Komi Pipeline Crude Oil Spill

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Abstract:

A series of large crude oil spills occurred during the summer and fall of 1994 in a 70-kilometer section of pipeline in the Komi Republic of Russia. The pipeline carries unprocessed cr8ude oil and produced water and the total volume of crude oil that was spilled in the project area was estimated to be over one million barrels. In the spring of 1995, the annual floods threatened to wash much of the spilled oil into the Kolva and Pechora Rivers. The Pechora drains through a populated region into the Arctic Ocean and is important as a regional waterway and in terms of ecology, fishing, potable water, and other human-use activities. In March 19954, a project to minimize the effects of these large spills was initiated and the basic strategy involved the construction of temporary containment dams on the streams that drained th4e affected areas and the removal of the spilled oil.

The area in which the spills occurred consists primarily of northern forest and wetlands, that are similar to many mid-latitude forest s and aquatic ecosystems. The environments that were affected by the spilled oil and the cleanup program included forests, dry scrub, wetlands (bogs and marshes), streams, and creeks. A wide range of treatment or cleanup ;techniques were used on the different terrain types: these included flooding and washing of stream banks, manual recovery and mechanical removal, rolling and squeezing on floating bogs, tilling, and burning. Additional Activities undertaken to attempt to accelerate recovery involved bioremediati0on and willow sprig planting.