## Record of Decision Part 2: The Decision Summary

- 4. If material must be disposed of off site, testing would be conducted to determine the appropriate disposal designation.
- 5. Evaluate confirmation samples and backfill excavated areas with clean material.
- 6. Place enhanced natural cover in areas that were not remediated with excavation, which could be performed concurrently with backfill placement.
- 7. Plant appropriate types of vegetation within the excavation footprint to enhance ecosystem recovery.

#### Excavation/Backfill Volumes and Rates

Sediment and floodplain soil will be removed after the pond water levels are temporarily lowered (for the sediment remedy at Lyman Mill). Approximately 6.5 acres, excluding residential-use soil, would be excavated and backfilled with clean material to provide subgrade for re-vegetation of the area.

- Approximately 20,500 cy of floodplain soil and stream sediment will be removed from the excavation footprint under this alternative, including a 0.25 foot over-excavation allowance.
- Approximately 15,600 tons (10,400 cy) of soil will be placed as backfill in the excavation area.
- Approximately 13,500 tons (or 9,000 cy) of soil will be placed for the thin-layer cover.

All excavation areas in recreational-use area/ecological habitat will be backfilled with 1 foot of clean material, which will provide a high quality substrate for restoring the terrestrial (floodplain soil) and aquatic (sediment) invertebrate communities and vegetation in the floodplain. A uniform 1-ft backfill volume will also result in a post-remediation elevation lower than existing conditions in areas where the excavation footprint extends deeper than 1 foot (i.e., sediment areas in southern Oxbow Area), and this will provide mitigation for lost flood storage capacity from the thin-layer cover as well as greater flow capacity in the river. The criteria used during the design to select backfill material and determine excavation depth for the stream channel connecting Allendale and Lyman Mill Ponds will include adequacy of erosion protection during flood flows and benthic habitat suitability.

The excavation rate for sediment and floodplain soil is assumed to be 200 cubic yards per day (cy/d); the placement rate of clean backfill is assumed to be 500 tons/day; placement of thin-layer cover is assumed to be 70 tons/day; and the rate of replanting vegetation is assumed to be 7,400 square feet per day (sq ft/d). Including the required wetland mitigation and streambank restoration activities, it is estimated that this alternative will take approximately one year to implement.

For residential-use properties, the estimated volume of soil that will be excavated is 5,600 cy. Excavation will be done on a property by property basis with work on each property estimated to

Version: Final

Figure L-7. Lyman Mill Stream Sediment and Floodplain Soil (Including Oxbow) Alternative 3A

### **REGION 1**

### **RECORD OF DECISION**

# CENTREDALE MANOR RESTORATION PROJECT SUPERFUND SITE NORTH PROVIDENCE, RHODE ISLAND

**SEPTEMBER 2012**