

ADMINISTRATIVE REPORT

TO: Shane Bourke, City Manager	DATE: October 10, 2023
FROM: Brian Glavin, Chief Operating Officer	MEETING: Operational Services Committee
REPORT WRITER: Kase DeVries, M.Sc., Director of Parks	
SUBJECT: Naturalization Update	

RECOMMENDATIONS

That the Operational Services Committee recommend Council direct Administration to:

1. Adjust the Boulevard Naturalization Pilot Program to return areas adjacent to residential private property to pre-pilot mowing rotations.
2. Adjust the Boulevard Naturalization Pilot Program to return the south portion of the 84th Avenue pilot area to pre-pilot mowing rotations to avoid future tree conflicts with existing overhead power and snow storage capacity.
3. Adjust city-wide locations of naturalization outside of the Boulevard Naturalization Pilot Program to accommodate FireSmart principles where possible as presented in Attachment 4.

PREVIOUS COUNCIL / COMMITTEE DIRECTIONS

At the October 3, 2022, City Council meeting, the following motion was passed:

“Council direct Administration to report back to the appropriate Standing Committee outlining a potential pilot program for naturalization along arterial roads, including a public engagement program.”

At the November 16, 2022, Council Committee of the Whole Budget Deliberations, the following motion was passed:

“Committee amend the 2023 Operating Budget to add Broadleaf Weed Control – weekly mowing along arterial corridors, with the funding amount of \$44,854 to be offset from other areas of mowing.”

At the February 21, 2023 City Council meeting, the following motion was passed:

“Council direct Administration to proceed with the Boulevard Naturalization Pilot Program.”

At the September 5, 2023 City Council meeting, the following motion was passed:

“Committee direct Administration to fall mow naturalized areas, in the pilot areas, adjacent to private properties.”

BACKGROUND

Naturalization within Grande Prairie

Naturalization is the process by which land that was previously maintained through mechanical mowing is returned to a natural state similar to surrounding ecosystems. Since 2018, approximately 97 hectares (equivalent to 119 Canadian Football Fields) of land within the City of Grande Prairie has undergone this naturalization process. This accounts for nearly 14% of the entire mowing area that existed before the initiation of naturalization efforts.

Boulevard Naturalization Pilot Program

The Boulevard Naturalization Pilot Program (the “Pilot”) was introduced to assess the aesthetic impact of naturalizing boulevards. Covering a total area of 13 hectares, the pilot is divided into three distinct areas, as illustrated in Attachment 1:

1. Resources Road – Berm and Pathway Area
2. 84th Avenue – South of Canfor and north of Mission Heights
3. 116th Avenue – North of Crystal Heights, near the entrance to Copperwood

Commencing in the spring of 2023, the pilot is designed to run for three growing seasons, concluding in the fall of 2025. This multi-year approach ensures the areas have sufficient time to establish and enables the Parks Department to address any issues related to regulated noxious weeds that may emerge due to the cessation of mowing within these areas.

There are three overarching approaches to naturalization, each of which is explained below:

Methods of Naturalization

1. **Cessation of Mowing:** This represents the simplest and most cost-effective approach to naturalization. It offers the flexibility to swiftly return naturalized areas to mowable turf if the decision to discontinue naturalization is made. This method allows for observation of how the site responds to a lack of mowing, which species thrive, and whether noxious weeds become problematic. It is the most commonly employed naturalization method in Grande Prairie, particularly effective when implemented near existing tree stands, as these forested areas tend to propagate into the naturalized space within a few years.
2. **Intentional Rehabilitation:** This approach to naturalization is more resource-intensive and involves a dedicated budget for replanting an area with native seed mixes or desired species. It is not recommended for pilot programs, as it significantly alters the ecology of the area, making a swift return to mowing impractical. This method is relatively rare in Grande Prairie due to its cost but has been used in select cases, such as the planting of white clover and tree seedlings on certain slopes unsuitable for mowing. Widespread adoption of this method across the community would necessitate additional budget allocation.
3. **From Development:** This approach ensures that sites are seeded with appropriate natural seed mixes right from the outset as part of the development of a new neighbourhood. Instead of using traditional turf mixes that require ongoing mowing, the City’s Design and Construction manuals offer options for developers to naturalize portions of greenspace from the outset. The advantage of this method is that the community understands that the landscape is naturalized from the moment homes are sold, eliminating the expectation of ongoing mowing operations in the area.

Due to its cost-effectiveness and its capacity to easily revert sites to mowable turf, the cessation of mowing method was recommended and implemented for the pilot program.

ANALYSIS

Pilot Program 2023 Summary

Through the cessation of mowing, the three pilot areas began naturalizing at the onset of the 2023 growing season. The subsequent sections provide an overview of the environmental and social outcomes through year one. More detailed information specific to each pilot area is available in Attachment 2.

1. **Ecological Evaluation:** The pilot areas exhibited the expected responses to the cessation of mowing. Grasses flourished and grew significantly taller. Notably, some areas, particularly along the Resources Road site, witnessed the emergence of noxious weeds along the berm and near the adjacent private property fence line. To address this issue, an Integrated Pest Management (IMP) spray crew employed hand-spraying techniques to target these noxious weeds, accompanied by occasional hand-pulling of other undesirable vegetation. Among the three pilot areas, 84th Avenue demonstrated the highest potential for volunteer tree growth. Saplings from nearby aspen and poplar stands exceeded expectations after just one growing season. However, substantial growth in this location presents challenges due to overhead power lines and the need to preserve boulevard space for winter snow storage.
2. **Social Evaluation:** Following the installation of signage at each pilot site, Administration organized three on-site engagement sessions, one at each pilot location. Property owners residing adjacent to the pilot areas were invited to attend these sessions, with the highest turnout coming from the Patterson and Country Club neighbourhoods near Resources Road. Attendees were encouraged to provide feedback through forms available at the sessions. This feedback, combined with ongoing input received through Access GP, culminated in the creation of the “What We Heard” document (Attachment 3). Generally, attendees expressed concerns about the pilot, ranging from a desire for consultation regarding the locations to worries about fire risks and wildlife. Overall, the program garnered limited satisfaction among attendees.

FireSmart Assessment

In response to inquiries regarding the correlation between naturalized areas and fire hazards, an evaluation of the pilot areas was conducted in collaboration with the Grande Prairie Fire Department (GPDF). The findings of this assessment align with Council’s directive from September 5, 2023, to implement mowing in pilot areas adjacent to private properties. GPDF concurred that, wherever feasible, and when slope angles do not pose operational safety concerns, it is prudent to maintain a mowed buffer zone between intentionally naturalized lands and private property.

Furthermore, an expanded evaluation of additional naturalized areas beyond the pilot, outlined in Attachment 4, was undertaken during discussions with GPDF. Many of these naturalized areas were initially established to facilitate the removal of heavy equipment from slopes. Other sites were purposefully naturalized due to their consistently wet conditions, making regular mowing impractical. In consultation with GPDF, it was emphasized that no compromises on health and safety should be made merely to maintain a strip of mowed turf. Moreover, sites that remain persistently wet generally present lower overall fire risks. With these considerations in mind, some locations were recommended for at least an annual cut for FireSmart purposes.

Naturalization Recommendations

In light of the recent directive to conduct fall mowing in the pilot areas adjacent to private properties, observations from 84th Avenue, and the recent consultation with GPDF, Administration proposes the following recommendations:

1. **Continuation of Adjacent Area Mowing:** It is recommended that the areas adjacent to residential private properties within the pilot program continue to be mowed throughout the duration of the pilot. This adjustment strikes a balance by allowing for roadside naturalization while concurrently ensuring the reduction of fire risk through the removal of fuel loads near adjacent properties.
2. **Exclusion of South Portion of 84th Avenue:** Considering the substantial tree propagation observed and the anticipated challenges related to overhead power infrastructure and winter snow storage, it is advisable to exclude the south portion of 84th Avenue from the pilot program.
3. **City-Wide Naturalization Adjustments:** Administration further recommends modifications to the city-wide naturalization scope outside of the three pilot areas (Attachment 4). These adjustments would enable, at a minimum, an annual mowing of naturalized areas adjacent to private property, where slope and hydrology do not pose operational concerns. The width of these mowed strips will be determined on a case-by-case basis, taking into consideration the capabilities of existing equipment.

Relationship to City Council's Areas of Focus / Strategic Priorities

Quality of Life – Fostering a community in which our residents love where they live and embrace their environment.

Environmental Impact

Naturalization generally results in positive environmental impacts, including but not limited to slope stabilization, improved habitat to support pollinators, and reduced erosion during rain events.

Economic Impact

Naturalization can reduce long-term maintenance costs compared with traditional horticultural practices (mowing, fertilizing, aeration, etc.). New development may also realize cost savings through reduced maintenance in locations suitable for naturalization.

Social Impact

The naturalization process may initially result in an unattractive appearance in certain areas, particularly in cases where these areas have traditionally undergone regular mowing for decades. However, with sufficient time to establish, naturalized spaces can fold into the backdrop of the surrounding landscape.

Relevant Statutes / Master Plans / City Documents

- [Parks and Open Space Master Plan 2012](#)
- Council Bee City Resolution – October 19, 2020
- [City of Grande Prairie Land Use Bylaw C-1260](#)
- City of Grande Prairie 2023 Design Manual – Section 16
- City of Grande Prairie 2023 Construction Manual – Section 32 92 19.13

Risk

Risks associated with naturalization include:

- An influx of noxious weeds in the naturalized areas requires increased attention from the Integrated Pest Management crew that may pull service capacity from other areas (i.e. hardscape weed control, etc.).
- Dead vegetation can pose a fire risk, particularly in the spring prior to new growth. The recommended mowing option will assist in the management of this risk.

Alternatives (Optional)

1. That the Operational Services Committee recommend Council direct Administration to cease the Boulevard Naturalization Pilot Program and revert the pilot areas back to pre-pilot mowing rotations.
2. Take no action and continue with the original pilot program.

STAKEHOLDER ENGAGEMENT

Parks collaborated with the Departments of Transportation, Engineering Services, and Environmental Services to identify suitable locations for the proposed Boulevard Naturalization Pilot Program. Following Council's approval to proceed with the pilot, on-site signage was installed at the three locations, indicating the commencement of the naturalization process. These signs featured a QR link to the Naturalization webpage and the Access GP 3-1-1 contact phone number for easy reference.

Subsequently, Administration organized three separate on-site engagement sessions, one for each pilot location. Invitations were personally delivered to households situated adjacent to the pilot areas. During these engagement sessions, participants were given the opportunity to share their input by filling out comment forms.

The information gathered from these sessions, in addition to feedback received through Access GP, was compiled to create the "What We Heard" document (Attachment 3). This document was then distributed to the households that had been invited to the sessions, accompanied by instructions guiding residents on how to provide further comments through the engagement webpage and Access GP.

Throughout the entire duration of the pilot program up to the present, all channels for feedback, including Access GP, the Naturalization webpage, and the pilot engagement page, have remained open for the collection of input from the community.

BUDGET / FINANCIAL IMPLICATIONS

Should there be a desire to expand the scope of naturalization beyond the cessation of mowing, additional budget allocations would be necessary to facilitate enhancements such as tree planting (including seedlings), the application of natural seed mixes, or the introduction of other native flowering species.

SUMMARY / CONCLUSION

The Boulevard Naturalization Pilot Program, initiated to evaluate the visual impact of naturalizing boulevards in Grande Prairie, commenced in spring 2023 and spans three growing seasons, concluding in fall 2025. From an ecological perspective, the program witnessed positive grass growth alongside the emergence of noxious weeds in select areas. The 84th Avenue site showed potential for tree growth, yet concerns arose regarding power lines and snow storage. On the social front, community sentiment about the program has been mixed, encompassing concerns about consultation, fire hazards, and wildlife implications. A FireSmart assessment emphasized the importance of maintaining a mowed buffer between naturalized areas and private properties to mitigate fire risks.

Considering these findings, Administration recommends a pragmatic approach, including the continuation of mowing near residential properties, removing a portion of 84th Avenue due to tree growth concerns, and adjusting city-wide naturalization to align with FireSmart principles where feasible. The pilot has showcased potential benefits but also challenges in harmonizing ecological objectives with community preferences and operational logistics.

ATTACHMENTS

Attachment 1 – Map of Boulevard Naturalization Pilot Program Areas

Attachment 2 – Boulevard Naturalization Pilot Program Year One Observations

Attachment 3 – What We Heard Document

Attachment 4 – City-wide Naturalization FireSmart Assessment

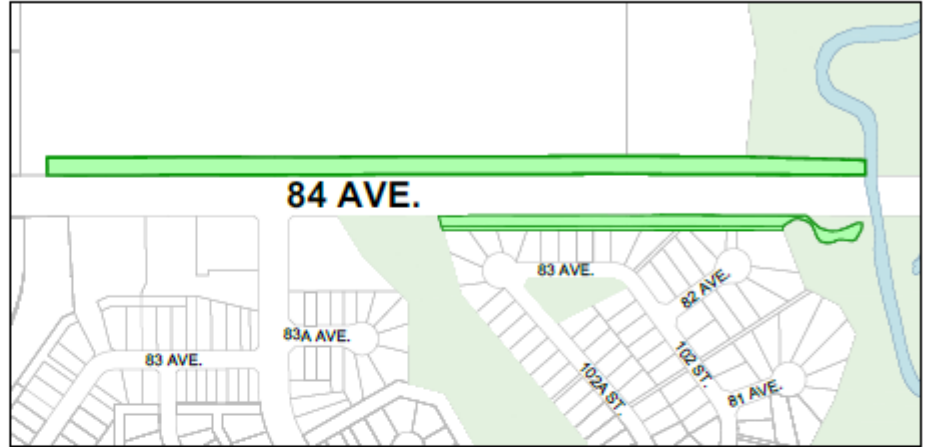
Attachment 1 – Map of Boulevard Naturalization Pilot Program Areas



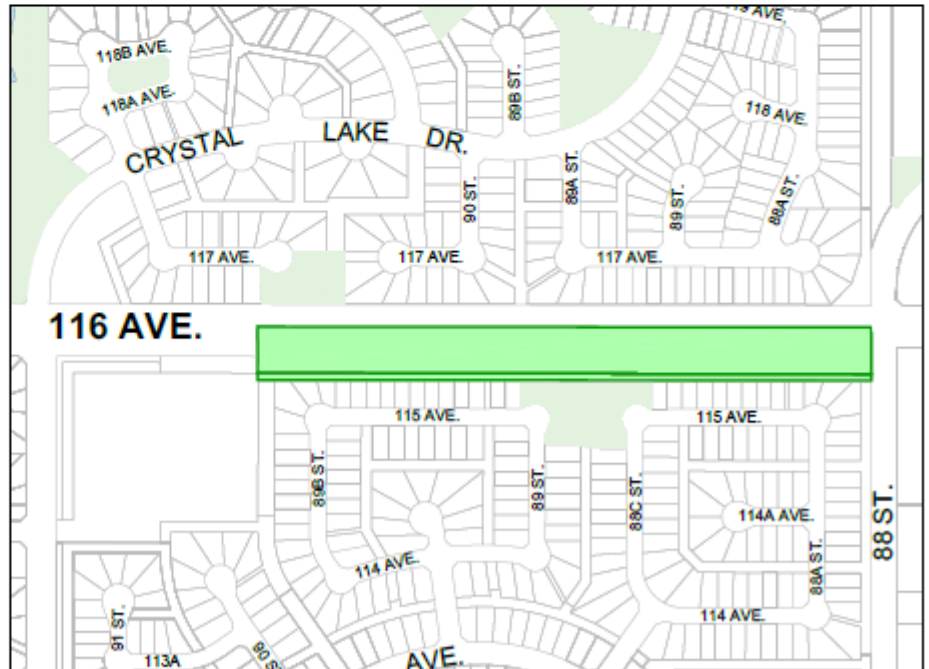
Boulevard Naturalization Pilot Program



Area 1



Area 2



Area 3

Attachment 2 – Boulevard Naturalization Pilot Program Year One Observations

Resources Road

In the Resources Road pilot area, the initial stages of the 2023 season witnessed a sluggish pace in vegetation growth. The challenging, arid nature of the berm itself posed difficulties for turf to flourish. Gradually, vegetation did gain height, but unfortunately, it brought along noxious weeds. To the south, Canada Thistle made its presence felt along the berm's roadside, while further north, Oxeye Daisy cropped up near residential properties. The City's Weed Inspectors conducted thorough assessments, confirming the noxious weed issue, and prompting the Integrated Pest Management (IPM) team to intervene by spot-spraying these problematic weeds.

In the weeks following this treatment, sporadic bare patches of soil became visible in select areas along the berm. These lifeless zones likely stemmed from the noxious broadleaf treatment also affecting plants like dandelions, which dominated these areas. Upon re-inspection, it was determined that these spots had a sufficient proximity of turf grass with root structures capable of natural recovery.

The Resources Road pilot area did not witness any significant volunteer tree growth. This absence may be attributed to its isolation from vibrant natural tree stands. The lack of tree growth could be seen as an advantage, ensuring that the naturalized area does not interfere with snow storage for both Resources Road and the existing pathway during the winter months.



June 15, 2023



July 24, 2023



September 15, 2023

84th Avenue

In the 84th Avenue pilot area, grasses on the northern side thrived rapidly, benefiting from the presence of moist soil and ample sunlight. Conversely, on the southern side, grasses took a bit more time to establish themselves. Remarkably, this location did not exhibit any significant issues with noxious weeds. However, the cessation of mowing led to an early emergence of tree growth. Aspen and poplar saplings sprouted vigorously, expanding their footprint throughout the season. While this exemplified a successful strategy for obtaining free trees and bolstering the forest canopy, concerns arose regarding the potential future implications for existing infrastructure.

Notably, this portion of the pilot area is traversed by overhead powerlines, raising concerns about the trees' proximity. Furthermore, the trees were observed growing quite close to the curb line, prompting internal apprehensions within Transportation Services about potential impacts on snow storage capacity during the winter months. In light of these considerations, it is recommended that this specific section of the 84th Avenue pilot area return to its pre-pilot mowing rotations for 2024.



June 15, 2023



July 24, 2023

116th Avenue

Much like Resources Road, the grasses along 116th Avenue faced a prolonged journey to attain noteworthy height. This delay can be attributed to the challenging growing conditions typically encountered by traditional turf grass on berms. The relentless exposure to wind and intense sunlight significantly hampers the berms' capacity to retain moisture over extended periods. Eventually, however, the grasses did manage to grow, accompanied by the emergence of flowering species like clover.

Unlike some other locations, there was no sign of tree growth at this site. This absence is probably due to its complete isolation from any nearby natural tree stands. Given the future transformation of this site into a multi-lane road in its ultimate build, the absence of trees is likely a welcome development, ensuring that they do not pose any future challenges or obstructions.



June 15, 2023



July 23, 2023

Attachment 3 – What We Heard Document



What We Heard Boulevard Naturalization Pilot Program

Public Engagement Results

August 2022

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Overview

At the February 21 City Council meeting, Council directed administration to proceed with the Boulevard Naturalization Pilot Program, which is a pilot initiative that returns land to its natural state by ceasing mechanical control and allowing existing vegetation to grow in place.

The following locations are being evaluated as part of the pilot program from spring 2023 to fall 2025:

- 116 Ave near Copperwood
- 84th Ave near Canfor
- Resources Road

Common Benefits of Naturalization

- Slows water runoff and increases water absorption, particularly on slopes.
- Prevents erosion and stabilizes the banks around storm ponds, berms, and ditches.
- Filters stormwater, protecting waterways that form part of the City's drainage (Bear Creek).
- Reduces mowing & fertilization, which lowers the City's greenhouse gas (GHG) emissions.
- Facilitates improved carbon sequestration on the landscape.
- Supports habitat for bird species and pollinators (Bee City).
- Improves worker safety by removing heavy equipment from operating on slopes.
- Reduces infrastructure & equipment damage by removing equipment from wet areas.
- Increases biodiversity on the landscape, which improves resilience to insect/disease issues.

Information Sessions

As part of the pilot program, City administration hosted three information sessions from May 23-25, 2023, to engage with residents who back onto the pilot areas. Members from Parks and Energy & Environment attended these sessions to present information and answer questions on the pilot program. The following feedback was collected:

Nuisances:

- Concerns about increased mice population and wildlife presence, including deer, coyotes, foxes, and wolves.
- Fear that the wildlife will pose a threat to pets and children.
- Anticipation of more rodents, bugs, litter, and unattended dog feces.
- Belief that the program will reduce the enjoyment of trails and berms for activities like biking, climbing, running, and skateboarding.

Weed Control:

- Complaints about the abundance of dandelions and their spread into private properties.
- Perception that the program will result in more weeds, mosquitoes, and bugs.
- Residents expected the City to maintain weed control as part of basic services covered by municipal taxes.
- Request for mowing the residential side of the boulevard to compensate for the cessation of weed control.

Aesthetics:

- Criticism of the unattractive appearance caused by dandelions and overgrown weeds.
- Desire to maintain a visually appealing environment.
- Concern about the negative impact on the view from residents' decks.
- Importance of well-maintained trails and spaces for the enjoyment of the community and visitors.

Safety:

- Concerns about fire hazards and the elimination of fire protection due to naturalization.
- Consideration for people with allergies.
- Perception that the program poses safety hazards to homes along the boulevard.

Mowing Behind Residential Properties:

- Concern that grass buildup will prevent access to the boulevard if mowing is not permitted behind fences.
- Emphasis on the value of homes including access to the back space for recreational activities.

Administration Insights:

- Residents wanted an opportunity to provide feedback before the pilot implementation.
- Feedback and information sessions held after the fact were not considered effective.
- Disappointment expressed over the absence of Council members at the information session.
- Concerns raised about the lack of input on the decision to start the program.
- Residents believe the program originated from City Council and not from conversations with affected residents.
- Some residents perceived the program as a cost-saving measure rather than for the benefit of the community.

General Comments:

- Strong opposition to the pilot project along Resources Road.
- Suggestion to begin the pilot in areas deemed dangerous for maintenance operators before implementing it throughout the property line to the road.
- Opposition expressed by neighbors along the trail in multiple blocks.
- Recommendation to utilize the existing natural grass area across from the boulevard instead of expanding the program.

Current & Ongoing Work

City administration is involved in the following ongoing work regarding the pilot sites:

- Parks and the Grande Prairie Fire Department are meeting to discuss various concerns regarding levels of fire risk on the landscape.
- Weed Inspectors are working with the Integrated Pest Management team to control any noxious or prohibited noxious weeds on the pilot areas.
- The Sanitation team is addressing litter on the pilot areas.

Next Steps

- Administration will continue to monitor and evaluate the locations ecologically and collect feedback throughout this summer.
- An update report will be brought back to Committee and Council regarding the pilot program this fall.

Contact

- Phone: 311 or 780-538-0330
- Monday to Friday, 8 a.m. to 6 p.m.
- Email: info@cityofgp.com

Attachment 4 – City-wide Naturalization FireSmart Assessment

Naturalized Areas - North Portion

LEGEND

- Naturalized Area
- Area included in 2020 Scope

The revision date shown applies only to content of this map as indicated by the title.

