



PO Box 1749 Halifax, Nova Scotia B3J 3A5 Canada

> Halifax Regional Council June 22, 2004

SUBJECT:	Hurricane Juan - Methods to Deal with Downed Timber on Private Lands
DATE:	June 17, 2004
SUBMITTED BY:	Dan English, Acting Chief Administrative Officer
TO:	Mayor Kelly and Members of Halifax Regional Council

## <u>ORIGIN</u>

Regional Council has requested staff to explore options to deal with the large amount of downed timber on private lands within the municipality in light of increased risk of forest fire.

# **RECOMMENDATION**

It is recommended that Regional Council:

- 1. support the Province of Nova Scotia's effort to bring about a Federal assistance program for private landowners to deal with wood downed as a result of Hurricane Juan within the BSLB (Brown Spruce Long Horn Beetle) Zone;
- 2. make a formal request to the Public Safety and Emergency Preparedness Canada (PSEPC), through EMO Nova Scotia, to institute companion programs to the Disaster Financial Assistance Agreement (DFAA) deal with the quantities of woods downed within HRM which constitute a threat to public safety;
- 3. request the Province to step up it's promotion of it's Fire Smart Program and provide public information as to timelines and alternative methods for dealing on site with woody debris.
- 4. work with the Provincial and Federal Governments to develop a rural residential pick-up program within the Brown Spruce Long Horn Beetle Ministerial Zone as a component of the Disaster Financial Assistance Program.

# BACKGROUND

The impact of Hurricane Juan was clearly felt in all areas of HRM. The clean-up has progressed substantially in the urban and suburban areas of the municipality. One area which still remains severely affected are privately and provincially owned woodlands in the rural areas. In many areas east of Dartmouth and north of Bedford substantial amounts of woodlands are completely blown out. These blowdowns range from 1 and 2 acres to 20 and 30 acres. These downed trees constitute high fuel loads and pose a serious fire hazard this summer. The situation is predicted to get increasingly worse over the next several years as the downed trees dry out. The presence of ladder fuels (leaning trees with their lower branches touching the ground and tops touching the undamaged forest canopy) increases the likelihood of brush or ground fires developing into canopy fires which are faster moving, more intense and harder to fight. In many areas access to brush fire scenes is hampered as woods roads and trails continue to be blocked by downed trees. The potential damage is not only to woodlands but also to adjacent homes and businesses located near or within the effected areas. Often homes are surrounded by forest blowdowns with only one way in and the same way out. The blowouts occur across several categories of properties including; residential and business properties, small woodlots of a few acres, and larger woodlots and crown lands comprising hundreds to thousands of acres.

# It must be stressed that forestry and forestry threats are a clearly a provincial and federal responsibility, however, the threat of property damage and loss to homes and businesses is a major concern of the municipality.

There appears to be three general areas of concern;

## 1) Brown Spruce Long Horn Beetle (BSLB) Quarantine Zone

The Canadian Food Inspection Agency has established that the Brown Spruce Long Horn Beetle represents a serious threat to Canada's forests and forestry industry. The current ministerial order pertaining to the Browns Spruce Long Horn Beetle quarantine area requires that no soft wood may be removed from that area without employing proper methods of handling and processing. (Hard woods are not subject to this order.) Proper methods are intended to ensure that no larvae or adult could survive or sustain themselves after processing. These methods include bury, specialized chipping to achieve a phyto-sanitary chip and incineration. Processing of merchantable timber is permitted, however, these logs are required to have the outer (living) layer of the log removed and this slab material incinerated in an approved facility. The remaining squared timber (cant) must be inspected by the Canadian Food inspection agency prior to it being allowed to be taken outside the zone for further processing as lumber or pulp. Unprocessed wood may be taken out of the zone during the winter months when the beetle is dormant but must be processed before the spring/summer flight season in an approved mill. Any processing facility or mill, whether inside or outside the zone, must be inspected and permitted by the CFIA to handle material from within the BSLB Zone. Authorized mills are responsible for cleaning costs of all of

### Hurricane Juan - Methods to Deal with Downed Timber on Private Lands

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their equipment and facilities after processing and proper disposal of waste or potentially contaminated material. Should the beetle spread as a result of a breach of practices the mill is responsible for extermination costs. To date no mills have been willing to accept this responsibility and chosen to be certified. The additional handling, processing and risk has resulted in a situation where the economics of dealing with wood within the zone are prohibitive. The municipality and the CFIA have processed it's wood within the BSLB zone using a portable speed mill and incinerator located in a rock quarry. The costs for processing have proven to be very high and far exceed normal forestry margins which see any kind of return on the wood. The municipality itself has experienced costs for wood removal for natural woodland parks in the range of \$15,000 per acre while normal harvesting profits are in the range of \$1,200 per acre. This has left private land owners without an economic means to reduce fuel loads on larger properties through harvesting. Currently the forest industry is concentrating on harvesting the quantities of downed timber outside of the beetle zone before the wood value is lost. However, companies have indicated a willingness to harvest within the zone if it becomes economically feasible.

One year from the hurricane any dead wood would be deemed to be clean and can be taken outside the zone for normal processing. However, at this point the wood would no longer have merchantable value.

## 2) Damaged Areas Unharvested Before the Material Loses its Value

Downed trees are generally merchantable for use as saw logs for up to a year after the hurricane (September 04) and then they are only suitable for pulp wood for an additional three to four months (December 04). After that period the timber is of little to no value except perhaps as hog fuel. Of concern are blow downs which are not harvested along these timelines. It is likely that valueless woody debris will remain in place and be an available fuel source for fire for several years. An additional concern is that unharvested areas both in and outside of the zone are good breeding areas for damaging insects which spread and increase damage to healthy surviving stands. This further increases available fuel loads by as much as tenfold.

Small blowdowns near development can be problematic. While those people with wooded lands have a responsibility to ensure that their lands are cleaned up through harvesting not all may understand time constraints for harvesting wood, means to do so, or how to go about negotiating for and hiring contractors to carry out this work. Additionally, the blowdown conditions caused by Juan do not always allow the small woodlot owner to deal with small blowdowns using small woodlot techniques. They can require heavier machinery. Small blowdowns of one or two acres however are generally not economially attractive for larger forestry contractors to move in, set up, harvest, then break down and move on.

#### 3) **Protection of Homes and Built Infrastructure**.

Also of concern are the many home and business owners who have properties adjacent to or surrounded by woodlands. These areas are generally referred to as the woodland/urban interface. While these small properties do not contain substantial amounts of forested lands they do contain downed wood and other materials which constitute fuels. These properties are a potential starting point for fire which could spread to adjacent residential properties and forested lands or act as a conduit bringing a wildfire directly to their homes. Some homeowners do not have the knowledge or the full means to make their properties less susceptible to wildfire. While this situation exists throughout the municipality, those properties within the beetle zone face special challenges due to the quarantine on softwood material.

## **DISCUSSION**

The likelihood of a forest fire danger is governed by two elements; Hazard and Risk. Hazard represents the conditions for a fire to take hold and expand. These conditions include quantity of available fuel, state of that fuel, weather conditions and time of year. Risk is generally stated as the risk that an ignition source is present which could start a fire. While lightning is a natural ignition source, the primary ignition source for wild fire in this area tends to be human activity in and near the woods. Therefore, there is often a higher risk associated with woodlands near development than there is in remote areas. Both risk and hazard must be managed to reduce the likelihood of a wildfire.

As we cannot control the weather, reducing hazard most often is in the form of reducing fuel loads and treating them in ways which makes them less susceptible to fire. This includes harvesting, chipping, processing of brush into finer slash material and laying it close to the ground (avoid piling), strategic distribution of slash and elimination of ladder fuels which can take fire into the forest canopy. These measures can bring fire hazard to an acceptable level.

A second effort to reduce hazard and risk is to have home and business owners clean and organize their properties in accordance with basic Fire Smart Principles. This calls for the establishment of a safe zone around a building, removal of brush and ladder fuels, cleaning off roofs and gutters and proper storage of propane, firewood and building materials. Coupled with this is a personal preparedness plan in the event of a wildfire. This plan includes adequate water sources for sprinklers and hoses, notification plans and evacuation routes. People within the beetle zone face special challenges in effecting the clean-up portion of the Fire Smart Program due to limitations on what can be done with woody debris.

Recent council discussions have focussed on burning as a means to clean-up properties. Staff feel that there are inherent risks associated with burning outside of prescribed times of the year and zones associated with the HRM burning by-law. Burning outside these restrictions actually increases the risk of wildfire. What homeowners need to understand is that by employing the basics of the Fire

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Smart Program they can greatly reduce the risk of fire immediately without burning. These are the methods currently being employed in HRM parks. If further reduction is desired, course and fine woody material can be burned or further processed at times when there is less risk of BSLB spread or the spread of fire.

To further reduce risk, the Department of Natural Resources has indicated that they will be quicker to restrict woodland activities and travel this year based on the increased hazard caused by Juan.

# **Available Program Options**

There are several options for programs to address the current situation. Some programs are in existence but need to be amplified. Some programs will have to be created.

# Assistance for Wood Lot Owners Within the BSLB Zone

Federal policy states that; in conjunction with the province concerned, the Government of Canada may also develop specific measures or companion programs to the Disaster Financial Assistance Arrangements stemming from unique problems associated with the disaster. There were several companion programs developed in conjunction with the Ontario-Quebec Ice Storm of 1998. Most often companion programs are directed to economic recovery after a disaster however the combination of BSLB Zone restrictions and hurricane damage would seem to constitute a unique situation worthy of a program. The case for such a program must be made to the appropriate levels of government and departments and the limitations and financial arrangements associated with these defined.

On May 6, 2004, municipal, provincial and federal officials met with the Minister of Natural Resources and several MLAs at Province house to discuss the need to create a program to address the issue of hurricane damage within the BSLB Zone. That meeting and a subsequent meeting with the CFIA resulted in a letter being sent from Minister Hurlburt, Provincial Minister of Natural Resources to Minister Spelling, Federal Minister Agriculture requesting a program to assist in this unique situation. To date HRM is not aware of a response from the federal minister.

Discussions to date between the Department of Natural Resources, CFIA, EMO Nova Scotia and HRM staff have centred on a program to defray costs to have private forestry companies harvest and process wood within the beetle zone by introducing a financial subsidy.

# Assistance for Woodlot Owners Outside the BSLB Zone

In terms of unharvested lands outside the beetle zone, the indications are that commercial operations will be continuing to harvest these lands up until the wood is deemed to be unprofitable. Every effort should be made to encourage property owners to clear blowdowns while the wood is marketable and profitable. It is unlikely that merchantable blowdowns outside the beetle zone, which have had 12 months to carry out harvesting, would qualify as a unique situation which would attract the assistance of the Federal and Provincial governments. Extenuating circumstances and

blowdowns which are not economically feasible to harvest may spawn a companion program.

Efforts should be made through the Department of Natural Resources to ensure that landowners are aware of timelines associated with harvesting downed timber and the consequences of not processing this material in a timely manner. Any extenuating circumstances which would compel properties outside the BSLB zone to be included in a companion program should be brought forward for consideration.

## Programs for Small Lot Home and Business Owners

HRM has participated with the Department of Natural Resources in promoting a Fire Smart program within HRM. This program advises homeowners on how to protect their homes from wildfire by taking steps to clean up their property, moving combustibles away from their homes and creating a protective zone around their buildings. This program is worthwhile and effective but has not necessarily had a high profile within the affected areas. It has also become apparent that some homeowners did not have the foresight, the opportunity or the means to clear their properties of blowdowns and debris during the burning season and thus must either store these materials until they can be burned in late fall or can be removed depending on their location. HRM and the Province should continue to develop and provide public information on how to protect property from wildfire and recommended methods to deal with downed woody materials other than burning and that these programs be targeted towards the affected areas.

Discussions with property owners indicate that they are looking for assistance to help themselves. Levels of government should assist those residential properties and businesses deal with quarantined wood within the BSLB zone. Disaster Financial Assistance program staff have indicated a willingness to look at funding a program aimed at assisting home owners in cleaning up their properties. In concept, this program would see the municipality and or the province implementing a reasonable clean-up program for small property owners similar to the October 2003 clean-up program with expenses eligible for recovery through either the DFAA or a companion program.

# **BUDGET IMPLICATIONS**

This issue is clearly a Provincial/Federal matter and the costs should fall to those levels of government. However, until a program is set out to deal with each of these areas of concern it is difficult to quantify these costs and what the expectation for municipal funding would be. It is anticipated that the funding formula would be similar to previous programs in other areas. These generally were covered 90% federal / 10% provincial or split by the two senior levels of government depending on the program.

Any program which required financial participation of HRM would require the authorization of Council.

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June 22, 2004

# FINANCIAL MANAGEMENT POLICIES / BUSINESS PLAN

This report complies with the Municipality's Multi-Year Financial Strategy, the approved Operating, and Capital budgets, policies and procedures regarding withdrawals from the utilization of Capital and Operating reserves, as well as any relevant legislation.

## **ATTACHMENTS**

BSLB Ministerial Order Zone Map Letter From Minister Hurlburt to Minister Spelling

Additional copies of this report, and information on its status, can be obtained by contacting the Office of the Municipal Clerk at 490-<br/>4210, or Fax 490-4208.Report Prepared by:Peter Bigelow, Deputy Co-ordinator, Emergency Measures, 490-6047

Report Reviewed/Approved by:

Michael E. Eddy, Chief Director, Fire and Emergency Services, 490-4238

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P.T

# ORDER DECLARING CERTAIN PLACES TO BE INFESTED WITH THE BROWN SPRUCE LONGHORN BEETLE AND PROHIBITING AND RESTRICTING THE MOVEMENT OF THE PEST AND TREES, LOGS, WOOD WITH BARK ATTACHED, LUMBER, WOOD CHIPS OR BARK CHIPS, INCLUDING CONVEYANCES OUT OF THOSE INFESTED PLACES

#### Short Title

1. This Order may be cited as the Brown Spruce Longhorn Beetle Infested Places Order -First Revision.

#### Declaration

2. The places set out in the Schedule attached hereto and forming part of this Order are declared to be infested with the Brown Spruce Longhorn Beetle (*Tetropium fuscum*).

#### Interpretation

3. In this Order,

"conveyance" means any aircraft, carriage, motor vehicle, trailer, railway car, vessel, cargo container or other contrivance used to move persons or things;

"inspector" means a person designated as an inspector pursuant to section 21 of the *Plant Protection Act*;

"Movement Certificate" means a certificate referred to in Part III of the *Plant Protection Regulations*, SOR/95-212;

"pest" means the Brown Spruce Longhorn Beetle (Tetropium fuscum).

Prohibitions and Restrictions of Movement

4. (1) No person, except an inspector, shall move out of the places set out in the Schedule attached hereto and forming part of this Order the pest and trees, logs, wood with bark attached, lumber, wood chips or bark chips, unless authorized to do so in writing by an inspector under and in accordance with a Movement Certificate.

(2) No person, except an inspector, shall move out of the places set out in the Schedule attached hereto and forming part of this Order any conveyance that has carried trees, logs, wood with bark attached, lumber, wood chips or bark chips that is infested or suspected of being infested with the pest, unless authorized to do so in writing by an inspector under and in accordance with a Movement Certificate.

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5. Notwithstanding subsections 4(1) and (2), no Movement Certificate is required to transport trees, logs, wood with bark attached, lumber, wood chips or bark chips, if the trees, logs, wood, lumber or chips are

(a) harvested outside of the infested places specified in this Order,

(b) not infested or suspected of being infested with the pest; and

(c) imported into or being exported from Canada via the Port of Halifax.

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#### SCHEDULE (Section 2)

### INFESTED PLACES

All that part of the Province of Nova Scotia, more particularly described as follows:

Commencing at a point on the Province of Nova Scotia's coast at the Town of Sambro, then north to the intersection of Government Wharf Road and Old Sambro Road, then north along the east side of the Old Sambro Road to Highway 306.

Thence proceeding north across Highway 306 to the east side of Highway 306.

Thence proceeding north along the east side of the Highway 306 to Leiblin Drive.

Thence proceeding northeast for 1 km along the east side of Highway 306 to the Cart track.

Thence proceeding southwest along the north side of the Cart track to the intersection of Highway 333 (Prospect Rd.).

Thence proceeding northeast along the east side of Highway 333 (Prospect Rd.) to St. Margarets Bay Rd.

Thence proceeding northeast across St. Margarets Bay Rd. to the southeast side of Highway 103.

Thence proceeding northeast along the southeast side of Highway 103 to the interchange with Highway 102 (Bicentennial Highway).

Thence proceeding around the interchange keeping to the east side of Highway 102 (Bicentennial Highway).

Thence proceeding north along the east side of Highway 102 (Bicentennial Highway) to the intersection with Highway 118.

Thence proceeding northeast 200 meters to the south shore of Miller Lake.

Thence proceeding east along the south shore of Miller Lake to the Waverley Game Sanctuary.

Thence proceeding east along the entire length of the southern boundary of the Waverley Game Sanctuary to Tittle Lake.

Thence proceeding east along the south shore of Tittle Lake to the water course that leads into Loon Lake.

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Thence proceeding east along the north shore of Loon Lake to the water course that leads into Salmon River Long Lake.

Thence proceeding southeast along the east shore of Salmon River Long Lake to the Salmon River.

Thence proceeding south to the west shore of the Salmon River.

Thence proceeding south along the west shore of the Salmon River to Martin Lake.

Thence proceeding south along the east shore of Martin Lake to the water course that leads into Lake Echo.

Thence proceeding south along the west shore of the water course to Lake Echo.

Thence proceeding south along the west shore of Lake Echo to the water course that leads to the Partridge River.

Thence proceeding south along the west shore of the Partridge River to Lawrencetown Lake.

Thence proceeding south along the west shore of Lawrencetown Lake to the Atlantic Ocean.

Thence proceeding west along the south coast of the Province of Nova Scotia to the point of commencement as described and illustrated on the attached map.





#### Natural Resources Office of the Minister

PO Box 698, Halifax, Nova Scotia, Canada B3J 279	Telephone 902 424-4037 Fax 902 424-0594  www.gov.ns.ca
	20000-01/HUS.04
May 10, 2004	

Honourable Bob Speller, Minister Agriculture and Agri-Food Canada 930 Carling Avenue Ottawa, Ontario K1A 0C5

Dear Mr. Speller:

It was with pleasant surprise that I read, in recent news coverage, comments from you and Georges Farrah, Parliamentary Secretary, that the federal government is looking at creating a program to help Nova Scotia woodlot owners cope with the duel impact of the Hurricane Juan ćamage, and the Canadian Food Inspection Agency (CFIA) restrictions for the brown spruce longhom beetle.

On May 6, 2004, I met with CFIA officials, in Halifax, and reviewed the current situation and existing problems and experiences with attempting to make it feasible for salvage to be conducted within the Ministerial restricted movement zone, while still respecting the they tosanitary requirements to deal with this serious pest risk.

While these two events have coincided to create a unique situation, the provisions of the two existing government programs (pest eradication and disaster financial assistance arrangements) have created an administrative gridlock. It appears, from the Hansard exchange between MP's Bill Casey and Georges Farrah, that the nature of this situation is understood.

What is required, on an urgent basis, is for you to continue to show the suggested leadership by authorizing the respective federal agencies to adapt, implement, and fund provisions that are capable of meeting these specific and unique circumstances. Time has moved on, the damaged trees are deteriorating-reducing their commercial interest, and our forest fire season has begun, creating additional concerns within this forest/urban interface region. Your action and interest in this matter is needed and greatly appreciated.

Yours sincerely,

ORIGINAL SIGNED BY Minister

Redard Hurlburt Minister

Fremier John Hamm
Honourable Ernest Fage
Honourable Robert Thibault, MP - West Nova
John MacDonnell, MLA - Hants East
Diana Blenkhorn, Maritime Lumber Bureau

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be Ed MacAulay Peter MacQuarrie