

Addressing Foxtail Barley

RECOMMENDATIONS:

That Community Development Committee:

- 1) Forwards this report as an item of urgent business to the 04 July 2023 Regular Meeting of Council; and
- 2) Recommends that Council give three readings to the proposed bylaw to amend the Community Standards Bylaw 32M2023 to address Foxtail Barley.

HIGHLIGHTS

- Foxtail Barley (*Hordeum jubatum*) is a perennial grass species native to North America. It provides many environmental benefits but has increasingly become a reported concern as it poses a danger to animals, especially dogs, when its seeds (awns) are ingested, inhaled or embedded in fur.
- Administration is proposing amendments to the Community Standards Bylaw to more effectively regulate and mitigate the harmful potential of this plant.
- **What does this mean to Calgarians?** Should the proposed amendments pass, “nuisance property” owners will be required to control Foxtail Barley before its seeds pose a hazard to local pets.
- **Why does it matter?** Veterinarians in Calgary have indicated that they continue to see injuries from Foxtail Barley.
- Background and Previous Council Direction is included as Attachment 1.

DISCUSSION

Foxtail Barley is a concern for many pet owners in Calgary. The spiked awns, or seeds of the plant can pose a hazard to pets. Working their way into the skin, digestive and respiratory tracts, the seeds can cause infection and abscesses with extreme cases resulting in blindness or death.

Foxtail Barley is referred to as a pioneer species, meaning that it can quickly develop in areas with disturbed soil, and it can thrive in soils with high salinity. These traits allow the plant to spread effectively through newly developing communities with recent and extensive development which has disturbed the soil.

Because of its traits, in recent years, particularly in Calgary’s newer communities, there have been increasing numbers of concerns and veterinarian visits because of pet interactions with Foxtail Barley. In previous years extensive education campaigns have been undertaken to raise awareness of the risks associated with the plant and how pet owners can best mitigate these risks. Despite education campaigns and existing regulations for grasses and herbaceous plants over 15 centimetres, negative pet interactions continue to occur each summer.

The proposed amendment to the Community Standards Bylaw would add the requirement to control Foxtail Barley, over eight centimetres, on any ‘nuisance property.’ The existing definition of a nuisance includes a residential or commercial property – but not Parks properties - which:

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shows signs of a serious disregard for general maintenance and upkeep, that adversely affects the safety or health of surrounding residents, or land that is used in a manner which interferes with the use or enjoyment of surrounding properties.

Under the current bylaw a regulation exists to control grasses or herbaceous plants over 15 centimetres in height on nuisance properties. Foxtail Barley is a type of grass and is subject to this requirement, but it was identified in the initiating Notice of Motion EC2023-0328 that mitigating Foxtail Barley is crucial prior to the plant reaching 15 centimetres. The proposed amendment provides the ability to regulate the plant before it reaches maturity. The proposed regulation would also permit peace officers to issue a remedial order and direct the manner in which the plant is to be controlled. This is an important consideration as ideal methods of control depend on the plant's state of growth. Mowing Foxtail Barley, once it has reached maturity and gone to seed, may result in additional spread.

The proposed regulations are not intended to eradicate Foxtail Barley in Calgary, instead they provide an additional tool to address Foxtail Barley on properties where surrounding pets' health and safety are adversely affected.

The proposed specified penalty is \$500 which aligns with other violations of the Community Standards Bylaw section on nuisance properties. While the proposed fine may serve as a monetary deterrent the ability to issue a remedial order will provide a deterrent that is commensurate with the size of the property.

Calgary Parks & Open Spaces

Calgary Parks & Open Spaces has undertaken a naturalization initiative, informed by the Naturalization Guidelines which align with the Habitat Restoration Project Framework, 2014 and Our BiodiverCity, The City's 10-year biodiversity strategic plan. The Guidelines define *naturalization* as:

a process for transforming a cultivated landscape, such as a lawn for instance, into a landscape more indicative of the naturally occurring landscape of the region.

Foxtail Barley's extensive root system and fast growth can improve erosion control and, prior to going to seed, can provide a food source for grazing animals and waterfowl.

City of Calgary Parks & Open Spaces are not subject to existing regulations for grasses and herbaceous plants, nor would they be subject to the proposed regulations specific to Foxtail Barley.

In recent years Administration has undertaken extensive efforts, including hand-pulling and bagging campaigns, to control Foxtail Barley when it has posed a concern to neighbouring properties. The City has run extensive public education campaigns to raise awareness of where it may be encountered in natural settings and how to mitigate its harmful effect on pets. Administration will continue education campaigns and to respond to Foxtail Barley concerns.

EXTERNAL ENGAGEMENT AND COMMUNICATION

- | | | | |
|-------------------------------------|---|--------------------------|---|
| <input type="checkbox"/> | Public engagement was undertaken | <input type="checkbox"/> | Dialogue with interested parties was undertaken |
| <input checked="" type="checkbox"/> | Public/interested parties were informed | <input type="checkbox"/> | Public communication or engagement was not required |

Local veterinarians were contacted to get a better sense of the breadth and severity of the problems caused by Foxtail Barley. Large landholding developers were informed of the potential for bylaw amendments and the date of Committee.

IMPLICATIONS

Social

Updates to the Community Standards Bylaw serve to ensure that it remains relevant and capable of addressing issues of community well-being and liveability.

Environmental

A large-scale eradication on Foxtail Barley would have extensive ecological impacts and, if successful, exterminate a native plant species that plays an important role in the local environment. Instead of sweeping restrictions, the proposed regulations balance an increased ability to address Foxtail Barley on nuisance properties without resorting to measures which would require its eradication city-wide.

Economic

The ability to issue a remedial order directing the method of control is critical to mitigating the spread of Foxtail Barley. However, more intensive methods of control, including hand-pulling and bagging of the plant, can have serious cost implications for owners of large parcels – particular on large and unevenly-graded parcels. This is most likely to affect properties which have been recently stripped and graded and left without control or cover crop.

Service and Financial Implications

No anticipated financial impact

The educational campaign and enforcement activities will be undertaken under existing operating budgets.

RISK

There is a reputational risk to The City of not applying this regulation to City parks and naturalized areas. To mitigate this risk Parks & Open Spaces will maintain practices to control Foxtail Barley in situations where it poses a concern and will continue educational efforts on mitigating the potential harm of the plant when visiting naturalized areas.

While remedial orders can direct the method of control once Foxtail Barley reaches eight centimetres the increased regulations for large uneven parcels may result in increased use of herbicides to control it prior to reaching this stage. This could result in environmental damage as well as erosion and sedimentation concerns as establishing vegetation is a key tool for long term stabilization of vacant land.

The short timeframe to investigate options to mitigate the harmful potential of Foxtail Barley left little time for consultation with potential affected parties.

ATTACHMENTS

1. Previous Council Direction, Background
2. Proposed Wording for a Bylaw to Amend Bylaw 32M2023
3. Presentation

Department Circulation

General Manager/Director	Department	Approve/Consult/Inform
Kyle Ripley	Parks & Open Spaces	Consult
Stuart Dalgleish	Planning & Development	Inform