

HOLDEN
ENGINEERING & SURVEYING, INC.

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June 24, 2011

1070009

Town of Lyme, NH
Office of the Selectmen
38 Union Street, PO Box 126
Lyme, NH 03768

**RE: River Road – Connecticut River Bank Erosion
Evaluation of the Road's Present Condition, and a Geotechnical Assessment Of Soils/Bank
Stability**

Dear Select Board Members:

The River Bank Erosion Occurred on the Weekend of April 30 – May 1, 2011.

Since this storm event occurred, the Town has received a number of inquires regarding the closure of approximately 1,000 feet of River Road. The questions have come through phone calls, letters, and direct appearances at Select Board meetings. Most of these relate to hardship or inconvenience, with the ultimate question being why the road simply can't be re-opened.

In order to provide a suitable response, the Town asked Holden Transportation Engineering to render a professional engineering opinion on the condition of the road, the stability of the bank, and the potential for further sloughing if vehicular loads are once again allowed on this section of road.

Holden recently revisited the site with its Geotechnical Engineer and investigated and measured the tear cracks on the west side of the road. The cracks are substantial and deep. Under the right conditions of prolonged heavy rain, water from the paved roadway would flow into the tension cracks, liquefying the soil beneath, and adding substantial weight to the riverbank soils. This situation has the potential to cause failure to at least the existing road centerline. The vibration caused by automobile and truck loads would only serve to accelerate the potential for road failure. The conclusion reached is that the risk is simply too great to open the road, even one lane on the east side, without first performing a significant amount of work to stabilize the riverbank.

Sincerely,



William C. Rossignol, PE (Project Manager)

Noted by: Peter D. Holden (President)