

Mitigation Updates

| | Project | Problem Statement | Lat/Long | Est. Cost | Timeframe | Responsible Official | Status | 2017 updates | 2018 updates | 2019 updates | 2020 updates | Point of Contact and email |
|------------------|---|--|-----------------------|---------------------|-----------|------------------------------------|---------------------------|---|---|---|---|---|
| Baldwin | 1) Wentworth Rd: paving, culverts, ditching, shoulder work, reclaim, rip-rap, cut trees | Road vulnerable to washing during heavy rain events. Road did not have any ditching along the road, some culverts were in the wrong spots, and some of the culverts were completely rotten. trees and stumps need to be removed for ditchwork | 43.841135, -70.703157 | \$175,000 | Long Term | Road Commissioner | New Project | | 2 culverts replaced, shoulder work done, trees cut. Remaining work: paving, riprap, reclaim | | Paved in 2020 work remaining: rip-rap and shouldering needed | Brian Anderson - Road Commissioner 207-727-0027 email: baldwinroads@gmail.com Owen Sprague (EMA): owensprague3498@yahoo.com |
| | 2) Senator Black Rd: culverts, ditching, shoulder work, reclaim, rip-rap, cut trees | Road vulnerable to washing during heavy rain events. This road kept washing out during heavy rain events because there wasn't any ditching along the road, some culverts were in the wrong spots, and some of the culverts were completely rotten. Big rocks also had to be removed in the road for work to be done. | 43.816799, -70.754041 | \$600,000 | Long Term | Road Commissioner | New Project | | Complete - may be a second paving in 2019 | Paved in 2019 | Finished paving - project complete | Brian Anderson - Road Commissioner 207-727-0027 email: baldwinroads@gmail.com Owen Sprague (EMA): owensprague3498@yahoo.com |
| | 3) Saddleback West Rd.; Remove trees from ditch line 3,500' add ditch 650' add 24" x 40' N-12 cross culvert. | The road has no ditching and the road kept washing out during heavy rains events. | 43.842856, -70.717949 | \$9,000 | Long Term | Road Commissioner | Deferred, Lack of Funding | | Deferred, lack of funding | | complete | Brian Anderson - Road Commissioner 207-727-0027 email: baldwinroads@gmail.com Owen Sprague (EMA): owensprague3498@yahoo.com |
| Bridgton | 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 | During heavy rain events the existing culvert cannot handle the amount of water resulting in flooding out our Main Street Businesses. | | TBD | Long Term | Road Commissioner Engineering Firm | Revised from 2012 Plan | | Project remains the same | | Project status remains the same, unknown if it will be done or removed from the plan next year. | Todd Perreault ema@bridgtonmaine.org |
| Brunswick | 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 | During heavy rain events the existing ditch and culverts are overwhelmed and the resulting scour velocities result in existing driveways and portions of the roadway washing out | 43.9073, -69.8752 | \$12,000 | Long Term | Director of Public Works | Deferred, Lack of Funding | The three projects you have listed are correct. They are still unfunded due to budget constraints | These projects should remain and there are no changes at this time. | Problem statements and lat/lon provided Deferred - Lack of funding | Ditching was completed in June 2020 | Jay Astle Public Works Director jastle@brunswickme.org or Ryan Barnes Town Engineer rbarnes@brunswickme.org |
| | 2) Pleasant Hill Rd; Upsize twin 5' x 66' culverts w/ 12' x 6' x 70' bottomless box culvert w/ integrated headwalls. | During heavy rain events the roadway is overtopped and washouts occur adjacent to the inlet and outlet. | 43.8876, -70.0197 | \$175,000-\$200,000 | Long Term | Director of Public Works | Deferred, Lack of Funding | The three projects you have listed are correct. They are still unfunded due to budget constraints | These projects should remain and there are no changes at this time. | Problem statements and lat/lon provided Deferred - Lack of funding | No update from previous year. | Jay Astle Public Works Director jastle@brunswickme.org or Ryan Barnes Town Engineer rbarnes@brunswickme.org |
| | 3) Highland Rd. Upsize existing 24" x 40' culvert with 36" x40' N-12 culvert and riprap inlet and outlet. | During heavy rain events the roadway is overtopped. | 43.8703, -70.0300 | \$25,000 | Long Term | Director of Public Works | Deferred, Lack of Funding | The three projects you have listed are correct. They are still unfunded due to budget constraints | These projects should remain and there are no changes at this time. | Problem statements and lat/lon provided Deferred - Lack of funding | No update from previous year. | Jay Astle Public Works Director jastle@brunswickme.org or Ryan Barnes Town Engineer rbarnes@brunswickme.org |

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| Cape Elizabeth | 1) Kettle Cove Rd. @ Crescent Beach; Rebuild road substructure/retaining wall that abuts Crescent Beach | A portion of the seawall is compromised. A major portion of the seawall is failing on the westerly side of the road adjacent to the beach. The wall was partially rebuilt in the early 1970's but no further action has been taken to stabilize the remaining section of wall since that time. | 43.562795/ -70.219004 | \$500,000 (est) | Long Term | Director of Public Works | Deferred, Lack of Funding | | | Problem statements and lat/lon provided | No update from previous year. | Jay Reynolds, Public Works Director: jay.reynolds@capeelizabeth.org |
| | 2) Garden Circle. Improve gravity storm drain outfall and/or install stormwater pump station | Flooding in cul-de-sac during above-average storm events. The outlet pipe from the existing catch basin is undersized and underwater during mean high tide situations. A feasibility study was done in 2010 that provided remediation options for the | 43.627444/ -70.213879 | \$125,000- \$1,100,000 | Mid term | Director of Public Works | Deferred, Lack of Funding | | | Problem statements and lat/lon provided | Flooding problem has been partially addressed with the Portland Water District's work in 2016. As part of their pump station upgrades, additional stormwater infrastructure improvements were made to help alleviate the flooding. | Jay Reynolds, Public Works Director: jay.reynolds@capeelizabeth.org |
| | 3) Hemlock Hill & Oakhurst Road - Drainage Improvements | Lack of appropriate upstream and downstream stormwater infrastructure. Action taken to date: Phase 1 of a two-phase drainage improvements completed on Hemlock Hill Road in November 2019. A conceptual design has been done for Phase 2 but the project has not been programmed yet. | 43.625022 -70.232474 | \$60,000 | Short term | Director of Public Works | Deferred, Lack of Funding | | | Phase 1 of a two-phase drainage improvements completed on Hemlock Hill Road in November 2019. A conceptual design has been done for Phase 2 but the project has not been programmed yet. | No update from previous year. | Jay Reynolds, Public Works Director: jay.reynolds@capeelizabeth.org |
| | 4) Sawyer St @ Spurwink River: Elevate 600' x 22' x 18" add (3) 18" x 40' N-12 cross culverts, stabilize shoulders and repave 2019 changed to: Sawyer Road @ Spurwink River - Roadway & Drainage Improvements | Existing culvert is slightly compromised (hole in top of it). The roadway easterly of culvert floods during astronomical high tides and when extreme weather events coincide with high tide conditions. Assessment of conditions was done as part a town-wide culvert assessment study in 2018. Additional grant was obtained to undertake a potential sea level rise feasibility study of remedial options for both towns to consider. That study should be completed in December 2019. | 43.588642/ -70.262843 | \$200,000 2019 >\$1,000,000 | Long Term | Director of Public Works: Joint Project with Scarborough 2019 Town of Cape Elizabeth, Town of Scarborough, Inland Fisheries & Wildlife & Misc. Stakeholders | | | | Assessment of conditions was done as part a town-wide culvert assessment study in 2018. Additional grant was obtained to undertake a potential sea level rise feasibility study of remedial options for both towns to consider. That study should be completed in December 2019. | The Sawyer Road culvert tidal crossing assessment was completed in December of 2019. Analysis, a preliminary design report, and series of recommendations are included in the assessment. No further action has been taken since the completion of the report. | Jay Reynolds, Public Works Director: jay.reynolds@capeelizabeth.org |

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| 5) Willow Brook Stream Crossing @ Portland Water District X-Country Sanitary Sewer Line - Culvert Replacement | Existing culvert is slightly compromised (hole in top of it). The roadway easterly of culvert floods during astronomical high tides and when extreme weather events coincide with high tide conditions. | 43.591717/ -70.240061 | >\$1,000,000 | | | | | | : Assessment of conditions was done as part a town-wide culvert assessment study in 2018. Additional grant was obtained to undertake a potential sea level rise feasibility study of remedial options for both towns to consider. That study should be completed in December 2019. | In September 2020, the Town of Cape Elizabeth applied for grant funding through the Maine Natural Resources Conservation Program. Additionally, the Town has programmed the local grant matching funds in its Capital Improvement funding for fiscal year 2022. Updated cost estimate is currently \$375,000. | Jay Reynolds, Public Works Director: jay.reynolds@capeelizabeth.org |
| Willow Brook Stream Crossing @ Portland Water District X-Country Sanitary Sewer Line - Culvert Replacement | Twin 54" CMP culverts last replaced in 1984 have failed. A large diameter gravity sanitary interceptor sewer and a large diameter pressurized sanitary sewer line go over the culverts. | 43.610579/ -70.232287 | est. \$320,000 | Short term priority | Director of Public Works | New Project 2019 | N/A | N/A | Assessment completed in 2018. Funds were approved in FY 2020 fiscal budget for preliminary design and engineering. | In September 2020, the Town of Cape Elizabeth applied for grant funding through the Maine Natural Resources Conservation Program. Additionally, the Town has programmed the local grant matching funds in its Capital Improvement funding for fiscal year 2022. Updated cost estimate is currently \$375,000. | Jay Reynolds, Public Works Director: jay.reynolds@capeelizabeth.org |
| Mitchell Road @ Pond Cove Brook - Culvert Replacement | Potential culvert failure. Culvert is a 48" CMP-type and last replaced in 1975. The invert of the pipe is corroding and deteriorating. Culvert is adjacent to a sanitary pumping station. Both a gravity and pressurized sanitary sewer line are above the culvert. | 43.610579/ -70.232287 | est. \$365,000 | ? | Director of Public Works | New Project 2019 | N/A | N/A | Included as part of a town-wide culvert assessment study in 2018. | No update from previous year. | Jay Reynolds, Public Works Director: jay.reynolds@capeelizabeth.org |
| Shore Road @ Pond Cove – Roadway & Drainage Improvements | The proximity of the three cross-culverts (3-36" aluminized Type II) to the ocean lends them to be clogged with rock and debris during severe coastal storms which restrict the culverts flow. | 43.609126/ -70.216344 | est. >\$1,000,000 | ? | Director of Public Works | New Project 2019 | N/A | N/A | Included as part of a town-wide culvert assessment study in 2018. Consideration should be given to raising the existing road to account for future sea level rise. | No update from previous year. | Jay Reynolds, Public Works Director: jay.reynolds@capeelizabeth.org |
| Ocean House Road @ Trout Brook Culvert Replacement | | 43.620571/ -70.2484207 | est. \$375,000 | Long Term | Director of Public Works | New Project 2019 | N/A | N/A | Future culvert replacement. Culvert is an 8' 2" x 5'9" CMP pipe arch installed in 1983 as in in good condition. | No update from previous year. | Jay Reynolds, Public Works Director: jay.reynolds@capeelizabeth.org |
| Casco | 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 | No Change | | | | |

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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 | # 2 Johnson hill has been completed (2017) Road complete rebuild this fall. \$380,000 | | | | |
| | 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 | No Change | | | | |
| Chebeague Island | 1) Stone Wharf. Replace or relocate Chebeague island Ferry landing. Vulnerability Study complete; Engineering Study ongoing | Seal Level Rise Vulnerability study identifies the site as being at risk of inundation. Minor inundation of wharf head and parking areas has occurred in recent years | 43.751203° 70.107397° | \$300,000 -\$1,000,000 | Unknown Long Term | Town Manager Road Commissioner Board of Sel | New Project | | | Added problem statement, and lat/lon | We are estimating \$1 to \$6 Million for this project | Marjorie Stratton townadmin@townofchebeagueisl and.org |
| | 2) Bennett Cove. Engineering Study for improvements to stone block commercial boat ramp | | | unknown | Long Term | Town Manager Road Commissioner Board of Sel | New Project | | | | Estimated cost is \$50,000 to \$100,000. | Marjorie Stratton townadmin@townofchebeagueisl and.org |
| | 3) Indian Point Rd; Install sheet pile 500' x 10'. | Seal Level Rise Vulnerability study identifies the site as being at risk of inundation. | 43.720790° 70.137142° | \$14,000 | Mid term | Town Manager Road Commissioner | Deferred - Lack of Funding | | | Added problem statement and lat/lon updated cost to \$50,000 | Estimate cost is at least \$50,000 | Marjorie Stratton townadmin@townofchebeagueisl and.org |
| | South Road where Secret road intersects. | During heavy rain events water sheets over paving and saturates the road bed | 43.740815° -70.107536° | | Mid term | Town Manager Road Commissioner | New Project | N/A | N/A | Added in 2019 | This project remains the same. | Marjorie Stratton townadmin@townofchebeagueisl and.org |
| | South Shore Drive | Seal Level Rise Vulnerability study identifies the site as being at risk of inundation. | 43.715122° -70.119788° | | Long Term | Town Manager Road Commissioner Board of Sel | New Project | N/A | N/A | Added in 2019 | No change | Marjorie Stratton townadmin@townofchebeagueisl and.org |
| Cumberland | 1) Tuttle Rd Site 2; Elevate 200' x 21' x 3' stabilize shoulders and repave. Engineering Study completed | Flooding condition due to limited size of culverts and height of road. | 43.785882, -70.237574 | \$18,000 | Long Term | Director of Public Works | Deferred - Lack of Funding | | | Completed with Town funds | N/A | Daniel Small dsmall@cumberlandmaine.com |
| | 2) Middle Rd @ Hazeltines; Upsize existing 36" x 50' lined culvert with 42" x 50' N-12 culvert and riprap inlet and outlet. | Flooding condition due to limited size of culverts and height of road. | 43.776259, -70.202954 | \$17,000 | Long Term | Director of Public Works | Deferred - Lack of Funding | | | Completed with Town funds | N/A | Daniel Small dsmall@cumberlandmaine.com |

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| Falmouth | 1) Northbrook Drive; Upsize existing 48" culvert with 8' x 4' x 80' bottomless box culvert and riprap inlet and outlet. | Under sized culvert that have corrosion issues. Steep side slopes causing sloughing issues with sidewalk and roadway. | 43.736224, -70.222390 | \$200,000 | Long Term | Director of Public Works | Deferred – Lack of Funding | | Deferred – Funding and Permitting Challenges | Deferred – Lack of Funding; environmental permitting issues | Deferred – Lack of Funding; environmental, permitting issues | Jeff Buxton jbxton@falmouthme.org |
| | 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. | Culverts have corrosion issues and are prone to clogging causing roadway flooding. | 43.730015, -70.241470 | \$100,000 | Long Term | Director of Pulic Works | Revised from 2012 Plan - held up for Army Corp of Engineering permit | | Planning to Replace Culverts in 2019 season as part of a sewer system upgrade project. | Culverts will be replaced in-kind in 2020 as part of the Town's Sewer Upgrade | Culverts will be replaced in 2022 as part of the Town's Sewer Upgrade | Jeff Buxton jbxton@falmouthme.org |
| | 3) Shoreline Drive Coastal Erosion; Stabilize bank 100' x 50' x 3' with large fractured stone Engineering study complete | Erosion and sloughing issues along shoreline. | 43.696553, -70.237252 | \$75,000 | Long Term | Director of Public Works | Study -Town funds Deferred – Lack of Funding | | Deferred – Do not have Right, Title, or Interest | Study - town funds. Deferred, lack of funding, lack of property rights | Study - town funds. Deferred, lack of funding, lack of property rights | Jeff Buxton jbxton@falmouthme.org |
| Freeport | 1) Hunter Road. Upsize existing culvert with 24" culvert | | | \$125,000 | Mid term | Director of Public Works | New Project | pushed ahead to CY 2019 which would be FY 2020. | Completed | N/A | N/A | cjordan@freeportmaine.com |
| | 2) Percy Street. Upsize existing culvert with 24" culvert | Minor Flooding of the Street and Surrounding Land | 43°51'47" N 70°06'37" W | \$10,000 | Mid term | Director of Public Works | New Project | pushed ahead to CY 2019 which would be FY 2020. | Deferred - lack of funding | To be completed Spring 2020 - Funded | scheduled for completion in2021 | cjordan@freeportmaine.com |
| | 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 | cancelled due to a lack of funding. | Deferred - lack of funding | Completed | N/A | cjordan@freeportmaine.com |
| Freeport Sewer District | 1) move dry pit pump above ground and raise structure at least three feet. | 1) move dry pit pump above ground and raise structure at least three feet. | 43°49'19.16" N 70°6'24.96" W | \$300,000 | Long Term | Board of Directors | New Project | we are replacing the whole pump station and making all the relevant adjustments. The project will happen in 2018. We go out to bid in January for contractors. | | Added problem statement, and lat/lon it's done. | Completed | N/A |

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| Frye Island | 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 | | | | | |
| Gorham | 3) Wood Rd; Upsize existing multiple culverts with 12' x 6 x 40' bottomless box culvert and riprap inlet and outlets. | Upsizing pipe, road floods and erodes when we receive more than a total of a 1.5" inch of rain or a large amount in a short period of time. | 43° 40' 59N 70 29' 45W | \$80,000 | Long Term | Director of Public Works | Deferred - Lack of Funding | | | | Defered Lack of Funding | rburns@gorham.me.us |
| | 4) Wilson Rd; Upsize existing culvert with 10' x 5 x 40' bottomless box culvert and riprap inlet and outlets. | Upsizing pipe, road floods and erodes when we receive more than a total of a 1.5" inch of rain or a large amount in a short period of time. | 43 46' 4N 70 27' 34W | \$60,000 | Long Term | Director of Public Works | Deferred - Lack of Funding | | | | 80,000.00 Price now, Defered lack of funding | rburns@gorham.me.us |
| | 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. | Upsizing pipe, road floods and erodes when we receive more than a total of a 1.5" inch of rain or a large amount in a short period of time. | 43 43' 12N 70 30' 2 W | \$130,000 | Long Term | Director of Public Works | Deferred - Lack of funding | | | | \$ 150,000.00 Price now. Defered lack of funding | rburns@gorham.me.us |
| Gray | 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 | Upsizing pipe, road floods and erodes when we receive more than a total of a 1.5" inch of rain or a large amount in a short period of time. | 43.86972-70.39250 | \$60,000 | Long Term | Director of Public Works | Deferred - Lack of Funding | The plan is still accurate | | Added problem statement and lat/lon Updated cost to \$80,000 | No update from previous year. | Alec Dodd - adodd@graymaine.org |
| | 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. | "Upsizing pipe, road floods and erodes when we receive more than a total of a 1.5" inch of rain or a large amount in a short period of time." | 43.860512 -70.378255 | \$60,000 | Long Term | Director of Public Works | Deferred - Lack of Funding | The plan is still accurate | | Added problem statement and lat/lon Updated cost to \$80,000 | No update from previous year. | adodd@graymaine.org |
| | 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. | "Upsizing pipe, road floods and erodes when we receive more than a total of a 1.5" inch of rain or a large amount in a short period of time." | 43.861862 -70.317402 | \$70,000 | Long Term | Director of Public Works | Deferred - Lack of Funding - Engineering study - Town funds Possible DEP grant | The plan is still accurate | | Added problem statement and lat/lon Updated cost to \$90,000 | This project is currently out to bid for the next construction season. | adodd@graymaine.org |

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| Gray Water District | Connect the water supply for Gray to either Portland Water District or Yarmouth District. 1) Connection to Yarmouth Water District 2) Connect to Portland Water District | The well head for the public water supply is bisected by the Maine Turnpike and Route 26. This presents the very real risk of water contamination from a HazMat incident along these roads. | 1) 43.515720 - -70.164447 2) 43.493175 - -70.185930 | \$1.5million \$2.8 million | Long Term | Gray Water District | Deferred - Lack of funding | Detailed plan to be developed | | | This is a newly identified threat that is in the early stages for investigating possible solutions. Costs are rough estimates at this point. | w.gardner@graywaterdistrict.org |
| Harpswell | 1) Long Point Rd. Shore up embankment; engineering study done 2013 | | 43.798214N -69.934610W | \$75,000 | Mid term | Road Commissioner | New Project | Completed \$82,059 Town Funds | N/A | N/A | Completed | ahowe@town.harpwell.me.us |
| | 2) Bethel Point Rd. Replace existing 8' X 40' culvert with same sized culvert | | 43°48'00.9"N 69°54'18.7"W | \$4,149,000 | 2 months | | Director of Public Works | Completed \$143,192 Town Funds | N/A | N/A | Completed | ahowe@town.harpwell.me.us |
| | Basin Point Rd. preliminary design/engineering study (\$20,000 from State's Coastal Communities grant for sea level rise) | Assess need to raise road | 43.762379N, -70.021742W | | | | | New Project 2017 | | | Tidal effects research ongoing | ahowe@town.harpwell.me.us |
| Harrison | 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. | Significant rain events exceeding 1" and rapid spring snow melt events overwhelm the culverts resulting in road erosion. | There is no cell phone coverage in the area. GPS coordinates are unavailable | \$9,000 | Mid term | Road Commissioner | Deferred – Lack of Funding | No actions taken to date | No actions taken to date | Deferred – Lack of Funding | No actions taken to date "Deferred – Lack of Funding" | Ray LaPlante fire7@roadrunner.com |
| | 2) Fog Rd.; Upsize existing twin 36" x 40' cross culvert with 8' x 4' x 40' box culvert riprap inlet and outlet | Significant rain events exceeding 1" and rapid spring snow melt events overwhelm the culverts resulting in road erosion. | There is no cell phone coverage in the area. GPS coordinates are unavailable | \$9,000 | Long Term | Road Commissioner | Deferred – Lack of Funding | No actions taken to date | No actions taken to date | Deferred – Lack of Funding | No actions taken to date "Deferred – Lack of Funding" | Ray LaPlante fire7@roadrunner.com |
| | Summit Hill Rd. Remove ledge, ditch, and replace culverts on the unpaved section of the hill. | The road is very narrow which has hindered attempts to mitigate the problem areas. Major washout of the area after winter snow melt or very heavy rains. The distance is 1.5miles | | est. \$500,000 | | Road Commissioner | New Project 2019 | N/A | N/A | upgrade to the road has been deferred due to lack of funding. | upgrade to the road has been deferred due to lack of funding. | Ray LaPlante fire7@roadrunner.com |
| Long Island | 1) 765 Island Ave; Engineering Study and upgrade culvert and stabilize outlet with riprap. | | | \$100,000 | Long Term | Road Commissioner | Revised from 2012 Plan | | | | | |

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| | 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 | | | | | |
| Naples | 1) Lakehouse Road near Muddy River ditching | Roadway that will wash out in heavy rain | 43°57'02.8"N 70°37'36.1"W | \$3,500 | Mid term | Road Commissioner | New Project | Completed with Town Funds: ~\$2,800 | Project number 1 has been deferred for priority going to other project by the Town of Naples to my knowledge. | N/A | No change. Deferred due to budget constraints per Town Manager. | Ephrem Parashak - Captain - FD - paraschak@townofnaples.org |
| | 2) Lamb's Mill Road from Rt 302 to hilltop ditching | Roadway that will wash out in heavy rain | 43°58'14.4"N 70°36'45.3"W | \$3,500 | Mid term | Road Commissioner | New Project | Completed with Town Funds: ~\$3500 | N/A | N/A | No change. Deferred due to budget constraints per Town Manager. | Ephrem Parashak - Captain - FD - paraschak@townofnaples.org |
| | 3) Edes Falls Road and River Road junction 30' culvert upgrade and ditching | Culvert that overflows in heavy rain | 43°59'53.4"N 70°34'21.7"W | \$6,500 | Mid term | Road Commissioner | New Project | pending availability of grant funds to match the project and improve environmental concerns in that area by Cumberland County Soil and Water. The site was slightly improved but the culvert is yet to be replaced. | No change | | No change. Deferred due to budget constraints per Town Manager. | Ephrem Parashak - Captain - FD - paraschak@townofnaples.org |
| | 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. | Culvert that overflows in heavy rain | 44°00'22.1"N 70°35'27.6"W | \$8,000 | Mid term | Road Commissioner | Deferred - Lack of Funding | Completed with Town Funds: ~\$5,200 | #4 have not been completed. | | No change. Deferred due to budget constraints per Town Manager. | Ephrem Parashak - Captain - FD - paraschak@townofnaples.org |
| New Gloucester | 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 | Completed | N/A | N/A | N/A | Chief@newgloucester.com |
| | 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 | Completed | N/A | N/A | N/A | Chief@newgloucester.com |

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| | Project | Problem Statement | Lat/Long | Est. Cost | Timeframe | Responsible Official | Status | 2017 updates | 2018 updates | 2019 updates | 2020 updates | Point of Contact and email |
|-----------------------|---|---|------------------|---|-----------|--------------------------|----------------------------|---|-------------------------------------|--|--------------------------------------|---|
| | Gloucester Hill Rd. Stevens Brook Culvert replacement. Replace with a three sided cement box culvert with a natural bottom. There is also a small dam at this culvert location that, based on engineering design and evaluation, will need to be reinstalled or replaced. | | | Engineering:\$3 5,000 culvert/dam \$200,000 | | Director of Public Works | New Project 2018 | N/A | New Project 2018 | | | Chief@newgloucester.com |
| North Yarmouth | 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. | | 43.5221 -70.1252 | | Long Term | Road Commissioner | Revised from 2012 Plan | Still just monitoring | No changes in our plan at this time | We do not have any updates needed at this time | No changes in our plan at this time. | Greg Payson Firechief@northyarmouth.org |
| Portland | 1) Johanson and Front St; Park Side Condos acquisition and demolition of six unit condo complex. | These condo's are at an elevation of just under 12. They flood during a large storm event. The work of Morse Street Sewer Separation helped a little but during high tide the storm drain is full and the buildings will continue to flood. One unit (2 condo's) has been vacant since 2015 and was slated for demolition (to my knowledge). However, I noticed a PWD truck there the other day and was informed they are re-connecting the water service. Private property that does not impact the city to much. But the city sold the developer part of Payson Park to build them (on the old landfill). Their flooding, to my knowledge, does not impact the city in any way. It has always been on the list as a suggestion based on the known flooding. | | 1,000,000-2,000,000 | Long Term | City Council | Deferred - Lack of funding | Their flooding, to my knowledge, does not impact the city in any way. It has always been on the list as a suggestion based on the known flooding. | | City realizes the price tag is too big and as they have not flooded lately, remove from list | Remove from list per 2019 comment | Caity Hager, Emergency Management Coordinator chager@portlandmaine.gov |

Mitigation Updates

| Project | Problem Statement | Lat/Long | Est. Cost | Timeframe | Responsible Official | Status | 2017 updates | 2018 updates | 2019 updates | 2020 updates | Point of Contact and email |
|--|--|---------------------------|-----------|------------|--------------------------|---------------------------------------|--|--|--|---|---|
| 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 | they paved this section of Washington Ave this summer. They did not look at the culvert condition prior to paving. We can take it on but it has a 5-year moratorium on the street now. | | This section of the street was paved last year requiring a 5 year moratorium. If the culvert fails in the next 4 years it will be addressed as an emergency. If not, the culvert will be re-evaluated and likely added to the list again | Remove from list per 2019 comment | Caity Hager, Emergency Management Coordinator chager@portlandmaine.gov |
| 3) Gertrude St. Install backflow prevention | | | \$500,000 | Long Term | Director of Public Works | Deferred - Lack of funding | Neither I, nor Nathaniel, are aware of anyone having flooding issues that would require backflow prevention. And I don't know who put it on the list. | | Sewer separation work in the area seems to have resolved this issue | Remove from list per 2019 comment | Caity Hager, Emergency Management Coordinator chager@portlandmaine.gov |
| 4) Capisc St.; Install backflow prevention. | | | \$500,000 | Long Term | Director of Public Works | Deferred - Lack of funding | Neither I, nor Nathaniel, are aware of anyone having flooding issues that would require backflow prevention. | | Sewer separation work in the area seems to have resolved this issue | Remove from list per 2019 comment | Caity Hager, Emergency Management Coordinator chager@portlandmaine.gov |
| 5) Eastern Promenade Trail Erosion @ EEWWTP - Redirection of hillside runoff to prevent erosion of embankment | Water coming off the hill adjacent to the EEWWTP has created erosion of the embankment to the point of past failure. Project would re-direct water to downhill storm drain and restore embankment. | 43°40'20.84" 70°14'55.59" | <\$10,000 | Mid term | Director of Public Works | N/A | New Project – Added 12/17 | est cost \$20,000 upon available funding | Added problem statement and lat/lon Updated cost to \$80,000 Upon available funding | Column E needs to be updated to reflect cost of \$80,000 | Caity Hager, Emergency Management Coordinator chager@portlandmaine.gov |
| Diamond Street CSO Backflow Prevention and Storm Drainage Improvements on Marginal Way | Area floods due to tidal flooding, project aims to reduce street flooding due to backflow. | | \$350,000 | Short term | Director of Public Works | N/A | N/A | "New Project – Spring 2019 with SRF Funding Added 12/18" | Completed with City funding 2019 | Remove from list. Completed with City funding 2019 | Caity Hager, Emergency Management Coordinator chager@portlandmaine.gov |
| Franklin Street CSO Backflow Prevention and Storm Drainage Improvements | New outfall being installed as part of another project. Project would extend new storm drain to eliminate the flooding in the Somerset Street area. | 43°39'51.00" 70°15'31.31" | \$200,000 | Mid term | Director of Public Works | New Project for 2019 with SRF funding | N/A | Added 2018 | Added problem statement and lat/lon Updated cost to \$4,000,000 Upon available funding | Column E needs to be updated to reflect cost of \$4,000,000 | Caity Hager, Emergency Management Coordinator chager@portlandmaine.gov |
| Back Cove Embankment Erosion @ Preble Street - Stabilize bank erosion along walking trail 10' x250'x2' using stone riprap | Embankment of the Back Cove walking trail has eroded/ destabilized due to rising tides and storm related wave and wind action. Project would re-establish a stone embankment and stabilize trail. | 43°39'55.00" 70°16'13.60" | \$25,000 | Long Term | Director of Public Works | New Project 2018 | N/A | Added 2018 | Added problem statement and lat/lon Updated cost to \$30,000 Upon available funding | Column E needs to be updated to reflect cost of \$30,000 | Caity Hager, Emergency Management Coordinator chager@portlandmaine.gov |

Mitigation Updates

| Project | Problem Statement | Lat/Long | Est. Cost | Timeframe | Responsible Official | Status | 2017 updates | 2018 updates | 2019 updates | 2020 updates | Point of Contact and email |
|---|--|------------------------------|---------------|------------|----------------------------------|------------------|--------------|---|--|---|--|
| Back Cove Embankment Erosion @ Preble Street Parking Lot - Stabilize bank erosion along walking trail 10' x1200'x2' using stone riprap | Embankment of the Back Cove walking trail has eroded/ destabilized due to rising tides and storm related wave and wind action. Project would re-establish a stone embankment and stabilize trail. | 43°39'56.36" 70°16'08.34" | \$100,000 | Long Term | Director of Public Works | New Project 2018 | N/A | Added 2018 | Added problem statement and lat/lon Updated cost to \$125,000 Upon available funding | Column E needs to be updated to reflect cost of \$125,000 | Caitly Hager, Emergency Management Coordinator chager@portlandmaine.gov |
| Park Avenue @ Hood Dairy Street Flooding – New Storm Drain discharging to the Fore River or New Stormwater Pump Station within Hood Dairy Parking Lot | This area floods during heavy rain events because it is a low lying area downhill from a heavily developed area with impervious surfaces. Adding better drainage in this location would mitigate flooding during heavy precipitation events. | 43.656066, -70.281429 | Not estimated | Long Term | Director of Public Works | New Project 2018 | N/A | Added 2018 | | updated description and added coordinates | Caitly Hager, Emergency Management Coordinator chager@portlandmaine.gov |
| Culvert replacement at Riverton Drive – Replace two 54" and one 32" culvert by Riverton Housing | The failure of the existing culvert and potential for infrastructure/ roadway damage will result in business and transportation impacts to Portland and surrounding communities. | 43°41'55.71" 70°19'24.09" | \$700,000 | Short term | Director of Public Works | New Project 2018 | N/A | Added 2018 | Redefined project to read and one 32" culvert by Riverton Housing to read with a box culvert Added problem statement and lat/lon Updated cost New Project – Upon Available Funding – submitting application for – Grant application for HMGP FEMA-4354-DR-ME submitted Dec 2018 And Aug 2019 (application still in process Dec. 2019) Added 11/19 | Remove from List. Completed with City funding in 2020. | Caitly Hager, Emergency Management Coordinator chager@portlandmaine.gov |
| Emergency Back Up Power for Public Works Fuel Pumps and Dispatch at Canco Rd. | New fuel pump location serves entire City emergency and public works fuel distribution. Outside Fire/Police dispatch this is the primary City dispatch center to disaster response of Public Works and Forestry personnel. | 43°41'11.84" 70°16'54.48" | \$20,000 | Short term | Director of Public Works | New Project 2018 | N/A | New Project added 2018 Upon available funding | Added problem statement and lat/lon | no update | Caitly Hager, Emergency Management Coordinator chager@portlandmaine.gov |
| Emergency Back Up Power for City Emergency Shelter | The City has emergency back up power at only one building identified as an emergency shelter (Expo) and seeks to have additional emergency shelter locations with back up power to provide shelter during a power outage. | 43°41'44.38" 70°18'33.82" | \$70,000 | Mid term | Emergency Management Coordinator | New Project 2018 | N/A | New Project added 2018– Upon Available Funding | Revised project to add "Riverton Community Center" Added problem statement and lat/lon revised responsible official to Public Works Director Upon available funding | No update / no funding identified. Responsible official should be Emergency Management Coordinator. | Caitly Hager, Emergency Management Coordinator chager@portlandmaine.gov |

Mitigation Updates

| | Project | Problem Statement | Lat/Long | Est. Cost | Timeframe | Responsible Official | Status | 2017 updates | 2018 updates | 2019 updates | 2020 updates | Point of Contact and email |
|---------------|---|---|--------------------------------|-----------|------------|--------------------------|----------------------------|--------------|---|---|--|---|
| | Emergency Back Up Power for Bramhall Fire Station | There is no longer an emergency generator at the Bramhall Fire Station, which houses the Portland Fire Department's special response equipment | 43°39'12.56" 70°16'19.80" | \$100,000 | Short term | Chief -Fire Department | New Project 2018 | N/A | New Project – Grant application for HMGP FEMA-4354-DR-ME submitted Dec 2018 | New Project – Grant application for HMGP FEMA-4354-DR-ME submitted Dec 2018 Added 12/18 (application still in process Dec. 2019) | Funding awarded from HMGP-4354-DR-ME. A portable generator will be permanently placed at the Bramhall Fire Station by Spring 2021. | Caity Hager, Emergency Management Coordinator chager@portlandmaine.gov |
| | Emergency Back Up Power for Stevens Ave Fire Station | | | | Mid term | Chief -Fire Department | New Project 2018 | N/A | New Project – Upon Available Funding | | Completed - generator installed in 2018 with municipal funding. Remove from list. | Caity Hager, Emergency Management Coordinator chager@portlandmaine.gov |
| | District Road Operation Center | Analysis and replacement of roof structure to prevent destruction of Public Works equipment critical to the maintenance and operation of the wastewater, sanitation, winter maintenance programs. | 43°38'52.30" 70°20'24.20" | \$500,000 | Mid term | Director of Public Works | New Project 2019 | N/A | N/A | New Project 2019 Upon available funding | no update | Caity Hager, Emergency Management Coordinator chager@portlandmaine.gov |
| | 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 - Lack of Funding | | | | \$ 80,000.00 Price now, Deferred lack of Funding | rburns@gorham.me.us |
| | Emergency Back Up Power for Ocean Ave Fire Station | There is no emergency generator at the Ocean Avenue station to allow for uninterrupted electricity at this fire station that houses Engine 11. | 43.686656, -70.267993 | | Mid term | Chief -Fire Department | | | | | New project 2020 - Upon Available Funding | Caity Hager, Emergency Management Coordinator chager@portlandmaine.gov |
| Pownal | 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. | | 43°54'29.29"N 70°14'16.62"W | \$45,000 | Long Term | Road Commissioner | Deferred - Lack of funding | | No Changes | | No changes in our plan at this t | Jesse Peters/ Pownalcar1@maine.rr.com |
| | 2) Chadsey Rd Site #2; Upsize triple N-12 culverts with 12' x 4' x 40' bottomless box culvert and riprap inlet and outlets | | 43°54'25.13"N 70°14'09.12"W | \$45,000 | Long Term | Road Commissioner | Deferred - Lack of funding | | No Changes | | No changes in our plan at this t | Jesse Peters/ Pownalcar1@maine.rr.com |
| | 3) Brown Rd; Upsize twin 48" x 40' culverts with 12' x 4' x 40' bottomless box culvert, riprap inlet and outlets and repave. | | 43°54'54.95"N 70°08'00.79"W | \$48,000 | Long Term | Road Commissioner | Deferred - Lack of funding | | No Changes | | No changes in our plan at this t | Jesse Peters/ Pownalcar1@maine.rr.com |

Mitigation Updates

| | Project | Problem Statement | Lat/Long | Est. Cost | Timeframe | Responsible Official | Status | 2017 updates | 2018 updates | 2019 updates | 2020 updates | Point of Contact and email |
|--------------------|--|---|----------------------------|-----------------------|-----------|--------------------------|----------------------------|--|--------------|--|---|--|
| Raymond | 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. | DPW Director Nate White is not aware of any needs at this location. | | Unknown | Long Term | Road Commissioner | New Project | | | | None | Bruce D Tupper Fire Rescue Chief EMA Director 207-655-1187 |
| Scarborough | 1) Gorham Rd at Nonesuch River. Engineering study and replacement of existing 5' culvert | Culvert overtops during heavy rain events. The overtopping closes a major corridor to Gorham/Standish etc. | | \$200,000 - \$300,000 | Long Term | Director of Public Works | New Project | No Change | No Change | Added problem statement and lat/lon Updated cost to \$1,200,000 - \$1,300,000 Deferred – Lack of funding | No change to previous update and project status | B. Michael Thurlow, Fire Chief / EMA Director mthurlow@scarboroughmaine.org Mike Shaw, Public Works Director mshaw@scarboroughmaine.org |
| | 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 | going to have some work done to it as part of a large new apartment building project in that area. The deal with the project owner is that they will excavate the drainage channel on their side to see if that takes care of the issue or at least helps. | No Change | secured funding for that project and it has now been completed. | No change to previous update and project status | B. Michael Thurlow, Fire Chief / EMA Director mthurlow@scarboroughmaine.org Mike Shaw, Public Works Director mshaw@scarboroughmaine.org |
| | 3) Pleasant Hill Upgrade storm drain system. | Undersized drainage system in the "Brown Homes" neighborhood causes basement flooding | 43d35'02" N 70d18'16" W | \$600,000 | Long Term | Director of Public Works | Revised from 2012 Plan | No Change | No Change | Deferred - Lack of funding Updated cost to \$1,600,000 | No change to previous update and project status | B. Michael Thurlow, Fire Chief / EMA Director mthurlow@scarboroughmaine.org Mike Shaw, Public Works Director mshaw@scarboroughmaine.org |
| | 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. | Identified as priority in Philips Brook WMP. Undersized culverts causing flow backup in the upstream reaches and stream scour on the downstream reach | 43d34'20" N 70d23'33" W | \$65,000 | Long Term | Director of Public Works | Deferred - Lack of funding | No Change | No Change | "Added problem statement and lat/lon Updated cost to \$365,000 Revised from 2012 Plan | No change to previous update and project status | B. Michael Thurlow, Fire Chief / EMA Director mthurlow@scarboroughmaine.org Mike Shaw, Public Works Director mshaw@scarboroughmaine.org |
| | 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. | Road overtops at the Nonesuch River eliminating access between Scarborough and Gorham. | 43d37'16" N 70d25'39" W | \$600,000 | Long Term | Director of Public Works | Deferred - Lack of funding | No Change | No Change | Deferred - Lack of funding | No change to previous update and project status | B. Michael Thurlow, Fire Chief / EMA Director mthurlow@scarboroughmaine.org Mike Shaw, Public Works Director mshaw@scarboroughmaine.org |

Mitigation Updates

| | Project | Problem Statement | Lat/Long | Est. Cost | Timeframe | Responsible Official | Status | 2017 updates | 2018 updates | 2019 updates | 2020 updates | Point of Contact and email |
|-----------------------|--|---|----------------------------|-----------|------------|---|------------------------------------|---|---|---|--|--|
| | 6) Sawyer St.; Elevate 600' x 22' x 18" add (3) 18" x 40' N-12 cross culverts, stabilize shoulders and repave. | Currently under review with Cape Elizabeth by way of Coastal Community Grant. CE is the recipient of grant. | 43d35'18" N 70d15'46" W | \$95,000 | Long Term | Director of Public Works Joint project with Cape Elizabeth | Deferred - Lack of funding | No Change | No Change | Deferred - Lack of funding Updated Costs \$1,950,000 | No change to previous update and project status | B. Michael Thurlow, Fire Chief / EMA Director mthurlow@scarboroughmaine.org Mike Shaw, Public Works Director mshaw@scarboroughmaine.org |
| | 6)Payne Road @ Phillips Brook: Replace (2) 60" culverts with bottomless box culvert | Undersized culverts are causing erosion due to excessive velocity | 43d34'27" N 70d23'27" W | \$350,000 | Long term | Director of Public Works | New Project 2019 | N/A | N/A | New Project Pending securing funds from local and grant resources | No change to previous update and project status | B. Michael Thurlow, Fire Chief / EMA Director mthurlow@scarboroughmaine.org Mike Shaw, Public Works Director mshaw@scarboroughmaine.org |
| Sebago | 1 Shore Road: 600' surface improvements, add gravel cross culverts | To provide better drainage | 43.41N 70.5 W | \$100,000 | Short Term | Road Commissioner | New Project | Completed with Town funds: \$55,066 | N/A | N/A | N/A | Jason Schoolcraft sfd_2001@yahoo.com |
| | 2. Anderson Road: ditch, cross culverts and repave | Improve road and provide better drainage | 43.53N 70.37W | \$90,000 | Long Term | Road Commissioner | New Project | Completed with Town funds: \$181,599 | N/A | N/A | N/A | Jason Schoolcraft sfd_2001@yahoo.com |
| | 3. Peabody Pond Rd. Ditch and line 1,800' add (2) driveway culverts 15" X 30" and (12) cross culvert 15" x 40' remove ledge from ditch line. Second cross culvert 4' x 45" | Improve road and provide better drainage | 48.56N 70.41W | \$75,000 | Short Term | Road Commissioner | Revised from 2102 Plan In progress | Completed with Town funds: \$5,600 | N/A | N/A | N/A | Jason Schoolcraft sfd_2001@yahoo.com |
| South Portland | 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 | Road flooding during storms due to inadequate culverts | 43.37.51 N 70.14.56 W | \$65,000 | Long Term | Director of Public Works | Deferred - Lack of funding | doing a Hydraulic analysis for Fessenden this year | doing a hydraulic/hydrologic study on the whole Trout Brook watershed. The study will provide the data for design. The question will be of when we want to replace the culverts (all the culverts in the watershed need to be replaced). The costs below won't be in the ballpark when we get a design. | Sebago Tech study completed | Cost updated to \$410,000. Current Culverts maintained but no construction scheduled | Doug Howard dhoward@southportland.org |
| | 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 | Dir. Water Resource Protection: "Alfred has never been brought to my attention" | No Change | | Removed, no longer an issue | Doug Howard dhoward@southportland.org |

Mitigation Updates

| | Project | Problem Statement | Lat/Long | Est. Cost | Timeframe | Responsible Official | Status | 2017 updates | 2018 updates | 2019 updates | 2020 updates | Point of Contact and email |
|-----------------|---|---|----------------------------|---------------|----------------------------|---------------------------------------|----------------------------|---|---|-----------------------------|--|--|
| | 3) Boothby St @ Trout Brook; Upsize existing culvert with 3' x 6' x 50' bottomless box culvert and riprap inlet and outlet. | Road flooding during storms due to inadequate culverts | 43.37.53N 70.14.52 W | \$55,000 | Long Term | Director of Public Works | Deferred - Lack of funding | doing a Hydraulic analysis for Boothby this year | doing a hydraulic/hydrologic study on the whole Trout Brook watershed. The study will provide the data for design. The question will be of when we want to replace the culverts (all the culverts in the watershed need to be replaced). The costs below won't be in the ballpark when we get a design. | Sebago Tech study completed | Cost updated to \$410,000. Current Culverts maintained but no construction scheduled | Doug Howard dhoward@southportland.org |
| | 4) Running Hill Rd; Install catch basin. | | | \$25,000 | Long Term | Director of Public Works | Deferred - Lack of funding | Dir. Water Resource Protection "catch basin I don't understand" | Running Hill Rd catch basin is done - completed with city funds | N/A | This has been removed from our list, in 2018 it was completed as part of other construction. | Doug Howard dhoward@southportland.org |
| | 5) city's public access pier (at Thomas Knight Park under the Casco Bay Bridge) | Storms have damaged the attachment points to the breakwater/piers. | 43.38.39N 70.15.27 W | \$100,000 | Long Term or grant funding | Director of Parks, Rec and Waterfront | New Project 2018 | N/A | New Project added 2018 | | No updates | Kevin Adams kadams@southportland.org |
| | Willard Beach Stair and Ramp repair | Storms have eroded the beach under the ramp/stairs | 43.38.28N 70.13.31 W | est \$300,000 | Long Term | Director of Parks, Rec and Waterfront | New Project 2018 | N/A | New project Added 2019 | | No updates | Kevin Adams kadams@southportland.org |
| Standish | 1) Blake Rd; Upsize existing twin culverts 36" x 40' culverts with 8' x 4' x 40' bottomless box and riprap inlet and outlet | During heavy rain events water will top roadway and undermine the asphalt | 43°44'01" N 70°31'60" W | \$70,000 | Long Term | Director of Public Works | Deferred - Lack of funding | | No Change | Deferred - lack of funding | Awarded MDEP Stream Crossing Grant. Proposed upgrade expected to be completed during the summer of 2022. | rmosley@standish.org |
| | 2) Middle Jam Rd; Install precast head wall with wing walls on inlet and outlet of 40" culvert. | During heavy rain events the culvert under the canal is not able to handle the volume of water. When the water backs up it has the potential to infiltrate around the ends of the culvert and into the road base. | 43°49'26" N 70°27'9" W | \$15,000 | Mid term | Director of Public Works | Deferred - Lack of funding | | No Change | Deferred - lack of funding | No Change | rmosley@standish.org |
| | 3) Northeast Rd @ Rt. 35; Ditch and armor 300' add 30" x 30' N-12 driveway culvert. | During heavy rain events the culvert and ditch can not handle the volume of water. | 43°44'27" N 70°32'45" W | \$7,000 | Mid term | Director of Public Works | Deferred - Lack of funding | | No Change | Deferred - lack of funding | No Change | rmosley@standish.org |
| | 4) Route 35A - Cape Road; upsize culvert, create spillway, armor downstream side of road bed. | N/A | 43°43'42" N 70°34'47" W | | N/A | Director of Public Works | Deferred - Lack of funding | | completed with our in house work crew and equipment. We had to purchase the culvert and materials. I estimate the cost at \$7500 for manpower, equipment and materials. | N/A | No Change | rmosley@standish.org |

Mitigation Updates

| | Project | Problem Statement | Lat/Long | Est. Cost | Timeframe | Responsible Official | Status | 2017 updates | 2018 updates | 2019 updates | 2020 updates | Point of Contact and email |
|-----------|---|---|---------------------------|-----------|-----------|--------------------------|--|--------------|--|---|--------------|----------------------------|
| Westbrook | 1) Brook Street. Replace bridge over Minnow Brook with new culvert to meet crossing standards | Undersized box culvert that is beyond its useful life | 43°43'3" N 70°19'43" W | Unknown | Long term | Director of Public Works | New Project | | remain the same. | | No Change | edudley@westbrook.me.us |
| | 2) Cottage Place. Culvert upgrade to meet crossing standards. | Undersized multi-plate culvert conveying stream that is in failure. | 43°40'57" N 70°21'18" W | Unknown | Long term | Director of Public Works | New Project | | now has an estimate of \$225,00.00 | | No Change | edudley@westbrook.me.us |
| | 3) Purchase and demolish building at 40 Lincoln St. | Residential home in 100 YR Floodplain | 43°40'51" N 70°22'15" W | \$250,000 | Long term | Director of Public Works | New Project | | remain the same. | | No Change | dstevenson@westbrook.me.us |
| Windham | 1) Highland Cliff Rd @ Annie Leighton Brook. Add second culvert | | | \$45,000 | Long term | Director of Public Works | Revised from 2012 plan | | road cross culverts have been upgraded and all needed culverts replaced. Repaved and ditches all reestablished | N/A | Completed | bjlibby@windhammaine.us |
| | 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 | | road cross culverts have been upgraded and all needed culverts replaced. Repaved and ditches all reestablished | N/A | Completed | bjlibby@windhammaine.us |
| Yarmouth | 1) Ledge Rd; Install headwall and wing walls on inlet side of Pratt's Brook. | | | \$182,495 | Completed | Director of Public Works | Completed in 2018 | | This unit has been completely replaced with a new arch system – open bottom designed to meet the 1.2 back full width requirements. Was completed in August of 2018 | This project was completed in 2018. We installed a new Aluminum Arch – Came in at \$182,495.00. \$95,000 of that came from a DEP grant. | completed | mrobitaille@yarmouth.me.us |



Margaret Cushing <cushing@cumberlandcounty.org>

Fwd: DEP Seeks Proposals for Municipal Stream Crossing Culvert Upgrade Grants

Margaret Cushing <cushing@cumberlandcounty.org>

Tue, Apr 9, 2019 at 11:33 AM

To: Arthur Howe III <ahowe@town.harpswell.me.us>, Arthur Howe III <a3flyfish@aol.com>, "B. Michael Thurlow" <mthurlow@scarboroughmaine.org>, Brent Libby <bplibby@windhammaine.us>, Caity Hager <chager@portlandmaine.gov>, Carrie Castonguay <ccastonguay@newgloucester.com>, Charlie Jordan <cjordan@freeportmaine.com>, Charlie Kennedy <charlie.kennedy@capeelizabath.org>, Charlie Kennedy <ckennedy@maine.rr.com>, Danielle Taylor <DTaylorbaldwin@gmail.com>, Ephrem Paraschak <eparaschak@gorham.me.us>, Ephrem Paraschak <ephrem.paraschak@yahoo.com>, "Hamilton, Gregory" <GHamilton@westbrook.me.us>, "Howard Rice Jr." <hrice@falmouthme.org>, James Wilson <jwilson@southportland.org>, Jason Schoolcraft <sfd_2001@yahoo.com>, Keith Gautreau <kng@portlandmaine.gov>, "Kenneth A. Brilliant" <kbrilliant@brunswickme.org>, Kurt Elkanich <kelkanich@graymaine.org>, "LaPlante, Raymond" <fire7@roadrunner.com>, Michele Bukoveckas <townmanager@townofsebago.org>, Michele Bukoveckas <adminassist@townofsebago.org>, Michele Bukoveckas <clerk@townofsebago.org>, New Gloucester <ngfr4@maine.rr.com>, "Payson, Greg" <firechief@northyarmouth.org>, "Perreault, Todd" <ema@bridgtonmaine.org>, "Peters, Jesse" <pownalcar1@maine.rr.com>, Ralph Munroe <lidamegan@msn.com>, "Richard (Rick) Shepard" <rick.shepard@lakeregionschools.org>, Robert Boyd <fifdc1@gmail.com>, Robert Boyd <robert.boydjr@comcast.net>, Robert Caron <rcaron@standish.org>, Robert Lefebvre <rlefebvre@gorham.me.us>, "Robitaille, Mike" <mrobitaille@yarmouth.me.us>, "Robitaille, Mike" <lisbon502@adelphia.net>, "Small, Dan" <dsmall@cumberlandmaine.com>, Stephen Merckle <ema2@cascomaine.org>, "Tupper, Bruce" <bruce.tupper@raymondmaine.org>, "Tupper, Bruce" <cathy.gosselin@raymondmaine.org>, William Tierny <fire.chief@townoflongisland.us>, William Tierny <williet4@gmail.com>

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Possible grant money for road/stream crossings

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From: **Maine Department of Environmental Protection** <MEDEP@subscriptions.maine.gov>

Date: Tue, Apr 9, 2019 at 11:28 AM

Subject: DEP Seeks Proposals for Municipal Stream Crossing Culvert Upgrade Grants

To: <cushing@cumberlandcounty.org>

--- PRESS RELEASE ---

For Immediate Release



DEP seeks proposals for municipal stream crossing grants

AUGUSTA, April 9, 2019 — The Department of Environmental Protection is inviting proposals for public infrastructure improvement projects on municipal roads involving culvert upgrades of stream crossings to improve public safety, minimize impacts to water quality and improve habitat for fish and wildlife.

Beginning April 9, 2019, eligible recipients may apply for grant monies for improvements to public infrastructure. The deadline for submitting applications is Monday, June 3, 2019. Culverts to be upgraded under this program must be located on a municipal road. Detailed project proposals must address improvements, modifications, repairs or upgrades to existing stream crossing culverts. Eligible project applicants include local governments, municipal conservation commissions, soil and water conservation districts, and private nonprofit organizations.

Eligible recipients must describe how the proposed project meets the following criteria:

- Improves habitat for wildlife and fish (including sea-run fish and native brook trout), such as through the replacement of a blocked or poorly-sized culvert with appropriately-sized and installed crossings;
- Improves public safety by reducing the risk of flooding, and/or infrastructure failure (such as washouts);
- The degree to which the proposed project represents an efficient and cost-effective investment, including the proportion of total project funding that will be provided from other sources and the potential avoided costs associated with the proposed project.

The RFP, Application, Question & Answer Summary, and other information related to this RFP can be obtained at the following website: <https://www.maine.gov/dafs/bbm/procurementservices/vendors/grants>

For more information, please visit DEP's website at: <https://www.maine.gov/dep/land/grants/stream-crossing-upgrade.html>.

For additional information, contact:

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Maine Department of Environmental Protection

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