

## Passumpsic River 2019 TBP Report Card. Status (Awaiting Action, Ongoing, In Progress, Completed)

Strategy	Priority Area	Town(s)	Partners (see Partners)	2023 status	Status update
<i>Strategies to address runoff from Agricultural lands.</i>					
<b>1. Continue the development of the Caledonia and Essex agricultural workgroup to support the implementation of RAPs, BMPs, and effective workshops and outreach efforts.</b>			CCNRCD, ECNRCD VAAFM, NRCS, VDEC, UVM Ext.	Ongoing	CCNRCD continues to coordinate the Cal/Essex ag workgroup 1x per year; NEK regional ag workgroup is also 1x per year; quite a bit of progress made in establishing regular check-ins with districts & NRCS and districts & BMP program but still work to do
<b>2. Host annual workshops on improving soil health, new RAPs, implementing conservation tillage and cover cropping practices.</b>			CCNRCD, ECNRCD VAAFM, NRCS, VDEC, UVM Ext.	Ongoing	Several workshops highlighting conservation practices hosted by CCNRCD including bedded pack workshop, woodchip barnyard workshop, and grazing workshop targeting horse owners
<b>3. Support farmers in developing Nutrient Management Plans (NMPs) through UVM Extension's Digging In course and the development of NMPs for all certified farms through NRCS CAPS funding.</b>	Water Andric, and Millers Run, Joes Pond, and Chesterfield Valley tributary watersheds		CCNRCD, ECNRCD VAAFM, NRCS, UVM Ext.	Ongoing	1 ECNRCD farm NMP updates in 2023; CCNRCD facilitated NMPs at 4 farms in Basin 15

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<b>4. Recruit and support funding for partners to continue to work with priority farms on implementing NMPs through BMP installation.</b>	Water Andric, and Millers Run, Joes Pond, and Chesterfield Valley tributary watersheds		CCNRCD, ECNRCD, VAAFM, NRCS, VDEC, UVM ext, NOFA	Ongoing	CCNRCD has helped 9 farms in Basin 15 with various aspects of updating their NMPs
<b>5. Develop regional equipment sharing programs to support the implementation of conservation practices</b>	Same as above		CCNRCD, ECNRCD VAAFM, NRCS, UVM Ext.	Ongoing	No-till seed drill available from Coos County NRCD, district hydroseeder available to towns
<b>6. Recruit and support funding for increased buffer planting programs across the watershed.</b>	Same as above		CCNRCD, ECNRCD VAAFM, NRCS, VDEC, CRC	Ongoing	CRC has obtained funding (MEF, NFWF, WUV block grants) solo or in partnership with others to fully fund forested riparian buffer and floodplain forest restoration projects at no cost to landowners.
<b>7. Identify high priority sites for water quality monitoring to increase understanding of nitrogen source areas and targeted BMP implementation areas in the Passumpsic and upper Connecticut River watersheds</b>	Same as above		CCNRCD, ECNRCD VAAFM, VDEC, NRCS, UVM Ext.	Awaiting Action	
<b>8. Conduct outreach to farmers with potential natural resource protection opportunities (river corridor or wetlands)</b>	Same as above		ECNRCD	Ongoing	ECNRCD provides TA on this as opportunities arise
<b><i>Developed Lands-- Stormwater.</i></b>					
<b>9. Implement green stormwater infrastructure (GSI) projects in areas of St. Johnsbury where sewer and stormwater systems are combined.</b>	St. Johnsbury CSO drainage areas	St. Johnsbury	St. Johnsbury, CCNRCD, VDEC	Awaiting Action	
<b>10. Add GSI to CSO separation projects as they are designed and built in St. Johnsbury.</b>	St. Johnsbury CSO drainage areas	St. Johnsbury	St. Johnsbury, CCNRCD, VDEC	Ongoing	Current CSO projects in St Johnsbury have included some conversion of paved surfaces.

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<b>11. Implement priority practices from St. Johnsbury, Lyndon, Concord and Dish Mill Brook Stormwater master plans.</b>	Dish Mill Brook	Lyndon, St. Johnsbury, Concord, Burke	Lyndon, CCNRCD, Burke Mountain Resort	Ongoing	<b>St. Johnsbury</b> – Underclyffe Rd gully, Leonard Field; Pearl St. final design; Town Garage sedimentation basin <b>Lyndon</b> – NVU gravel wetland, NVU varsity field, South Prospect gully; <b>Concord</b> – Folsom Ave stormwater treatment project.
<b>12. Develop and implement GSI practices at local schools with a focus on St. Johnsbury Academy, Cornerstone School off of School St, Sutton and Millers Run Schools, Waterford School.</b>		Waterford, St. Johnsbury, Sutton, Sheffield	Local school administrations and towns, VDEC, CCNRCD	Ongoing	Gully at the St J academy stormwater drainage has been stabilized and outreach and some preliminary design work discussed but not moved forward to final design. No work at other schools at this time.
<b>13. Support brownfields restoration efforts that mitigate surface water pollution generated from these sites.</b>	Sleepers River, Lily Pond Stream watersheds	St. Johnsbury, Lyndon	NVDA, Towns, VDEC	Ongoing	Browns field funding continues to be used to evaluate and address contamination at sites across the watershed.
<b>14. Identify potential stormwater treatment practices in Danville</b>	Water Andric watershed	Danville	Danville, CCNRC	Awaiting Action	No action yet but this may be a focus for small Stormwater master plan.
<b>Developed Lands -- Roads.</b>					
<b>15. Complete Road Erosion Inventories (REIs) for remaining six towns in the basin by 12/31/20.</b>		Newark, St. Johnsbury, Concord, East Haven, Victory, Westmore	NVDA, VTrans, CCNRCD, ECNRCD, Towns	Completed	New REI ongoing for Lunenburg, to be completed Jun 2023 (no projects IDed in Passumpsic); CCNRCD completed Newark REI in 2019

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<b>16. Provide workshops and one on one technical support for towns to guide town in the purchase, setup and use of technology to track road segment status.</b>			NVDA, VTrans, CCNRCD, ECNRCD, towns, VDEC, Vermont Local Roads	Ongoing	ECNRCD 1-on-1 support ongoing for towns in Essex County.
<b>17. Provide support to towns to upload 2017 data into Municipal Roads General Permit (MRGP) database in 2019.</b>		Danville, Lyndon, Sheffield, Sutton, Waterford	NVDA, VDEC, VTrans, Towns, CCNRCD, ECNRCD,	Completed	All data has been uploaded at this time.
<b>18. Provide technical assistance to towns for developing project proposals, budgets and funding opportunities for implementing priority projects that have the largest water quality benefits.</b>	Dish Mill Brook, Water Andric, and Millers Run, Joes Pond, Center Pond and Stiles Pond watersheds	Burke, Danville, Walden, Wheelock, Lyndon, Sheffield, Waterford, Newark	NVDA, VTrans, CCNRCD, VDEC, Vermont Local Roads.	Ongoing	Limited funding available to support this work. Essex NRCD has supported several towns and CCNRCD is assisting Stannard.
<b>19. Implement priority road projects in target watersheds along with other priority road projects across the basin to meet MRGP requirements.</b>			Towns, Vtrans	Ongoing	
<b>20. Complete projects to address erosion issues on Class 4 roads and legal trails with support from the NWSC watershed work crew.</b>			NWSC, Towns, CCNRCD, VDEC, NVDA, VTrans	Awaiting Action	NWSC – No projects of this type in recent years, but still interested in them if they are developed & designed
<b>21. Host road crew workshops and peer to peer sharing on best practices for using new equipment to meet MRGP standards and support equipment purchase through grant in aid funding.</b>			NVDA, VDEC, VTrans, CCNRCD, ECNRCD, Local Roads	Ongoing	ECNRCD minimal involvement at present
<b>22. Create an upper watershed hydro seeder sharing programs and other locally supported equipment sharing efforts to meet MRGP requirements.</b>		Burke, Sutton, Sheffield	Towns, CCNRCD	Ongoing	CCNRCD hydroseeder now shared with St. Johnsbury as well (along with Walden, Groton, Ryegate, & Danville)

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23. <b>Crate a pamphlet to hand out to landowners to explain the MRGP and why road management practices have had to change to address water quality issues around the state.</b>			NVDA, VDEC, Vtrans, CCNRCD	Awaiting Action	ECNRCD would like to see this pamphlet to give to towns
<b>Natural Resource Restoration -- Forest Lands.</b>					
24. <b>Support local land trusts and conservation organizations in conserving forest blocks that are important for protecting water quality in headwater streams.</b>	Bean, Center and Newark ponds watersheds	Headwater areas of Moose River, East and West Branch of the Passumpsic River and Miller Run	Newark, VLT, PVLTT	Ongoing	East Branch – Newark conservation project and ongoing discussions around Bean Brook. Hawk Rock Conservation project in Newark. Burke town forest parcels have been conserved.
25. <b>Provide outreach, technical assistance and workshops to private forestland owners, foresters and loggers on the revised AMPs, use of skidder bridges and voluntary harvesting guidelines.</b>			ECNRCD, County Foresters, VDFPR	Awaiting Action	ECNRCD has not done but still interested; CCNRCD will revive a portable skidder bridge rental program in 2024
26. <b>Implement forest infrastructure restoration projects on state lands such as culvert replacements or retrofits, road decommissioning where water quality benefits are identified through assessments and long-range management plans.</b>			VDFPR, VFWD, TU	Ongoing	ECNRCD has discussed helping FPR with this in other basins.  Ben – Check in with FPR on Victory state forest/Steam Mill Brook.

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<b>Natural Resource Restoration -- Shorelands</b>					
<b>27. Provide outreach to communities around Center Pond and Joes Pond to generate interest in Lake Wise Program.</b>	Center and Joes Pond watersheds	Newark, Danville	VDEC, Local Lake Wise Partners	Completed (Joes) Awaiting action (Center Pond)	CCNRCD completed 27 Lake Wise Assessments from 2021-2022; continuing assessments with interested landowners on Joes Pond.  DEC doing outreach on Coles Pond and Newark Pond.
<b>28. Complete Lake Wise planning for lakes where there is community support for such efforts.</b>	Center and Joes Pond watersheds	Newark, Danville	VDEC, Local Lake Wise Partners	In Progress	
<b>29. Implement priority projects identified in Lake Wise assessments.</b>	Center and Joes Pond watersheds	Newark, Danville	NWSC, CCNRCD, VDEC, Danville, Newark CC, Joes Pond Association.	In Progress	NWSC – none in these watershed, but very interested if they are designed/developed; CCNRCD working with 4 properties on Joe's Pond to design priority projects, <sup>3</sup> / <sub>4</sub> will likely be implemented in 2023, 1 in 2024.
<b>30. Support AIS spread prevention efforts in the Passumpsic River Basin.</b>	Joes Pond	Danville	CCNRCD, DEC, Danville, Joes Pond Association.	Ongoing	
<b>31. Support acquisitions in fee or easement for conservation of undeveloped lakeshore habitat on priority lakes and ponds.</b>	Center, Newark, Bean, Pete's Ponds, Joes Pond	Newark, Burke	PVLT, Lake Associations and towns, Conservation Commissions	Awaiting Action	

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<b>Natural Resources Restoration – River Connectivity</b>					
<b>32. Complete a project development effort to contact landowners of potential projects identified in river corridor plans to identify support for moving into design or implementation phases.</b>	Millers Run, East Branch, Water Andric	Danville, Lyndon, Burke, Sutton, Sheffield, Newark	CCNRCD, ECNRCD, CRC, PVL, VDEC	In Progress	ECNRCD interested  CRC has been identifying and developing floodplain restoration projects, primarily with land trusts (PVL) and non-profit organizations (TU, KT).
<b>33. Develop and implement priority river corridor protection projects and floodplain/channel restoration projects where there is landowner support</b>	Millers Run, East Branch, Water Andric	Danville, Lyndon, Burke, Sutton, Sheffield, Newark	CCNRCD, ECNRCD, CRC, PVL, VDEC	In Progress	Millers Run RCE in progress  ECNRCD will be reviving wetlands workgroup  CRC – see Task #38 below..
<b>34. Remove obsolete Fay Young, Woodworth, and Ice pond water supply dams in addition to Fairbanks Mill Dam and other priority dams.</b>		Lyndon, Danville	Lyndonville, American Rivers, CRC, CCNRCD, VFW, VDEC	In Progress	CCNRCD met with partners to discuss initiating conversation about Fay Young Dam, possibility of LynBurke motel parcel buyout took priority.  CRC removed Browns Mill dam along Sutton River in West Burke village in 2021.
<b>35. Initiate a discussion with USGS on the removal of weirs in the Sleepers River watershed that are a barrier to fish and sediment passage and are no longer used for flow gaging.</b>	Sleepers River	Danville	American Rivers, CRC, CCNRCD, Danville, DEC, VFW	Completed	CRC worked with partners USFWS, USGS, VFW, CCNRCD to initiate discussions about removal of these weirs. The CCNRCD received a grant from the Upper Connecticut River Mitigation and Enhancement fund for \$57,000 for a final design to remove a Weir on Houghton Brook.

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<p><b>36. Target strategic wood additions in the East and West branches of the Moose River as well as Line Brook to restore Brook Trout habitat in these streams which were historically impacted by logging operations.</b></p>	Upper Moose River	East Haven, Granby	VFW, TU	Completed	<p>This work was completed where assessments showed this was a priority (see summary at the end of the report card). ECNRCD interested in helping with outreach as needed and looking to evaluate some streams above Bald Hill to see if they are appropriate for strategic wood addition.</p>
<p><b>37. Work with towns to retrofit or replace priority culverts to restore fish passage.</b></p>			CCNRCD, ECNRCD, Towns, NVDA, VFW	Ongoing	<p>AOP workgroup met early 2023; CCNRCD is doing this work in other watersheds, 3 culverts in the watershed were moderate priority and one of these seemed less of a priority after a site visit. The other two moderate priority culverts are near Burke Mt and the Upper Moose.</p>
<p><b>38. Continue buffer plantings along rivers in priority locations through CREP, Trees for Streams program.</b></p>	Joes Pond, Water Andric, Millers Run, East Branch	Danville, Walden, Lyndon, Wheelock, Sheffield	CCNRCD, ECNRCD, VFW, NRCS, PVL, CRC, TU	Ongoing	<p>ECNRCD no recent action but always looking for opportunities</p> <p>CRC has worked with landowners (PVL, KT) to implement multiple floodplain restoration projects totaling 17 acres along 6,300 feet of shoreline along both the main stem and East Branch of the Passumpsic River during 2018-2022.</p>
<p><b>39. Work with communities of Sheffield and Wheelock to provide information on Millers Run geomorphic conditions and conservation opportunities for landowners along the river tied into fisheries.</b></p>	Millers Run	Sheffield, Wheelock	CCNRCD, VDEC, VFW, NVDA, CRC	Ongoing	



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<b>40. Provide information on the benefits of the NFIP program and technical support for towns that are interested in joining the program.</b>	East Branch, Millers Run	Sheffield, Newark, Wheelock, East Haven, Victory, Walden	VDEC, NVDA, Towns	Ongoing	NVDA hosted community meeting around the updated FEMA maps for communities that are part of the program and those that may be interested in joining.
<b>41. Provide support to Lyndon and Burke to continue River corridor protections in bylaws as a key strategy to allow East Branch and Millers Run to establish new floodplain.</b>	East Branch, Millers Run	Lyndon, Burke	VDEC, CCNRCD, NVDA	Ongoing	Lyndon may consider this as part of the Lyndon Flood Reduction Scoping Study which was funded through the flood resilient communities fund.
<b>42. Provide support on community projects to provide access to rivers for recreation while maximizing riparian restoration opportunities and minimizing any permanent constraints on rivers.</b>	Passumpsic River, East and West Branch, Sleepers, Moose River	St Johnsbury, Lyndon, Burke, Concord	Towns, CCNRCD, PVL, VFW, NVDA, VDEC	Ongoing	CCNRCD currently working with Town of Lyndon, VRC, and private landowner on possible buyout in Lyndonville through FRCF. Lyndon received a FRCF grant to study flood mitigation efforts to address flooding in the area of the route 114 and route 5 intersection.
<b>43. Support an education effort to recognize valuable native wild trout waters and other unique water resources in the basin through outreach, including signs posted by volunteers.</b>	Class B(1) waters for fishing use. Victory basin wetlands complex if supported		NFC, VFW	Ongoing	Check with VFW and native fish coalition on signage effort.

Strategic wood update:

West Branch Moose – Completed SWA on 3.9 miles of stream in 2021

East Branch Moose – Completed SWA on 0.8 miles in 2021 and 0.4 miles in 2022

East Branch Moose trib – Completed SWA on 1.1 miles in 2021

Line Brook – Completed SWA on 1.2 miles in 2021

Cold Brook – Completed SWA on 1 mile in 2022

James Brook – Completed SWA on 1.3 miles in 2022

Umpire Brook – Completed SWA on 0.5 miles in 2022

Weir Mill, Bog (Moose trib), Mathewson, Calendar – All were scouted and determined that SWA was not appropriate.

We also scouted Steam Mill Brook and tributaries in 2021. We are treating some of these streams with SWA in 2023. This is what we have completed so far:

Bog Brook – 0.4 miles

Rock Brook – 0.6 miles

Coles Pond outlet – 0.6 miles

Steam Mill tributary – 0.5 miles

Stream Mill Brook – We have completed SWA on ~2 miles. We should be wrapping this up by the end of September, at which time I will have a more accurate measure.