

York County, Maine Hazard Mitigation Plan Executive Summary



2011



Prepared by:

**York County Emergency
Management Agency**

and

**Southern Maine Regional
Planning Commission**



SUMMARY

The Federal Disaster Mitigation Act (FDMA), passed in 2000, mandates that all localities that wish to continue receiving FEMA funding after hazard events must prepare a local hazard mitigation plan. Under this law any community without such a plan will no longer receive post-disaster relief funding after November 2004. The York County Emergency Management Agency decided that the best way to meet the requirements of the law was to complete a countywide Hazard Mitigation Plan. There were two reasons for making this decision: the county possesses greater hazard mitigation resources than do many of its municipalities and that the hazards faced by its municipalities are similar.

In accordance with the state home rule laws, each of the 29 municipalities in the county has jurisdiction over all land use and planning regulations. Thus, the plan was written with local interests in mind, and must be presented to Boards of Selectman/Town Councils of all 29 cities and towns for adoption.

In 2004, the initial York County Hazard Mitigation plan was completed and adopted by all 29 Cities and Towns and the County Commissioners of York County. The FDMA requires the Hazard Mitigation Plan be updated every 5 years, with the first update due in 2010. [Since a draft of this updated plan was submitted to FEMA for review in 2010, York County is still in compliance with the FDMA.]

Key changes made to the previous plan in this update:

- Consolidated the number of hazard types examined in this plan from 7 to 4.
- We move Hurricanes/Tropical Storms and Tornadoes into a new category Severe Summer Storms
- Earthquakes were removed from consideration in this plan as it occurs so infrequently and the predicted severity if one does occur is considered low.
- Updated the Implementation Matrix to reflect progress made.
- Updated the Local Mitigation Project list.
- Each town identified a list of local projects they plan to implement in order to mitigate hazards identified in this plan. These projects become eligible for FEMA grants once this plan is fully adopted by all 29 towns/cities and the county.

Following, you will find a summary of the hazards identified, a table of the goals, strategies and actions, a table listing local mitigation projects by submitted by each town, details on the plan maintenance and finally contact information for the authors of the plan.

A full copy of the plan and all appendices are available for downloading from the Southern Maine Regional Planning Commission's project website at <http://www.smrpc.org/EMA/hazmitpage.htm>.

HAZARDS EXAMINED IN THIS PLAN

The Maine Emergency Management Agency lists 20 different types of hazards, both natural and man-made, faced by the state. After considering the entire range of potential hazard types, four were identified as falling within the scope of the York County Hazard Mitigation Plan:

1. Flood (includes dam failure, coastal erosion, and landslide)
2. Severe winter storm
3. Severe Summer Storm (includes tornado, Hurricanes and tropical storms)
4. Wildfire- Urban Interface and forest fire

The following table summarizes why these four hazard types were identified.

MITIGATION ACTIONS BY GOAL AND OBJECTIVE

In this section the goals and objectives are used to define specific mitigation actions that respond to each of the four hazard types considered in the mitigation plan. For each Goal and Objective of the mitigation plan, specific recommended actions are put forth in the matrix below.

Implementing the Actions of this Mitigation Plan will require cooperation from local, county and state governments, as well as the private sector. As a regional plan, much of the responsibility for coordinating these various partners will fall to either the York County Emergency Management Agency (YCEMA) or the Southern Maine Regional Planning Commission (SMRPC). Other Actions will require individual municipalities to take charge, though. The matrix also displays status of each action.

Primary No.	Objectives	Action No.	Action Description	Hazards Addressed	Responsible Parties	Status
GOAL 1: MINIMIZE DAMAGE, INJURY AND LOSS OF LIFE						
1.1.	Discourage future residential and commercial development in hazard-prone areas	1.1.1.	Conduct detailed local inventories of hazard-prone areas	Flood, Hurr./ Trop. Storm, Wildfire	YCEMA, local EMAs	Deferred until Risk Map studies are done
		1.1.2.	Limit public infrastructure expansions in hazard areas	Flood, Hurr./ Trop. Storm, Wildfire	Towns (via land use policies)	Coastal communities are enacting codes to limit; other towns considering doing same
		1.1.3.	Educate property owners and developers about risks of developing structures in hazard-prone areas	Flood, Hurr./ Trop. Storm, Wildfire	EMAs, town officials	Part of Risk Map education 2012-2015
1.2.	Improve emergency evacuation routes and plans	1.2.1.	Develop local evacuation routes and plans	All	Town officials, SMRPC, MDOT	Complete
		1.2.2.	Develop regional evacuation plan	All	SMRPC, MDOT, YCEMA	Complete
1.3.	Enact and enforce regulations that reduce the threat of hazard damage	1.3.1.	Reduce allowable densities in hazard-prone areas	Flood, Hurr./ Trop. Storm, Wildfire	Towns (via land use policies)	Coastal communities are enacting codes to limit; other towns considering doing same
		1.3.2.	Enact tougher dimensional standards in hazard-prone areas	Flood, Hurr./ Trop. Storm, Wildfire	Towns (via land use policies)	Coastal communities are enacting codes, other towns considering doing same
		1.3.3.	Strengthen building codes	All	Towns (via land use policies)	Coastal communities are enacting codes ; other towns considering doing same
		1.3.4.	Ensure strong local enforcement of land use and building regulation	All	Towns (local code officers)	Coastal communities are enacting codes ; other towns considering doing same
1.4.	Improve functionality of emergency shelter system	1.4.1.	Equip more facilities for emergency shelter use	All	YCEMA, local EMAs, Towns	Deferred; lack of funding
		1.4.2.	Require backup power generators in emergency shelters	Severe Winter Storm	Town officials	Deferred; lack of funding
		1.4.3.	Enact mitigation measures on shelter structures	All	Town officials	Deferred; lack of funding
1.5.	Improve post-disaster reporting systems	1.5.1.	Create countywide post-disaster reporting system	All	YCEMA, local EMAs	Deferred; lack of funding
		1.5.2.	Establish volunteer corps of citizen reporters	All	YCEMA, local EMAs	Complete by 2014

Primary No.	Objectives	Action No.	Action Description	Hazards Addressed	Responsible Parties	Status
GOAL 2: PROTECT ECONOMIC VITALITY OF BUSINESSES						
2.1.	Ensure that infrastructure is fully restored as quickly as possible after disasters occur	2.1.1.	Create and maintain database of critical infrastructure	All	YCEMA, local EMAs, biz groups	Complete by 2014
		2.1.2.	Enact plans for restoring functionality of priority infrastructure	All	Town officials, local EMAs, utility cos.	2012-2014
		2.1.3.	Offer support services to businesses affected by hazards	All	YCEMA, local EMAs, biz groups, towns	Continuing Public/Commercial Outreach
2.2.	Encourage owners of commercial properties and businesses to enact mitigation measures	2.2.1.	Document long-term economic benefits of mitigation	All	SMRPC, biz groups, DECD	Continuing Public/Commercial Outreach
		2.2.2.	Create and distribute how-to guide for hazard mitigation	All	SMRPC, YCEMA, biz groups	Continuing Public/Commercial Outreach
		2.2.3.	Offer financial incentives for mitigation. Municipalities can apply for grants to help offset the costs of removing homes from flood plains or pay for this entirely from local funds.	All	Town and state officials	Deferred; lack of funding
2.3.	Ensure that all workers and customers can access businesses	2.3.1.	Identify high priority commuter routes for protection	All	SMRPC, MDOT, biz groups	Continued Assessments
		2.3.2.	Ensure that key transportation routes remain open	All	SMRPC, MDOT, YCEMA, local EMAs	Continued Assessments
		2.3.3.	Maintain a business information hotline for post-disaster periods	All	YCEMA, SMRPC	Deferred; lack of funding
		2.3.4.	Encourage companies to promote telecommuting	All	SMRPC, biz groups, DECD	Continuing Public/Commercial Outreach
2.4.	Maintain security during and after hazard events	2.4.1.	Develop property security plans for all hazard types	All	YCEMA, Local EMAs, Sheriff, local police	Continued Assessments
		2.4.2.	Coordinate with county and state law enforcement officials	All	YCEMA, Sheriff, ME Pub. Safety	Continued Assessments and Planning Partnerships

Priority No.	Objectives	Action No.	Action	Hazard Addressed	Responsible Parties	Status
GOAL 3: ENSURE CONTINUITY OF COUNTY AND LOCAL GOVERNMENT OPERATIONS						
3.1.	Enact strict mitigation standards for key public facilities	3.1.1.	Identify key public facilities	All	Local EMAs	Identified in Local EOP
		3.1.2.	Develop minimum standards for public buildings	All	YCEMA, town officials	Deferred; lack of funding
		3.1.3.	Seek financial assistance for public facility mitigation	All	YCEMA, town officials	As Funding Allows
3.2.	Develop formal arrangements for sharing of facilities and equipment in case of disasters	3.2.1.	Create electronic database of countywide inventory of facilities and equipment	All	YCEMA, SMRPC	As Funding Allows
		3.2.2.	Identify inventory items most at risk for each hazard type	All	YCEMA, local EMAs, SMRPC	Deferred; lack of funding
		3.2.3.	Institute procedures for sharing facilities and equipment	All	YCEMA, local EMAs	Mutual Aid Agreements/MOU's
3.3.	Encourage municipalities to develop, adopt and implement local hazard mitigation plans	3.3.1.	Provide each municipality with annexes and appendix data from countywide plan	All	SMRPC	Complete
		3.3.2.	Assist localities with collection of inventory data	All	Local EMAs, YCEMA	Continued Assessments and Inventory Updates
		3.3.3.	Offer matching grant program for developing and implementing local hazard mitigation plans.	All	YCEMA	As Funding Allows

Priority No.	Objectives	Action No.	Action	Hazard Addressed	Responsible Parties	Status
GOAL 4: MAKE EFFICIENT USE OF PUBLIC FUNDS FOR MITIGATION						
4.1.	Protect critical public facilities and services from hazard damage	4.1.1.	Use critical facilities inventory to identify potential mitigation projects for each hazard type	All	Local EMAs, town officials	Need to complete inventory
		4.1.2.	Identify potential funding sources for mitigation projects	All	YCEMA, local EMAs	Continued Assessments
		4.1.3.	Establish a central procurement resource for conducting mitigation projects in York Co.	All	YCEMA	As Funding Allows
4.2.	Prioritize hazard mitigation activities by benefit-cost ratios	4.2.1.	Estimate public costs of mitigation projects	All	Local EMAs, town officials	Continued Assessments
		4.2.2.	Estimate potential damage without mitigation measures	All	Local EMAs, YCEMA, consultants	Continued Assessments and Planning Partnership
		4.2.3.	Compare ratio of public costs to potential damage avoided for potential mitigation projects	All	Local EMAs, town officials	Continued Assessments and Planning Partnership
4.3.	Use public funds to limit development of buildings and facilities in hazard-prone locations	4.3.1.	Identify properties that have suffered repetitive hazard damage	Flood, Hurricane/Trop. Storm	Local EMAs, YCEMA	Continued Assessments and Planning Partnership
		4.3.2.	Acquire high-risk properties in hazard areas	Flood, Hurricane/Trop. Storm	Towns, state, land trusts, consultants	As Funding Allows
		4.3.3.	Purchase development rights to prevent further development in hazard areas	Flood, Hurricane/Trop. Storm	Towns, state, land trusts, consultants	Deferred; lack of funding
		4.3.4.	Offer financial incentives to build on sites that are clear of vegetation	Wildfire	Towns, state, SMRPC	Deferred; lack of funding
4.4.	Preserve invaluable cultural and historic resources in hazard-prone areas	4.4.1.	Identify cultural and historic resources in hazard areas	Flood, Hurricane/Trop. Storm	Local EMAs, planners	Some towns have completed this
		4.4.2.	Enact mitigation projects on properties of cultural and historic importance	All	Local EMAs, planners	Deferred; lack of funding

Priority No.	Objectives	Action No.	Action	Hazard Addressed	Responsible Parties	Status
GOAL 5: RAISE PUBLIC AWARENESS OF AND SUPPORT FOR MITIGATION						
5.1.	Encourage property owners to undertake voluntary mitigation measures	5.1.1.	Create and distribute how-to guide for hazard mitigation (same as 2.2.2.)	SEE ACTION 2.2.2		
		5.1.2.	Offer financial incentives for mitigation (same as 2.2.3.)	SEE ACTION 2.2.3		
5.2.	Improve visibility and knowledge of evacuation routes and emergency shelters	5.2.1.	Create and distribute regional and local maps of routes and shelters	All	SMRPC	Complete
		5.2.2.	Develop distinctive and uniform signage for evacuation routes	All	YCEMA, MDOT, SMRPC, design consultant	Deferred; lack of funding
		5.2.3.	Notify residents about locations of nearby emergency shelters and preferred evacuation routes	All	Selectmen, town managers, YCEMA	Deferred; lack of funding
5.3.	Educate children about hazard mitigation	5.3.1.	Develop hazard mitigation educational materials aimed at children	All	YCEMA, school districts, SMRPC	Deferred; lack of funding
		5.3.2.	Incorporate materials into the Maine Learning Results	All	School districts, Dept of Ed.	Deferred; lack of funding

PRIORITIZED LOCAL MITIGATION PROJECTS

Projects listed in priority order. Most municipalities in the County identified one or more action items consistent with the County-wide goals, objectives and actions, to mitigate hazards at the local level. The jurisdictions, as well as the specific actions they will pursue, are listed in priority order in the following table. The time frames shown are based upon acceptance of the project by FEMA and the availability of materials and funding.

Criteria for prioritization. The list of local projects was developed separately by each municipality. Local officials did not use formal, written criteria for the identification of local projects. Local officials relied on common sense, 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 the 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.

Use of a cost-benefit analysis. Many of the jurisdictions included in this Plan are small towns run by *part time staff and / or volunteers*. They do not have staff, resources or funding to prepare cost-benefit analyses for the projects included in this Plan. 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 carefully scrutinized rather than simply being plugged into a formula. Nevertheless, MEMA and the County EMA have made it clear to local officials that a formal cost benefit analysis will have to be prepared in the event they apply for mitigation funding.

Status of completed, deleted or deferred projects. The table below contains a status column that identifies the completed, deleted or deferred mitigation projects. For deferred projects, the "status" column lists the reason or reasons that no changes occurred.

Town		Project (in Priority Order)	Cost	Time line	Responsible Agency	Project Status
Acton	1	Peacock Rd. - ditching, stone ditch and replace culverts	\$16,000	4 wks	Town Mgr	NEW PROJECT
	2	Sanborn Rd. - ditching, stone ditch	\$10,000	2 wks	Town Mgr	NEW PROJECT
	3	Sam Page Rd. - ditching, stone ditch	\$10,000	2 wks	Town Mgr	NEW PROJECT
Alfred	1	Carpenter Rd. - ditch 2,500' and add (2) 18" x 30' cross culverts	\$9,000	3 wks	Road Commissioner	Planning phase
	2	Federal St. - ditching and replace culverts	\$10,000	2 wks	Road Commissioner	NEW PROJECT
	3	Gore Rd. - ditching and replace culverts	\$10,000	2 wks	Road Commissioner	NEW PROJECT
	4	Witchers Mills Rd. - ditching and replace culverts	\$10,000	2 wks	Road Commissioner	NEW PROJECT
	5	Bracket Hill Rd. - rebuild road base 10,000' x 18' and ditch	\$250,000	4 mths	Road Commissioner	Planning phase
Arundel	1	Downing Rd at Duck Brook - slip line existing 12'8" x 8' x55' arch pipe to increase flow capacity	\$55,000.00	4 wks	Road Commissioner	Planning phase
Berwick	1	Elevate or acquire flood damaged homes.	TBD	TBD	Town Mgr Contractor(s)	NEW PROJECT
	2	Wilson St. - upsize existing underground drainage system between Wilson St. and Salmon Falls River	\$100,000.00	4 mths	Road Commissioner	Planning phase
	3	Little River Rd. - upsize existing twin 24" x 30' culverts with 60" x 40' elliptical pipe.	\$12,000.00	2 wks	Road Commissioner	Planning phase
	4	Adeline Rd. - Add 36" x 40' overflow pipe at brook crossing tying into natural swale	\$6,000.00	2 wks	Road Commissioner	Planning phase
Biddeford	1	Granite Point Rd. - elevate road way for 500', expand retaining wall to protect from overflow	\$500,000.00	2 yrs	Public Works	NEW PROJECT
	2	Fortunes Rock Rd. - elevate road, raise retaining wall and replace culverts	\$1,000,000.00	2 yrs	Public Works	NEW PROJECT
Biddeford	3	Route 111@ Maine Turnpike; H&H Study to address storm water flooding events, mitigate as needed	\$150,000.00	24 mths	MDOT,MTA, Public Works	MTA doing study
Buxton	1	Patten Farm Rd. - upsize existing 6' x 7' x24' bridge with 10'x6'x24' box culvert with headwall	\$62,000.00	6 wks	Road Commissioner	Planning phase
	2	Back Nippen Rd. - upsize 48" culvert with 60" culvert, elevate roadway 2', geotextile on slopes and rip rap	\$14,000.00	4 wks	Road Commissioner	NEW PROJECT
	3	Town Farm Rd. - repave roadway and replace culverts	\$56,000.00	2 mths	Road Commissioner	NEW PROJECT
	4	Elden Rd. - ditching, regrade 1525' x 18' roadway and pave. Remove 8 trees, replace culverts in roadway and driveways, rip rap pipes	\$35,000.00	2 mths	Road Commissioner	NEW PROJECT
	5	Henry Hill Rd. - upsize existing culvert and elevate road	\$65,000.00	6 wks	Road Commissioner	Planning phase
Cornish	1	High Rd. (Rt 25 to School St.) - Drainage project to include 18 catch basins and underdrain	\$100,000.00	6 mths	Road Commissioner	Engineering study complete
	2	Roland Day Rd. - elevate 1000' x 3' x 19' and add (3) 24" x 40' culverts	\$45,000.00	4 wks	Road Commissioner	NEW PROJECT
Dayton	1	Hollis Rd. -replace/increase # culverts, rip rap, repave	\$80,000.00	8 wks	Road Commissioner	NEW PROJECT
	2	Hight Rd. - upsize 18' culvert to 24", install rip rap, regrade road	\$50,000.00	5 wks	Road Commissioner	NEW PROJECT
	3	Dennet Rd.-upsie 18" culvert to 24", install rip rap, regrade	\$50,000.00	5 wks	Road Commissioner	NEW PROJECT
	4	Murch Rd. - upsize culvert, install rip rap, upgrade road surface	\$80,000.00	8 wks	Road Commissioner	NEW PROJECT

Town		Project (in Priority Order)	Cost	Time line	Responsible Agency	Project Status
Eliot	1	Frost Hill Rd. - add 48" x 40' culvert to utilize second channel	\$5,000.00	2 wks	Road Commissioner	Planning phase
	2	Cedar/Depot Rd Drainage System - add 48" x 40' culvert on Depot Rd.	\$7,000.00	2 wks	Road Commissioner	Planning phase
	3	Brixham Rd. -upsized culvert	\$5,000.00	2 wks	Road Commissioner	NEW PROJECT
	4	Old Field Road Bridge - address abutment erosion, possible new abutments	\$440,000.00	16 wks	Road Commissioner	NEW PROJECT
Eliot	5	Pleasant St. - Stabilize river bank. Rip rap 30' x 100' x 5' of river bank	\$5,000.00	2 wks	Road Commissioner	Repaired w/ PA funds from DR1644
Hollis	1	Cape Rd. - upsized 36" culvert to 48", elevate road bed approximately 5', shape slopes, repave roadway	\$186,000.00	4 mths	Road Commissioner	NEW PROJECT
	2	Bumham Lane - replace 4 existing culverts with one 72" culvert, elevate roadway	\$53,000.00	2 mths	Road Commissioner	NEW PROJECT
	3	Saco Rd. -elevate roadway 2-3'	\$88,000.00	2 mths	Road Commissioner	NEW PROJECT
	4	Sand Pond Rd. - elevate 500' x 32" x 22", ditch & line 1200', add (3) 24" x 30' culverts and repave	\$25,000.00	6 wks	Board of Selectmen	Planning phase
	5	Clark Mills Rd./Glaude Ave. - ditch 700', reshape and line ditch	\$7,000.00	2 wks	Board of Selectmen	Planning phase
	6	Hailey Rd. - elevate 300' x 3' x 19', upsized 24" culvert to 36" x 30', rip rap intake and outflow & repave	\$45,000.00	4 wks	Board of Selectmen	Planning phase
Kennebunk	1	Scottsman Brook Route 1/Main St. - 800' culvert locations	\$1,200,000.00	8 wks	Public Works, Contractor	90% complete
	2	Alfred Rd. - culvert and drainage	\$400,000.00	6 wks	Public Works	NEW PROJECT
	3	Gooches Beach - replace 1,550' wooden sea wall	\$2,325,000.00	10 wks	Public Works	Partially complete - 700' left
	4	Woodhaven - 4000' underground drainage	\$480,000.00	6 wks	Public Works	Planning phase
	5	Intervale & Partridge - acquire and demolish 3 homes; elevate 11 homes 2' above 2007 HWM	\$1,500,000.00	18 mths	Town Mgr., CEO, Contractors	Completed 2009 - HMGP
	6	Bayberry Ave. - 6000' underground drainage and catch basins	\$720,000.00	6 wks	Public Works	Planning phase
	7	Cole Rd. - drainage	\$350,000.00	4 wks	Public Works	NEW PROJECT
	8	Emmons Rd. - bridge reconstruction and elevation	\$1,000,000.00	8 wks	Public Works	NEW PROJECT
Kennebunkport	1	Dyke Rd. - elevate 2100' x 3' x 24' & repave	\$135,000.00	8 wks	Public Works	Planning phase
	2	Kings Hwy. - elevate 2100' x 3' x 21' & repave	\$115,000.00	8 wks	Public Works	90% complete
	3	Pier Rd. - stabilize head of cove 200' x 10'	\$34,000.00	4 wks	Public Works	Planning phase
	4	Pier Rd. causeway - elevate 25' x 3' x 24' and repave	\$18,000.00	4 wks	Public Works	Planning phase
	5	Ocean Ave. - elevate 2 sections of road 500' x 3'	\$100,000.00	4 wks	Public Works	NEW PROJECT
	6	Goose Rocks Rd. - upsized existing 48" x 40' culvert to 72" x 60" elliptical pipe	\$24,000.00	2 wks	Public Works	Planning phase
	7	Arundel Rd. - elevate road 300' x 3' x 22', repave and add 8' x 50' culvert	\$30,000.00	4 wks	Public Works	Planning phase

Town		Project (in Priority Order)	Cost	Time line	Responsible Agency	Project Status
Kittery	1	Intersection of Government and Walker St. - upsize culvert	\$30,000.00	2 wks	Public Works	NEW PROJECT
	2	Payne Rd. - elevate 700' section of road	\$85,000.00	4 wks	Public Works	NEW PROJECT
Lebanon	1	Poplar Hill Rd. - ditch 30,000' and line 2000' of ditch; upsize (2) 24" x 40" culverts	\$85,000.00	6 wks	Road Commissioner	Planning phase
	2	Dickson Rd. - ditch 30,000' and line 2000' of ditch; upsize (2) 24" x 40" culverts	\$73,000.00	6 wks	Road Commissioner	Planning phase
	3	Shapleigh Rd. - Ditch 15,000, upsize 24" x 40' culvert	\$33,000.00	4 wks	Road Commissioner	Planning phase
	4	Orrills Hill Rd. - upsize culvert	\$30,000.00	2 wks	Road Commissioner	NEW PROJECT
	5	Union School Rd./Lower Guinea Rd. - upsize culvert	\$20,000.00	2 wks	Road Commissioner	NEW PROJECT
	6	Upsize culverts - various locations	\$15,000.00	3 wks	Road Commissioner	NEW PROJECT
Limerick	1	Bumham Rd. - ditch 5000' and install 500' underdrain	\$22,000.00	3 wks	Road Commissioner	NEW PROJECT
	2	Foss Rd. - install additional 36" x 40' culvert and rip rap intake and outflow	\$7,000.00	2 wks	Road Commissioner	NEW PROJECT
	3	Identify all culverts in town with GPS and identify status	\$2,000.00	2 wks	Road Commissioner	NEW PROJECT
Limington	1	Whateback Rd. -replace 10' x 70' steel culvert, riprap intake and outflow, stabilize banks with geotextile and riprap, ditch 1800' with fabric, riprap and check dams	\$95,000.00	4 wks	Road Commissioner	NEW PROJECT
	2	Moody Rd. - 850' ditch with fabric, riprap and check dams	\$11,000.00	1 wk	Road Commissioner	NEW PROJECT
	3	Mill Turn Rd. - 1900' ditch with fabric, riprap and check dams	\$23,000.00	2 wks	Road Commissioner	NEW PROJECT
	4	River Rd. - 2000' ditch with fabric, riprap and check dams	\$26,000.00	2 wks	Road Commissioner	NEW PROJECT
	5	Hanscomb School Rd. - 1200' ditch with fabric, riprap with check dams	\$15,000.00	2 wks	Road Commissioner	NEW PROJECT
	6	Doles Ridge Rd. - upsize existing twin 36" x 40' cmp with 6' x 4' x 40' box culvert and rip rap intake and outflow	\$30,000.00	4 wks	Road Commissioner	Planning phase
Lyman	1	Old North Berwick Rd. - elevate road, replace culverts and ditch	\$200,000.00	6 wks	Public Works	NEW PROJECT
	2	Clarks Wood Rd. - ditching	\$15,000.00	3 wks	Public Works	NEW PROJECT
Newfield	1	Demeritt Rd. - ditching for 750', install culvert at intersection with Lost Mile Road	\$10,000.00	2 wks	Road Commissioner	NEW PROJECT
	2	Stone Rd. - ditch and line 2500', including blasting of ledge	\$10,000.00	2 wks	Road Commissioner	Planning phase
	3	Lewis Rd. - ditch 600' to include blasting of ledge	\$10,000.00	2 wks	Road Commissioner	Planning phase
North Berwick	1	Hartford Ln; Ditch and line 2000' and add check dams	\$20,000.00	4 weeks	Road Commissioner	Planning phase
	2	Dyer St. - replace underdrain. increase size of storm drainage from 24" to 36" pipes	\$25,000.00	6 wks	Road Commissioner	NEW PROJECT
	3	Little River Rd. - replace 36" culvert with 42" culvert; elevate roadway by 8"	\$17,000.00	3 wks	Road Commissioner	culvert done 11/2010- waiting on elevation
	4	Fox Farm Hill Rd. - replace 18" culvert with 24" culvert; ditching, install stone ditch, replace (6) driveway pipes - upsizing 12" to 18"	\$35,000.00	5 wks	Road Commissioner	NEW PROJECT
	5	Lebanon Rd. - replace 30" culvert with 42" culvert	\$10,000.00	2 wks	Road Commissioner	NEW PROJECT
	6	Estes Hill Rd; Ditch and line 2,500 and add check dams	\$25,000.00	4 weeks	Road Commissioner	Planning phase

Town		Project (in Priority Order)	Cost	Time line	Responsible Agency	Project Status
Ogunquit	1	Captain Thomas Rd; Upsize 36" x 40' to 60" x 40' & 24" x 40' to 36" x 40' culvert raise roadway 2-3' and repave	\$100,000.00	2 mths	Public Works	Planning phase
	2	Kings Highway; Replace foot bridge with 6' x 40' span	\$12,000.00	4 weeks	Public Works	Planning phase
Old Orchard Beach	1	Ross Rd; Elevate and widen 700' x 2' x 24" upsize existing 24" culvert with (2) 48" x 40" culverts and repave	\$145,000.00	6 weeks	Public Works	Planning phase
	2	Walnut St. Ditch and line 2,000' replace sub soil	\$22,000.00	3 weeks	Public Works	Planning phase
	3	Drainage Structure(french drain) at (11) different locations- cost is same for each site	\$50,000.00	12 wks	Public Works	NEW PROJECT
	4	West Grand Ave; Install 3,000' underground stormwater system and add (12) catch basins	\$500,000.00	12 weeks	Public Works	Planning phase
	5	West Grand Ave Area: Conduct hydrologic and hydraulic analysis to assess means to mitigate stormwater related flooding	\$26,000.00	16 weeks	Public Works	NEW PROJECT
	6	Milliken Street Area; Conduct hydrologic and hydraulic analysis to assess means to mitigate stormwater related to flooding	\$24,000.00	16 weeks	Public Works	Planning phase
	7	Tripoli Ave. - stormwater improvements	\$187,500.00	16 wks	Public Works	NEW PROJECT
	8	Tunis Ave. - stormwater improvements	\$359,500.00	6 mths	Public Works	NEW PROJECT
	9	Hampton Ave. - stormwater improvements	\$187,500.00	16 wks	Public Works	NEW PROJECT
	10	Roanoke Ave - stormwater improvements	\$187,500.00	16 wks	Public Works	NEW PROJECT
	11	Puffin St. - drainage system	\$48,100.00	2 mths	Public Works	NEW PROJECT
	12	First St. - drainage system	\$83,800.00	12 wks	Public Works	NEW PROJECT
Parsonsfield	1	Hasty Rd; Ditch and line 2,000'	\$20,000.00	3 weeks	Road Commissioner	Planning phase
	2	Pendexter Rd; Upsize culvert to 42" x 36"; raise road elevation 10" add cross culverts as needed, ditch	\$25,000.00	4 wks	Road Commissioner	Planning phase
	3	Deverauz Rd; Ditch and line 2,000' & upsize culvert to 18" x 36'	\$22,000.00	3 weeks	Road Commissioner	Planning phase
	4	Benson Rd; Add (3) 18" x 32' culverts	\$4,000.00	2 weeks	Road Commissioner	Planning phase
	5	Mudget Meadow Rd; Upsize (4) culverts to 18" x 36'	\$5,000.00	2 weeks	Road Commissioner	Planning phase
	6	Chase Rd; Ditch and line 1,000' & add 18" x 36'	\$11,000.00	2 weeks	Road Commissioner	Planning phase
	7	Milliken Rd; Ditch and line 1,000' & Upsize culvert to 42" x 36'	\$14,000.00	2 weeks	Road Commissioner	Planning phase
	8	Cross Rd; Ditch and line 2,000' & upsize (3) culverts to 18" x 36'	\$23,000.00	3 weeks	Road Commissioner	Planning phase
	9	New County Rd; Ditch and Line 1,000' & upsize culvert to 42" x 36' & add (4) 18" x 36'	\$13,000.00	2 weeks	Road Commissioner	Planning phase
	10	Mountain Rd; Ditch and Line 1,000' & Upsize (3) culverts to 18" x 36'	\$13,000.00	2 weeks	Road Commissioner	Planning phase
	11	Maplecrest Rd; Ditch and line 1,000' & Upsize (3) culverts to 18" x 36'	\$13,000.00	2 weeks	Road Commissioner	Planning phase
	12	Dearborn Rd; Ditch and line 500' & add 18" x 36' culvert	\$6,000.00	1 week	Road Commissioner	Planning phase

Town	Project (In Priority Order)	Cost	Time line	Responsible Agency	Project Status	
Parsonsfield	13 West Rd; Add 18" x 36' culvert	\$1,500.00	1 week	Road Commissioner	Planning phase	
	14 Lost Mile Rd; Dich and line 500'	\$5,000.00	1 week	Road Commissioner	Planning phase	
	15 Lombard Hill Rd; Ditch and line 2,000'	\$20,000.00	3 weeks	Road Commissioner	Planning phase	
	16 Dutch Rd; Ditch and line 1,000'	\$10,000.00	2 weeks	Road Commissioner	Planning phase	
	17 Chick Rd; Ditch and line 1,500'	\$15,000.00	2 weeks	Road Commissioner	Planning phase	
	18 Stacey Lane; Ditch and line 500'	\$5,000.00	1 week	Road Commissioner	Planning phase	
	19 Arthur Morrill Rd; ditch and line 500'	\$5,000.00	1 week	Road Commissioner	Planning phase	
	20 Bob Day Rd; Ditch and line 1,000'	\$10,000.00	2 weeks	Road Commissioner	Planning phase	
	21 Smith Rd; Ditch and line 1,000'	\$10,000.00	2 weeks	Road Commissioner	Planning phase	
	22 Pratt Rd; Ditch and line 1,000'	\$10,000.00	2 weeks	Road Commissioner	Planning phase	
	23 Woodward Rd; Ditch and line 500'	\$5,000.00	1 week	Road Commissioner	Planning phase	
	24 Hobbs Swamp rd; Ditch and line 500'	\$5,000.00	1 week	Road Commissioner	Planning phase	
	25 Stagecoach Rd; Ditch and line 500'	\$5,000.00	1 week	Road Commissioner	Planning phase	
	26 Kezar Mountain Rd; regravell road, ditch and line 5000' rt and lt & upsize (3) culverts to 18" x 36'	\$35,000.00	4 wks	Road Commissioner	Planning phase	
	27 Long Pond Rd. - removal of roughly 200 lf of ledge, widen road, reshape ditches, pave widened portion.	\$55,000.00	8 wks	Road Commissioner	NEW PROJECT	
	28 Joe Berry Rd. - regravell, reshape and ditch 1800' of roadway	\$35,000.00	4 wks	Road Commissioner	NEW PROJECT	
	29 Road Between the Ponds - remove pavement, widen road width, replace culverts, ditch, repave. Removal of trees and resetting of Telephone poles required	\$50,000.00	6 wks	Road Commissioner	NEW PROJECT	
	30 Middle Rd; add gravel, regrade,ditch and line 3,000'	\$45,000.00	3 weeks	Road Commissioner	Planning phase	
	Saco	1 York County Emergency Shelter; Install French drain 500' and install redundant sump pump in basement	\$18,000.00	3 weeks	Public Works	Planning phase
		2 Route 1; clean and improve 1,000' ditch line S of Route 1	\$3,000.00	1 week	Public Works	Planning phase
		3 Heath Rd; Install underground drainage 18" x 500', rip rap outflow	\$15,000.00	4 weeks	Public Works	Planning phase
	Sanford	1 Gowan Park Dr; Upsize (2) 24" x 40' cmpts to 36" x 40' cmpts, elevate 500' x 3' x 24' and repave	\$32,000.00	4 weeks	Public Works	Planning phase
		2 Walnut Brook/Twombly Rd; Upsize and realign existing 18" x 40' culvert with 30" x 150' culvert	\$22,000.00	3 weeks	Public Works	Planning phase
		3 Rosenfield Development; Install (10) catch basins & 2000' x 24", 48" x 1200' underground drainage	\$205,000.00	8 weeks	Public Works	Planning phase
		4 North St; Install (10) catch basins & upsize 12" x 600' to 18" x 500' underground drainage	\$127,000.00	8 weeks	Public Works	Planning phase
		5 Cottage Street (North Ave. to Island Ave) upgrade culverts	\$25,000.00	4 wks	Public Works	NEW PROJECT
		6 Mousam Way Trail - upgrade granite culvert to either box culvert or metal arch	\$35,000.00	4 wks	Public Works	NEW PROJECT

Town		Project (In Priority Order)	Cost	Time line	Responsible Agency	Project Status
Sanford	7	Stiles Ave/Howard St; Upsize twin 36" x 150' rcp with 50" x 150' rcp.	\$29,000.00	3 weeks	Public Works	Planning phase
	8	Deering Neighborhood Rd; Upsize 18" to 36" x 150' culvert and repave 8' x 40'	\$21,000.00	3 weeks	Public Works	Planning phase
	9	Sam Allen Rd - upsize culvert to either box culvert or pipe arch	\$35,000.00	2 weeks	Public Works	Planning phase
	10	Whiches Mills Rd; Upsize and realign existing 50" x 40' culvert with 60" x 60' culvert	\$14,000.00	2 weeks	Public Works	Planning phase
	11	Sacopee Rd; site 1 - Upsize existing 48" x 40' culvert with 6' x 4' x 40' box culvert	\$30,000.00	4 weeks	Public Works	Planning phase
	12	Sacopee Rd; Upsize existing 18" x 40' cmp with 24" x 40' culvert & add additional 18" x 40' culvert approx. 500' from existing pipe.	\$4,000.00	2 weeks	Public Works	Planning phase
Sanford	13	Horace Mills Rd / Sam Allen Rd; Install (2) 18" x 40' culverts, ditch 800'	\$4,800.00	2 weeks	Public Works	Planning phase
Shapleigh	1	Ferguson Rd; Add 30" x 40' culvert and rip rap	\$2,800.00	1 week	Road Commissioner	Planning phase
	2	Cross Rd; Upsize to 40" x 30' squash pipe	\$3,000.00	1 week	Road Commissioner	Planning phase
South Berwick	1	Clarks Lane (Quamphagan Brook Watershed); perform H&H study to correct runoff flooding to driveways near Marshwood High School.	\$30,000.00	3 wks	Contractor	Planning phase
	2	Thrurrell Rd; Elevate 800' x 22' x 8' stabilize banks and add relief culverts as needed, repave	\$100,000.00	8 weeks	Public Works	Planning phase
	3	Emery's Bridge Rd @ White Marsh; upsize culvert and raise road bed	\$600,000.00	n/a	Public Works	Planning phase
	4	Lower Main Street-replace drainage system	\$100,000.00		Public Works	NEW PROJECT
	5	Belle Marsh Rd; Ditch 1000'	\$2,500.00	1 week	Public Works	Planning phase
	6	Pond Road by Love's Brook; Elevate road 2' x 1000' to reduce flooding hazard		n/a	Public Works	2007 - Completed with 406 mitigation from DR-1693
	7	Hopper Sands Rd along Great Works River; Buy out house and restore site	\$150,000.00	5 months	Town Manager	Planning phase
Waterboro	1	Chadbom Hill Rd; Ditch and line 300' or roadway	\$3,000.00	1 week	Road Commissioner	Planning phase
	2	Reset lower and rip rap intake and outfall (3) 15" x 40' culverts	\$2,500.00	1 week	Road Commissioner	Planning phase
Wells	1	Coles Hill Rd; Install 48" x 40' smoothbore overflow culvert, or as determined by H&H study	\$6,000.00	1 week	Public Works	Planning phase
	2	Post Rd @ Cozy Corner @ Merriland River - replace existing concrete structure w a wider taller structure, raise Rt 1 and Rt 9 travel way	\$1,200,000.00	1 yr	Public Works, Contractor	NEW PROJECT
	3	Bragdon Rd @ Merriland River - upsize culvert and elevate roadway	\$35,000.00	4 wks	Public Works	NEW PROJECT
	4	Deerwood Park -improve drainage and create retention structures	\$100,000.00	4 mths	Public Works	NEW PROJECT
	5	Furbish Rd. - elevate roadway	\$125,000.00	4 mths	Public Works	NEW PROJECT
	6	Bald Hill Rd. -upsized culverts and elevate roadway	\$100,000.00	4 mths	Public Works	NEW PROJECT
	7	Wire Rd. - improve drainage	\$20,000.00	4 wks	Public Works	NEW PROJECT

Town	Project (in Priority Order)	Cost	Time line	Responsible Agency	Project Status
York	1 Long Beach from Sea Rose Lane - Outflow J - Outfall Culvert Replacement	\$500,000	6 months	Public Works	Planning phase
	2 Long Beach Ave/ Anchorage Motel Drainage Improvement - Outflow L	\$350,000	6 months	Public Works	Planning phase
	3 Mitchell/Ridge Road Drainage System Upgrade	\$450,000	6 months	Public Works	Partially Town funded
	4 Sentury Hill/ York Street drainage improvement	\$100,000	3 months	Public Works	Planning phase
	5 York Village Square - drainage improvements, upsize system and crossings	\$175,000	1 month	Public Works	Planning phase
	6 York Street (cont. Long Beach Ave.) Drainage System Upgrade - Outflow P in town plan	\$450,000	6 months	Public Works	Planning phase
	7 Birch Hill Road at Shorey's Swamp replace box culvert with two (2) 4' culverts	\$290,000	1 month	Public Works	Partially Town Funded Hydrology Done
	8 Orchard Farm/ Greenacre Drive Development - drainage improvements, upsize culverts and crossings	\$125,000	3 months	Public Works	Planning phase
	9 Greenleaf Parsons Road - upsize existing culvert with larger box style culvert	\$200,000	1 month	Public Works	Hydrology Done
	10 Little River Drainage Canal - Cleaning of debris - RTE 95 to the sea - Flows into Outflow O	\$50,000	1 month	Public Works	Partially Completed
	11 Winterbrook Drive Development- drainage improvements, upsize system and crossings	\$225,000	3 months	Public Works	Planning phase
	12 Pine Hill Road at Jade Lane Drainage Improvement	\$50,000	2 weeks	Public Works	Planning phase
	13 Pine Hill Road at Teeny Brook	\$25,000	2 weeks	Public Works	Planning phase
	14 Shore Road - Keyes Pond to Ogunquit line drainage system - replace and upsize capacity	\$75,000	2 weeks	Public Works	Planning phase
	15 Shore Road - near Cliff House - upsize culvert from 18" to 30"	\$8,000	1 week	Public Works	Planning phase
	16 Agamenticus Ave - south side- install collection pool and new 18" culvert to divert water coming down hill	\$19,000	2 weeks	Public Works	Planning phase
	17 York Beach Square Commercial District Drainage System Upgrade - Outfall G1 in town plan - Penstock 2 separate projects	\$2,500,000	6 months	Public Works	PDMG/Town Funding
	18 Long Beach Ave./Northern end by Cutty Sark Motel Drainage System Upgrade - Outflow I in town plan	\$350,000	8 months	Public Works	Town Funded
	19 Broadway Ave. Drainage System Improvements - Outflow G2 in Town plan	\$900,000	6 months	Public Works	Town funded PE Stage
	20 Ridge Road - at Spring Point Estates - replace and size culvert - flows into Outflow K	\$25,000	2 weeks	Public Works	Town Funded
	21 Barrel Lane (between RT. 1A & RT 103) Drainage System Upgrade - Outflow R in Town Plan	\$280,000	6 months	Public Works	Completed
	22 Roaring Rock Road - Upsize to 12"x200' with 36"x200' culvert	\$35,000	6 weeks	Public Works	Completed
	23 York Street/ Raydon Road- upsizing of existing culvert cross culvert system	\$25,000	1 week	Public Works	Completed
	24 Reserve Street/ Sea Rose parallel drainage system upgrade-	\$150,000	1 month	Public Works	Completed
	25 North Berwick Road culvert - add additional 4' culvert	\$10,000	1 week	Public Works	Completed
	26 Logging Road at Linney's Swamp - add additional 3' culvert	\$9,000	1 week	Public Works	Completed

MAINTAINING AND UPDATING THE PLAN

The Disaster Mitigation Act stipulates that not only must localities develop Hazard Mitigation Plans; they must also take steps to ensure that these plans get implemented and updated as needed. It is therefore necessary to include procedures for maintaining and updating the plan.

Each year following the completion of this plan, the York County EMA will distribute a survey form to each of the 29 local EMA directors in the county. This form will ask each director to comment on how his or her town has or has not addressed the plan's objectives in that year. The County EMA will take the individual municipality results and compile an annual progress report that will be distributed to local officials and the media. The County EMA also intends to work with the Southern Maine Regional Planning Commission in periods following disasters to better understand how the region needs to respond to future disasters in order to ensure that roads, critical facilities and businesses can remain functional.

The York County EMA intends to update this plan five years from its adoption. The update process should focus on evaluating the successes and failures of this plan. This would be done in two ways. First, the information gathered annually from each town would provide input on how each municipality has performed in terms of implementation. Secondly, new information collected on new or changing hazard conditions would provide the base for altering elements of the plan.

CONTACTS AND MORE INFORMATION

A full copy of the plan and all appendices has been delivered to each municipal office in York County. If you would like to see a copy of the plan, please contact your Town or City Hall. Also, the plan is available for downloading from the Southern Maine Regional Planning Commission's project website at <http://www.smrpc.org/EMA/hazmitpage.htm>.

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