

## Proposed Expansion of the Prince George Community Forest

*A Collaborative Approach to Wildfire Mitigation and Agricultural Development within the Prince George Crown Land Plan Area – leading to reduced wildfire hazards while enhancing opportunities for long-term agricultural development.*



## What is being proposed?

### What are ADA and SRA areas?

- **Agriculture Development Areas** are Crown lands suitable for agricultural production set aside in the Crown Land Plan of 1981 to support a viable agricultural industry.
- **Settlement Reserve Areas** are Crown lands suitable for “a range of future settlement-oriented uses”.

*Prince George Area Crown Land  
Concept Plan (1981)*



The City of Prince George, the Lheidli T'enneh Nation and the Regional District of Fraser Fort George are proposing a landscape-level collaborative approach to wildfire mitigation and agricultural development by expanding the Prince George Community Forest. The proposed areas would include Agriculture Development and Settlement Reserve Areas within a 40 km radius of Prince George, in addition to the existing areas within Prince George's municipal boundaries. By conducting fuel treatments over this expanded area designed to both reduce the fuel hazard and encourage the establishment of agriculture or range development, we will better protect our communities and create opportunities for diversification. This will reduce the impacts of a large landscape-level fire on the homes and businesses of Prince George and surrounding rural communities, while the agriculture community retains the right to obtain lands suitable for food or energy production.

Existing landscape features such as deciduous stands, riparian areas, and farmers' fields can be linked with treated stands to create a strategic approach to wildfire hazard management. Wildlife and environmental concerns will be addressed in this strategy; as will agricultural and range values, recreational opportunities, visual quality, and long-term economic prospects for the community.

A revenue-neutral scenario is expected. Conventional forest harvesting operations on some parts of the working forest land base would produce sufficient revenues to offset more expensive fuel treatment costs and potential costs of enhancing agricultural opportunities on Agriculture Development Areas (ADA), Settlement Reserve Areas (SRA), and other areas with significant social values. This is anticipated to create a revenue-neutral operation; if any revenues were to be realised, however, they could be reinvested back into the landbase or the communities. For the first time in this region, the different worlds of forestry, agriculture, public safety, and settlement planning will be partnered in a strategy to meet all four objectives.

### What's in it for me?

- All local residents and business owners will benefit from improved protection from wildfires
- Farmers may have improved access to ADA areas through roads, drainage management, etc
- Farmers will have direct influence on what fuel treatments take place
- Opportunities to create shelterbelts, calving areas, range barriers etc to suit the farmer's desired end-use
- Everyone will benefit from a diversified economy and land base
- Improved food sustainability for the region
- New opportunities for small forestry outfits

### How would this proposal encourage diversification?

While some farmers have purchased ADA lands for agricultural development, there remain large swaths of ADAs with high agricultural potential that are not being utilized. These areas have not traditionally been part of the “working forest”; their timber is not available to volume-based forest licensees, and it is not included in the calculation of the Annual Allowable Cut (AAC) for the Prince George Timber Supply Area (TSA).

The timber has been set aside since the 1981 Crown Land Plan, to provide a source of income to farmers, range managers, or developers to help cover their start-up costs. However, the timber on many of these sites is losing its value due to the mountain pine beetle epidemic and the advanced age of deciduous stands. By managing access and conducting fuel treatments designed to benefit farmers, we hope to remove barriers to agriculture. This will expand the local agriculture and range industries.

“All demographic indicators point to the continued increase of population in British Columbia's wildfire interface areas.”

“Those who choose to live in close proximity to the forests must recognize that they are placing themselves at increased risk from the dangers of wildfire.”

*The Filmon Report (2004)*



#### **What values will be protected in this strategy?**

- Public safety
- Agriculture & range, soils and associated site productivity
- Wildlife & their habitat
- Access management
- Public education & awareness
- Research & education
- Visual quality
- Recreation
- Biodiversity
- Air quality
- Water quality, riparian integrity, & fish habitat
- Carbon and nutrient stocks & cycles
- Cultural heritage resources
- Timber values

There are multiple agriculture-compatible uses for the interim, such as short rotation fibre crops to feed the budding bioenergy sector or the City's proposed District Energy System, as well as timber-range opportunities, agro-forestry possibilities, and the promotion of non-timber forest products. Farmers would retain the opportunity to purchase those lands.

#### **What's the context? Why the focus on wildfire hazard mitigation?**

Wildfire hazard is a growing problem across the interior of BC. It is a natural feature of our forest ecosystems, but through the active suppression of wildfires we have allowed forest fuels to build up for decades. This has been exacerbated by widespread pine mortality resulting from the mountain pine beetle epidemic, as well as by a changing climate that not only stresses trees but creates more frequent and intense periods of drought, and more wind events. More people than ever before are working, living, and recreating in our woodland areas, which increases the ignition potential. The Prince George area is already recognised as a lightning hotspot.

Following the intense 2003 fire season, Gary Filmon produced a report to make recommendations for the future. He noted that:

“A number of Land and Resource Management Plans (LRMPs) have been developed for the province. Yet few of these plans address fire management in a meaningful way, by considering the impacts on ecosystems and the relationship to other forest management activities. Fire management considerations must become part of land management decision-making.”

*Firestorm 2003: Provincial Review. Gary Filmon (2004)*

We are proposing to do just that: to look at Prince George and surrounding areas from a landscape perspective, and manage fire hazard at the same time as encouraging our local agriculture and range sectors.



### What are some examples of fuel treatment options?

- Thinning the overstory to allow more light into the understory vegetation layers, encouraging herbaceous forage for cattle range
- Removing dead pine stands and replacing them with short-rotations of hybrid poplar or willow species, to be harvested for bioenergy markets
- Stumping areas to create opportunities for crop establishment
- Encouraging conversion of coniferous stands to deciduous or mixed stands
- Conducting patchcuts to reduce the fire hazard while retaining shelter belts, range barriers, and calving grounds
- Managing access to also act as fuel breaks

### What are “Forest Fuels”?

Fuel is anything that will burn. In a forest, that includes all the above and below-ground items like wood, needles, shrubs, grass, decaying material, roots, etcetera.

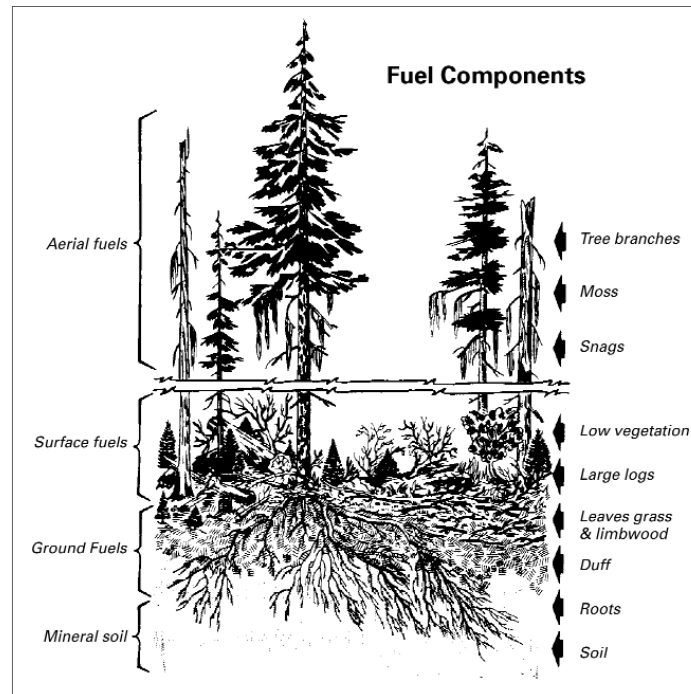


Diagram illustrates wildfire fuel components. (Firestorm 2003: Provincial Review. Gary Filmon, 2004)



Fuel treatments usually focus on modifying **surface fuels and ladder fuels**, to reduce the likelihood of a ground fire moving up into the crown; all or part of the **aerial fuels** may also be removed or thinned so that the stand will not support a crown fire.

### What is the risk of wildfire?

In 2009 the City of Prince George commissioned a study to examine potential wildfire behaviour outside of the city.

The figure below illustrates a few different scenarios. In a mere 24 hour period, these fires could spread 10km - sweeping right through rural and populated areas, even right into “the bowl” of Prince George. This was modeled without spotting (ember showers); if they were enabled, these fires would likely be far more significant, and neither the Fraser nor the Nechako Rivers would likely pose a barrier. For more information refer to B.A. Blackwell’s Final Report “Landscape Scale Fire Behaviour Modeling and Proposed Treatment Areas” available at [http://www.city.pg.bc.ca/rec\\_culture/parks/urbanforestry](http://www.city.pg.bc.ca/rec_culture/parks/urbanforestry).

### Will farmers still be able to purchase ADA lands?

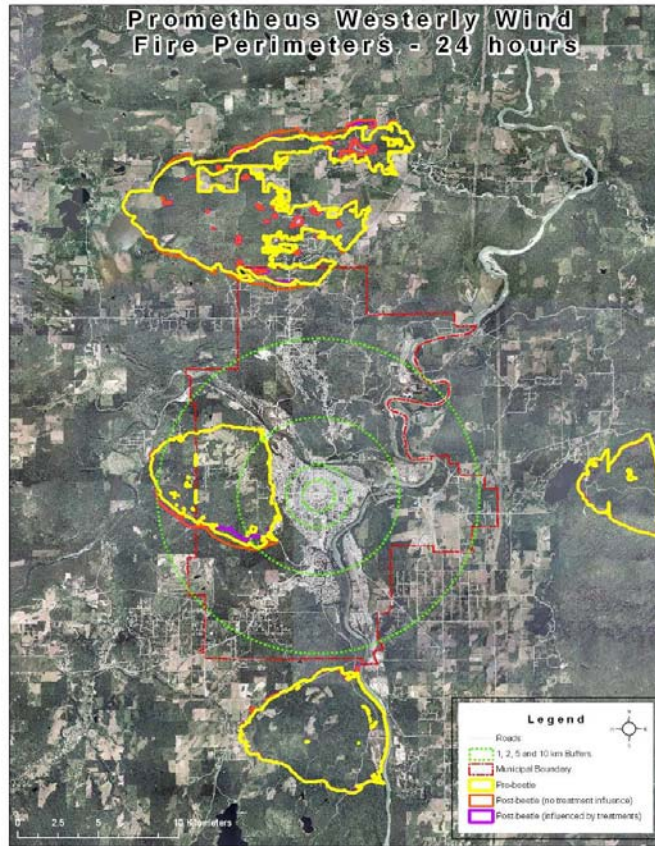
- Yes. The Land Act supersedes this forest tenure; it is expected that Agriculture Development Areas (ADA) and Settlement Reserve Areas (SRA) will be removed from the CFA land base as demand for the sites grow.
- The proponents would work with future land owners to ensure that site-specific fuel treatments are designed to be compatible or even beneficial to the future end-use.

## Who is driving this proposal?

The City of Prince George is acting as a coordinator with several other agencies. While partnerships are not yet formalised, staff from:

- the Regional District of Fraser Fort George,
- the Lheidli T'enneh First Nation,
- the Ministry of Forests & Range,
- The Ministry of Agriculture & Lands,
- and the Integrated Land Management Bureau

...have been jointly investigating this opportunity. The members of the Prince George Community Forest Advisory Committee have also been active in the discussion.



The proposed tenure is an expansion of the existing Prince George Community Forest.

The yellow areas reflect the potential extent of a fire in the first 24 hours if it were to start under favourable conditions. This was modeled with four different ignition points, with 40km/hr wind from the west, during warm and dry conditions. Similar wildfire behaviour would be expected in the same forest conditions far to the west and south as well.



The fuel types, predominant wind direction, and topography that exist between Vanderhoof and Prince George in particular would likely support a very large, intense fire under the right conditions.

## What fire mitigation work has taken place to-date?

The City of Prince George developed a Community Wildfire Protection Plan (CWPP) in 2007 and has since conducted over 630 hectares of fuel treatments on both municipal and Crown land. The City acquired a 5-year Probationary Community Forest Agreement in 2006 to facilitate the reduction of fire hazard on Crown land within municipal limits. Modified post-harvest stocking standards allow for great flexibility to encourage long-term wildfire hazard reduction on the Crown sites treated.

This is not your typical forest license! This concept supports agricultural development - on the farmer's terms - and is a collaborative approach to land use management that respects people's right to safety, employment, access to the land, and other social, environmental, and economic values.

Concurrently, one or two dozen hectares of fuel management activities have taken place outside of municipal limits near the communities of Beverly and Miworth.



“The region has major agriculture assets which include its abundance of relatively low cost agriculture land, its capability for forage production and its long history of beef, poultry production.”

OBAC Agriculture Strategy (2009)

### Is this enough?

Fire behaviour specialist Bruce Blackwell was contracted in 2009 to study the effectiveness of the City of Prince George’s Community Wildfire Protection Plan in addressing a landscape-level fire hazard. He found that:

“The current fuel treatment program is effectively reducing the fuel hazards identified in the CWPP and is mitigating the risk of fire travelling out of, or into, the treated areas as well as reducing the risk of hazardous fire behaviour within these areas. In other words, the current fuel treatments are fulfilling their objective of providing a local benefit within the area treated.”

“...**However**, the CWPP derived fuel treatment program does not address the arguably greater risk to the City posed by a landscape level fire event causing an ember shower from a distant fire to rain down on the City.”

*BA Blackwell and Associates (2009)*

We need to do more. This proposed approach brings together all the users of the land base in a flexible approach that allows for different treatments to happen on different sites depending on the nature of the fuels, the desired end-use of the site, and other site-specific factors and values.



Examples of local agro-forestry opportunities may include Christmas tree production interspersed with forage, or pine trees and berry production combinations.

### What is the agricultural context?

There is a growing public interest in food security, as well as the local and sustainable production of food crops and animal products. It is also a way of life for many people. The existing local agriculture sector in the region is “dominated by cattle and ranching and most crop land produces hay or fodder crops, or alfalfa and alfalfa mixtures” (OBAC, 2009).

More local opportunities abound in the range industry due to the ready availability of forage. The potential for agro-forestry development is also significant, whereby the combination of trees and other crop/livestock production allows farmers “to realize income in both the short- and long-term” (OBAC, 2009).

These range, agroforestry, and more traditional agriculture opportunities are consistent with strategies to reduce wildfire hazard and diversify the local economy through agriculture and range development.



### Summary of Proposal:

#### **Current Community Forest Agreement:**

Area: approximately 3,800 hectares    AAC: 12,000m<sup>3</sup>    Term: 5 years

#### **Proposed Community Forest Agreement\*** (includes current area & AAC):

Area: approximately 42,000 hectares    AAC: 82,000m<sup>3</sup>    Term: 25 years

\*This is indicated by the pink, green, and yellow areas on the attached map.