \$60,000  | Long Term | Director of Public Works | Deferred –<br>Lack of<br>Funding                 |
|                      | 7) Spiller Rd; Upsize existing multiple culverts with 20'x 8' x 40' bottomless box culvert and riprap inlet and outlets. Elevate road 200' x 21' x 3' and repave. Twin plastic culvert installed by PW | \$30,000  | 3 weeks   | Director of Public Works | Completed in<br>2014 with<br>Town Funds          |
|                      | 8) Huston Rd; Upsize existing multiple culverts with 20'x 8' x 40' bottomless box culvert and riprap inlet and outlets.  | \$75,000  | 2 weeks   | Director of Public Works | Completed<br>with Town<br>funds per 2012<br>Plan |
|                      | 9) Tow Path Rd; Slope protection, upsize culvert.  | \$20,000  | 2 weeks   | Director of Public Works | Completed<br>with Town<br>funds per 2012<br>Plan |
|                      | 10) North Gorham Rd; Slope protection, upsize culvert.   | \$20,000  | 2 weeks   | Director of Public Works | Completed<br>with Town<br>funds per 2012<br>Plan |
|                      | 11) Hodgdon Rd @ South Branch Brook; Install metal arch pipe.  | \$200,000 | 1 month   | Director of Public Works | Completed<br>with FEMA<br>funds per 2012<br>Plan |
|                      | 12) Washburn Rd; Slope protection, upsize culvert.   | \$20,000  | 2 weeks   | Director of Public Works | Completed<br>with FEMA<br>funds per 2012<br>Plan |
|                      | 13) Longfellow Rd @ Indian Camp Brook; Slope protection, upsize culvert.   | \$20,000  | 2 weeks   | Director of Public Works | Completed<br>with Town<br>funds per 2012<br>Plan |

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| 14) Day Rd @ Indian Camp Brook; Slope protection, upsize culvert.                     | \$20,000  | 2 weeks | Director of Public Works | Completed with Town funds per 2012 Plan |
| 15) Weeks Rd @ Gully Brook; Slope protection, upsize culvert.                         | \$20,000  | 2 weeks | Director of Public Works | Completed with Town funds per 2012 Plan |
| 16) Plummer Rd @ Westcott Brook; Slope protection, upsize culvert.                    | \$20,000  | 2 weeks | Director of Public Works | Completed with Town funds per 2012 Plan |
| 17) New Portland Rd. @ East Branch of Indian Brook; Slope protection, upsize culvert. | \$20,000  | 2 weeks | Director of Public Works | Completed with Town funds per 2012 Plan |
| 18) Flaggy Meadow Rd. @ Little River; Slope protection, upsize culvert.               | \$20,000  | 2 weeks | Director of Public Works | Completed with Town funds per 2012 Plan |
| 19) Brackett Rd.; Slope protection, upsize culvert.                                   | \$20,000  | 2 weeks | Director of Public Works | Completed with Town funds per 2012 Plan |
| 20) Files Road @ Files Brook; Scour protection.                                       | \$20,000  | 2 weeks | Director of Public Works | Completed with Town funds per 2012 Plan |
| 21) Brackett Rd @ Indian Brook; Additional scour protection and redesign bridge.      | \$200,000 | unknown | Director of Public Works | Completed with Town funds per 2012 Plan |
| 22) Fort Hill Rd@ Tannery Brook; Additional scour protection and redesign bridge.     | \$200,000 | unknown | Director of Public Works | Completed with Town funds per 2012 Plan |

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|-------------|---|--------------|-----------|---|--|
|             | 23) Deering Rd @ Stroutwater River; Slope protection, upsize culvert.   | \$20,000     | 2 weeks   | Director of Public Works                    | Completed with Town funds per 2012 Plan  |
|             | 24) Hurricane Rd; Slope protection and upsize culvert.  | \$20,000     | Unknown   | Director of Public Works                    | Completed with FEMA funds per 2012 Plan  |
| <b>Gray</b> | 1) Campbell Shores Rd Site #1; Upsize triple 24" x 40' culvert with 4' x 8' x 40' bottomless box culvert raise road 21' x 3' x 500' and repave                  | \$60,000     | Long term | Director of public Works                    | Deferred – Lack of Funding   |
|             | 2) Campbell Shores Rd Site #2; ;Upsize triple 24" x 40' culvert with 4' x 8' x 40' bottomless box culvert raise road 21' x 3' x 500' and repave.                | \$60,000     | Long term | Director of Public Works                    | Deferred – Lack of Funding   |
|             | 3) Long Hill Rd.; Upsize 60" x 40' culvert with 5' x 8' x 40' bottomless box culvert, raise road 21' x 6' x 500' stabilize shoulders and repave.                | \$70,000     | Long term | Director of Public Works                    | Deferred – Lack of Funding - Engineering study – Town funds Possible DEP grant |
|             | 4) Westwood Rd at Sucker Brook; H&H, engineering design Upsize existing 36" x 40' culvert with 6' x 8' x 40' bottomless box culvert with integrated wing walls. | \$110,165.64 | 4 weeks   | Director of Public Works & engineering firm | HMPG project completed Oct 2012  |
|             | 5) Lawrence Rd; Elevate road 22' x 700' x 4' on average, raise bridge deck, stabilize shoulders and repave.   | \$202,122.00 | 2 months  | Director of Public Works / Town Engineer    | Completed with town Funds August 2015  |

CUMBERLAND COUNTY HAZARD MITIGATION PLAN

|                    |  |           |           |                          |                            |
|--------------------|--|-----------|-----------|--------------------------|----------------------------|
| <b>Harpwell</b>    | 1) Long Point Rd. Shore up embankment; engineering study done 2013   | \$75,000  | Mid term  | Road Commissioner        | New project                |
|                    | 2) Bethel Point Rd.; Replace existing 8' x 40' culvert with same sized culvert.  | \$149,000 | 2 months  | Director of Public Works | Completed with Town Funds  |
| <b>Harrison</b>    | 1 ) Buck Rd; Remove ledge in ditch line 300', continue berm along road and upsize existing twin culverts with 36" x 40' N-12 culvert.  | \$9,000   | Mid term  | Road Commissioner        | Deferred – Lack of Funding |
|                    | 2) Fog Rd.; Upsize existing twin 36" x 40' cross culvert with 8' x 4' x 40' box culvert riprap inlet and outlet  | \$9,000   | Long term | Road Commissioner        | Deferred – Lack of Funding |
| <b>Long Island</b> | 1) 765 Island Ave; Engineering Study and upgrade culvert and stabilize outlet with riprap.   | \$100,000 | Long term | Road Commissioner        | Revised from 2012 Plan     |
|                    | 2) Island Ave. & Garfield St; Install catch basin, add 18" x 40' N-12 culvert and upsize 15" x 40' culvert with 18" x 40' N-12 culvert. Ditch and armor 700' and shim 800' of road. Rebuild drainage grate | \$12,000  | Long term | Road Commissioner        | Revised from 2012 plan     |
|                    | 3)Beach Ave. Remove ledge 50' x 6' x 2' Ditch and line 200' add 12" x 30' N-12 driveway culvert  | \$8,000   | 2 weeks   | Road Commissioner        | Completed with Town Funds  |
|                    | 4) Harbor De Grace St; Upsize 12" x 80' culvert with 15" x 80' N-12 culvert, remove ledge 30' x 6' x 2' and ditch 50'.   | \$8,500   | 3 weeks   | Road Commissioner        | Completed with Town Funds  |

CUMBERLAND COUNTY HAZARD MITIGATION PLAN

|               |   |          |           |                   |  |
|---------------|---|----------|-----------|-------------------|--|
|               | 5) Island Ave; Stabilize bank with riprap and native plantings 400' x 60' x 2'.   | 10,000   | 3 weeks   | Road Commissioner | Completed with Town Funds                      |
|               | 6) Levitt Street/ Public Works Yard; Excavate wet spot in road install 12' x 30' filter fabric and crushed stone pillow.            | \$8,000  | 3 weeks   | Road Commissioner | Completed with Town funds per 2012 Plan        |
|               | 4)–7) Island Ave @ Stepping Stone Ln.; Install 12" x 40 N-12 culvert and re-establish ditch line.                                   | \$9,000  | 2 weeks   | Road Commissioner | Completed with Town funds per 2012 Plan        |
|               | 8) Apple Tree Ln.; Upsize existing cross culvert add (2) driveway culverts and (1) catch basin clean ditches and add check dams.    | \$5,000  | 3 weeks   | Road Commissioner | Completed with Town and PA funds per 2012 Plan |
| <b>Naples</b> | 1) Lakehouse Road near Muddy River ditching   | \$3,500  | Mid term  | Road Commissioner | New Project                                    |
|               | 2) Lamb's Mill Road from Rt 302 to hilltop ditching   | \$3,000  | Mid term  | Road Commissioner | New Project                                    |
|               | 3) Edes Falls Road and River Road junction 30" culvert upgrade and ditching   | \$6,500  | Mid term  | Road Commissioner | New Project                                    |
|               | 4) Wiley Rd @ Sam's Bluff; Upsize existing 30" x 40' corrugated metal pipe with 36" x 40' N-12 culvert and riprap inlet and outlet. | \$8,000  | Long term | Town Manager      | Deferred - Lack of funding                     |
|               | 6) Songo Rd; Ditch 2,500' and add 30" x 40' N-12 culvert.   | \$11,000 | 2 weeks   | Town Manager      | Completed with Town Funds                      |
|               | 7) Lambs Mill Rd; Remove road bed 200' x 21' x 12" install french drain and geotextile fabric and repave.                           | \$10,000 | 1 week    | Town Manager      | Completed 2012 with Town funds                 |
|               | 8) Horace Files Rd. @ Pikes Hill; Ditch 200' and build detention pond 10'x 10' x 6'.  | \$2,000  | 1 week    | Town Manager      | Completed 2012 with                            |



CUMBERLAND COUNTY HAZARD MITIGATION PLAN

|                       |   |                     |           |                          |                                |
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|                       |   |                     |           |                          | Town funds                     |
|                       | 9) Sand Rd; Upsize existing culvert with 24" x 40' N-12 culvert, remove catch basin and replace with stone lined plunge pool. New catch basin installed   | \$5,000             | 1 week    | Town Manager             | Completed 2012 with Town funds |
| <b>New Gloucester</b> | 1) Ayers Rd; Upsize multiple culverts with (1) 3' x 8' x 40' bottomless box culvert and (1) 3' x 10' x 40' bottomless box culvert, elevate road 300' x 21' x 2' and stabilize shoulders riprap and repave                       | \$116,000           | Long term | Director of Public Works | Deferred - Lack of funding     |
|                       | 2) Durham Rd; Upsize multiple culverts with 3' x 8' x 40' bottomless box culvert, elevate road 600' x 21' x 2' and stabilize shoulders riprap and repave  | \$73,000            | Long term | Director of Public Works | Deferred - Lack of funding     |
|                       | 3) Woodman Rd; Upsize multiple culverts with 3' x 8' x 40' bottomless box culvert, elevate road 600' x 21' x 2' and stabilize shoulders riprap and repave.  | \$60,000            | 1 month   | Director of Public Works | Completed with Town funds      |
| <b>North Yarmouth</b> | 1) West Pownal Rd; Continue to monitor erosion at site (elevation of road would cost \$2 million). Site monitoring will continue in order to collect more information and determine the best approach to mitigating the hazard. |                     | Long Term | Road Commissioner        | Revised from 2012 Plan         |
| <b>Portland</b>       | 1) Johanson and Front St; Park Side Condos acquisition and demolition of six unit condo complex.  | 1,000,000-2,000,000 | Long term | City Council             | Deferred - Lack of funding     |
|                       | 2) Washington Ave. @ Leister Dr; Upsize, realign and lower outlet 36" x 150' corrugated metal pipe with 48" x 150' N-12 culvert and install plunge pool.  | \$50,000            | Long term | Director of Public Works | Deferred - Lack of funding     |

CUMBERLAND COUNTY HAZARD MITIGATION PLAN

|  |             |           |                          |   |
|--|-------------|-----------|--------------------------|---|
| 3) Gertrude St. Install backflow prevention.   | \$500,000   | Long term | Director of Public Works | Deferred - Lack of funding              |
| 4) Capisic St.; Install backflow prevention.   | \$500,000   | Long term | Director of Public Works | Deferred - Lack of funding              |
| 6) Back Cove @ Tukeys Bridge; Stabilize bank along back cove 100' x 90' x 3' using one ton fractured stone and flat revetments in the water up to 5' above mean high tide. | \$180,000   | 2 months  | Director of Public Works | Completed City funds                    |
| 7) Back Cove @ Dartmouth St; Stabilize bank erosion along walking trail 6'x 150' x 2' using 500 lb. fracture stone riprap.   | \$14,256    | 1 week    | Director of Public Works | Completed City funds                    |
| 8) West end Commercial St; Upgrade drainage.   | \$500,000   | Unknown   | Director of Public Works | Completed with City funds per 2012 Plan |
| 9) Alden and Violette St; Upsize culverts, build detention pond upstream and install backflow valves.  | \$1,000,000 | Unknown   | Director of Public Works | Completed with City funds per 2012 Plan |
| 10) Alden @ Violette Circle; Upsize Lucas St culvert, build detention ponds upstream and install backflow preventers.  | \$1,000,000 | Unknown   | Director of Public Works | Completed with City funds per 2012 Plan |
| 11) Mona/Bernard/Washington/Maine Ave. @ Falls Brook; Easement acquisition, culvert upgrades and stream channel work.  | \$8,000,000 | Unknown   | Director of Public Works | Completed with City funds per 2012 Plan |
| 12) West end of Commercial St; Upgrade storm water system.   | \$1,000,000 | Unknown   | Director of Public Works | Completed with City funds per 2012 Plan |

CUMBERLAND COUNTY HAZARD MITIGATION PLAN

|                |   |                      |           |                          |  |
|----------------|---|----------------------|-----------|--------------------------|--|
|                | 13) 60 kW Generator for Munjoy Fire Station to power 100% of building Also protects sprinkler system for Portland observatory which is wired into Fire Station  | \$93,655             | 24 weeks  | City of Portland         | HMPG Grant funding Completed 2015        |
| <b>Pownal</b>  | 1) Chadsey Rd Site #1 Upstream; Upsize triple N-12 culverts with 12' x 4' x 40' bottomless box culvert and riprap inlet and outlets.  | \$45,000             | Long term | Road Commissioner        | Deferred - Lack of funding               |
|                | 2) Chadsey Rd Site #2; Upsize triple N-12 culverts with 12' x 4' x 40' bottomless box culvert and riprap inlet and outlets.   | \$45,000             | Long term | Road Commissioner        | Deferred - Lack of funding               |
|                | 3) Brown Rd; Upsize twin 48" x 40' culverts with 12' x 4' x 40' bottomless box culvert, riprap inlet and outlets and repave.  | \$48,000             | Long term | Road Commissioner        | Deferred - Lack of funding               |
| <b>Raymond</b> | 1) Monitor/mitigate as needed ditch erosion at Raymond Hill Rd and Webbs Mill Rd Site monitoring will continue in order to collect more information and determine the best approach to mitigating the hazard. | Unknown              | Long term | Road Commissioner        | New Project                              |
|                | 2) Plains Road at Route 85 & Crescent Beach; Install closed drain and catch basin   | \$50,000 - \$200,000 | 3 weeks   | Director of Public Works | Completed with Town Funds                |
|                | 3) Mountain Rd from Spiller Hill to McDermott Drive; Upsize culvert and armor ditch.  | \$20,000 - \$50,000  | 2 Weeks   | Director of Public Works | Completed with Town funds per 2012 Plan  |
|                | 4) Elizabeth Ave. from Route 302 to Pine Road   | Unknown              | Unknown   | MDOT                     | Completed with State funds per 2012 Plan |

CUMBERLAND COUNTY HAZARD MITIGATION PLAN

**Scarborough**

|  |                       |           |   |  |
|--|-----------------------|-----------|---|--|
| 1) Gorham Rd at Nonesuch River. Engineering study and replacement of existing 5' culvert   | \$200,000 - \$300,000 | Long term | Director of Public Works                                    | New Project  |
| 2) Payne Road at Cabela's Boulevard. Engineering study and upsizing of drainage culverts   | \$75,000 - \$175,000  | Long term | Director of Public Works                                    | New Project  |
| 3) Pleasant Hill Upgrade storm drain system.   | \$600,000             | Long term | Director of Public Works                                    | Revised from 2012 Plan                                       |
| 4) Broadturn Rd & Martin Ave; Upsize existing twin 36" x 40' corrugated metal pipes with 10' x 4' x 40' bottomless box culvert and add 36" x 40' N-12 culvert on Martin Ave. | \$65,000              | Long term | Director of Public Works                                    | Deferred - Lack of funding                                   |
| 5) Mitchell Hill Rd; Elevate road 300' x 3' x 22' stabilize shoulders and upsize existing culvert with bridge approx.. 100' x 22' with wing walls.                           | \$600,000             | Long term | Director of Public Works; Joint project with Gorham         | Deferred - Lack of funding                                   |
| 6) Sawyer St.; Elevate 600' x 22' x 18" add (3) 18" x 40' N-12 cross culverts, stabilize shoulders and repave.   | \$95,000              | Long term | Director of Public Works; Joint project with Cape Elizabeth | Deferred - Lack of funding                                   |
| 7) Higgins Beach along Bay View Dr; shoreline erosion. Install plantings/storm breaks.   | \$75,000              | 3 weeks   | Director of Public Works                                    | Completed with FEMA/ Town funds. Still Issues. per 2012 Plan |
| 8) Higgins beach between Cliff and Shell St; Upgrade storm drain system.   | \$100,000             | Unknown   | Director of Public Works                                    | Completed with Town funds per 2012 Plan                      |
| 9) Clay Pitts Rd; Armor river banks with riprap  | \$7,500               | 3 weeks   | Director of Public Works                                    | Completed with FEMA/ Town funds per 2012 Plan                |

CUMBERLAND COUNTY HAZARD MITIGATION PLAN

|               |   |           |            |                   |   |
|---------------|---|-----------|------------|-------------------|---|
| <b>Sebago</b> | 1 Shore Road: 600' surface improvements, add gravel cross culverts  | \$100,000 | Short Term | Road Commissioner | New Project                             |
|               | 2. Anderson Road: ditch, cross culverts and repave  | \$90,000  | Long Term  | Road Commissioner | New Project                             |
|               | 3. Robinson Hill Rd.: rebuild cross culverts under drains (spring), ditch both sides of road, repave  | \$225,000 | Short Term | Road Commissioner | New Project Completed with Town Funds   |
|               | 4 Swamp Road: ditch both sides of road, cross culverts and repave   | \$165,000 | Short Term | Road Commissioner | New Project completed with Town Funds   |
|               | 5) Peabody Pond Rd. Ditch and line 1,800' add (2) driveway culverts 15" X 30' and (4) cross culvert 15" x 40' remove ledge from ditch line. Second cross culvert 4' x 45" | \$75,000  | 2 weeks    | Road Commissioner | Revised from 2102 Plan In progress      |
|               | 6) River Rd; Elevate and reconstruct road replace 18" x 40' culverts with 24" x 40' N-12 culverts.  | \$120,000 | 3 weeks    | Road Commissioner | Completed with Town Funds               |
|               | 7) Hancock Pond Rd; Upsize culvert and elevate road and add ditches. Ditched on both sides and repaved 3.6 miles  | 140,000   | 3 weeks    | Road Commissioner | Completed with Town Funds               |
|               | 8) Winn Mountain Rd; Ditch 500'. Ledge blasting to improve drainage   | \$5,000   | 1 week     | Road Commissioner | Completed with Town Funds               |
|               | 9) Dyke Mountain Rd; Ditch and pave road.   | \$67,000  | 1 week     | Road Commissioner | Completed with Town funds per 2012 Plan |
|               | 10) Orchard Rd; Ditching and install 140' of culverts.  | \$8,000   | 1 week     | Road Commissioner | Completed with Town funds per 2012 Plan |

CUMBERLAND COUNTY HAZARD MITIGATION PLAN

|                             |  |           |           |                          |   |
|-----------------------------|--|-----------|-----------|--------------------------|---|
| <b>South Portland</b>       | 1) Fessenden St @ Trout Brook; Upsize existing twin 36" x 50' culvert with 3' x 8' x 50' bottomless box culvert and riprap inlet and outlet. | \$65,000  | Long term | Director of Public Works | Deferred - Lack of funding              |
| <b>South Portland Cont.</b> | 2) Alfred St; Upsize existing twin 24" x 40' culvert with 3' x 6' x 50' bottomless box culvert and riprap inlet and outlet.                  | \$55,000  | Long term | Director of Public Works | Deferred - Lack of funding              |
|                             | 3) Boothby St @ Trout Brook; Upsize existing culvert with 3' x 6' x 50' bottomless box culvert and riprap inlet and outlet.                  | \$55,000  | Long term | Director of Public Works | Deferred - Lack of funding              |
|                             | 4) Running Hill Rd; Install catch basin.   | \$25,000  | Mid term  | Director of Public Works | Deferred - Lack of funding              |
|                             | 5) Broadway @ Daytona; Relocate Basin  | \$50,000  | unknown   | Director of Public Works | Completed with City funds per 2012 Plan |
|                             | 6) Highland Av @ High school; Upgrade storm drain system.  | \$130,000 | unknown   | Director of Public Works | Completed with City funds per 2012 Plan |
|                             | 7) Main St @ Massachusetts and Main @ Wallace Ave.; Road rehabilitation  | Unknown   | unknown   | Director of Public Works | Completed with City funds per 2012 Plan |
|                             | 8) Preble @ Alder and Day St; Add curb inlet.  | \$10,000  | unknown   | Director of Public Works | Completed with City funds per 2012 Plan |
|                             | 9) Broadway @ Boys Club; New sidewalks and upgrade systems.  | \$50,000  | unknown   | Director of Public Works | Completed with City funds per 2012 Plan |

CUMBERLAND COUNTY HAZARD MITIGATION PLAN

|  |           |         |                          |   |
|--|-----------|---------|--------------------------|---|
| 10) Highland Ave @ Whispering Pines; Upgrade storm drain system. | \$100,000 | unknown | Director of Public Works | Completed with City funds per 2012 Plan |
| 11) Broadway @ underpass; Upgrade Storm drain system.            | \$100,000 | unknown | Director of Public Works | Completed with City funds per 2012 Plan |
| 12) Dike Farm Rd @ Meadow Way; Upgrade storm drain system.       | \$50,000  | unknown | Director of Public Works | Completed with City funds per 2012 Plan |
| 13) Nutter Rd; Upsize existing culvert.                          | \$10,000  | unknown | Director of Public Works | Completed with City funds per 2012 Plan |
| 14) Highland Ave @ Gamblers Brook; Upsize existing culvert.      | \$10,000  | unknown | Director of Public Works | Completed with City funds per 2012 Plan |
| 15) Angell Ave. @ Preble St; Install curb inlets.                | \$50,000  | unknown | Director of Public Works | Completed with City funds per 2012 Plan |
| 16) Cummings Rd @ Westbrook Line; Upgrade culverts.              | N/A       | unknown | Director of Public Works | Completed with City funds per 2012 Plan |
| 17) Broadway @ Scarborough Line; Upgrade Ditches.                | N/A       | unknown | Director of Public Works | Completed with City funds per 2012 Plan |
| 18) Willow St @ Sand pebbles condo's; Tidal effect               | N/A       | unknown | Director of Public Works | Completed with City funds per 2012 Plan |

CUMBERLAND COUNTY HAZARD MITIGATION PLAN

|                       |   |                   |           |                          |   |
|-----------------------|---|-------------------|-----------|--------------------------|---|
| <b>Standish</b>       | 1) Blake Rd; Upsize existing twin culverts 36" x 40' culverts with 8' x 4' x 40' bottomless box and riprap inlet and outlet | \$70,000          | Long term | Director of Public Works | Deferred - Lack of funding              |
| <b>Standish cont.</b> | 2) Middle Jam Rd; Install precast head wall with wing walls on inlet and outlet of 40" culvert.                             | \$15,000          | Mid term  | Director of Public Works | Deferred - Lack of funding              |
|                       | 3) Northeast Rd @ Rt. 35; Ditch and armor 300' add 30" x 30' N-12 driveway culvert.   | \$7,000           | Mid term  | Director of Public Works | Deferred - Lack of funding              |
|                       | 4) Route 35A – Cape Road; upsize culvert, create spillway, armor downstream side of road bed.                               |                   |           | Director of Public Works | Deferred - Lack of funding              |
|                       | 5) Cape Rd; Upsize existing 30" x 40' corrugated metal pipe with 36" x 40' N-12 culvert and riprap inlet and outlet.        | \$5,000           | 2 week    | Director of Public Works | Completed with town funds               |
|                       | 6) White Bridge Rd; Upsize existing culvert and create spillway and armor downstream side of road.                          | \$ 50,000-200,000 | 3 weeks   | Director of Public Works | Completed with Town funds per 2012 Plan |
| <b>Westbrook</b>      | 1) Brook Street. Replace bridge over Minnow Brook with new culvert to meet crossing standards                               | Unknown           | Long term | Director of Public Works | New Project                             |
|                       | 2) Cottage Place. Culvert upgrade to meet crossing standards.   | Unknown           | Long term | Director of Public Works | New Project                             |



CUMBERLAND COUNTY HAZARD MITIGATION PLAN

|                 |   |           |           |                          |  |
|-----------------|---|-----------|-----------|--------------------------|--|
|                 | 3) Purchase and demolish building at 40 Lincoln St.   | \$250,000 | Long term | Director of Public Works | New Project  |
|                 | 4) Cumberland St; Upsize existing twin culverts.  | Unknown   | Unknown   | Director of Public Works | Completed with City funds per 2012 Plan            |
|                 | 5) River Walk @ Ash St; Stabilize bank with 12" riprap.   | \$5,000   | 3 Days    | Director of Public Works | Completed with City funds per 2012 Plan            |
| <b>Windham</b>  | 1) Highland Cliff Rd @ Annie Leighton Brook. Add second culvert   | \$45,000  | Long term | Director of Public Works | Revised from 2012 Plan                             |
|                 | 2) Nash Rd; Elevate road 1,200' x 21' x 2' stabilize shoulders add 24" x 40' N-12 cross culvert and repave. | \$74,000  | Mid term  | Director of Public Works | Deferred - Lack of funding – now in capital budget |
| <b>Yarmouth</b> | 1) Ledge Rd; Install headwall and wing walls on inlet side of Pratt's Brook.                                | \$10,000  | Mid term  | Director of Public Works | Deferred - Lack of funding                         |
|                 | 2) North Rd; Add 42" x 80' N-12 overflow culvert at Pratt's Brook.  | \$15,000  | 2 weeks   | Director of Public Works | Completed with Town Funds                          |

CUMBERLAND COUNTY HAZARD MITIGATION PLAN

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|--|-----|-----|--------------------------|------------------------------|
| 3) Pratt's Brook @ Northwood Rd; Problem should be solved by adding overflow culvert @ North Rd. | N/A | N/A | Director of Public Works | Resolved by North Rd culvert |
| 4) Pratt's Brook @ East Elm St; Problem should be solved by adding overflow culvert @ North Rd.  | N/A | N/A | Director of Public Works | Resolved by North Rd culvert |