

Suncook River Stabilization Project in Epsom, NH

Project Owner: New Hampshire Dept of Environmental Services (NHDES)

Contractor: F.L. Merrill Construction Inc., Loudon, NH

Location 1: Immediately downstream of U.S. Route 4 Bridge, Epsom, NH

Location 2: Adjacent to Cutter's Field downstream of Little Suncook River

Project Cost: \$3 million

Duration of construction: 161 days from 9/14/17 to 12/31/17

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Project Background: The construction activities underway on the banks and in the channel of the Suncook River in Epsom, NH are needed to protect the U.S. Route 4 Bridge and abutting, private properties against continued channel adjustments. In 2006, the Mother's Day Flood on the Suncook River resulted in a channel avulsion (relocation of the main channel into a new valley) between the Huckins Mill Dam and the Route 4 Bridge. This avulsion caused the abandonment of the primary and secondary channels and created a new channel to the east of Bear Island. The Suncook River is continuing to adjust to this shorter channel length by migrating laterally across a sand dominated valley and incising (down-cutting) steadily. This ongoing incision is highlighted and visible just downstream of the U.S. Route 4 Bridge where the length of the Suncook River has been shortened due to the avulsion and a migrating headcut (incision) now threatens the structural integrity of the bridge footings has already damaged working agricultural fields adjacent to the Suncook River.

Project Objectives: The primary goal of this construction project is to prevent the U.S. Route 4 Bridge river crossing from being undercut and collapsing into the river. A concurrent goal is to halt the mass failure of riverbanks that also threaten and are continually damaging private properties.



Construction Activity in and around the Suncook River:

- Heavy machinery (excavators, rock haulers, dump trucks, front-loaders, sheet-pile driving rigs, etc.) on both sides of the Suncook River
- Tree clearing and grubbing in order to convert vertical river banks from vertical to gradually, sloped conditions
- Stockpiling of construction materials (common fill, boulders, rip-rap, fabric rolls, etc.) on both sides of the Suncook River
- Frequent trips by heavy machinery up and down access roads on both sides of the river in the vicinity of the U.S. Route 4 Bridge
- Frequent trips by heavy machinery along Black Hall Road

Increased Noise and Visual Alteration of the Landscape:

- Tree removal from both banks of the Suncook River adjacent to the U.S. Route 4 Bridge. Re-vegetation of plants and trees will occur after construction has ceased
- Back-up signals from heavy construction equipment
- Rear, gate doors on dump trucks, slamming shut during deliveries
- Installation of sheet-piling on both sides of the Suncook River with a pile-driving rig will generate repetitive pounding sounds
- Installation of 3 to 4 foot diameter boulders in the river channel and on banks may result in vibrations felt through the ground

Construction Timeline: The bulk of active construction on the Suncook River Stabilization Project will take place from October 1, 2017, through December 31, 2017 (weather permitting).

Planting and site stabilization practices will commence in April of 2018 when weather becomes suitable.