EPSOM HAZARD MITIGATION 2024

10/25/2023

	TASK: Choose the stat	us of each exis	ting 2018 Action			
	below and identify its o	description:				
		Status	If Yes: IDENTIFY:			
	Was Action		When? Month & Year			
	Will Action be	DEFERRED	Why? Choose			
	Should Action be	DELETED	Why? Choose			
			eparedness, Response or Recovery Activity?	$ \longrightarrow $	_	
	Mitigation is long-term risk		ordinance/regulation, construction,			
			rehabilitation of existing facilities.			<u> </u>
	Action Type	Duration	Definition or Characteristics			
MP	Mitigation	Long Term	Action / project supports sustained risk prevention term risk to people, property, and infrastructure.	or reduces long-		DEFERR
OP		2024-2029+	Sest suited for <i>Town Hazard Mitigation Plan</i>		DELETED?	
Q.	Preparedness	Short Term	Action assists or supports planning, protective acti	· ·		
		Ongoing	Sest suited for Town Emergency Operations Pla	<i>n</i> .	COMPL	ETED?
P	Response, Recovery,	Short Term	Action supports preventative, response, recovery- or deferred maintenance activities. AVOID MOST in			
50	Other Related	Ongoing	Sest suited for Town Emergency Operations Pla	n.		

k prevention or reduces long- astructure.	DEFERRED	 In this Action will be DELETED because choose 1 ⇒ it is no longer necessary or a priority to the Town. ⇒ it is not relevant to the Town's current situation or objectives. ⇒ its undertaking was unrealistic.
ation Plan	DELETED?	 ⇒ it was financially infeasible. ⇒ it was incorporated into another activity.
ptective activities, public		⇒ it duplicates existing efforts.
perations Plan	COMPLETED?	⇒ this is an Ongoing Action to be MOVED TO CAPABILITY ASSESSMENT
e, recovery-related, repeated OID MOST in HMP		
		New Action Begins With #93-2024

2018 Actions Status Identification			DETERMINE STATUS OF EACH ACTION			
Action	Action	Action	Who is	<u>COMPLETED</u>	DEFERRED	<u>DELETED</u>
Number		Timeframe	Responsible	When: Month & Year	Why?	Why?

ocal Pla	nning and Regulations			DETERMINE STATUS O	F EACH ACTION	
#63- 2012	Update the Zoning Ordinance	Short Term	Planning Board			ONGOING ACTION
	to Comply with NFIP	then Ongoing				FOR CAPABILITY
	Requirements Regulate					ASSESSMENT
	Building in the Floodplain					
+60 2010	Desulate New Understand	1 T	Diamaina Daard			
	Regulate New Underground Utilities in Subdivision and	Long Term	Planning Board			
		4-5 Years				
	Site Plan Review Regulations					
	to Reduce the Impact of					
	Storms, Wind and Winter					
	Events					

2018 Supporting Action Information to Update Later (2024 Deferred Actions)

Choose Action Status: COMPLETED, DELETED, or DEFERRED

This Action was DEFERRED from last Plan because choose 1

The Action was **COMPLETED** when?

⇒ it needs to be repeated to be effective.
 ⇒ more time is required for completion.
 ⇒ the Town lacked staff or volunteer capability.
 ⇒ the Town lacked the funding to complete it.
 ⇒ it was a lower priority than other Town activities.

⇒ Month & Year

Approximate	Action Description or What Approximate Cost Will Pay For	How Funded	Ranking Score
Cost to Town			Relative Ease of
			Completion

\$0	The Zoning Ordinance needs to be updated as new requirements to the National Flood Insurance Program are necessary for retention of NFIP participation. The Floodplain Ordinance protects life and property by regulating distance of structures to flood hazard areas, regulating elevation, clarifying definitions, regulating new structures and encroachments, stating duties of the Code Enforcement Officer, etc. In 2008 and 2010, the Town adopted the recommended updates to the ordinance. The existing ordinance is amended with federal updates on an ongoing basis. Last update in 2012 to allow sheds in the FP with conditions.	N/A	69
\$0	If the main transmission towers were destroyed by any weather event or hazard event, all public safety communications would be jeopardized. People panic when internet and power are out, calling emergency facilities. Infrastructure is protected, but the residents lose service. ATT given broadband contract by governor's office, but it does not cover Epsom well.	N/A	58

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#70- 2018 Rev	vise Zoning Ordinance to	Short Term	Planning Board		
	-	1-2 Years	i laining board		
	nerators on All New	I L Tears			
	lecommunications Towers				
	Reduce the Impact of				
	orms, Wind, Fire and				
Wir	nter Events				
#71- 2018 Con	ntinue Efforts to	Long Term	Board of		
	corporate 2009 USGS Flood		Selectmen		
		4-5 reals	Selectifien		
IVIA	apping into Epsom's FIRMs				

2018 Actions Status Identification			DETERMINE STATUS OF EACH ACTION			
Action Number	Action					<u>DELETED</u> Why?

Structure	and Infrastructure Proj	ects		DETERMINE STATUS O	F EACH ACTION	
#38- 2012	Install a Hydrant East of the	Short Term 1-	Water Precinct			
	Epsom Traffic Circle on the	2 Years				
	Suncook River to Provide Fire					
	Suppression for the					
	Neighborhood as Part of					
	Water Line Extension (See					
	#72)					
#41- 2012	Equip Public Buildings with	Long Term	Fire Department			
	Sprinkler Systems to Provide	4-5 Years				
	Fire Suppression					
#46- 2012	Study and Rehabilitate Cass	Long Term	Highway			
	Road Bridge to Reduce Effects	4-5 Years	Department			
	of Floods, Ice Jams, Erosion					
	and Scouring					
	-					

\$0	If the main transmission towers were destroyed by any weather	N/A	56
	event or hazard event, all public safety communications would		
	be jeopardized. People panic when internet and power are out,		
	calling emergency facilities. Infrastructure is protected, but the		
	residents lose service. Fort Mountain is where key Epsom		
	equipment is now located. Catamount (Pittsfield), White Birch,		
	River Road, Brimstone, Nudds Hill (Pittsfield) do not have		
	emergency generators. One tower is vacant on Elkins Lane and		
	would be considered "new" and subject to this regulation. 1-2		
	of preexisting towers do have propane generators (White Birch		
	Lane and Brimstone Hill).		
	,		
¢0	With assistance from the NH DES and NH Office of Strategic	N/A	61
ŞU	Initiative, in 2012, efforts were initiated to incorporate the 2009	N/A	01
	USGS Suncook River Flood Study into the current FEMA maps.		
	However, due to the number of map panels that were		
	However, due to the number of map panels that were impacted, the effort was placed on hold until FEMA could		
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	However, due to the number of map panels that were impacted, the effort was placed on hold until FEMA could designate funds towards the project. There is currently a FEMA mapping project for the Merrimack River watershed being led by the USGS. This project, which kicked off in 2015, will include their 2009 study of the Suncook River that will result in new		
	However, due to the number of map panels that were impacted, the effort was placed on hold until FEMA could designate funds towards the project. There is currently a FEMA mapping project for the Merrimack River watershed being led by the USGS. This project, which kicked off in 2015, will include		

2018 Supporting Action Information to Update Later (2024 Deferred Actions)

Approximate	Action Description or What Approximate Cost Will Pay For	How Funded	Ranking Score
Cost to Town			Relative Ease of
			Completion

\$12,000	Install Dry Hydrant east of the Epsom Traffic Circle on the Suncook River using Emergency Management Performance Grant (EMPG) funds after the grade control structures are installed by NH DES. The dry hydrant also cannot be installed until after the NH DES fluvial erosion hazard (FEH) feasibility study of the Suncook River has been completed.	MTBE Grant from Exxon Class Action Suit, Warrant Article	73
building, \$250,000 for	Public buildings should be equipped with sprinklers for fire safety, including future construction. Many historic buildings, like the Meetinghouse (dry system upstairs), Old Town Hall, and Old Library are already designated on the National Register of Historic Places and would need to be retrofitted. The Town Hall should be among the first to have them installed. The Epsom Central School also needs to be sprinklered, built in the 1950s.	Warrant Article for both	58
. ,	The bridge is red-listed and closed. Cass Road Bridge has two side by side decks which are deteriorating and abutment work needs to be done. The Little Suncook River flows under and is scouring away the foundation. Necessary for emergency vehicle access. When Center Hill Road is washed out, this is another way in to the Mountain Road, Echo Valley Farm Road are etc.	Warrant Article or Highway Department Operating Budget (Town) funded OR Town and NH DOT Bridge Aid 80/20 reimbursement	46

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#47- 2012	Improve Class VI Fire Roads to Provide a Means of Access for Fire Suppression	<u>Short Term</u> then Ongoing	Fire Department		
#48- 2012	Raise the Village District Well House to Prevent Flooding of the Facility		Epsom Village Water District		
#67- 2015	Continue to Work with NHDES and NH Geological Survey to Combine Hazard Mitigation Projects (FGA) to Reduce Flood and Erosion Impacts	Long Term then Ongoing	Board of Selectmen		
#72- 2018	Retrofit the Epsom Central School with Sprinkler Systems to Provide Fire Suppression	Long Term 4-5 Years	School District		
#73- 2018	Extend the Water Lines from Goboro Road (Route 4) to the End of the Traffic Circle to Reach the Town Office for Fire Suppression (See #38)	<u>Short Term</u> 1- 2 Years	Epsom Village Water District		
#74- 2018	Produce an Engineering Study of a Third Well for Epsom Village Water District for Future Fire Suppression Needs	Long Term 4-5 Years	Board of Selectmen		
#75- 2018	Install a Cistern on Gauthier Way for Fire Suppression	Long Term 4-5 Years	Planning Board, with Fire Department assistance		
#84- 2018	Upgrade Sawyer Road Culverts (2) to Protect from Floods and Erosion	<u>Short Term</u> 1- 2 Years	Highway Department		
#85- 2018	Upgrade Lords Mill Road Culvert to Protect from Floods and Erosion	<u>Short Term</u> 1- 2 Years	Highway Department		
#86- 2018	Upgrade Hoit Road Culvert to Protect from Floods and Erosion	<u>Short Term</u> 1- 2 Years	Highway Department		

	Remove debris from storms that have made Class VI fire roads impassable. The FD should complete brush clearing on the fire roads to permit access into rural lands for wildfires and lightning strikes. Mountain Road, Old Mountain Road, Sanborn Hill, Granny Howe Road, Lane Road, Kettle Rock spur are primary Class VI roads Epsom over mountains.	Fire Department Fire Road Maintenance Budget	68
\$50,000	The Well House building regularly is flooded when the Suncook River floods and water service gets suspended to Village District residents. Although the Well House was fenced in and slightly elevated in 2017, the Village Water Precinct still wants to move the entire Well House safely out of the floodplain. No budget is available however for this project.	Epsom Village Water District User Fees, hope to locate grants	36
\$0	Leighton Brook (projected summer 2015 finish) and Route 4 bridge stabilization (streambank stabilization projects downstream of the Route 4 bridge) are continuing with the State of NH. Suncook River is still changing so it is difficult to perform the projects as discussed. Other projects may make themselves known during this work for which funding will be sought.	N/A	42
\$150,000	Estimates are about \$2.00 to \$7.00 per square foot to retrofit existing buildings. The Epsom Central School was built in the 1950s with cinderblock construction and did not include sprinklers. Although the walls and floors would not burn a fire, the contents would.	School District Warrant Article	61
\$0	Fire suppression becomes difficult when some of the historical sites are beyond the water precinct zones. Most of them are up on the hills. Placed a wet hydrant to the old Meetinghouse. Hoping to extend to 10" pipe. Engineering plans developed by Underwood. Contaminated water at Getty Station (MtBE), Exxon Mobil contributed funding to the State that will benefit Epsom. Town Wells 1 & 2 are located on Dover Road (Route 4).	NHDES Grant MtBE (See #38)	73
\$25,000	An engineering study for the third well was voted on at Town Meeting 2018 (\$10,000 warrant article). A third well will provide additional capacity to the existing lines, water for fire suppression. This study is considering long range issues, such as enabling businesses to occupy lots further from the Traffic Circle which helps with traffic movement, a real concerns during natural hazard events or disasters, and will provide fire suppression.	Engineering Study of Third Well for Epsom Village Water Capital Reserve Fund	74
\$0	The Town would like to continue the water line to this development, but it is too far. New economic development will occur on Gauthier Way, so a cistern will be necessary. Regulations require cisterns to be installed prior to receiving the occupancy permits.	N/A	58
\$3,500	Two existing Sawyer Road steel, corrugated galvanized 18" culverts are corroded. Both will be upgraded to 24"plastic smooth bore, plenty of room for upgrade in this space.	Highway Maintenance Budget	61
\$15,000	Bottom of Lords Mills Road galvanized, corrugated steel culvert is gone, 14 feet in the ground. The upgrade size will be 48" plastic smooth bore PVC.	Highway Maintenance Budget	61
\$8,000	Bottom of Hoit Road galvanized, corrugated steel culvert is gone, buried under the road. The upgrade size will be 48" plastic smooth bore PVC.	Highway Maintenance Budget	61

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#87- 2018	Upgrade Mountain Road	Short Term 1-	Highway		
	Culvert to Protect from	2 Years	Department		
	Floods and Erosion				
	Upgrade Colonial Drive	Medium	Highway		
	Culvert to Protect from	Term	Department		
	Floods and Erosion	3-4 Years			
#89- 2018	Upgrade Lockes Hill Road	Medium	Highway		
	Culvert to Protect from	Term	Department		
	Floods and Erosion	3-4 Years	Department		
	FIDOUS and Erosion	5-4 rears			
#90- 2018	Upgrade Chestnut Pond Road	Long Term	Highway		
	Culvert to Protect from	4-5 Years	Department		
	Floods and Erosion				
#91- 2018	Upgrade Webster Park	Long Term	Highway		
	Culvert to Protect from	4-5 Years	Department		
	Floods and Erosion	4 9 rears	Department		
#92- 2018	Reconstruct Leighton Brook	Short Term	Highway		
	Road to Protect from Floods		Department		
	and Erosion				

2018 Actions Status Identification			DETERMINE STATUS OF EACH ACTION			
Action	Action	Action	Who is	COMPLETED	<u>DEFERRED</u>	<u>DELETED</u>
Number		Timeframe	Responsible	When: Month & Year	Why?	Why?

Natural S	Natural Systems Protection Actions			DETERMINE STATUS OF EACH ACTION		
#36- 2012	Examine Options for Bank	Long Term	Emergency			
	Stabilization of Suncook River	4-5 Years	Management /			
	Banks at the School Athletic		Board of			
	Fields		Selectmen with			
			Epsom School			
			Admin			
#68- 2015	Continue Program to Monitor	Long Term	Fire Department			
	the Large Woody Material	then Ongoing				
	Damming the Suncook River					
	(FGA) to Reduce the Impact					
	of Floods and Erosion					

\$1,800	Existing Mountain Road culvert is deteriorating corrugated, galvanized 15" metal pipe, will be upgraded to 15" PVC smooth bore pipe that will enable more water to pass through unimpeded. This situation is common all Town. In order to keep costs down, no permitting is needed for materials upgrade of the same size pipe.	Highway Maintenance Budget	61
\$3,500	Existing Colonial Road culvert is deteriorating corrugated, galvanized 15" metal pipe, will be upgraded to 15" PVC smooth bore pipe that will enable more water to pass through unimpeded. This situation is common all Town. In order to keep costs down, no permitting is needed for materials upgrade of the same size pipe.	Highway Maintenance Budget	61
\$2,200		Highway Maintenance Budget	61
\$12,000	Chestnut Pond Road 18" concrete culvert has a crown, so will need to determine reason for it. Plan is to upgrade with new 18" concrete culvert and fix reason for the crown.	Highway Maintenance Budget	61
\$4,800	Existing 2 Webster Park culverts are deteriorating corrugated, galvanized 15" metal pipes, will be upgraded to 15" PVC smooth bore pipes that will enable more water to pass through unimpeded. This situation is common all over Town. In order to keep costs down, no permitting is needed for materials upgrade of the same size pipe.	Highway Maintenance Budget	61
\$70,000	Over time, potholes and deteriorating road conditions have resulted in the need to reconstruct Leighton Brook Road. The road is a Class V Town road, accepted from a development about 40 years ago in the 1970s which was not built to current Town standards.	Highway Department Capital Reserve Fund	75

2018 Supporting Action Information to Update Later (2024 Deferred Actions)

Approximate	Action Description or What Approximate Cost Will Pay For	How Funded	Ranking Score
Cost to Town			Relative Ease of
			Completion

(study) + \$100,000	The Suncook River is eroding away the athletic fields, and the building on site will soon be washed away if the bank is not stabilized. Options for bank stabilization should be considered in an engineering study before action is taken.		53
	Town regularly needs to monitor the extensive trees inventoried in the Suncook River during high flows, storm events, and spring rains and snow melt. Calls come in to FD or PD from the public about migrating trees in the river.	N/A	47

EPSOM HAZARD MITIGATION 2024

#76 2019	Purchase and Conserve Large	Medium	Conservation		
	Lots on Sanborn Hill and	Term	Commission,		
	Center Hill as Identified by	3-4 Years	approval from		
	Bear Paw Regional Greenway		Board of		
	to Enable Trails for Fire and		Selectmen		
	Tree Debris Access		needed		
#77- 2018	Produce a Study on the	Medium	Board of		
	Brownfields Sites (Getty	Term	Selectmen		
	Station and Gossville Hotel)	3-4 Years	Sciectinen		
	to Reduce Environmental	5 4 rears			
	Contamination of the Traffic				
	Circle				
	Circle				
#78- 2018	Continue the Stabilization of	Long Term	Highway		
	the Suncook River Banks to	then Ongoing	Department		
	Help Protect Against Erosion				
	and Scour, Floods, Tree				
	Debris, and Storms				

2018 Actions Status Identification DETERMINE STATUS OF EACH ACTION	DETERMINE STATUS OF EACH ACTION		
Action Action Who is COMPLETED DEFERRED Number Timeframe Responsible When: Month & Year Why?	<u>DELETED</u> Why?		

Educatio	n and Awareness Progra	ims Actions		DETERMINE STATUS O	F EACH ACTION	
	Educate the Public on the Effects and Impacts of Dams Which Can Alleviate Flooding Conditions	<u>Short Term</u> then Ongoing	Town Administration, with help from Economic Development Committee			
	Encourage Advance Tree Trimming of Hazardous Trees by Utility Companies to Reduce Storm Damage	<u>Short Term</u> then Ongoing	Highway Department			
	Educate the Adult Public, Town Staff and Volunteers on Instructor-Level ALICE to Reduce Impacts of Human Hazards in Buildings	<u>Short Term</u> 1- 2 Years	Police Department			

\$100,000 to	Town services and the School system could not accommodate	Conservation	51
\$300,000	development of the large lot legacy properties at current Town	Commission	
	service levels. Significant upgrades to services, buildings,	Fund	
	infrastructure, equipment and staff would need to occur. Some		
	of the lots could be conserved. Bear Paw Regional Greenway		
	recently approached 8 landowners for conservation land, asked		
	town to purchase. Easements for Center Hill and Bear Hill,		
	proposed to Board of Selectmen 2017		
\$0	Contaminated water at Getty Station (MtBE), Exxon Mobil,	Brownfields	54
	Gossville Hotel) contributed funding to the State that will	funding, NHDES,	
	benefit Epsom. Economic development is an important theme	US EPA	
	in the community right now and this is the right time to pursue		
	such a project. NHDES and Economy Devt Committee looking		
	into brownfield sites, formerly Huckins and L Doone, gas		
	stations with unlined tanks.		
\$10,000,000	Continuing erosion issue is ongoing, will continue to change the	Town share,	75
	floodplains. After the State's river stabilization project to	NHDES grants,	
	protect the newly rehabilitated Route 4 bridge from scour, the	possible FEMA,	
	Suncook bank eroded more quickly downstream as a result.	US Army Corps,	
	Reclamation and stabilization of 15 acres was estimated at	or EPA federal	
	\$90,000. Town owns about 3,000 feet on the river and the	funding	
	School District owns 1,000 feet, and the Water Precinct owns		
	another 1,000 feet. The local government has responsibility to		
	ensure banks are safe. This problem may take a generation to		
	solve.		
			1

2018 Supporting Action Information to Update Later (2024 Deferred Actions)

Approximate	Action Description or What Approximate Cost Will Pay For	How Funded	Ranking Score
Cost to Town			Relative Ease of
			Completion

\$0	Developing pamphlets, publicity notices on the cable channel, using "reverse 911" technology with the School, website, and writing articles for newspapers will better help inform the public about the effects and impacts of dams. The Town will	N/A	54
	partner with the NH DES. The Allenstown/ Pembroke Buck Street Dam was removed by NH DES in 2011. NHDES should be able to provide information for the pamphlet. The targeted audience would be those who are dam owners or directly abut dams.		
\$0	The Town will notify public utilities of trees and limbs too close to utility wires. The project will ensure maintenance of vital utility services to residents and businesses. Power outages and disruptions will become less common during a disaster event if regular tree trimming within the right-of-way occurs. Unitil every 5 years, Eversource every 6 years, try not to contact them unless necessary.	N/A	69
	Town Office, Police Department, Post Office, Library, Epsom Central School, Epsom Manor are targets for human threats (active shooter, bombing, powders, etc). Alert Lockdown Inform Counter Evacuate ALICE "train the instructor" training sponsored by the PD for 2 days on April 24-25 at the Epsom Central School, although it has a high cost (\$600).	Individual Department Budgets for Training	65

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#80- 2018	Educate the Public on the See	Short Term	Police		
	Something Say Something	then Ongoing	Department		
	Campaign to Reduce Impacts				
	of Human Hazards				
#81- 2018	Educate Homeowners About	Short Term	Highway	 	
#01-2010	Options on Hazardous Tree	then Ongoing			
	Removal to Reduce Storm	then Ongoing	Department		
	Damage				
#82- 2018	Upgrade the Rail Trail	Medium	Conservation		
	Between the Route 4 to Short		Commission		
	Falls Road to Reduce Erosion	3-4 Years	Commission		
	and Washouts	5-4 rears			
#83- 2018	Collect GPS Mapping Data	Medium	Conservation		
	and Develop Maps of Town	Term	Commission		
	Trails in the Town Forest and	3-4 Years	commission		
	Conservation Areas to				
	Reduce Human Injury				
	Potential from All Hazards				
	Fotential from All Hazards				

\$0	Police Department's (PD) See Something Say Something program has posters at the School, call local PD, on PD Facebook and website to report suspicious activities.	N/A	68
\$0	Town receives multiple first responder calls for trees down in seasonal campgrounds, on manufactured homes and town wide during severe wind events and storms. These locations are particularly vulnerable with light structures and heavy trees. During the drought, more trees falling over with roots. Residents are becoming proactive with tree removal. Power companies come in every 5 years. Town can call and request trees removal. HD also removes trees. Homeowners are often reluctant to cut their trees, Town warns when trees are hazardous.	N/A	57
\$5,000	Conservation Commission discussed upgrading the rail trail from approximately the washed out bridge over the Little Suncook on the north end down to Short Falls Rd on the south end. Part of this plan included at least one kiosk as well as some signs, gates and other obstructions to reduce the illegal OHRV traffic. Upgrades to the trail itself would include repair of some culverts and the addition of some stone dust or other hard pack material. The rail trail will be made safer from flooding, erosion, and from human injury with these upgrades.	Commission Budget Equipment and Supplies, Grants	57
\$1,000	Accurate maps of the Town Forest & other conservation area maps are needed. Although the Conservation Commission could ask the Town Forester for an updated map, GPSing trails is more flexible and easier to update and use. The public needs the maps to understand the location of trails and how to use the trails responsibly. Very large areas abut private land and there are no indications people are no longer on Town property when hiking through. Emergency response sometimes has difficulty locating and evacuating injured or lost people even in the Town Forest. GPSing the trails will result in updated, versatile trails maps and data available to all.		52