

# PUTTING BACK WHAT MOTHER NATURE TOOK AWAY



## PEMBINA RIVERBANK RESTORATION – SPRING 2011

Flood waters eroded as much as 40 to 50 feet of riverbank near a buried pipeline, exposing important portions of pipe. Northern Clearing was tasked with rebuilding the river's edge and building a slope with concrete armor to fortify the riverbank and protect the pipeline.



Northern Clearing crews start to lay the concrete armor.



Erosion required extensive riverbank construction.



(continued from other side)

Northern Clearing needed to re-establish the river's edge by pioneering a roadway over the riverbank and shaping a slope for over 250 feet along the water. Stone and fill material provided the foundation for protection of the riverbank and the pipeline. Next, Northern Clearing installed the armor, which consisted of large sheets of concrete blocks meshed together with stainless steel cables. Additional cables and clamps bound them together and anchored them to the riverbank. In total, the project required 12 truckloads of concrete armor and 1,300 yards of stone and other materials. Northern Clearing's efficient and knowledgeable crew completed the project, originally scheduled to take 20 days, in just 10 days. It also didn't hurt to have cooperative weather.



**The next time you have a tough problem –  
Contact Northern Clearing for the solution.**