



Colchester
VERMONT

Stormwater in Malletts Bay

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Malletts Bay Scoping Study

The Malletts Bay Stormwater Scoping Study was completed in 2017. The study evaluated the areas that drain directly into Malletts Bay as well as the watersheds that also drain to Malletts Bay via the **Moorings Stream, Crooked Hollow Creek, and Smith Hollow Creek** to evaluate what improvements will be needed to meet state stormwater management standards. In total, recommended improvements have a cost of approximately **\$7 million**. More information about each watershed can be seen on the project mapping page here: <https://bit.ly/2FKv2II>

Recommendations were developed for each watershed with the goals of:

- *Reducing public roadway and private property damage due to insufficient, aging or missing stormwater measures,*
- *Reducing the volume of stormwater, sediments, and phosphorus currently being discharged to Malletts Bay, and*
- *Reducing erosion and stream bank instability in waterways leading to Malletts Bay.*

Improvements in the Moorings Stream watershed will be the first to move forward, funded through a combination of a \$300,000 grant from the VT Agency of Transportation and stormwater utility funds. Below is more information about the recommendations for each watershed.

Moorings Stream: This watershed includes approximately 78 acres and is home to the Shore Acres neighborhood, an area known for having unstable soils and high groundwater levels. As a result, the recommendations for this area include installation of gravel wetlands, upgrades to the existing stormwater system of catch basins and piping, and expansion of stormwater structures to areas that do not currently have them. Implementing all recommendations is expected to cost approximately \$675,000. Preliminary engineering of these improvements is underway, with construction expected in 2021.

Smith Hollow Creek: This watershed includes approximately 184 acres and includes neighborhoods off of Williams and Blakely Roads. These areas are typically served with traditional stormwater structures that collect rainwater runoff and send it through pipes to Smith Hollow Creek. Recommendations for these areas include increasing the size of pipes in the stormwater system, stabilizing and rock-lining areas where stormwater is conveyed to the Creek, and reducing impervious cover through narrowing the width of public roadways and installing green infrastructure. These recommendations are estimated to cost \$1.9 million.

Crooked Hollow Creek: This watershed includes 79 acres and the properties along Bay Road and the Orchard Drive subdivision. Some of these roadways are served by grass channels, so recommendations include installing bio-retention areas to collect and filter water before they enter conveyance channels, and upgrading the sizes of existing structures and pipes. This work has an estimated cost of \$948,000.

Direct Drainage via West Lakeshore Drive: This watershed is 58 acres and was evaluated in concert with transportation improvements also planned for this corridor, including the installation of a multi-use path from Prim Rd to Bayside Park. The new multi-use path will leave a 7' wide greenbelt between the roadway and path in which there are \$1.2 million of stormwater improvements recommended.

Direct Drainage via East Lakeshore Drive: This watershed is approximately 163 acres and is the most constrained area in the Study, meaning the area is heavily developed with impervious surfaces but limited public right-of-way in which to construct stormwater improvements. Recommendations for this area include installing curbing along sections of the roadway to direct water to upsized piping systems, reducing impervious surfaces where possible, upgrading existing outfalls to the Lake, and installing bio-retention areas to hold and filter water. These recommendations are expected to cost \$2.4 million.

Other Stormwater Programs

Water Quality Testing: The town performs water quality testing at public beaches and recreation areas in the summer to ensure they are safe for swimming and other recreational sports. Tests are taken twice weekly at 13 locations. More information on this program including testing locations, and both past and current year test results can be found here: <https://colchestervt.gov/487/Water-Quality-Results>

Residential Retrofit Incentive Pilot Program: This program is a financial rebate program for property owners who are making stormwater improvements on their property. Eligible activities include installing rain gardens or rain barrels, removing impervious surfaces, installing dry wells or French drains, planting trees, and more. Property owners are eligible for rebates of up to \$200 depending on the improvements they make in the summer of 2019. This program is funded through a combination of grant funds and stormwater utility education and outreach funding. For more information, please visit: <https://bit.ly/2YD5OD3>

Example of a residential rain garden

