

## EXTERNAL: Wildfire Prevention and Suppression

Alex Pawliuk [REDACTED]

Thu 4/25/2024 11:43 AM

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 1 attachments (550 KB)

Suggestions for Managing the Outcomes of Wildfires .pdf;

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To: The Mayor and all Councillors of British Columbia's Municipalities

Hello Dear Council Members:

With recent wildfire experiences in many parts of Canada I thought all elected Members of British Columbia's Municipalities may be interested in these Wildfire Prevention and Suppression suggestions and observations. They can be easily applied in your area of B.C.

Am sending the following suggestions to B.C.'s EMCR Minister, Bowinn Ma and to the B.C. Ministry of Forest, B.C.'s elected officials and Canada's MP's in hopes with your help, we can safely with lower costs, substantially improve our Wildfire Prevention and Suppression while reducing our CO2 emissions.

I am a retired senior with over 50 years of varied coastal forest industry experience including engineering, management, helicopter salvage of dead or dying timber and even participating in disaster planning exercises held at Arnprior, Ontario by Civil Defence Canada.

I am quite concerned that recently many are now advocating a policy of widespread prescribed burning of flammable forest biomass debris, which creates much CO2 pollution, is costly and there is always the danger of wildfire escape as past history illustrates.

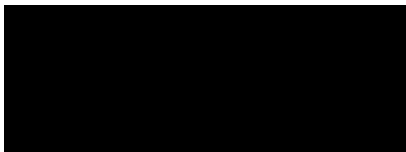
As a sustainable, environmentally friendly and potentially profitable alternative, I believe wherever possible we should try to mulch and collect and utilize the flammable biomass fuels as a valuable feedstock resource for further process into biomass pellets and briquettes.

It is very possible that Drax and or other biomass pellet companies would be interested in helping to develop the field practices and purchase the biomass feedstock.

FYI I've attached a 5 page PDF with a more detailed description of the suggested policy and system to help improve the safety, effectiveness and costs of B.C.'s Wildfire Prevention & Suppression.

Thank you for your consideration of my suggestions.

Best Regards,  
Alex Pawliuk



Delta, B.C. V4M 4B4

## **To Whom It May concern:**

### **Consider Managing for Safer, Lower Cost Prevention and Outcomes of Wildfires by Using;**

- **“Primary Firebreaks”** with the flammable biomass debris removed and wide reaching water sprinkler systems installed where possible.
- **“Quick Detection”** by increasing ground and aerial fire patrols aided with real time monitoring with infrared satellite Imaging.
- **“Prompt Effective First Response”** with large volume 4,000 to 6,000 gallon plus aerial water or retardant drops as opposed to the current use of small volume drops or monsoon buckets.

## **Natural Resources Canada reports:**

<http://www.nrcan.gc.ca/forests/fire-insects-disturbances/fire/14444>

*“On average, 8,600 wildfires burn 2.5 million hectares in Canada each year, often threatening communities and resulting in the evacuation of residents and sometimes the loss of homes.”*

*Only 3% of all wild land fires that start each year in Canada grow to more than 200 hectares in area. However, these fires account for 97% of the total area burned across the country.*

*Fire suppression costs over the last decade in Canada have ranged from about \$800 million to \$1.5 billion a year.*

**In 2023:** <https://cwfis.cfs.nrcan.gc.ca/report>

*“According to the Canadian Interagency Forest Fire Centre National Fire Summary, 6,623 fires have been recorded nationally in 2023, burning a total of 18,401,197 hectares (ha). For comparative purposes, the total number of fires and area burned last year (4,883 fires; 1,467,970 ha), and the 10-year average (5,597 fires; 2,751,161 ha) as reported in the Canadian National Fire Database (CNFDB). According to the CNFDB, in terms of area burned, this year was the highest ever recorded with the previous recorded in 1989 (7,597,266 ha)”.*

*“British Columbia saw the most wildfires so far this year (2,245), followed by Alberta (1,022). British Columbia (2.82M ha), Alberta (2.52M ha), Northwest Territories (4.16 M ha), Saskatchewan (1.85M ha), and Quebec (5.03 M ha) each had over a million hectares burned. Estimated area burned was above the 10-year average in British Columbia, Yukon, Alberta, Northwest Territories, Saskatchewan, Ontario, Quebec, Newfoundland, New Brunswick, Nova Scotia, and Parks Canada, but lower than average in Manitoba and Prince Edward Island.*

*The total area burned may change as provinces and territories continue to map their respective fires.”*

Forest fires can be caused by natural events like lightening, accidentally by power line faults, friction, explosions or sparks, and unfortunately very often by human carelessness or lack of an individuals fire safety knowledge and practices.

It has become a generally accepted view that as a result of changes in atmospheric levels of Green House Gases (GHG's) a global warming of earth's climate conditions is now under way. The resulting increase in naturally occurring dry flammable organic fuels in our forests and grasslands is expected to continue to lead to an increase in number and severity of wildfires in the areas surrounding many Canadian and global rural communities.

Many small communities including 1<sup>st</sup> Nations can be at greater risk, as they often are located in remote areas surrounded by forests that can be frequently threatened by out of control wildfires. As a result thousands of people are forced to evacuate each year with many residents facing personal threats to life and property as well as the potential severe environmental, economic and social consequences for the communities they live in.

## **My Personal Observations:**

In 1969 while working in the Forest Engineering Dept. at MacMillan Bloedel's, Sproat Lake Division in Port Alberni, B.C., Canada, as a standard practice we planned for, established and maintained ½ mile wide "Primary Firebreaks" with the purpose of surrounding and separating active log harvesting areas of + - 4,000 to 8,000 acres into more manageable fire protection units in case of wildfire and or operationally caused forest fires occurring in the more flammable post logging slash and dry bio-mass debris.

The "Primary Firebreaks" were planned into lower risk landscapes, when ever possible using; mature Hemlock dominant stands and or deciduous inclusive stands containing low amounts of ground level fuels as well where possible inclusive of lakes, rivers, creeks or rock bluffs, all of which could help reduce forest fire flame spread.

The "Primary Firebreaks" (other than thru access roads) were to stay intact and unlogged until the adjacent second growth stands were old enough to serve the same purpose.

As well during "Fire Season" we did daily after-shift ground and aerial fire patrols of all operating areas, and did the same during periods of lightening strikes.

If we observed any signs of smoke or fire we could act quickly to call in the Mars water bomber to do 6,000 gallon drops until the fire was out or under control, and well before it could grow unmanageable in size and too out of control and dangerous for the ground based fire suppression crews.

A combination of preventative measures, quick identification, location & response using readily available appropriate technology and common sense helps ensure the safest, lowest cost wildfire prevention, mitigation and defense.

The idea being if we had an operationally caused or natural forest fire, our "Primary Firebreak" units with lower flame spread potential, helped our fire suppression crews efforts and the locally available 6,000 gallon Mars water bombers to quickly gain control of fires before they could spread to become dangerous, expensive and large out of control wild fires.

**We need a modern version of water bomber type aircraft with the “Mars 6,000 gallon capacity”. Its “Effective Volume of Water or Retardant” combined with “Early Detection”, “Prompt Response and use of “Primary Firebreaks” worked really well for us and as a result we had very few run away wildfires occur.**

I am confident that using the **“Primary Firebreak”** approach to encircle and protect communities, or important infrastructure and residences, augmented with high volume sprinkler systems where-ever possible will pro-actively and safely help to protect residents and land owners from out of control wild fires, saving lives, loss of property and building assets at the lowest possible cost.

### **“Primary Firebreaks” Should:**

- 1 - be ½ mile (or wider) to encircle a subject community or protect an infrastructure and narrower if necessary for isolated residential and farm buildings.
- 2 - also be used to divide and isolate drainages or forest areas into smaller potential compartmented wildfire areas surrounded by semi-natural fire stops.
- 3 - be of less flammable stands like mature Hemlock trees and deciduous inclusive stands preferably that have been thinned, spaced and pruned.
- 4 - be inclusive of adjacent lakes, rivers, creeks or rock bluffs, all of which could help reduce a forest fires flame spread.
- 5 - if where sufficient water supply is available, be equipped with an effective far-reaching sprinkler system preferably elevated on poles or posts, with an independent back up system including generator.
- 6 - contain low amounts of, or be cleared of easy to ignite ground level bio-mass fuels and woody debris.
- 7 - Where-ever possible the easily flammable leaves, needles, branches and woody debris should be collected and mulched for processing into biomass pellets or briquettes for companies like Drax or other producers, **as opposed to prescribed burning which should only be the last option.** Prescribed burns do not make sustainable use of our existing resources, they cost money, create pollution and can be dangerous particularly if they escape.

The 5 links below are just a few equipment types & or companies that could be used by existing local Forestry Silviculture crews for **“environmentally friendly and hopefully profitable”**, self funded bio-mass recovery from the naturally occurring leaves, needles, branches & woody debris they may collect and recover while establishing Primary Firebreaks.

Thank you for considering my suggestions regarding “Wildfire Prevention and Suppression”.

Regards, Alex Pawliuk  
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[https://www.billygoat.com/au/en\\_au/products/debris-loaders.html](https://www.billygoat.com/au/en_au/products/debris-loaders.html)

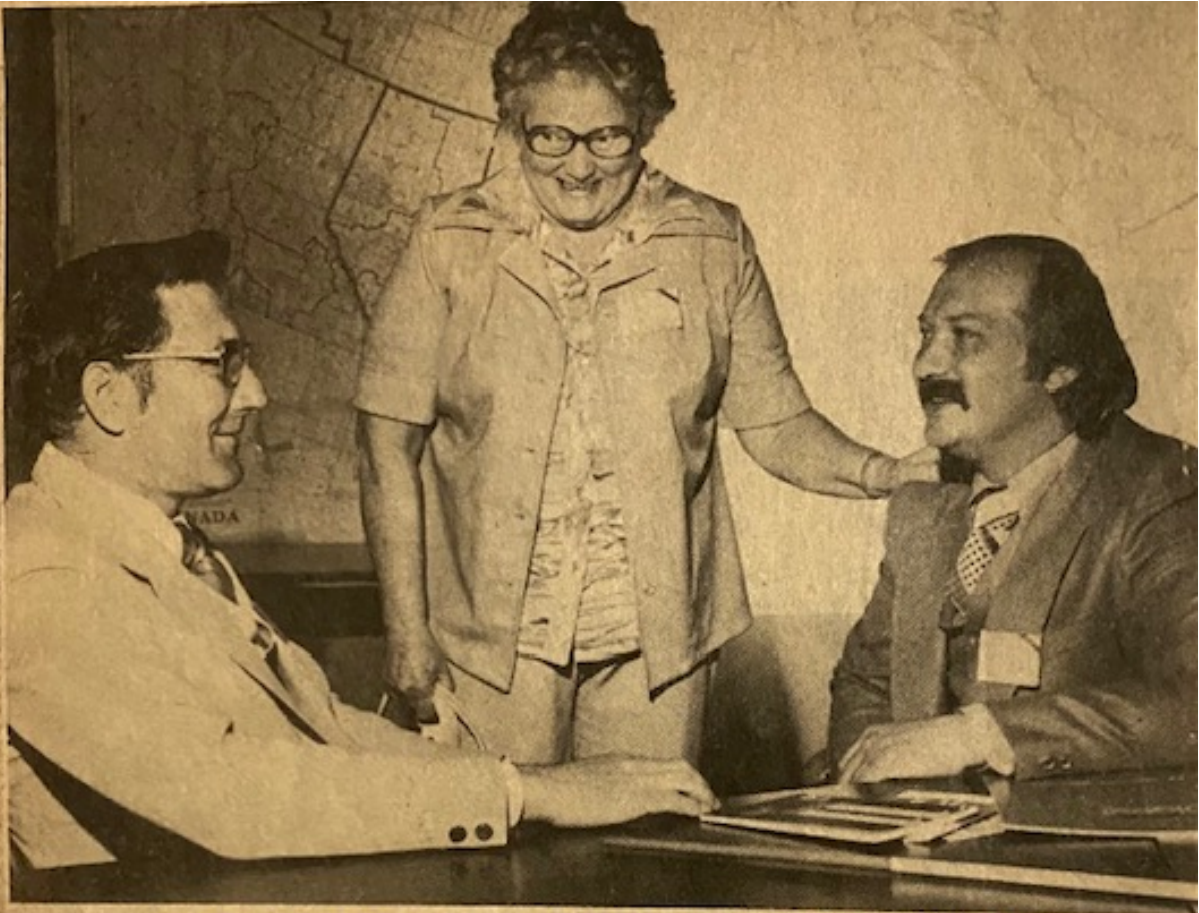


<https://www.facebook.com/appliedcleansingsolutions/videos/urban-leaf-and-litter-vacuum-system-litter-master-9000/1365437830456658/>

<https://www.deere.com/en/gator-utility-vehicles/>

<https://www.tmhindustries.com/collections/403150242007>

<https://www.drax.com/>



## DISASTER PLANNING DISCUSSED

Ald. Ada Howden of Nanaimo, discusses the results of a four-day study of leadership in disaster situations with Ladysmith Ald. D. A. Brown, left, and Mayor A. O. Pawliuk of Port

Clements. They were among 21 mayors and senior elected officials from eight provinces who took part in the study in Arnprior, Ont. The program involved films, lectures, demonstrations and

discussions. Civic leaders were introduced to problem areas in which they and their administrations could become involved in coping with peacetime disasters.

## MID-ISLAND NEWS

From: Parksville, Courtenay, Ladysmith

Courtenay Office: 541 Duncan Ave. (upstairs) — 334-4171

10 Nanaimo Daily Free Press, Friday, May 13, 1977



## Sproat Lake Logging Division



[Admin](#) Bob Hopkins · Apr 1 ·



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**Alex Pawliuk**

In 1972 & 73 on the Sproat Lake Div. Engineering crew, during early shift I occasionally had to fly an afternoon fire patrol of the current active logging locations in Alberni Valley looking for smoke from hot spots. We flew in the Gruman Goose and on occasion if the Mars water bombers had to be called out to do a quick water strike, we flew the intended attack flight path ahead of it to make sure it was safe for the Mars. It was quite exciting to say the least.

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