
CITY OF KELOWNA

MEMORANDUM

Date: June 19, 2007

File No.: 6130-07

To: City Manager

From: Urban Forestry Supervisor

Subject: Pine Beetle Information Update and Funding Resolution

RECOMMENDATION:

THAT Council receive for information the June 19, 2007 report from the Urban Forestry Supervisor on the status of pine beetle in Kelowna;

AND THAT Council approves staff applying for funding through the Union of BC Municipalities for the purposes of beetle and fire hazard management.

BACKGROUND:

Pine beetle has been a cyclical problem in the Okanagan for many years. Most of the infestations have been small patches caused by western pine beetle (WPB) which only attacks ponderosa pine. Recently mountain pine beetle (MPB), a pest that kills almost all pine species (e.g. lodgepole, ponderosa, Scotch and white pines) has moved into the Kelowna area. British Columbia is currently experiencing the largest recorded MPB outbreak in history, with 9.2 million ha of attack mapped in 2006 (BC Ministry of Forests).

The City of Kelowna is at risk of losing up to 50% of its urban forest to pine beetle attack. Forested lands within the City boundaries total 6,000 ha, and about half of those forests (roughly 350,000 trees) are pines. Trees play an important role in our community – they improve air quality, help reduce run-off and erosion, enhance our quality of life, provide habit for wildlife and help to reduce energy costs.

Outbreaks in the Kamloops area have resulted in very high levels of tree mortality in and around the City, and beetles have even started attacking young trees and some spruce trees as they run out of available food. While the outbreak in northern BC is now declining, the BC Forest Service is still expecting to see an exponential increase in the southern interior. The rate of progression of the infestation is unknown, but it is anticipated that much of the attack will happen over the next 3 to 5 years.

Patches of WPB and MPB attack were seen throughout the City in 2006, especially at Knox Mountain, Dilworth Mountain, near the Glenmore landfill, Kelowna International Airport, and in some areas of the Mission. On City properties, most of the infested trees have now been removed; although, tree removal is still occurring at Knox and Dilworth Mountain. Adult beetles are just starting to emerge and

attack new host trees now, but the evidence of attack doesn't generally show up until the following year.

A contract with "Service Canada" (formerly HRDC) and our fuel modification contractor, Betty van Exan, was initiated in April, 2006, and was recently renewed for another six month term. In the current agreement, Service Canada contributed \$400,000, while the City will pay about \$100,000 for this project. Through this program hundreds of infested trees have been identified and removed from City-owned properties. The program has also been very successful in assisting private property owners with wood disposal. It is estimated that approximately 300 metric tonnes were removed from private properties last year. We anticipate that the program will be renewed again in the fall, but we are currently limiting crew time to a maximum of two days per property, due to limited resources.

Funding is also being received from the Province of British Columbia, through the Union of BC Municipalities. Through this program, the UBCM will reimburse up to 75% of costs for projects on municipal land that involve removal of beetle kill trees and fire hazard mitigation. Approximately \$210,000 in funding was approved by UBCM in late 2006. UBCM has requested a Council resolution in support of further funding requests (see Recommendation above).

Public interest in this topic has been extremely high; a City "Beetle Hotline" received about 250 calls in the last three months alone, and more than 120 people attended a public information meeting at Kelowna Fire Hall in March. The City website has also been very heavily utilized with more than 3,500 unique visits to the pine beetle page recorded since last November.

Many residents are interested in how they might prevent attack on their trees. Unfortunately, few options exist and none are guaranteed. Some of the options that have been tested here and in other areas, including thinning, preventative pesticide sprays, beetle repellents (verbenone) and wrapping trees with fibreglass screening. Recently a \$4,500 grant was received from the Canadian Tree Fund to conduct further testing on the fibreglass screening. As well, \$5,000 was received from Tree Canada; a portion of this funding is being used to collect information from randomly selected plots on current levels of vegetation and tree cover around the City. This data will help us to better determine the potential impact of pine beetle on tree cover, so that we can develop plans to help replace and replant trees.

Given that high rates of tree mortality are expected, we are advising the public that it would be wise to consider replanting trees now. Last year Parks submitted a budget request to add \$160,000 to the annual tree planting program, but due to other priorities it was not funded. We will re-submit this item in the 2008 budget. A program to promote the benefits of tree planting is being developed, and this is also being looked at in the context of the city's sustainability plan.

We are concerned about increased fire hazard and the waste management issues likely to arise due to large volumes of dead beetle killed timber. This has been discussed together with the Environment and Solid Waste Division, the Fire Department and Parks. For municipal land, Parks has been able to find some limited markets for infested ponderosa pine. Although the remuneration is low, this has avoided the need to send material to the landfill. Branches and tops are currently being ground up and incorporated into the City's composting program.

Recently representatives from the bio-energy industry also approached the city and RDCO with a proposal to utilize wood waste for energy production. Other partners such as the BC Forest Service and logging companies will likely be needed to make such a proposal economical. The Environment and Solid Waste Division will be looking at other possible solutions for waste wood generated from the public, such as an air curtain burner, as the need arises. As well, the Fire Department is monitoring

hazardous areas and providing a permit for open burning of pine beetle material, where it is appropriate to do so.

CONSIDERATIONS THAT WERE NOT APPLICABLE TO THIS REPORT:

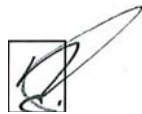
INTERNAL CIRCULATION TO:
LEGAL/STATUTORY AUTHORITY:
LEGAL/STATUTORY PROCEDURAL REQUIREMENTS:
EXISTING POLICY:
FINANCIAL/BUDGETARY CONSIDERATIONS:
PERSONNEL IMPLICATIONS:
TECHNICAL REQUIREMENTS:
EXTERNAL AGENCY/PUBLIC COMMENTS:
ALTERNATE RECOMMENDATION:

Submitted by:



I. Wilson, Urban Forestry Supervisor

Approved for Inclusion:



Cc: David Graham, Director of Recreation Parks and Cultural Services
Joe Creron, Parks Manager
Mark Watt, Environment and Solid Waste Manager
Rene Blanleil, Fire Chief

Attachment:

Provincial Mountain Pine Beetle Update by Heather Rice, BC Ministry of Forests and Range

Ministry of Forests and Range

MOUNTAIN PINE BEETLE IN THE OKANAGAN SHUSWAP

Provincial Level update:

\$50-million Southern Interior Development Initiative Trust has been created to help provide economic diversification support for southern B.C. communities – many of which are just beginning to feel the effects of the expanding MPB infestation. (MPB Action Plan 2006-2011)

Southern Interior Mountain Pine Beetle Action Coalition update:

-Major Mandate of Beetle Action Coalitions is to prepare Regional MPB mitigation recommendations to Provincial & Federal Governments

-In the spring of 2006, a small group of Mayors, Regional District directors and First Nations' leaders began meeting in Merritt to discuss how to initiate the formation of a Southern Interior Mountain Pine Beetle Communities "Beetle Action Coalition" and agreed to form a working group

- Invitations to join the Working Group were circulated summer/ fall of 2006. Each of the nine Southern Interior Regional Districts was asked to contribute \$5000 to help finance the work of the Working Group. These funds subsequently leveraged a \$50,000 initial contribution from the provincial and federal governments to assist the Working Group in preparing a full BAC funding proposal.

Based on the work completed to date the Working Group recommends creation of a regional Southern Interior BAC. More research and public discussion is required to refine the ongoing activities of the BAC, but the Working Group needs additional financial resources to conduct this work. As a result the Working Group is preparing an application to the Provincial Government seeking establishment and funding of a Southern Interior Beetle Action Coalition (SIBAC). It is proposed that once it is approved the SIBAC will focus on completing three major activities during the first six months of its operation:

1. Complete two major background research reports for the southern interior – a Forest Sector Analysis Report and a MPB Socio-Economic Analysis Study.
2. Undertake a series of discussion forums in communities throughout the southern interior region in order to gain stakeholder and community input on issues of concern regarding the MPB epidemic.
3. Use the information obtained from the two above steps to develop a detailed operational work plan for the Southern Interior BAC.

Currently 9 RD's, 4 Tribal Councils and First Nations Community Futures

- Central Okanagan Regional District;
- Columbia Shuswap Regional District;
- Community Futures D.C. of Central Interior First Nations;
- Kootenay Boundary Regional District;
- Lillooet Tribal Council;
- Nicola Tribal Association;
- North Okanagan Regional District
- Okanagan Nation Alliance;
- Okanagan-Similkameen Regional District;
- Regional District of Central Kootenay;
- Regional District of East Kootenay;

- Squamish Lillooet Regional District;
- Shuswap Tribal Council; and
- Thompson Nicola Regional District

Provincial contact for this group is

Gord Borgstrom – Director of Economic Development, Mountain Pine Beetle Response Team
or contact Interim Chair, David Laird at 250-378-4224

What is the Forests for Tomorrow Program?

-Forests for Tomorrow program was set up to respond to the catastrophic wildfires and the mountain pine beetle epidemic.

- program was introduced by government in 2005 with an initial amount of \$161M over four years.

- program aimed at improving future timber supply and addressing risks to other forest values through re-establishment of young forests on land that would otherwise remain under-productive. The program focuses on land that is primarily within the timber harvesting land base yet outside of forest industry obligations.

-program emphasizes surveying, site preparation and planting. These treatments are guided by strategic level program planning, seed supply planning, silviculture strategies and timber supply analyses.

-anticipated that this will be a long term program with an annual budget that is projected to be 53.9 million by 2008/09, remain at this level, and then gradually decline in latter years as critical work is completed

-initial priority is aggressive reforestation of the 2003 and 2004 wildfires and brushing in Timber Supply Area (TSA) and Tree Farm License (TFL) management units most affected by the MPB infestations.

For the Okanagan contact:

Al Randal, e-Mail: Al.Randall@gov.bc.ca Phone: 250 828-4183

Federal Funding

New announcement on June 8th regarding funding for Mountain Pine Beetle Program

-Elements of this funding include:

Community Safety

- [Community wildfire protection](#)
- [First Nations wildfire protection](#)
- [Fire risk mapping](#)
- [Hazard tree removal from recreation sites](#), and
- [Hazard tree removal from municipal lands](#).

Forest Resources

- [Forest resource assessment](#), and
- [Sustaining forest and community futures](#).

Activities considered under the program area include:

- necessary fire and hazard reduction planning
- forest fuel treatment prescription preparation
- on the ground work to remove hazardous trees and dead wood build-up
- fire break creation, and
- assessments of the beetles' impact on non-timber resource strategies.

Funding

The total budget for Protecting Forest Resources and Communities is \$17 million over three years, including delivery costs. Of that, \$2.9 million had been committed for 2006/07. The remaining \$14.1 million is available for 2007/08 – 2008/09.

Private Forestlands Element (\$ 930,0000)

Direct control activities are eligible on forest lands meeting the following three criteria:

- consist of a minimum of 10 contiguous hectares of productive non-industrial forestland
- have forest management as its main focus or potential use, and
- fall within the area affected by the mountain pine beetle and a zone prioritized for control by a provincial beetle management strategy

-The 2 levels of federal and provincial gov't are continuing to work together

District Level update:

- The mountain pine beetle has always been active to some degree in the Okanagan Shuswap Forest District.
- Infestation levels in the Okanagan Shuswap Forest District have been increasing over the last few years.
(District covers about 2.2 million ha)
 - 119,000 hectares in red-attack stage in 2006.
 - 79,000 hectares in red-attack stage in 2005.
 - 43,000 hectares in red-attack stage in 2004.
 - 10,000 hectares in red-attack stage in 2003.
- The infestation is expected to continue expanding and has the potential to affect as much as 350,000 hectares of the Okanagan Shuswap Forest District.
- Areas of concern which may impact Kelowna include, the Bear Creek (Traders Cove) area including Hidden Creek area above Rose Valley
 - also Knox Mt, Dilworth, WFN eastside of lake south of bridge, Rose Valley, UBC, Landfill,
 - on going discussions with Tolko regarding controlling spread from the mill, they do have a plan to place traps and monitor them during MPB flight periods
- By volume, pine comprises 27 per cent of the trees on the timber harvest land base in the Okanagan Shuswap Forest District.
- The pine beetle will not kill all the pine in the Okanagan Shuswap Forest District, but it could kill as much as 80 per cent of the pine in some parts of the forest district.

- Allowable annual cuts for the Okanagan Timber Supply Area as well as Tree Farm Licence 49 (west of Okanagan Lake) were increased in December 2005, to help deal with the current and predicted MPB infestation.
- The Okanagan TSA received a harvest-volume uplift of 745,000 cubic metres a year. The Okanagan Timber Supply Area covers 2.2 million hectares.
- Tree Farm Licence 49 received a harvest-volume uplift of 200,000 cubic metres a year. Tree Farm Licence 49 covers 144,345 hectares.
- The Okanagan Shuswap Forest District has a Mountain Pine Beetle Management Strategy in place to guide salvage operations and development of retention strategies.
- Several forest companies are working with the Ministry of Forests and Range in managing the mountain pine beetle in the Okanagan Shuswap. These companies include Tolko Industries, Gorman Bros, Weyerhaeuser, Federated Cooperatives, Louisiana Pacific and British Columbia Timber Sales. Meet every other month with the Bark Beetle Operations committee to review progress, concerns and discuss strategies and priorities.
- The mountain pine beetle is often confused with the western pine beetle. The main difference between the two species is that mountain pine beetle attacks lodgepole pine and ponderosa pine (all pine actually), while the western pine beetle attacks only ponderosa pine.