

2023 Watershed Based Plan Implementation Status Report

Organization:	Newfound Lake Region Association	Project Manager:	Rebecca Hanson	
Plan Completed:		Signature:	date: September 2023	
Project name:	Newfound Lake Watershed Master Plan	Project Number:	B-07-M-01	

Rebecca Hanson

Action #	Action Description	Current Status	Status Notes	LR Sed. Planned	P (lbs/yr)	N (lbs/yr)	LR Sed. Achieved	LR Phos. Achieved	Nit. Achieved	Site Number	Overall Priority	Notes
	Local Implementation Efforts BMPs											
1	Rankin Road, Bridgewater	In Progress	Part of fourth WMP implementation phase	179.5	179.5	359.0				20	1	this is not a priority project for the Town of Bridgewater, and will be reviewed at a future implementation phase.
2	Berea Rd., Hebron	Completed	Replace failed, undersized and damaged culvert with oval, up-sized new culvert.	45.0	38.0	76.0				R1	1A	Added during implementation phase 3
3	Wulamat Rd., Bristol	Completed	Replace failed and damaged culvert and install two catch basins	0	0	0				R2	1B	Added during implementation phase 3
4	Ditch culvert, Sculpture Rocks Rd, Groton	Not begun	Vegetate ditch, armor ditch with stone, reshape ditch, install check dams, fix road shoulder	40.8	40.8	81.6				67	2	Added during implementation phase 3
5	Culverts, Sculptured Rocks Rd, Groton	Completed	Regrade ditch, repair headwalls, replace upsized culvert	100.0	100.0	200.0				R2	2A-2B	Added during implementation phase 3
6	Culverts, Province Rd., Groton	Completed	Regrade ditch, repair headwalls, replace upsized culvert	100.0	100.0	200.0				R3	2C - 2K	Added during implementation phase 3
7	Pike Hill Rd, Hebron	Not begun	Armor ditch with stone, armor areas where seeps enter ditch and stabilize back walls	13.3	13.3	26.6				74	3	
8	Orange Rd, parallel to stream, Groton	Not begun	Grade road, add new surface material to road, add riprap where it diverts into stream	21.8	21.8	43.5				56	4	
9	Bog Rd north of Cross Rd, Alexandria	Not begun	Vegetate hillside slope eroding to gullies, install ditch with check dams and turnouts	16.9	16.9	33.8				90	5	
10	Ditch culvert, North Groton Rd, Groton	Not begun	Armor ditch with stone, reshape ditch, install turnouts or check dams	9.8	9.8	19.6				68	6	
11	Hillside seeps/ditch erosion on Pike Hill Rd south of Wade Hill and north of New 18, Hebron	Not begun	Armor ditch with stone, stabilize/armor were seeps enter ditch from Hillside	12.1	12.1	24.3				99	7	
12	North Groton Rd shoulder and bank slumping into stream, Groton	Not begun	Riprap or stabilization geo web with hydro seeding to stabilize Rd shoulder/streambank	10.2	10.2	20.4				85	8	
13	Ditch erosion at stream crossing north of High Meadows Rd, Bridgewater	Not begun	Armor ditch with stone, install turnouts	6.1	6.1	12.3				100	9	
14	North Groton Rd streambank undercutting/slumping, Groton	Not begun	Streambank stabilization	20.4	20.4	40.8				84	10	
15	Stream crossing- Shem Valley Rd, Alexandria	Not begun	Armor ditch with stone, reshape ditch, add new surface material to road, add to buffer	6.8	6.8	13.6				26	11	
16	Stream crossing and ditches to SC109- Brock Hill Rd, Bridgewater	Not begun	Armor ditch with stone, install turnouts before crossing into woods with plunge pool, install ditch	6.4	6.4	12.8				29	12	
17	Ditch culvert and stream crossing at Dick Brown Rd, Bridgewater	Not begun	Armor culvert inlet/outlet, armor ditch with stone, reshape ditch, install turnouts	2.4	2.4	4.8				50	13	
18	Multiple gullies along road to stream Alexandria	Not begun	Armor ditch with stone, reshape ditch. Install ditch to reduce sediment into stream	3.4	2.4	7.0				11	14	
19	Shore Rd beach (north end) gullies, Bristol	Not begun	Armor and install detention basin/settling basin at outlet, redirect flow away from beach	1.4	1.4	2.8				97	15	
20	Stream Crossing- Cream Hill Rd, Alexandria	Not begun	Armor inlet/outlet, add new surface material to road, create ditch and better turnouts	2.3	2.3	4.3				22	16	

21	Severe gully erosion and road erosion - Sculptured Rocks Rd, Groton	Not begun	Add new surface material to road, reshape (crown) road, grade road and pitch away from stream, vegetate shoulder	1.7	1.7	3.4				82	17
22	Washburn Rd stream crossing Alexandria	Not begun	Vegetate road shoulder and stabilize shoulder at culvert, install ditch with turnouts, check dams and plunge pool. Stabilize ditch with rock	1.8	1.8	3.6				92	18
23	Culvert outlet at Shore Rd beach Bristol	Not begun	Armor outlet with rock and create detention area or redirect flow away from beach and lake	0.6	0.6	1.1				96	19
24	South of site 50- Dick Brown Rd shoulder gully into stream. Bridgewater	Not begun	Armor inlet/outlet, install ditch and armor with stone	1.2	1.2	2.6				103	20
25	Stream crossing Pike Hill Rd (north of Rd gradient site 13), Hebron	Not begun	Armor inlet, vegetate and stabilize shoulder	0.6	0.5	1.1				98	21
26	Burns Hill at Thissel Rd- ditch culvert near DC0113 Alexandria	Not begun	Armor inlet and stabilize slumping or road shoulder, fix turnouts, install detention basin	0.3	0.3	0.7				94	22
27	Shoulder erosion into stream with gullies- Brook Rd, Alexandria	Not begun	Add to buffer, pitch road away from stream toward existing ditch and stabilize	0.2	0.2	0.5				89	23
28	Sculptured Rocks Rd. gully erosion next turn off. Groton	Not begun	Reshape ditch, armor ditch with stone, build-up and add new surface material to road, reshape road & grade road	14.8	14.8	29.6				83	24
29	Ditch to cross culvert turnout (gully) Brock Hill Rd. Bridgewater	Not begun	Install ditch and armor with stone. Create better turnout to prevent sediment from entering stream.	23.5	23.5	47.1				104	25
30	Lakeview Heights down slope from Rd gradient site 7. Alexandria	Not begun	Reshape (crown) road, grade road, install ditch on east side o road to cross culvert or turnout	8.5	8.5	16.9				91	26
31	Washburn Rd at end, Alexandria	Not begun	Downstream ditch needs check dams and rock to slow flow and collect sediment, vegetate ditch, install turnouts and add rock/level spreader at end, vegetate	5.3	5.3	10.6				27	27
32	Shem Valley Rd end, Alexandria	Completed	Armor ditch with stone, reshape ditch	38.0	38.0	76.0				48	28
33	Stream crossing- Gove and Welton Falls Rd Alexandria	Not begun	Vegetate shoulder, add to buffer/ allow to naturally re-vegetate/don't mow, create ditch and turnout and stabilize	2.6	2.6	4.2				79	29
34	Stream crossing on West Shore Rd at the Ledges Condos. Alexandria	Not begun	Add to buffer, don't mow to bank, remove pavement around culvert on road shoulder and add permeable surface, direct water to buffers instead of into stream	1.2	1.2	2.4				49	30
35	Ditch erosion to cross culvert into stream and erosion from Dick Brown Rd into stream. Bridgewater	Not begun	Vegetate/stabilize road shoulder, install ditch & armor with stone	1.3	1.3	2.5				101	31
36	Wicum Rd/Route 3A culvert to lake, Bristol.	Not begun	Armor inlet/outlet, armor ditch with stone and allow to vegetate	1.3	1.3	2.6				24	32
37	Crossing on Dick Brown Rd- north of new 21. Bridgewater	Not begun	Armor outlet, install ditch and turnout to direct water away from crossing, reshape (crown) road to get water into ditch	1.5	1.5	3.1				102	33
38	Road erosion (Sculptured Rocks Rd), Groton	Not begun	Add new surface material to roadway, reshape (crown) road, grade road	1.2	1.2	2.3				81	34
39	Shem Valley Rd - end, Alexandria	Not begun	reshape and stabilize shoulder and create turnout away from stream, add to buffer, reseed bare soil and thinning grass	1.3	1.3	2.6				4A	35
40	Stream Crossing- Bailey Rd, Hebron	Not begun	Add to buffer, investigate upstream sediment and erosion	1.2	1.2	2.4				9	36
41	George Rd- first crossing on unpaved portion from 3A. Bristol	Not begun	Armor ditch with stone or vegetate shoulder, reshape shoulder, reshape ditch	0.8	0.8	1.6				87	37
42	Stream bank erosion on Rd adjacent to stream-Brook Road, Alexandria	Not begun	Add new surface material to road, reshape (crown) road, vegetate shoulder, add to buffer, pitch road away from stream to a ditch and detention basin	1.6	1.6	3.1				88	38

43	Shore Rd beach in Bristol	Not begun	install curbing along edge of road and direct flow into a retention area to the south of the beach or into a catchbasin	1.3	1.1	2.2				95B	39
44	Ditch culvert, George Rd, Hebron	Not begun	Enlarge culvert, vegetate ditch or armor with stone, reshape ditch	0.8	0.8	1.8				66	40
45	Shem Valley Rd bridge on way to AMC lodge Alexandria	Not begun	Armor ditch with stone, reshape ditch, install proper turnout with plunge pool	0.3	0.3	0.5				2	41
46	Groton Rd upstream of SC031 Hebron	Not begun	Armor road shoulder with riprap or other stabilization method, add to buffer	0.4	0.4	0.8				86	42
47	Lakeview Heights Rd-approaching crossing Alexandria	Not begun	Install ditch or reshape and vegetate road shoulder	0.8	0.8	1.6				7	43
48	Shore Rd beach in Bristol	Not begun	stabilize road shoulder, stabilize culvert outlet and install rock basin	0.3	0.3	0.5				95A	44
49	Stream crossing outlet of Newfound Lake, Bridgewater	Not begun	Stabilize foot path to prevent gully on beach (upstream), infiltration steps, stabilize gullies on downstream side of crossing and vegetate	0.2	0.2	0.6				63	45
50	Stream crossing- Mt. Cardigan Rd at hodgdon Rd, Alexandria	Not begun	Reshape shoulder and stabilize or install ditch and turnout	0.1	0.1	0.3				10	46
51	Stream crossing at corner of Town Pound Rd and Foster Pond Rd (outlet of Foster Pond). Alexandria	Not begun	Remove winter sand, redirect outlet of CB away from stream, stabilize shoreline erosion on Foster Pond Rd. - Insert rock? . Part of fourth WMP implemenation phase	0.1	0.1	0.2				60	47
52	Stream crossing-Groton Rd. Hebron	Not begun	Vegetate shoulder	3.4	3.4	6.8				21	48
53	Range Rd site, steep slope with gully erosion, Hebron	Not begun	Add new surface material to road, grade road - Pitch to ditch and cross culvert to wooded buffer	3.8	3.8	7.8				70	49
54	Stream crossing-Brook Rd, Alexandria	Not begun	Establish buffer, add to buffer	0.9	0.9	1.7				8	50
55	Favor Rd/Rte 3A culvert (lakeside/downstream side of 3A) Hebron	Not begun	Armor ditch with stone, vegetate shoulder to stabilize south side of Pasaquay Rd	1.9	1.6	3.3				72	51
56	Stream crossing, downstream pull off access area- North Shore Rd Hebron	Not begun	Stabilize foot path with infiltration steps, install runoff diverter or waterbar, add to buffer, stabilize parking area with stone	2.1	2.1	4.3				1	52
57	Washburn Rd- Fire Dept. site and stream crossing Alexandria	Not begun	Shoreline stabilization, add to buffer, remove built-up winter sand in parking lot	0.2	0.2	0.3				93	53
58	Ditch culvert, Sculptured Rocks Rd, Groton	Not begun	Replace culvert with box culvert or large embedded culvert, or armor downstream side	0.0	0.0	0.0				14	54
59	Ditch culvert, North Groton Rd, Groton	Not begun	Armor outlet or replace with larger culvert/box culvert. Culvert currently perched - some erosion downstream.	0.0	0.0	0.0				15	55
	Planning Board Actions										
60	Adopt local shoreland protection ordinances that include smaller streams, wetlands, and other waterbodies not included in the NH Comprehensive Shoreland Protection Act.	Ongoing	Tiered riparian buffer approach presented to Town PBs (Groton, Hebron, Bristol, Alexandria)								
61	Target specific areas and resources for extra protection using overlay districts.	Ongoing	presented to Town PBs (Groton, Hebron, Bristol, Alexandria)								
62	Ensure that local regulations prohibit the release of post-development stormwater beyond "naturally occurring" levels. Address stormwater issues using Low Impact Development (LID) techniques.	Ongoing	Loading Model and LID / BMPs for Homeowners planned for 4 camps, 4 Towns and 1 homeowner association in								
63	Adopt erosion and sedimentation control regulations.	Ongoing	Steep Slopes and Highly Erodible Soil ordinances, technical "white paper" developed, presented to Town Boards for drafting and vote at 2012 Town meetings.								
64	Revise land use ordinances to align with the Vision Statements in the community master plans.	Ongoing	Steep Slopes and Highly Erodible Soil ordinances, technical "white paper" developed, presented to Town Boards for drafting and vote at 2012 Town meetings.								

65	Ensure that a diversity of development densities are identified in the future land use section of the Master Plan.	Ongoing	Bristol revising Master Plan in 2011-2012. Strategic land-use planning included in pending Phase II Implementation scope.								
66	Require larger minimum lot sizes in areas that are best suited for forestry.	Ongoing	Bristol revising Master Plan in 2011-2012. Strategic land-use planning included in pending Phase II Implementation scope.								
67	Promote Conservation Developments that would allow for continued sustainable forestry on a portion of the parcel where appropriate, and buffer residential development from adjacent logging operations.	Ongoing	Bristol revising Master Plan in 2011-2012. Strategic land-use planning included in pending Phase II Implementation scope.								
68	Ensure Site Plan and Subdivision regulations require applicants to follow the NH Stream Crossing Guidelines (NHFGD, 2008) for all applicable stream crossings.	Ongoing	Assisting Groton with Site Plan / Subdivision rules. Other towns interested in this approach								
69	Include the question of Regional Impact (RSA 36:56) on the application checklists used by the Planning Board.	Not Begun	Strategy is to work on regulations and behaviors that protect water quality and develop cooperation among towns								
	Select Board Actions										
70	Make all permit requests, approvals for land-altering activities, and environmental reports (e.g. septic systems) readily available to the general public to ensure transparency of information.	Not Begun	Current lack of resources								
71	Increase town support of exotic weeds prevention programs (e.g. Lake Host, Weed Watchers, aquatic and terrestrial species).	Completed	program. All five of the main watershed towns are NLRA members. Growing								
72	Require inspection and reporting on septic system age and maintenance every 3-5 years.	Not Begun	Current lack of resources, but ongoing question for Bristol as part of adding extensive sewer service to Lake district.								
73	Prohibit the use of fertilizers or pesticides within 50 feet of any water body or stream channel.	Ongoing	Bristol considering local regulations to protect shoreland due to changes in former CSPA.								
74	Minimize the use of salt for roadway and parking lot de-icing.	Not Begun	Current lack of resources								
75	Monitor forestry and development operations closely, and consider hiring a shared compliance officer with adjoining communities to accomplish this.	Other	Discussing shared compliance officer with towns included in Phase II Implementation proposal. Exploring policy partnership opportunities for 2012.								
76	Inventory culverts and stormwater runoff from public roads, and develop standard operating procedures and plans to reduce impacts to surface waters from stormwater.	Completed	Completed and report submitted to Towns Dec. 2010								
77	Create a stormwater utility in heavily developed portions of communities to provide a mechanism for collecting utility fees from property owners that will fund projects that eliminate stormwater runoff.	Not Begun	Current lack of resources								
78	Coordinate town activities to function at the Watershed level. This may include shared code enforcement, planning support, and opportunities to combine town services and increase purchasing power.	Ongoing	Current strategy for protecting water quality at watershed scale. Priorities include road erosion, repair and drainage. Initial positive response from								
	Watershed-wide Implementation Efforts										
	Newfound Lake Region Association										
79	Provide the leadership, coordination, and stewardship of progress required to achieve the shared Watershed vision articulated in Every Acre Counts.	Ongoing	Increasingly sought by towns and residents for information and technical support								
80	Develop and distribute educational materials to foster a "stewardship ethic", including curriculum materials at local schools.	Ongoing	Technical reports and materials on project web site; WinterFest and Newfound Day had combined ~700 attendees; seeking interns from HS and College level								
81	Extend water quality monitoring of tributaries and maintain a public database with findings.	Ongoing	Sampling and training led by UNH; volunteer support increasing (recently from 4 to 10). Recruiting skilled volunteers a substantial, ongoing challenge.								
82	Pursue funding/grants for an LID stormwater management demonstration project.	Completed	Funds allocated from Town of Bristol for public beach project, construction scheduled for Sept. '11. Construction ~75% complete Fall 2011. Growing local concern about use of public funds for this project.								
83	Facilitate a process for NHDES and Watershed towns to establish a framework prohibiting phosphorus discharge to Newfound Lake unless a public hearing process demonstrates that water quality will not be adversely impacted.	Abandoned	This initiative replaced by working with a shared planner and developing grass-roots use of LID / BMPs								
84	Establish a volunteer monitoring program for land use issues in the Watershed including forestry and development BMPs.	Not Begun	Current lack of resources								
85	Assist the New Hampshire Fish and Game Department (NHFGD) and other stakeholders to revise current lake level management policy to stabilize winter water levels and maintain minimum flow in the Newfound River to protect local fisheries while serving other stakeholder needs.	Ongoing	Provide public with basic information on current management scheme and rationale. NLRA will facilitate this Action if sustained public interest exists								
86	Promote alternative means for waste water disposal where appropriate (composting toilets, low-flow toilets, waterless urinals, grey water systems and constructed wetlands), and educate residents on the design, maintenance, and permitting issues related to each alternative.	Not Begun	Current lack of resources								
	Newfound Land Conservation Partnership										
87	Work on strategic land conservation initiatives within the Watershed using the best available data, and involve local planning boards and conservation commissions in this effort.	Ongoing	~300 acres of land conserved in 2011, including 30 acres of Cockermouth River delta, donated to NLRA with a conservation easement held by LRCT.								
88	Develop a network of four-season trails and publish the locations of the trailheads to increase recreational uses in the Watershed and increase support for conservation efforts.	Ongoing	on NLRA website								

	Newfound Area School District										
89	Encourage educators to develop curriculum related to the Newfound Watershed.	Ongoing	NLRA ED has met with HS Honors class, Middle School team leaders, and Elementary School instructor to provide curriculum materials and offer intern opportunities. Opportunities for presentations to students and student interns / volunteers sought.								
90	Increase the number of students that participate in NLRA's Floating Classroom.	Ongoing	Eco-Tour program provided tours to ~300 local youth and paid passengers in 2011.								
91	Complete the Watershed boundary signage project, and initiate other Watershed related projects that give students a sense of environmental stewardship while implementing Every Acre Counts.	Completed	Signs posted on all public roads entering the watershed where access permitted (Rte. 3A in Plymouth pending)								
University of New Hampshire - Center for Freshwater Biology											
92	Continue water quality monitoring in the Watershed to track phosphorus and other indicators in the lake and tributaries.	Ongoing									
Plymouth State University											
93	Develop and distribute educational materials to promote a "stewardship ethic" in the Watershed.	Completed	WMP brochures								
94	Provide opportunities for university students and staff to work with the Watershed communities on monitoring and implementation efforts through the NLRA and other partnerships.	Ongoing	Ongoing consulting on WaterWatchdog communications. Strategic communications paper completed.								
New Hampshire Department of Environmental Services											
95	Provide outreach and education, continue enforcement efforts, and assist the Watershed communities and NLRA with other activities related to implementing Every Acre Counts.	Ongoing	Attending workshops, assisting with project planning, providing technical support								

NUMBER OF RECOMMENDATIONS

COMPLETED

IN PROGRESS

SCHEDULED

NOT BEGUN

ONGOING

ABANDONED

95

10

1

0

60

22

1

