SHELBURNE COMMUNITY SCHOOL RAINGARDEN
SHELBURNE, VERMONT
COMPLETED AS PART OF THE LEWIS CREEK ASSOCIATION’S AHEAD OF THE STORM PROGRAM

PROJECT OUTCOME:
Improved runoff treatment and the integration of stormwater education with design and construction. The water quality improvement project is serving as a model for three additional projects across the school district and inspires future generations to protect water quality.

PROBLEM: Lake Champlain and McCabe’s Brook have poor water quality from stormwater runoff containing high concentrations of phosphorus and sediment originating on existing impervious surfaces at the school.

SOLUTION: Engineers worked with the Lewis Creek Association, a local watershed group, school staff, and students to identify, design, and construct a stormwater treatment raingarden to filter runoff from 0.8 acres, including 0.5 acres of impervious surface.

CHALLENGE: Poor soils reduced phosphorus removal capability by not allowing infiltration and increased project costs to over excavate and haul away poor soils. Construction on the school property could only be completed during school breaks. Underground utilities including sewer, water, and electric passed under the project area, limiting project depth and footprint.

BENEFITS:
• Improved water quality to McCabe’s Brook and Lake Champlain.
• More appealing aesthetics due to revegetation at school main entrance.
• Education program for students and the community.
• Additional treatment brings the school closer to meeting future 3-acre permit requirements.
• Model for future project collaborations lead by local watershed group.

PROBLEM OUTCOME:
Improved runoff treatment and the integration of stormwater education with design and construction. The water quality improvement project is serving as a model for three additional projects across the school district and inspires future generations to protect water quality.

PROBLEM: Lake Champlain and McCabe’s Brook have poor water quality from stormwater runoff containing high concentrations of phosphorus and sediment originating on existing impervious surfaces at the school.

SOLUTION: Engineers worked with the Lewis Creek Association, a local watershed group, school staff, and students to identify, design, and construct a stormwater treatment raingarden to filter runoff from 0.8 acres, including 0.5 acres of impervious surface.

CHALLENGE: Poor soils reduced phosphorus removal capability by not allowing infiltration and increased project costs to over excavate and haul away poor soils. Construction on the school property could only be completed during school breaks. Underground utilities including sewer, water, and electric passed under the project area, limiting project depth and footprint.

BENEFITS:
• Improved water quality to McCabe’s Brook and Lake Champlain.
• More appealing aesthetics due to revegetation at school main entrance.
• Education program for students and the community.
• Additional treatment brings the school closer to meeting future 3-acre permit requirements.
• Model for future project collaborations lead by local watershed group.