Mapping the risk of wildfires

A small railway spark or a powerful lightning bolt may both ignite a forest fire. According to Natural Resources Canada, up to $1 billion is spent annually on suppressing fires like the one that devastated 600 Ha surrounding Fort McMurray. Determining which fires to extinguish requires a strategy to protect people and infrastructure, while allowing the landscape to undergo natural processes.

A series of unique wildland fire occurrence prediction models have been developed by Western Science researcher, Dr. Douglas Woolford, in collaboration with individuals at the Ontario Ministry of Natural Resources and Forestry (MNRF) and the University of Toronto. Comprised of historical information on fire occurrence along with other predictors, including wildland urban interface and population density, these maps are used by the MNRF to prioritize fires, allocate suppression resources, and implement protocols. These are the first set of fine-scale, province-wide, person-caused fire occurrence prediction models ever used operationally by the MNRF. With climate change increasing the risk of forest fires, the broad availability of such mapping tools is crucial to decision-making as we address wide-ranging security, financial and sustainability issues.

Big department, small footprint

This Spotlight on Sustainability focuses on the Department of Biology and recognizes their efforts to monitor and mitigate their environmental footprint.

Biology incorporates sustainability across the department. Here are a few examples:
• Composting in the lunchroom
• Increasing awareness of water usage through the installation of water meters
• Upgrading walk-in freezer motors
• Auditing workspaces to ensure a more comfortable and revitalized working environment

Thanks for setting a great example!