



## A Highway 40 North Demonstration Project Update *Putting Natural Disturbance Research to Work*

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### Good Data = a Good Start for Planning

The Hwy40 Planning Team (see Hwy40 update #3) has met a total of 13 times since the fall of 2003. One of the first priorities as a team was to gather and merge available data and information across multiple administrative boundaries. This included:

- **Forest inventory.** The forest inventory is the primary tool of the forest management companies (ANC, FFP, and WF) to determine how much wood of a certain quality is available for harvest. These data came in various formats. The inventory information from ANC and West Fraser was of the most recent and comprehensive version of Alberta Forest Inventory (AVI). The inventory available for Foothills Forest Products was the next to last version of AVI. The inventory available for the Willmore is much older and less precise.
- **Existing oil and gas leases.** These data included the year of application, the area, and the company. This allowed us to identify the key players, and the current “plays” locally.
- **Ultimate potential map.** The Alberta Department of Energy has created a coarse scale map showing the relative potential for energy resource development for Alberta.
- **Existing infrastructure.** Although the planning area is relatively “natural”, there are pockets of industrial disturbance activity such as natural gas development, roads, seismic lines, and forest harvesting.
- **Caribou radio collar data.** Multiple locations of five GPS collared individuals between Feb. 2001 and March 2003 were made available on the A La Peche caribou herd (with a total population of 175-200). These animals represent a small part (about 30 individuals) of the herd that continue to migrate annually from the Willmore (in the summer) east across highway 40 for the winter.
- **Wildfire threat.** A combination of weather data, fire behaviour fuel type information, historical fire ignition patterns, landscape values at risk and suppression capacity were used to generate a relative index of wildfire threat potential. A significant percentage of the planning area falling within the high to extreme threat levels.
- **Mountain pine beetle (MPB) threat.** The Alberta government has been identifying and managing the spread of MPB eastward for several years using a combination of decision support tools and vigilant monitoring. The Hwy40 area represents one of several potential pathways of MPB invasion into Alberta due to the convergence of topographic, and stand density, age, and compositional factors.
- **Natural disturbance pattern history.** Through ongoing research from the Natural Disturbance Program at the FtMF, we know more about the details of how often, how large, where, and how severely forest fires burnt in this area than anywhere else in Canada.
- **Existing strategic plan objectives.** As an operational-level planning exercise, it was necessary to compile the objectives from the strategic plans of the various agencies involved.

These data and information were overlaid within the FtMF Geographic Information System and used by the planning team. These data were the primary mechanism by which the team initially identified potential areas for integrated disturbance activity for the first 10-year period.

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