



Clean Water Newsletter

Fall 2021

The Town's Public Works Department has been busy working on stormwater projects and planning for future projects as well. We implement stormwater programs, review development applications, manage capital projects and oversee regulations designed to improve and protect the community's water resources. This newsletter describes some aspects of ongoing maintenance; capital assessments, capital projects, one of the major water pollutants, and a Stormwater Award presented to the Town.

Ongoing Maintenance:

Did you know? In 2020, Town street sweepers collected 925 cubic yards of material on public roadways, 132 dump trucks full. Removing this leaf and other debris is important to keep drainage networks functioning. The Town dedicates two full time employee equivalents to maintenance of our stormwater systems and another employee one to overall stormwater program management, regulatory compliance and capital project development.



Condition Assessments:

Culvert Assessment: This fall and next spring the town will inspect each of 182 Town-owned culverts to evaluate the condition of the structure, identify areas of erosion, determine whether the culvert should be upsized in the future to build resiliency into the system with regard to flooding/heavy rain events, and use that information to prepare a funding plan for upcoming improvements.



Drainage outfall in good condition

Outfall Assessment: The Town received a \$12,000 grant from the Chittenden County Regional Planning Commission to perform a similar assessment for Town-owned outfalls, which are discharge points for roadway drainage. It is important to make sure erosion is not occurring at these locations that are near or sometimes directly adjacent to waterways. This information will help prioritize future maintenance efforts by Town crews and identify locations that are good candidates for upgrades.

Completed Water Quality Projects:

Galvin Hill & Coon Hill Drainage Project: New stone lined ditches and culverts were installed along approximately 1,350 feet of roadway on Coon Hill Road, and 1,000 feet of Galvin Hill Road. This \$66,000 project was 80% grant funded and will improve drainage and reduce erosion on these roads.

Stormwater Pipe Lining: In the spring of 2021 over 1,000 feet of stormwater piping was fitted with rigid, heavy duty liners at a cost of \$60,000. This maintenance strategy is roughly 4 times less costly than digging up older pipes to replace them, allowing each dollar to be stretched further and reducing traffic impacts to the traveling public. This annual program will resume next year with another 10 pipe segments to be completed.

Police Station Outfall Improvements: This \$26,000 project was 100% grant funded and allowed the outfall repair work to be completed this past summer behind the Colchester Police Station. These upgrades ensure the stormwater system serving the Town Office buildings is functioning in a way that protects Smith Creek from erosion.



Behind Colchester
Police Dept.

Why is managing Phosphorous important to water quality?

Phosphorus is one of the primary water quality challenges in Lake Champlain. Found in lawn fertilizers, manure, human and animal waste, riverbank soils, and stormwater runoff, phosphorus causes algal blooms and excessive aquatic plant growth. When there is too much phosphorus in the water, certain plants or algae can dominate the ecosystem and choke out other species. Excessive nutrients can cause cyanobacteria blooms, also known as blue-green algae, and can be harmful to aquatic species, other animals, and humans.

All communities in Vermont must comply with Municipal Road General Permit requirements, which entails upgrades and maintenance of roadway drainage networks to reduce erosion. Recent upgrades on Galvin Hill and Coon Hill Roads were for purposes of meeting these requirements. Colchester has also developed a Phosphorus Control Plan to identify additional ways we can reduce our nutrient loading to the Lake from roadways and other impervious surfaces. These projects funded by stormwater fees and grants received must be constructed by 2036 to meet state mandates. Projects include the installation of treatment facilities like gravel wetlands and bioretention areas in key locations that treat stormwater runoff prior to reaching local waterways.

Stormwater Award:

The Town recently received a Best Stormwater Idea in New England “Stormy Award” for our BLUE® CVT program! The New England Stormwater Collaborative seeks to recognize “simple, imaginative, unique, and inventive” stormwater ideas, and our program was recognized in the Funding and Outreach category.



The BLUE®CVT program provides watershed education and financial rebates to residential property owners who make drainage improvements that either reduce the amount of runoff leaving their site, or improve the quality of water leaving their site. This past summer was the third year of the program, where we offered a bonus of \$100 to the owner who constructed the largest installation! In all, the program has evaluated 68 properties and led to the mitigation of 7,327 sq. ft. of impervious surface.

For more information visit www.colchestervt.gov/1837/StormwaterUtility

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