



# BANK RESTORATION & BIOENGINEERING

## Connecticut River Gill, MA

**New England Environmental, Inc. (NEE)** has developed restoration designs for over 6,150 linear feet of bank and permitted approximately 13 bank restoration projects along the upper portions of the Connecticut River. NEE continues to work with clients designing, completing and overseeing the construction of similar projects on large river systems.

NEE designed a bank stabilization and bioengineering plan for a 1,200 linear foot section of bank on the Connecticut River in Gill, MA. The site consisted of 25'-30' bank having steep slopes, sparse to no vegetation and an eroding substrate of sandy material. To halt the severe bank erosion and sediment loading to the Connecticut River, NEE designed and permitted this project in Gill.

NEE was responsible for the bank stabilization and bioengineering design, supervision of the construction crew, installation of all bioengineering materials and for continued site monitoring.

### Project Goals:

- Stabilize eroding river bank.
- Protect farm land.
- Protect rare wildlife species habitat.
- Protect archeological sites.
- Restore native vegetation.

### Results:

After supervising the construction crew during the re-grading of the river bank and stone toe installation, NEE stabilized the slope by implementing bioengineering techniques. An Erosion control seed mix was sown and biodegradable erosion control fabric was installed along the length of the slope which prevented further erosion and sediment loss. Native plant materials were established within one year and the bank restoration area remains a stable section of the Connecticut River.



Eroded bank prior to site excavation.



Re-graded bank with biodegradable erosion control blanket installed.



Stabilized bank one year after restoration.

