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CFS CANADIAN FOREST SERVICE

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Forest Ecosystem Research Network of Sites

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Boreal Plains Ecozone



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Hotchkiss River Mixedwood Timber Harvesting Study (northwestern Alberta)

This project is examining an ecosystem-based approach to the management of both conifers and hardwoods in boreal mixedwood stands. The study focuses on the application of innovative silvicultural and harvesting techniques that protect immature (understory) white spruce during the harvest of deciduous overstories. The



intent is to provide post-harvest wind protection and realize growth potential of residual spruce and encourage natural regeneration of deciduous species in stand openings created by harvesting.



Harvesting systems include uniform shelterwood, shelterwood and strips of various widths (50, 100 and 150 metres), cut in various numbers of passes and compared to uncut controls.

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Web site:

- [Hotchkiss River Mixedwood Timber Harvesting Study](#)

EMEND - Ecosystem Management by Emulating Natural Disturbance (northwestern Alberta)

Adoption of the “natural disturbance” paradigm for boreal forest management has led away from extensive clearcutting and toward retention of unharvested residuals. This project is looking at how much residual is enough to preserve and protect critical aspects of ecosystem function.

The project is examining which harvesting and regeneration practices best maintain biotic communities, spatial patterns of forest structure and functional ecosystem integrity in comparison with mixedwood landscapes that have originated through wildfire and other natural disturbances.

The project employs economic and social analysis to evaluate practices in terms of economic viability, sustainability and social acceptance. Harvesting systems include clearcuts, various retention levels (10, 20, 50 and 75% retention) and uncut controls.

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- [EMEND - Ecosystem Management by Emulating Natural Disturbance](#)

Alcott Creek Forest Management Demonstration Area



Alcott Creek was established in 1993/4 as both an operational research and demonstration forest to showcase innovative forest management practices. Within the 18,500 ha, alternative harvesting methods and innovative silviculture practices were demonstrated in aspen dominated and white spruce dominated mixedwoods, and jack pine stand types. Formal research studies looking at wildlife habitat, ecosystem processes, forest

diversity, forest productivity, partial harvest silviculture systems, and intensive management were installed with Mistik Management Ltd. in collaboration with the University of British Columbia, Yale University, the University of Saskatchewan and the Canadian Forest Service.

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