



SUBJECT: Open air burn permit review

TO: Committee of the Whole

FROM: Fire Department

Report Number: BFD-05-19

Wards Affected: 1

File Numbers: 755-04

Date to Committee: December 2, 2019

Date to Council: December 16, 2019

Recommendation:

Endorse the open air burning permit areas, with no changes, as detailed in Appendix A, Schedule A, of fire department report BDF-05-19; and

Approve updated by-law xxx-2019 open air burning for the City of Burlington, attached as Appendix C, as outlined in Burlington Fire Department report BFD-05-19.

Purpose:

Respond to staff direction MO-09-19 for the Fire Chief to investigate revising the City of Burlington's (city's) open air burn permit areas to consider including rural areas south of Dundas Street and report back with options.

Definition Reference

For the purpose of this report;

- Yard waste means leaves, grass, and non-woody organic garden waste. Yard waste does not include sod, dirt, sand, gravel, tree stumps or rocks. Brush is wood waste from bushes and trees that is less than 3 inches in diameter.
- Open air burning means the burning of any materials outside of a building, including, but not limited to, fire pits, chimineas and outdoor fireplaces, wherein the flame is not wholly contained, and is thereby, open to the air.

Background and Discussion:

A resident from the North Aldershot area *“requested a change in permits as a way to have sensible fires that assist with managing large properties and brush (all properties*

in the area are a minimum half acre or more in size. North Aldershot is a unique community of semi-rural properties and farms.” “The suggestion is to consider following the basic fire permit rules from Haliburton (Highlands) County, which have distance separators and time conditions”.

Note: “*semi-rural*” is not documented or recognized in the city’s official plan, nor a term used by the fire department as a description for fire protection services.

Open air Burning Overview

The process for regulating open air burning includes:

1. The submission of an application from a property owner who resides within the approved open air burning areas (please see Appendix A)
2. A site review by a fire prevention Inspector or fire suppression crew
3. Upon satisfactory completion of a site review an open air burning permit will be issued within the provisions of the by-law.

The Fire Chief has the authority to revoke permits or enact an open air burning ban when conditions threaten public safety.

Ontario Regulations

There are a number of regulations that mandate open air burning in the Province of Ontario. These regulations have been outlined below, along with the city’s open air burning by-law.

Outdoor Fires (O. Reg 207/96)

Regulation made under the Forest Fires Prevention Act, R.S.O 1990; is applicable for the northwestern, northern or central areas of Ontario. This legislation guides open air burning (outdoor fires) for the northern and central areas of Ontario. Haliburton County referenced by the North Aldershot resident is part of this regulatory area. Guidance for open air burning in municipal areas of southern Ontario is detailed in the Ontario Fire Code and Fire Protection and Prevention Act.

Ontario Fire Code (O. Reg 213/07)

Section 2.4.4.4 (1) of the Ontario Fire Code states that open air burning shall not take place unless;

- (a) it has been approved, or
- (b) the open air burning consists of a small, confined fire that is used to cook food on a grill, barbecue or spit, commensurate with the type and quantity of food being cooked and is supervised at all times.

Fire Prevention and Protection Act, 1997, S.O. 1997, c.4

Section 7.1 (1) of the Fire Prevention and Protection Act states that council of a municipality may pass by-laws,

- (a) regulating fire prevention, including the prevention of the spreading of fires;
- (b) regulating the setting of open air fires, including establishing the times during which open air fires may be set.

Municipal Act, 2001, S.O. 2001, c.25

Section 128 (1) Without limiting sections 9, 10 and 11, a local municipality may prohibit and regulate with respect to public nuisances, including matters that, in the opinion of council, are or could become or cause public nuisances.

Section 425 (1) A municipality may pass by-laws providing that a person who contravenes a by-law of the municipality passed under this Act is guilty of an offence.

Open air Burning City By-law

The city's open air burning by-law takes into consideration Ontario legislation and many other factors. When developing or updating by-laws and programs to manage open air burning the municipality must ensure that their practices are suited or modified to fit their particular needs and consider geographic location, terrain, population density, burn frequency, meteorology and social responsibility. In addition, staff consider the protection of life and property and evaluate any associated risk or potential risk. All of these factors were taken into consideration as part of this by-law review and guides the options and recommendations provided in this report for councils' consideration.

Emergency Fire Response

Firefighting emergency response considers risk and the required fire resources; building stock risk by occupancy classification, known hazards, population density, response time, available resources and water supply.

For the purpose of emergency response, the city's urban area is generally defined as the area south of Dundas Street and 407 ETR. The lands to the north and far west of this area comprise the rural area of the city. North Aldershot is located in the far west of area of the city.

In developed urban areas and lands where future development is expected, water supplies for firefighting operations are provided through municipal water via hydrants. Portions of North Aldershot are supplied with municipal water in preparation of planned future development.

In areas without municipal water supplies (waterless areas) the fire department must coordinate alternative measures to move water from a source location to the scene of a fire incident. This is accomplished through a water Tanker Shuttle Service process. A

fire departments ability to provide a Tanker Shuttle Service is assessed and graded by the Canadian Fire Underwriter's Survey.

The Burlington fire department is accredited with Superior Tanker Shuttle Service (STSS).

Fire Underwriter's Survey – Tanker Accreditation and Insurance Grading

Fire Underwriters Survey (FUS) evaluates a fire departments ability to provide fire protection services to all areas of a community. FUS also decides fire insurance grading for residential and commercial properties based on a community's fire protection services. FUS provides that information through the Public Fire Protection Classification (PFPC) and Dwelling Protection Grades (DPG) insurance grading systems.

Superior Tanker Shuttle Service (STSS) Accreditation is a recognized equivalency to hydrant protection. Burlington fire services has successfully achieved Superior Tanker Shuttle Accreditation, which has been administered by FUS to the Insurance Advisory Organization.

As part of this review, staff inquired with FUS to ask if any changes to open air burning area(s) would impact the City's existing PFPC or DPG insurance rates and/or if FUS would need to reassess the Superior Tanker Shuttle Accreditation or the existing insurance grading for the City.

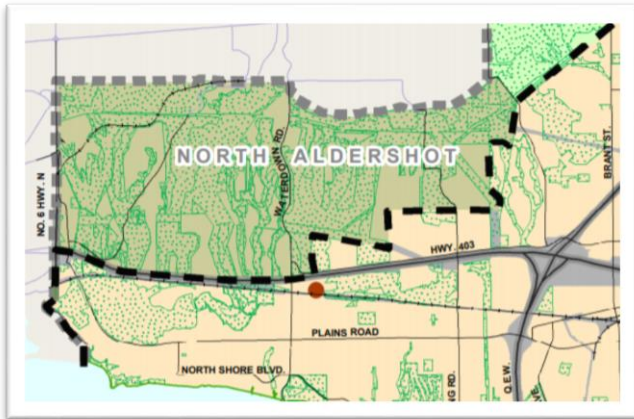
FUS responded as follows: *"there will be no impact to STSS accreditation or fire insurance grades. Areas where open air burning is permitted versus not permitted does not have a direct impact on STSS accreditation or cause a change to fire insurance classifications for the properties in that area."*

Staff do not have any further concerns that insurance rates may be impacted due to the information provided by FUS, as part of this review.

North Aldershot

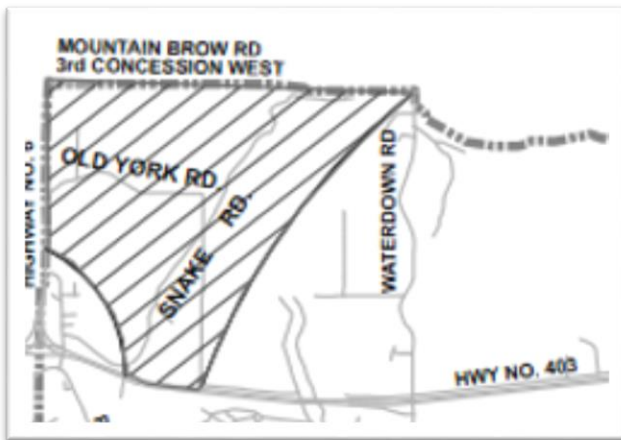
The North Aldershot boundary identifies lands located north of Highway 403 and south of the City of Hamilton. The westerly limit is Highway number 6 while the easterly limit is the Dundas-Burlington Ontario Hydro Transmission Line, as detailed in Map 1 below. The North Aldershot area has land use policies that allow for future development for infill residential, detached residential, cluster residential and office.

Map 1: Schedule A: North Aldershot (City's Official Plan, 2018)



The current open air burn by-law does allow for an area in North Aldershot to conduct open air burning, as shown in the shaded area in Map 2 below. This was determined after taking into consideration many factors such as proximity to exposures, structures, geographical barriers, highways and roadways, etc. The non-shaded area outlines the areas that are not allowed to conduct open air burning due to the same rationale, as well as taking into consideration the commercial/industrial properties that are located on the northside of North Service Road from Brant Street to Waterdown Road.

Map 2: North Aldershot Designated Open air Burning Area



North Aldershot Planned Growth

Staff inquired with city planning to better understand the potential planned growth in the North Aldershot area. City planning staff advised that the area of Waterdown Road, Flatt Road and an area just south of Craven Avenue and Nevarc Drive has already been approved for development within the adopted Official Plan. Based on the number of development applications this area will likely experience significant residential development over the next few years.

The development proposed for this area is estimated to increase to a total count of approximately 1,280 private dwellings from the current 360. This number is based on the current number of development applications focused in the Waterdown Road and Flatt Road area. Following this growth, the area will align more with an urban footprint based on property size and population density. Appendix B is provided to show the concept for proposed development in this area.

Staff are recommending that the city's existing open air burn areas remain in effect, which excludes portions of the North Aldershot area, as detailed in Appendix A.

Rural Area Review (North end of City)

As part of the review, the resident from North Aldershot asked for staff to *“consider the possible similar characteristic of those found in the rural permit areas north of Dundas Street.”*

The northern rural area of the city is defined as “being located on the edge of a major urban area.” The protection and strengthening of the rural community has been adopted as the policy framework guiding planning for the Rural Area” (City’s Official Plan, 2018).

Staff inquired with city planning to get an estimate of the planned development in the rural area of the City. The response provided indicated that there are only a few applications in this area; however, these consist of new homes, residential additions, garages, decks, etc. on existing properties only. There is no significant increase to population density planned in the rural area in the north of the city.

Staff are recommending that the city's existing open air burn areas remain in effect, as detailed in Appendix A.

Fire Department Concerns and Challenges

Smoke Reducing Driver Visibility on Highway and Roadways

Open air burning of yard waste and brush can create dense smoke due to the matter being burned. The concern and rationale in the past for excluding open air burning in areas of the North Aldershot area (Appendix A) is due to these properties and their proximity to Waterdown Road, North Service Road and Highway 403 and a portion of the 407 ETR (Express Toll Route). Although the properties in this area may share similar property size characteristics to those in the rural area, the difference is their location respective to highly traveled arterial roadways and highways. There is the potential for dense smoke to travel from some areas creating a dangerous situation where drivers visibility may be reduced creating unsafe driving conditions. The areas that are approved to conduct open air burning in the North Aldershot area have enough natural geographical barriers to limit the travel of smoke.

Staff consulted with the Ministry of Transportation (MTO) on this matter and they offered the following concern *“Proximity to the highway is the main concern and the burns close to the highway could cause potential impacts to the highway including reduced visibility, damage to MTO property, and cause distractions to the travelling public which could ultimately cause accidents”*.

Adding additional restrictions in this area for open air burning may be a possible option for council to consider; however, staff must reiterate their concern. There will always remain an associated risk that dense smoke could impact visibility on major thruways. Extinguishing a fire may also cause an increase in smoke and should also be noted.

Increase in Public 911 Concern Calls, and Use of Fire Resources

Another item for concern is the anticipated increase in the number of public concern 9-1-1-calls due to visible smoke. From department experience, when smoke is visible, public 9-1-1 calls of concern increase due to visibility and proximity. There are many variables that come into play; such as, what is being burned, wind speed, weather conditions, time of day, visible distance of the smoke, where the caller is calling from, etc. In all cases, the fire department will respond by sending resources to determine the cause of the smoke. This ties up emergency fire resources and limits what is available to respond to an emergency call. While it is impossible to estimate the potential increase in 9-1-1 calls it should be taken into consideration.

Open air Burning Nuisance Complaints

The typical fire department experience is that more densely populated areas and open air burning don't mix well. Smoke from open air burning can include haze and odour problems. When there are no physical barriers (such as buildings and fences) and little air flow to clear the air from open air burning activities, then visibility can be obscured by smoke and the smell of burnt material may be noticeable both indoors and outdoors for extended periods of time. This creates nuisance conditions that can impact the general quality of life in a community.

The common nuisance complaints received are smoke migration, odour and fire hazard concerns. Burning complaints are investigated by on-duty fire crews when the burn is being conducted. Based on individual circumstances various measures are taken to mitigate the incident which may include; immediate extinguishment of the fire, cost recovery fees for non-compliance, Ontario fire code fine(s) and/or rescindment of an open air burn permit.

Based on the concerns mentioned, in combination with other factors already noted, staff are recommending that no changes be considered to the allowed burning areas, as detailed in Appendix A.

Comparison of Surrounding Municipalities

Staff reviewed local municipalities and also included Highlands East in the comparison information provided in Table 1 and Table 2 below. Highlands East was specifically mentioned by the North Aldershot resident, who suggested staff “*consider following the basic fire permit rules from Haliburton (Highlands) County, which have distance separators and time conditions*”, “*small fires are permitted in most areas of Highlands East.*” Ontario legislation for open air burning mandates that all municipalities restrict when and how burning can be conducted.

Residential Open air Burning

The local comparators provided in Table 1 below shows the restrictions outlined for residential open air burning.

Table 1 – Open air Burning Municipal Comparators

Municipality	Exposure Distance	When	Fire Height & Width	Wind speed (less than)
Burlington	20m	Not allowed between sunset and 7 a.m., except as permitted	1m	25km
Halton Hills	Not specified	Not specified	Not specified	Not specified
Hamilton	30m	Not specified	2m	Cause annoyance
Milton	15m	Allowed between dawn to 1 a.m.	0.6m	30km
Oakville	45m	Allowed between 10 a.m. and 11 p.m.	0.6m	30km
Highlands East*	10m	Not allowed between 7 a.m. to 7 p.m., except as permitted	0.6m	30km

“Not specified” – outlines that restrictions are listed independently on an issued permit.

Note: Additional conditions may be outlined on a burn permit issued by a Chief Fire Official based on needs and circumstances.

Residential Open air Burning Permit Fees

The North Aldershot resident also suggested that “*a minimal online fee could be collected for the permit to defray any city costs.*” Note: Staff review comparator fees on an annual basis as part of the annual budget preparation and approval process. Comparator open air burn fees is provided in Table 2 below.

Table 2 – Residential Open Air Burn Permit Fees Municipal Comparators

Municipality	Fee	Non-Compliance Fee
Burlington	\$0	\$470.75 (per truck)
Halton Hills	\$25	Up to \$450 (per truck)
Hamilton	\$10	\$350 (per truck) per hour \$175 (per truck) each additional ½ hour
Milton	\$50	\$572.31 (per truck)
Oakville	\$0	\$231 (per truck)
Highlands East	\$50	\$477 (per hour)

Burlington fire has never billed for residential open air burn permits and is not recommending any changes to the fee structure. While it has been reviewed as an option in the past there are a number of reasons why a fee hasn't been implemented in Burlington, rationale is listed below for reference;

1. Fees tend to hinder someone from seeking a permit, which doesn't proactively support fire safety and prevention initiatives,
2. Burlington fire continues to take the approach of fining for non-compliance behaviours and encouraging compliance. Fines for open air burning non-compliance are already included in the departments rates and fees and is based on cost recovery for fire resources along with the number of resources required,
3. Fire prevention programs are included in residential tax dollars as part of the services provided by the fire department,
4. The fire department considers any open air burning permit requests as a fire safety education opportunity, which encourages and supports community engagement.

Environment and Health Impact

Staff consulted with the city's sustainability coordinator to ask if there were any environmental concerns from their perspective. The following comment was provided:

“Open air burning releases a number of air pollutants which have health and environmental impacts. From a climate change perspective, open air burning does contribute to greenhouse emissions; however, in Burlington the primary sources of emissions are from transportation and buildings.

Any open air burning approved by the city outlines the provision that only wood, wood by-products, leaves and brush can be burned. The open air burning by-law strictly prohibits anyone from burning garbage, petroleum-based products, such as tires, shingles and/or plastics.

Open air Burning Ban During Special Air Quality Statements (SAQS) or Smog Advisory

If a Special Air Quality Statement (SAQS) or Smog and Air Health Advisory (SAHA) is issued by Environment Canada and/or the Ontario Ministry of the Environment, Conservation and Parks, an open air burning ban is issued and remains until such time the advisory is lifted.

Drought/Dry Weather Conditions

During any periods of drought there is an increased risk of open air burns escaping containment and/or spreading into a wildfire. During these conditions fire bans are issued and remain in effect until such time conditions improve and allow for safe burning.

Options considered

The options below are provided for information and are not listed in any particular order;

Compost Yard Waste and Brush

Residential properties have the option of composting yard waste and brush, larger properties do not necessarily have to bag their yard waste. Any non-woody yard waste such as fallen leaves, grass clippings, weeds, and the remains of garden plants make excellent compost.

Halton Region Yard Waste Program

Curbside Yard Waste Pickup: yard waste is collected every other week on the same day as garbage, starting the week of April 1. Note: The Region provides yard waste pickup in the North Aldershot area as part of the Region's yard waste program.

Recycle Yard Waste and Brush: Halton Waste Management Site (HMWS) Halton residents can recycle residential mixed yard waste, leaves and brush up to an unlimited quantity for \$5/load.

Yard Maintenance Service

Property owners can consider using a yard maintenance service that will cleanup yard/brush waste and dispose of the waste. This comes at a cost that may not a viable option for all property owners, however, is provided for information as part of a full review of options considered.

Pilot Open air Burning North Aldershot (Year 2020)

Pilot an open air burning program in some portions of the North Aldershot area. Although this is not supported by staff due to the concerns outlined earlier in this report, the Chief Fire Official (or designate) has the authority to add additional restrictions on an

open air permit, (e.g. this may include wind direction, additional distance from exposures and roadways) along with any other factors to mitigate concerns. As part of the pilot, any open air burn permit(s) issued would only be allowed for the 2020 calendar year between March 15th and expire on November 15th. The Chief Fire Official (or designate) will have the authority to approve or deny an open air burn application based on the factors and circumstances of each request individually ensuring fire safety at all times. If a property owner is denied open air burning; however, goes ahead and conducts open air burning, they will be issued non-compliance fine(s) immediately with no exception.

If this is the approach that council prefers to take, staff are recommending that performance measures be established to measure the outcome of the pilot. The following performance measures would be used and reported back to council in 2021, along with any other findings and/or recommendations, following the completion of the pilot. This will allow staff to measure and assess the outcomes of smoke and fire safety management efforts by establishing and tracking appropriate indicators.

Performance Measures

- # of permits issued,
- # of complaints,
- # non-compliance,
- # calls for visible smoke and required response by firefighters,
- # staff hours dedicated to this pilot program,
- # of additional education programs specific to this pilot program,
- End of pilot community feedback.

Furthermore, staff request that the Fire Chief have the authority to end the pilot at any time due to significant concerns; such as smoke impacting visibility on any thruways, increased number of complaints, calls from MTO, a negative impact to fire resources, etc. and that the Fire Chief advise council if the pilot program is ended.

Financial Matters:

Not applicable.

Connections:

City of Burlington – Roads, Parks and Forestry (RPF) Leaf Pickup Program

Staff inquired with RPF as part of this review and was provided with the following information; *“As part of the provincial audit and accountability fund project, a consultant has been retained to conduct a review of the leaf collection service. The review must be completed by Nov 30, 2019.”* RPF will be providing information in a separate report once the consulting work has been completed.

Public Engagement Matters:

Staff will communicate any changes, as required, to the open air burning program using various mediums, such as web, social media and distribution of public education materials.

Update Open air Burn By-law (Appendix C)

Due to the review of the open air by-law, staff are recommending the following revisions to clean up the wording of the open air burn by-law;

1. Update Ontario Fire Code reference,
2. Add Municipal Act S. 429 for municipal fees,
3. Add “special air quality statement” to definitions and restrictions,
4. Remove all reference to fire dispatch notification requirements; this is an internal department procedure and not required as part of the by-law provision. This process may change over time due to improved technology solutions. All required procedures are included on the permit for property owner reference.

This amendment request does not include any changes to the allowed open air burn areas as detailed in Appendix A.

Conclusion:

The Burlington Fire Department recommends no change to open air burning areas in the city.

Respectfully submitted,

Colin Lahey / Dawn Jarvis

Chief Fire Official / Manager, Fire Administration, Prevention, Public Education and
Emergency Management

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Appendices:

Appendix A: Open air Burn Permit Map (Schedule A)

Appendix B: N. Aldershot Plan for Proposed Eagle Heights Development

Appendix C: Revised Open air Burning By-law (2019)

Report Approval:

All reports are reviewed and/or approved by Department Director, Director of Finance and Director of Legal. Final approval is by the City Manager.

References:

Website: Canadian Council of Ministers of the Environment (CCME). 2016. [Guidance Document for Canadian Jurisdictions on Open air Burning](#); Referenced: Oct. 17, 2019

Website: Halton Recycling-Waste Management: <https://www.halton.ca/For-Residents/Recycling-Waste/Halton-Waste-Management-Site>; Referenced: Oct. 23, 2019

Website: Highlands East Municipality - Burning By-law and Application: <https://www.highlandseast.ca/article/burning-by-law-application>; Reference: Oct. 17, 2019

Website: Air Quality Ontario. http://www.airqualityontario.com/science/alert_description.php; Reference: Oct. 27, 2019