

HINTON MOUNTAIN PINE BEETLE ADVISORY COMMITTEE

WORKPLAN

updated june 8, 2018



The Hinton Mountain Pine Beetle Advisory Committee brought together community and industry leaders, mountain pine beetle experts, and engaged citizens to build awareness of current and potential impacts, obtain or identify resources, and plan for a safe and sustainable future for the communities in the West Yellowhead area.

COMMITTEE MEMBERSHIP

Dr. Allan Carroll	Academic/ Researcher
Councillor Anthony Giezen	Yellowhead County (YC) Councillor
Emily Olsen	Town of Hinton (TOH) Administration
Don MacLean	Unifor Local 855 President
MLA Eric Rosendahl	Member of Legislative Assembly
Mayor Gerald Soroka	Yellowhead County (YC) Mayor
MP Jim Eglinski	Member of Parliament
Dr. Keith McClain	Academic/ Researcher
Mayor Kevin Zahara	Town of Edson (TOE) Mayor
Mayor Marcel Michaels	Town of Hinton (TOH) Mayor, Chair
Mike Undershultz	Alberta Agriculture & Forestry Representative
Natalie Charlton	Hinton & District Chamber of Commerce Executive Director
Richard Briand	West Fraser (HWP) Representative
Rick Zroback	Citizen-at-Large
Seth Dickinson	Dickinson Logging Representative
Sharon Kelley	Indigenous Representative
Councillor Tyler Waugh	Town of Hinton (TOH) Councillor
William Dunn	Citizen-at-Large

COMMITTEE OVERVIEW



key goals & actions executive summary

The Hinton Mountain Pine Beetle Advisory Committee brings together community and industry leaders, mountain pine beetle experts, and engaged citizens to build awareness of current and potential impacts, obtain and identify resources, and plan for a safe and sustainable future for the communities in the West Yellowhead area.

The mountain pine beetle is the most destructive native pest of mature pine forests in North America; in recent years, the invasion has had an alarming effect on the region's industries such as forestry and tourism, as well as the safety and operation of related industries that utilize the landscape, such as oil, gas, and mining. The value of pure pine stands in Alberta is more than \$8 billion; the mountain pine beetle poses a threat to over six million hectares of Alberta's pine forest, and threatens more than half of the major forest companies operating in Alberta that are reliant on pine to continue operations.

The Town of Hinton and other communities in the region have identified a need for support to implement control measures to reduce the threat and spread of the mountain pine beetle. In Hinton, over 1000 standing dead or green infected trees have been removed and it is anticipated that double that will be managed as part of the Hinton Pine Beetle Program in 2018.

committee purpose

The Hinton Mountain Pine Beetle Advisory Committee was established to provide Hinton Town Council with an evidence-based approach to mitigating the effects of the mountain pine beetle within the region, and to communicate the impacts and risks associated with the beetle.

The Committee has reviewed evidence on the current and anticipated effects on Private Forestlands, Crown Land, and Forest Management Agreements, and has developed recommendations for strategic mitigation efforts, FireSmart measures, and public engagement messaging. The Committee's largest role will be in advocating for potential policy or legislative changes at the provincial and federal levels, as well as providing support and resources to carry out identified actions for mitigation, communication, and regional economic and social resiliency.

consensus

The mountain pine beetle threatens the industry, economy, and safety of our region, and without a coordinated effort, continued support from provincial government, and significant federal involvement, the problem will continue moving eastward, impacting other communities, businesses, and individuals.

goals & actions

OVERVIEW

1. SAFE COMMUNITIES




Protect communities from wildfire and safety-related effects of the mountain pine beetle.

2. CONTROL & MITIGATION



Control the population and spread of the mountain pine beetle and manage the disruption to the region's natural ecosystems.

3. ECONOMIC SUSTAINABILITY



Mitigate threats to the economic stability of the region posed by the mountain pine beetle.

4. BUILD AWARENESS



Enhance awareness of the Mountain Pine Beetle threat to obtain funding and support.



**goal
one**

SAFE COMMUNITIES

goal

Protect communities from wildfire and safety-related effects of the mountain pine beetle.

key message

The potential safety impacts to Hinton and neighbouring communities in the West Yellowhead corridor resulting from the effects of mountain pine beetle infestation have required a coordinated regional effort in emergency preparedness and planning. The heightened risk of wildfire, including the potential for larger, more devastating fires, threatens the safety of those living, working or recreating in the area.

consensus

The Hinton Mountain Pine Beetle Committee members commit to supporting regional efforts to ensure emergency preparedness to protect life and property threatened by an increase in potential for devastating wildfire.

HINTON MOUNTAIN PINE BEETLE ADVISORY COMMITTEE

goal one | SAFE COMMUNITIES

PUBLIC AWARENESS ACTION #1

ACTION OVERVIEW	Communicate with regional community members to increase awareness of the potential risks resulting from the mountain pine beetle infestation and necessary precautions that need to be taken to ensure personal and family safety.		
DESIRED OUTCOMES	Members of the community are informed of the risks to safety caused by the MPB, and the are aware of and involved in measures being taken to mitigate and prepare for any potential resulting emergency situations.		
DELIVERABLES	Task	Assigned To	Status Completed/ In Progress/ Delayed/Due Date
1. Presentation to Council	Presentation to Hinton Council Meeting to update Council and the community.	Mayor Michaels Councillor Waugh	
	Presentations at regional municipal Councils	Mayor Michaels Councillor Waugh Mayor Zahara Mayor Soroka Councillor Giezen	
2. Awareness Campaign	Develop public information items concerning wildfire risk, suppression, evacuation action plans, and FireSmart plans.	TOH Admin fRI Research	In progress
	Disseminate public information items through in-person citizen engagement.	Mayor Michaels MLA Rosendahl MP Eglinski Mayor Zahara Mayor Soroka Councillor Giezen	
	Disseminate public information items through print, online, and social media communication.	TOH Admin TOE Admin YC Admin	

The primary party assigned for each task is bolded

HINTON MOUNTAIN PINE BEETLE ADVISORY COMMITTEE

goal one | **SAFE COMMUNITIES**

FIRESMART COLLABORATION ACTION #2			
ACTION OVERVIEW	Collaboration among communities in the region and Alberta’s industries to establish cooperative FireSmart strategies.		
DESIRED OUTCOMES	Collaborative FireSmart strategies are developed and implemented throughout the region to ensure effective emergency situation preparedness.		
DELIVERABLES	Task	Assigned To	Status Completed/ In Progress/ Delayed/Due Date
1. Intermunicipal collaboration	Collaboration between Fire Departments	TOH Admin TOE Admin YC Admin	In progress
	2. Identify available resources	Alberta Agriculture & Forestry TOH Admin	
	Distribute list to municipalities and industries.	TOH Admin	

The primary party assigned for each task is bolded

HINTON MOUNTAIN PINE BEETLE ADVISORY COMMITTEE

goal one | **SAFE COMMUNITIES**
**EVACUATION COLLABORATION
ACTION #3**

ACTION OVERVIEW	Collaboratively develop regional wildfire evacuation plans.		
DESIRED OUTCOMES	Development of region-wide evacuation plan with responsible positions and roles identified to ensure effective emergency preparedness.		
DELIVERABLES	Task	Assigned To	Status Completed/ In Progress/ Delayed/Due Date
1. Intermunicipal collaboration	Collaboration between Fire Departments and related agencies.	TOH Admin TOE Admin YC Admin West Fraser Alberta Agriculture & Forestry	In progress
2. Public awareness	Disseminate evacuation plans to regional community members through print, online, and social media communication.	TOH Admin TOE Admin YC Admin	

The primary party assigned for each task is bolded



goal
two

CONTROL & MITIGATION

goal

Control the population and spread of the mountain pine beetle and manage the disruption to the region's natural ecosystems.

key message

There is an urgency for communities in the West Yellowhead corridor, including Hinton, to administer control activities to manage the population and spread of the mountain pine beetle. In order to manage the work required by local government and industry, a commitment for continued support by various levels of government is needed.

consensus

The Hinton Mountain Pine Beetle Committee members commit to advocacy and support of control and mitigation activities to lessen the impact and spread of the beetle wherever possible.

HINTON MOUNTAIN PINE BEETLE ADVISORY COMMITTEE

goal two | CONTROL & MITIGATION

CONTROL ADVOCACY ACTION #1

ACTION OVERVIEW	Advocate for the cooperative control efforts of forestry-related industries, local governments, and provincial governments in the area to ensure the MPB is being targeted as effectively as possible.		
DESIRED OUTCOMES	A cohesive and comprehensive approach to MPB mitigation.		
DELIVERABLES	Task	Assigned To	Status Completed/ In Progress/ Delayed/Due Date
1. Inquiry letters	Letters to be sent to the Province of Alberta, relevant industries, and surrounding municipalities to inquire about MPB control efforts.	Mayor Michaels	
	Summary of control efforts to be developed and incorporated into advocacy planning	TOH Admin	
2. Committee representation	Formalization of municipal representation on the West Yellowhead MPB Coordinating Committee	Mayor Michaels Mayor Zahara Mayor Soroka Alberta Agriculture & Forestry West Fraser	
	Information from West Yellowhead MPB Coordinating Committee shared and incorporated into HMPB Advisory Committee's work	TOH Admin	
3. Public engagement	Inform community members of opportunities for involvement in the detection and identification of infected trees through the fRI App	TOH Admin TOE Admin YC Admin fRI Research	

The primary party assigned for each task is bolded

An aerial photograph showing a town with various buildings and parking lots, surrounded by dense green forests. In the background, there are blue mountains under a clear sky. The text 'goal three' is overlaid on the top left of the image.

**goal
three**

ECONOMIC SUSTAINABILITY

goal

Mitigate threats to the economic stability of the region posed by the mountain pine beetle.

key message

The implications of the mountain pine beetle infestation in Hinton and region will be felt in many of our top industries for years to come. Ongoing focus to understand the current and potential economic consequences of the infestation, will assist members of the advisory committee in identifying support and resources at the provincial and national level.

consensus

The Hinton Mountain Pine Beetle Committee members support the collection of information from our region's top employers, as well as other government and private sector stakeholders, to build a case for provincial and federal involvement in preventing and countering threats to the region's economy, including developed industries and emerging sectors.

goal three | ECONOMIC SUSTAINABILITY

**UNDERSTANDING ECONOMIC IMPACTS
ACTION #1**

ACTION OVERVIEW	Determine the economic implications of the MPB infestation in the region focusing on the impacts to forestry, tourism, and other industries.		
DESIRED OUTCOMES	Development of projected scenarios and potential outcomes analyzing the short-term and long-term implications for the MPB effects.		
DELIVERABLES	Task	Assigned To	Status Completed/ In Progress/ Delayed/Due Date
1. Projected scenarios	Provide information concerning potential impacts and corresponding solutions/ actions as it pertains to each organization/group	Alberta Agriculture & Forestry Unifor Union Hinton & District Chamber of Commerce TOE Admin YC Admin West Fraser Alberta Economic Development & Trade Alberta Environment & Parks	
	Review existing research available (e.g. from Caribou Regional District, TOH Economic Development Strategy)	TOH Admin	
	Compile information from Committee members and other stakeholders to develop an analysis of potential outcomes and impacts	TOH Admin	
	Development of and preparation for projected scenarios and potential outcomes summary	TOH Admin	
	Semi-annual reporting to assess short-term and long-term perspectives	TOH Admin	

The primary party assigned for each task is bolded

HINTON MOUNTAIN PINE BEETLE ADVISORY COMMITTEE

goal three | **ECONOMIC SUSTAINABILITY**

**UNDERSTANDING INDUSTRY IMPACTS
ACTION #2**

ACTION OVERVIEW	Determine the consequences of mountain pine beetle to industry, considering additional costs to operations, materials, supplies, equipment, and other effects.		
DESIRED OUTCOMES	An improved understanding of the economic implications of the MPB for industries in our region, and as a result a better understanding of the costs of the infestation.		
DELIVERABLES	Task	Assigned To	Status Completed/ In Progress/ Delayed/Due Date
1. Information sharing	Share information between relevant parties, including information about costs, statistics, broader context of impacts	Hinton & District Chamber of Commerce West Fraser Dickinson Logging fRI Research TOH Admin	
	Compile information	TOH Admin	

The primary party assigned for each task is bolded

HINTON MOUNTAIN PINE BEETLE ADVISORY COMMITTEE

goal three | ECONOMIC SUSTAINABILITY

WORKER PROTECTION ACTION #3			
ACTION OVERVIEW	Collaborate with unions, employers, and government to develop a roadmap for creating plans to protect workers from repercussions of the mountain pine beetle infestation.		
DESIRED OUTCOMES	A plan that has been developed collaboratively between unions, industry, and government to ensure workers are considered and accounted for in the face of the MPB infestation and resulting impacts.		
DELIVERABLES	Task	Assigned To	Status Completed/ In Progress/ Delayed/Due Date
1. Union and industry collaboration	Unions and industry to communicate to analyze potential impacts for workers.	Unifor Union West Fraser TOH Admin TOE Admin YC Admin Alberta Government	
	Develop corresponding plans for worker protection	Unifor Union West Fraser TOH Admin	
	Incorporate information into Town of Hinton’s overall Economic Development Plan	TOH Admin	

The primary party assigned for each task is bolded

A vertical photograph showing a serene landscape. In the foreground, a wooden deck with a railing is visible. Beyond the deck is a calm lake reflecting the sky and surrounding greenery. The background is a dense forest of tall evergreen trees under a blue sky with scattered white clouds.

**goal
four**

BUILD AWARENESS

goal

Enhance awareness of the Mountain Pine Beetle threat to obtain funding and support.

key message

The landscape changes that will be experienced in Hinton and region due to the presence of mountain pine beetle will alter the way residents and visitors use local recreation and community infrastructure. Community resiliency best practices and other resources obtained from communities that have managed pine beetle effects will be essential to community, industry and tourism asset management and long-term planning.

consensus

The Hinton Mountain Pine Beetle Committee members will communicate and advance understanding of the negative pine beetle impacts to stakeholders, residents and businesses within Hinton and area, with a commitment to the sharing of materials developed in support of this goal; advocacy for provincial and federal support and resources; and leverage of local relationships within government, labour, and business groups to build national consensus for action on the mountain pine beetle.

HINTON MOUNTAIN PINE BEETLE ADVISORY COMMITTEE

goal
four | **BUILD AWARENESS**
BUILD NATIONAL CONSENSUS FOR ACTION
ACTION #1

ACTION OVERVIEW	Leverage local relationships within government, labour, and business groups to build national consensus for action on the mountain pine beetle.		
DESIRED OUTCOMES	Increased awareness and funding support from the provincial and federal levels of government.		
DELIVERABLES	Task	Assigned To	Status Completed/ In Progress/ Delayed/Due Date
1. Information and Support	Share information between relevant parties, including information about costs, statistics, broader context of impacts	Hinton & District Chamber of Commerce West Fraser Dickinson Logging fRI Research TOH Admin Alberta Agriculture & Forestry	
	Obtain letters of support from organizations, groups, and industries	Mayor Michaels MLA Rosendahl MP Eglinski Natalie Charlton Don Maclean	
	Develop policy for Canadian Chamber of Commerce in support of federal action and support for MPB mitigation	Hinton & District Chamber of Commerce TOH Admin	In progress Attachment 1
	Compile information and attach as appendices (as needed)	TOH Admin	

The primary party assigned for each task is bolded

HINTON MOUNTAIN PINE BEETLE ADVISORY COMMITTEE

goal
four | **BUILD AWARENESS**
COMMUNICATIONS & ADVOCACY PLAN
ACTION #3

ACTION OVERVIEW	Develop a national communications and advocacy plan to obtain necessary funding.		
DESIRED OUTCOMES	With an enhanced understanding of the MPB, a Communications and Advocacy Plan will be developed to acquire funding for MPB management.		
DELIVERABLES	Task	Assigned To	Status Completed/ In Progress/ Delayed/Due Date
1. Development of Plan	Identify key resources and contacts for MPB information and compile relevant information concerning the biology, history, spread, and mitigation of the MPB for reference.	TOH Admin fRI Research West Fraser Alberta Agriculture & Forestry	
	Develop Communications and Advocacy Plan. Committee Members to provide resources and information as required.	TOH Admin All Committee Members	
	Review of plan	All Committee Members	
2. Implementation of Plan	Connect with provincial, federal, and organizational leaders	Mayor Michaels MLA Rosendahl MP Eglinski Natalie Charlton Don Maclean	

The primary party assigned for each task is bolded

HINTON MOUNTAIN PINE BEETLE ADVISORY COMMITTEE

goal
four | **BUILD AWARENESS**
**SUPPORT JASPER NATIONAL PARK
 ACTION #2**

ACTION OVERVIEW	Continue to support Jasper National Park's MPB management strategy and foster communication with Jasper National Park on future control efforts.		
DESIRED OUTCOMES	Establish an ongoing dialog with Jasper National Park to ensure cooperative control efforts.		
DELIVERABLES	Task	Assigned To	Status Completed/ In Progress/ Delayed/Due Date
1. Understand Jasper National Park Strategies	Communicate with Jasper National Park to gain a comprehensive overview of their status, techniques, and strategies	Alberta Agriculture and Forestry TOH Admin TOE Admin YC Admin	

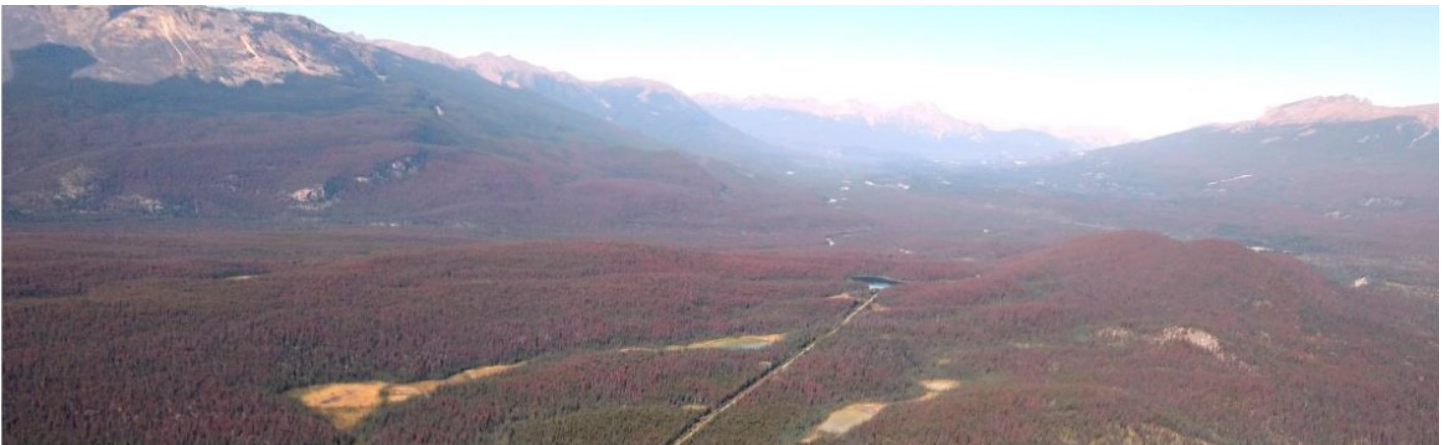
The primary party assigned for each task is bolded

COMMUNICATIONS PLAN

<p>Presentations to Municipal Councils</p> <p>To obtain support from local governments in the region and inform the public of the goals of the Committee and the risks of the mountain pine beetle.</p>	<p>Hinton: September 11, 2018</p> <p>Edson: September, 2018</p> <p>Yellowhead County: September, 2018</p>
<p>Media Relations</p> <p>To inform the public of the risks of the mountain pine beetle.</p>	<p>September, 2018 (ongoing)</p>
<p>Public Communication</p> <p>Updates to keep the public informed about preparation and safety measures through the Town of Hinton’s website, online tools, and other means.</p>	<p>September, 2018 (ongoing)</p>
<p>Public Open House</p> <p>For Committee Members to connect with members of the public to discuss the dangers and precautions for mountain pine beetle.</p>	<p>October 17, 2018</p>

SPECIAL THANKS TO:

- **Janice Cooke, TRIA-Net (Director)**
- **Marc Freedman, Alberta Agriculture & Forestry (Wildlife Prevention Officer)**
- **Todd Martens, Town of Hinton (Fire Chief)**
- **Rob Friberg, The University of British Columbia (PhD Candidate)**
- **Dr. Jasmine Janes, University of New England (Evolutionary Biologist)**
- **The Honourable Oneil Carlier, Minister of Agriculture & Forestry**
- **Alan Fehr, Parks Canada (Jasper Superintendent)**
- **Greg Van Tighem, Municipality of Jasper (Fire Chief)**
- **Mark Fercho, Municipality of Jasper (Chief Administrative Officer)**



FOR MORE INFORMATION:

For Hinton Mountain Pine Beetle Advisory Committee meeting minutes, agendas, and presentations, as well as links to more information on the mountain pine beetle, please visit the Town of Hinton website at: www.hinton.ca/mpb

EXPERTS & CONTACTS

Contact	Affiliation	Area of Expertise	Phone	Email
Dr. Allan Carroll Professor	Department of Forest and Conservation Sciences, University of British Columbia, Vancouver, BC V6T 1Z4	Beetle population dynamics, spread predictions	604-822-3360	Allan.Carroll@ubc.ca
Dr. Jordan Lewis Burke Post Doctoral Fellow and Lecturer	Department of Forest and Conservation Sciences, University of British Columbia, Vancouver, BC V6T 1Z4	Beetle population dynamics		jordan.lewis.burke@gmail.com
Dr. Katherine Bleiker Research Scientist	NRCan, Canadian Forest Service Pacific Forestry Centre, Victoria, BC	Beetle physiology and cold tolerance	250-298-2365	katherine.bleiker@canada.ca
Dr. Janice Cooke Professor	University of Alberta CW405 Biological Sciences Building Office CCIS 5-108 Edmonton AB T6G 2E9 Canada	Plant Physiology, Genomics (MPB system)	780-492-0412	janice.cooke@ualberta.ca
Dr. Ellen Macdonald Professor	Department of Renewable Resources Faculty of Agricultural, Life & Environmental Sciences University of Alberta Edmonton, AB, Canada	Ecology, Forest Renewal	780-492-6722	Ellen.macdonald@ualberta.ca
Dr. Vic Lieffers Professor, Emeritus	Department of Renewable Resources. Edmonton, Alberta T6G2E3	Silviculture, stand succession and development	780-492-2852	lieffers@ualberta.ca
Dr. Katherine Lewis Professor	University of Northern British Columbia 3333 University Way Prince George BC Canada V2N 4Z9	Pathologist, Beetle interactions, Ecosystem Science and Management	250-960-6659	lewis@unbc.ca
Dr. Axel Anderson Program Lead, and Assistance Professor	University of Alberta 869 General Services Building Edmonton, Alberta Canada	Hydrology	780-492-4371	axel.anderson@ualberta.ca
Dr. Uldis Silins Professor	Forest Hydrology	Hydrology, impacts of forest disturbance (fire, beetles)	780-492-9083	uldis.silins@ualberta.ca
Dr. Eliot McIntire Research Scientist	Pacific Forestry Centre 506 Burnside Road West Victoria, British Columbia, V8Z 1M5	Modelling (SpaDES)	250-298-2374	eliot.mcintire@canada.ca
Dr. Nadir Erbilgin Professor	University of Alberta, 4-42 Earth Sciences Building, Department of Renewable Resources. Edmonton, Alberta T6G 2E3.	Chemical Ecology	780-492-8693	erbilgin@ualberta.ca
Dr. Maya Evendan Professor	Department of Biological Sciences CW405 Biological Sciences Building University of Alberta Edmonton, Alberta Canada, T6G 2E9	Beetle biology and flight dispersal	780-492-1873	mevenden@ualberta.ca

EXPERTS & CONTACTS

Contact	Affiliation	Area of Expertise	Phone	Email
Terry Larsen Research Biologist	fRI Research	Grizzly Bear	780-865-8342	tlarsen@friresearch.ca
Gord Stenhouse Senior Wildlife Scientist	fRI Research	Grizzly Bear	780-865-8388	gstenhouse@friresearch.ca
Dr. Laura Finnegan Wildlife Scientist	fRI Research	Caribou	780-865-8311	lfinnegan@friresearch.ca
Dr. Chris Stockdale Fire Research Scientist	NRCan Canadian Forestry Service, Northern Forestry Centre, Edmonton	Wildland Fire	780-435-7303	Chris.Stockdale@canada.ca
Dr. Catherine Cullingham Molecular / evolutionary ecologist (Project Manager/ Research Associate)	University of Alberta, Department of Biological Sciences	Beetle genetics, evolutionary development	403-210-5275	cathy.cullingham@ualberta.ca
Dr. Jasmine Janes Evolutionary Biologist	School of Environmental & Rural Sciences Natural Resources Building University of New England Armidale, NSW, 2351	Genomics of mountain pine beetles		jjanes@une.edu.au
Dr. Harry Nelson Professor	Department of Forest Resources Management Forest Sciences Centre 4609 2424 Main Mall Vancouver, BC V6T 1Z4 Canada	Economics, Modelling	604-827-3478	harry.nelson@ubc.ca
Dr. David Langor Research Scientist, Entomology	NRCan Canadian Forestry Service, Northern Forestry Centre, 5320 122 Street Northwest Edmonton, Alberta, T6H 3S5	Climate, Drought, Biodiversity and Pest Management	780-435-7330	david.langor@canada.ca
Dr. Barry Cooke Research Scientist	NRCan Canadian Forestry Service, Great Lakes Forestry Centre, 1219 Queen Street East Sault Ste. Marie, Ontario, P6A 2E5 Sault St Marie, ON	Beetle Spread Management, Strategic Planning	705-541-5644	barry.cooke@canada.ca
Dr. Rene Alfaro Research Scientist, Retired	Canadian Forest Service	Ecological Impact of the MPB	250-298-2363	Rene.Alfaro@NRCan-RNCan.gc.ca
Erica Samis Director, Forest Health and Adaptation Section	Alberta Agriculture and Forestry, Edmonton	Provincial Integrated Pest Management	780-644-1734	erica.samis@gov.ab.ca
Mike Undershultz Senior Forest Entomologist	Alberta Agriculture and Forestry, Edmonton	Entomologist, Beetle Research	780-422-1508	mike.undershultz@gov.ab.ca

EXPERTS & CONTACTS

Contact	Affiliation	Area of Expertise	Phone	Email
Caroline Whitehouse Forest Health Specialist	Alberta Agriculture and Forestry, Edmonton	Beetle Management, Beetle Research	780-644-8325	caroline.whitehouse@gov.ab.ca
Brooke Horne Senior Forester- Forest Rehabilitation	Alberta Agriculture and Forestry, Edmonton	Silviculture, stand renewal	780-422-0143	brooks.horne@gov.ab.ca
Lee Martens Forest Reforestation Specialist	Alberta Agriculture and Forestry, Edmonton	Silviculture, stand renewal	780-644-3851	Lee.Martens@gov.ab.ca
Andrew Shandro Provincial Silviculture Specialist	Alberta Agriculture and Forestry, Edmonton	Silviculture, Forest Renewal	780-638-1076	Andrew.Shandro@gov.ab.ca
Mark Fercho Chief Administrative Officer	Municipality of Jasper	Beetle management (Prince George), experience	780-852-6501	mfercho@town.jasper.ab.ca
Tim Ebata Forest Health Officer	BC Ministry HFPSP - Harvesting and Silviculture Practices	Entomology, Beetle Management	250-387-8739	Tim.Ebata@gov.bc.ca
Dr. Mark Johnston Research Scientist	Saskatchewan Research Council, Saskatoon	Climate change, forest dynamics	306-933-8175	Mark.Johnston@src.sk.ca
Dr. Rory McIntosh Saskatchewan Entomologist	Environment	Entomology, Beetle Management	306-953-3617	Rory.McIntosh@gov.sk.ca
John Stadt Provincial Forest Ecologist	Alberta Agriculture and Forestry, Edmonton	Forest Ecology, site ecology	780-422-3047	John.stadt@gov.ab.ca
Ken Greenway Director, Strategic Forestry Initiatives	Alberta Agriculture and Forestry, Edmonton	Silviculture, Integrated Forest Planning	780-422-4017	ken.greenway@gov.ab.ca
Dr. Justine Karst Professor	Agricultural Life and Environmental Sciences Renewable Resources 334A Earth Sciences Building, University of Alberta	Ectomycorrhizae Fungi ecology, tree resistance, restoration	780-492-4942	justine.karst@ualberta.ca
Dr. Lael Parrott Professor	BRAES Institute Director, Associate Professor, The University of British Columbia, Okanagan Campus (UBCO)	Holistic landscape planning, management, and human interactions	250-807-8122	lael.parrott@ubc.ca
Dr. David Andison Program Lead, Healthy Landscapes Program / Consultant, Bandaloop Landscape – Ecosystem Services	fRI Research	Landscape dynamics, disturbances, forest dynamics	604-988-0985	andison@bandaloop.ca

EXPERTS & CONTACTS

Contact	Affiliation	Area of Expertise	Phone	Email
Tracey Cooke Executive Director	Invasive Species Centre, Sault St Marie, ON	Management of programs directed at managing invasive species including MPB	705-541-5770	tcooke@invasivespeciescentre.ca
Dr. David Coates BC Research Scientist	Retired, Smithers BC	Forest ecology post MPB, managing forest complexity	Not available	Not available
Dr. Vince Nealis Research Scientist, Insect Ecologist	Pacific Forestry Centre 506 Burnside Road West Victoria, British Columbia, V8Z 1M5	Insect ecology	250-298-2361	vince.nealis@canada.ca
Dr. Keith McClain Program Lead, MPBEP	fRI Research	Management of Mountain Pine Beetle Ecology Program, information transfer	780-245-4416	kmcclain@friresearch.ca

A National Strategy to Address Mountain Pine Beetle

Issue

The effects of the mountain pine beetle (MPB) threaten the industry, economy, and safety of our country. Without a coordinated national effort, and significant federal involvement, the problem will continue moving eastward and northward, impacting the economic and environmental health of other communities and provinces.

Background

The MPB is the most destructive native pest of mature pine forests in North America, affecting Canadian industries such as forestry and tourism, as well as the safety and operation of related industries that utilize the landscape, such as oil, gas, and mining.

The federal government's position on MPB, including plans, funding, statements, and research, is available on the National Resources Canada section on the Government of Canada website (1, 2). It includes a model outlining how climate change and the number of unhealthy pines can impact MPB populations, allowing for spread eastward, potentially threatening the white pine forests of Ontario.

There is a current opportunity to act on strategic containment of MPB in Alberta, of which estimated costs to carry out are a fraction of those associated with the management of wide-scale infestations. According to a document entitled, *A Strategic Approach to Slow the Spread of Mountain Pine Beetle Across Canada* completed in November 2017 by the Canadian Council of Forest Ministers, "The negative impacts of continued eastward spread of MPB on the flow of goods and services from the boreal forest would be widespread, severe and long lasting." This study underlines the need to act quickly through strategic containment to mitigate the movement of the beetle. (3)

From 1995 to 2015 British Columbia (BC) witnessed the largest mountain pine beetle (MPB) outbreak ever recorded. Over 18.3 million hectares were infested, resulting in a loss of 731 million cubic meters, or 54% of the province's merchantable pine volume, and significant losses to ecological forest values. A reduction of \$57 billion in the province's GDP and a \$90 billion decline in economic welfare are estimated between 2009 and 2054 (present value)...

Since 2004, the Government of Alberta has spent \$456 million managing the eastern spread of MPB, and has removed approximately 1.43 million infested trees. Saskatchewan has also contributed almost \$4.5 million since 2011....

The strategy is intentionally non-prescriptive with the goal of being as adaptive as possible but includes several key principles underpinning the recommendations,

- Implement sustained and aggressive containment actions as early as possible including the removal of infected trees;
- Provide sufficient resources to keep ahead of population growth;
- Share information on population changes and communicate impacts of MPB management;
- Coordinate strategic actions between jurisdictions;

- Central Coordination may be required to standardize methodologies, pool resources, establish effective communication, and share information.

Mountain pine beetle mortality surveys conducted by the Government of Alberta in the spring of 2012 show marked increases in the existence and severity of beetle infestations farther north, east and south than ever before. The same surveys indicate that the probability of in-flights, carrying beetles eastward from adjacent infested areas, is moderate to high in most regions in the province.

Communities located in affected forest regions face additional safety risks due to the spread of MPB. As the surrounding forests decay, they become increasingly susceptible to greater frequency and intensity of forest fires. Programming such as Fire Smart should be focused and funding levels elevated to ensure it is able to support disaster preparedness commensurate with the increased risks created by the beetles.

Economic impacts of MPB have a pronounced effect through job losses in affected industries and communities. Diversification strategies are needed to replace lost jobs and transition economies which are negatively impacted by the pests.

Federal involvement is needed to support

- National MPB mitigation plans and funding for control activities, including action on strategic containment recommendations found in the Canadian Council of Forest Ministers document;
- Community safety initiatives to those areas at greater risk for wildfire due to the effects of the MPB;
- Continued research and education to understand and predict MPB spread to maximize control efforts;
- Regional economic and social resiliency through funding, policy or the development of shared resources.

Recommendations

That the federal government:

- (1) Fully support the Canadian Council of Forest Ministers (CCFM) November 2017 document entitled “A Strategic Approach to Slow the Spread of Mountain Pine Beetle Across Canada” and all mitigation actions or recommendations outlined therein;
- (2) Reinstatement of the Federal Mountain Pine Beetle Program with funds equivalent in scale to the \$200M allocated during the 2007 – 2010 program period
 - Funds from this program will
 - Support provinces that are already infested with Mountain Pine Beetle on community and regional safety programs, or initiatives, including additional funding for FireSmart program.
 - Provide resources for community and economic diversification and resiliency to communities affected by Mountain Pine Beetle.
 - Support mitigation efforts outlined in the CCFM document referenced in recommendation (1).

References

- (1) <https://www.nrcan.gc.ca/simply-science/20625>
- (2) <https://www.nrcan.gc.ca/forests/fire-insects-disturbances/top-insects/13397>
- (3) <https://www.ccfm.org/pdf/2017-MPBStrategicContainmentApproach.pdf>