

Request for Decision

Title	11:00 a.m. Resource Extraction Regulatory Review Bylaw Amendment Options
Proposed Motion	<ol style="list-style-type: none"> 1. That Council endorse the resource extraction regulatory review bylaw amendment options, provided as Attachment 1 to the Request for Decision and developed in consideration of stakeholder input and best practices, for use in public engagement. 2. That Council submit comments on draft resource extraction public engagement materials, to be circulated following this meeting, to the Chief Administrative Officer prior to September 25, 2020. 3. That Council direct Administration to advertise and carry out the second round of industry and public engagement for the Resource Extraction Regulatory Review, according to the approved engagement approach, with engagement to begin in mid-October 2020. 4. That Council direct Administration to bring forward final engagement reports and detailed recommendations on resource extraction regulations for consideration following the conclusion of the second round of industry and public engagement.
Administrative Recommendation	Administration recommends that Council endorse the potential bylaw amendment options. Administration also recommends that public engagement be commenced in mid-October following the Council-approved engagement plan, and that final engagement reports and recommendations be brought forward following this engagement.
Previous Council Direction	<p><u>August 25, 2020 Regular Council Meeting</u></p> <p>Motion 389/20: That Council accept the resource extraction “What We Heard” and “Best Management Practices” reports as information.</p> <p>Motion 390/20: That Council direct Administration to bring forward an economic analysis and detailed options that consider findings and inputs to date for consideration at the September 8, 2020 Council meeting.</p>

August 11, 2020 Committee of the Whole Meeting

Motion 064/20: That the Committee direct Administration to provide summaries of engagement findings, best practices, and options to identified Council committees for further initial comment and input.

Motion 065/20: That the Committee direct Administration to bring forward all reports, options for consideration, initial recommendations, and stakeholder engagement next steps at the August 25, 2020 Council meeting.

Motion 066/20: That the Request for Decision and attachments of item B.1 of the August 11, 2020 Committee of the Whole meeting remain confidential pursuant to section 197(2) of the *Municipal Government Act* and in accordance with section 24 (advice from officials) of the *Freedom of Information and Protection of Privacy Act*.

July 14, 2020 Regular Council Meeting

Motion 342/20: That Council direct Administration to proceed with the Resource Extraction Regulatory Review with additional stakeholder engagement according to Option 3 detailed in the July 14, 2020 Request for Decision.

April 28, 2020 Regular Council Meeting

Motion 210/20: That Council direct Administration to proceed with the Resource Extraction Regulatory Review project using Engagement Strategy 4b: Expedited Engagement At-A-Distance.

October 8, 2019 Regular Council Meeting

Motion 405/19: That Council direct Administration to use the information provided in closed session as an input into public consultation on amendments to the Land Use Bylaw regarding resource extraction setbacks, with Administration bringing bylaw amendments to Council that incorporate the feedback from the public consultation.

June 25, 2019 Regular Council Meeting

Motion 247/19: That Council direct Administration to review current resource extraction setbacks within the current Land Use Bylaw and bring back possible modifications to ensure Sturgeon County is sustainably extracting a diminishing resource in the County.

Report **Background Information**

- Sturgeon County has long been a municipality with plentiful extractable resources, particularly sand and gravel. The County seeks to balance economic, social, health, and environmental outcomes in regulating the resource extraction operations in the municipality.
- Resource extraction in areas of Sturgeon County has been ongoing for over 30 years. Several deposits are currently being progressively extracted; however, deposits will eventually be depleted, made

uneconomical to extract, or made inaccessible due to land use restrictions.

- In 2019, Council commenced a review of current resource extraction regulations and directed that resource extraction and planning experts review and recommend best practice modifications to ensure Sturgeon County is responsibly extracting a diminishing resource in the County while protecting residents' interests.
- Council also considered the project at updates throughout January, April, July, and August of 2020, and most recently on August 25, 2020. Throughout these meetings, Council has reflected on preliminary findings from the public engagement, approved a strategy for the continuation of the project, and provided direction to further engage key stakeholders in a second round of engagement. Reports considered to date include:
 1. **“What We Heard” report:** A month-long, first phase of public engagement spanned from May 19 – June 12, 2020. Engagement strategies used throughout Engagement Phase One included interviews with industry representatives, coffee chat sessions with members of the public, and an online survey. The information gathered through this process is found within the “What We Heard” report and includes key findings, details of the engagement approach taken to date, and responses to the survey. This report was accepted by Council on August 25, 2020.
 2. **“Best Management Practices” report:** The objective of the “Best Management Practices” report is to provide a summary of the existing regulatory framework relative to the extraction of aggregate resources within Sturgeon County. The report also summarizes a list of Best Management Practices which the County could consider as part of the regulatory review process. This report was accepted by Council on August 25, 2020.
- These reports are available on the dedicated project webpage www.sturgeoncounty.ca/resourceextraction.

Bylaw Amendment Options

The attached **“Summary of Potential Bylaw Amendment Options”** report summarizes the four options that would be considered during the second phase of public engagement.

The options are:

- **Option 1** – Stringent Performance Standards, with Setbacks Fixed at Regional Lowpoint.
- **Option 2** – Moderate Performance Standards, with Setbacks Fixed at Regional Average.
- **Option 3** – Minimal Performance Standards, with Setbacks Fixed at Regional Highest (*similar to current Sturgeon County practices).

- **Option 4** – Performance Standards and Setbacks Science-Based Approach.

Each of the four options is described in detail within the attachment. A review and analysis of 20 precedent municipalities is also included, in addition to other important information.

Please note that a fifth option to “keep current regulations the same” has not been included within the options, as they focus on potential amendments to County bylaws. However, it will be included within engagement materials for stakeholders to consider if they wish.

Economic Analysis

With input from industry experts, provincial government, and others, Administration is compiling a fulsome analysis of the aggregate industry’s economic impacts and the impacts of each regulatory scenario.

This analysis will include several case studies and a county-wide economic analysis to assess the impacts of regulatory frameworks to economics in Sturgeon County. The economic analysis continues to evolve as stakeholder input is received; however, Council will be provided with highlights of initial findings during this report’s public presentation.

External Communication

- This review has been subject to extensive public engagement to date, including multiple formats and channels.
- Council committees have been engaged directly for input and contribution to the review.
- Additional external communication will occur during the second round of public engagement. This communication will be aligned with Council-approved public engagement and advertising plans.

Relevant Policy/Legislation/Practices:

- *Municipal Government Act*, RSA 2000 c. M-26 as amended (MGA)
- Calahoo-Villeneuve Sand and Gravel Extraction Area Structure Plan Bylaw 922/01
- Land Use Bylaw 1385/17

Implication of Administrative Recommendation

Strategic Alignment:

The endorsement of specific options for stakeholder consideration is a key component of the review, and a foundation for future recommendation(s). The “What We Heard Report” indicates the implementation of a comprehensive public engagement, achieving strategic objectives, which approval of the second round of engagement will support.

	<p><u>Organizational:</u> Implementation of the next round of the review will continue to require considerable internal staff time, although resources are in place to support it.</p> <p><u>Financial:</u> Budget resources are in place for the remaining planned activities. Future recommendations could have a significant financial impact for Sturgeon County, landowners, and industry partners, depending on the regulatory framework Council ultimately supports.</p>
Alternatives Considered	Council could direct Administration to modify plans for Resource Extraction Regulatory Review public engagement, or modify the options presented.
Implications of Alternatives	<p><u>Strategic Alignment:</u> Adjustments to the options or engagement plan could have implications that would require review, depending on their nature. Discontinuing all future engagement would be misaligned with stakeholder feedback and previous Council commitments and could also impact stakeholder support for the ultimate direction.</p> <p><u>Organizational:</u> Adjustments to the options or engagement plan would likely have marginal organizational implications. Discontinuing all future engagement would result in a capacity savings to the organization.</p> <p><u>Financial:</u> Adjustments to the options or engagement plan may have financial implications that would require review. Discontinuing all future engagement would result in a financial savings to the organization.</p>
Follow up Action	<ol style="list-style-type: none"> 1. Circulate the survey and engagement materials for the second round of public engagement, to allow Council to provide comment to the CAO by September 25, 2020 (Planning and Development Services, September 2020). 2. Proceed with sharing the “Summary of Potential Bylaw Amendment Options” with stakeholders (B&A Planning, Planning and Development Services, September 2020). 3. Continue to refine and develop the “Economic Analysis: Aggregate Impacts on Sturgeon County & the Local Economy” report (B&A Planning, Planning and Development Services, September 2020). 4. Advertise and commence the second round of industry and public engagement for the Resource Extraction Regulatory Review, according to the approved engagement approach (Planning and Development Services, September to October 2020). 5. Bring forward final engagement reports and detailed recommendations for consideration following the conclusion of the

	second round of industry and public engagement (Planning and Development Services, October 2020).
Attachment(s)	1. Summary of Potential Bylaw Amendment Options
Report Reviewed by:	<p>Hayley Wasylcia, Planning and Development Project Officer</p> <p>Colin Krywiak, Manager, Planning & Development Services</p> <p>Travis Peter, Director, Development & Strategic Services</p> <p>Reegan McCullough, County Commissioner - CAO</p>

Strategic Alignment Checklist

Vision: *Sturgeon County: a diverse, active community that pioneers opportunities and promotes initiative while embracing rural lifestyles.*

Mission: *Provide quality, cost effective services and infrastructure to meet the diverse needs of the Sturgeon County community, while improving competitiveness and sustainability.*

Focus Areas	Not consistent	N/A	Consistent
Planned Growth and Prosperity			
<i>We encourage varied and integrated enterprises that enhance our strong economic base, while balancing the needs of the community and natural environment. (Strategic Plan and MDP pg. 36)</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<ul style="list-style-type: none"> <i>Supports a strong thriving business environment to strengthen our economic foundation</i> 	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<ul style="list-style-type: none"> <i>Plans for responsible growth through the MDP and regional growth plan.</i> 	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<ul style="list-style-type: none"> <i>Manages growth for current and future developments through: <ul style="list-style-type: none"> <i>transparent bylaws, policies and processes to enable responsible land development</i> <i>targeting growth around existing and identified future growth areas</i> </i> 	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Maintain and Enhance Strong Communities			
<i>We are committed to a safe and viable community, where our residents are provided with access to opportunities and quality of life. (Strategic Plan and pg. 27 MDP)</i>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<ul style="list-style-type: none"> <i>Provides access to programs and services that have a positive impact on residents' quality of life</i> 	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<ul style="list-style-type: none"> <i>Provides access to safe and reliable infrastructure assets</i> 	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<ul style="list-style-type: none"> <i>Supports the safety of people and property</i> 	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Strong Local and Regional Governance			
<i>We promote consistent and accountable leadership through collaborative and transparent processes (Strategic Plan and pg. 27 MDP)</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<ul style="list-style-type: none"> <i>Provides effective leadership and management consistent with Strategic Plan, MDP, master plans, bylaws, policies, community engagement</i> 	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<ul style="list-style-type: none"> <i>Considers fiscal stability and sustainability</i> 	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<ul style="list-style-type: none"> <i>Fosters collaborative intergovernmental partnerships</i> 	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Community Identity & Spirit			
<i>We will build upon our strengths, where together we will create an inclusive, caring community (Strategic Plan and MDP pg. 27)</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<ul style="list-style-type: none"> <i>Promotes and/or enhances residents' identification with Sturgeon County</i> 	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<ul style="list-style-type: none"> <i>Support and/or collaborate with voluntary organizations in the region</i> 	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Environmental Stewardship			
<i>We foster a healthy environment and minimize our impact on ecosystems. (Strategic Plan and MDP pg. 27)</i>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<ul style="list-style-type: none"> <i>Plans and partnerships that minimize environmental impact on natural areas</i> 	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<ul style="list-style-type: none"> <i>Provides awareness of environmental issues impacting the County</i> 	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Summary of Potential Bylaw Amendment Options

PART A: Overview

Project Background

The purpose of the Resource Extraction Regulatory Review (RERR) project is to seek a more competitive balance between economic, social, health, and environmental outcomes related to the regulation and operation of the aggregate industry in Sturgeon County. Potential revisions to the Land Use Bylaw that acknowledge the County's context, regional positioning, and sound science were sought in an effort to ensure that Sturgeon County's Land Use Bylaw regulations respecting aggregate extraction reflected current conditions and best practices in aggregate extraction, and incorporated feedback from the public through a consultation process.

A comprehensive public engagement program is being completed as part of the RERR. The first phase of the public engagement ("Engagement Phase One") spanned from May 19 – June 12, 2020. Engagement tactics used during Engagement Phase One included interviews with industry representatives, coffee chat sessions with members of the public, an online survey, and informal telephone and email correspondence with the public. In total, 210 online survey responses were received and nearly 250 residents and industry representatives participated in the first phase of engagement.

Below, four bylaw amendment options are presented. Each of these options has been developed based on an analysis of various project components, including:

- Feedback received during the Engagement Phase One process;
- Research conducted via the Aggregate Best Management Practices (BMP) Report;
- A "Jurisdictional Review" of aggregate-focussed land use planning practices in 20 municipalities across Alberta and British Columbia; and,
- Preliminary consultation with Key Stakeholder groups.

Note that a fifth option that would reference keeping all current regulations and industry requirements the same would also be available to all survey or stakeholder engagement respondents.

Feedback from the second engagement process ("Engagement Phase Two"), County Council, and the Key Stakeholder groups will inform the final Bylaw Amendment recommendation.

Regulating Aggregate

The aggregate industry (including construction aggregate, silica sand, and other sand) is one of the most highly regulated industries in Canada. Operations are governed by several different bodies at federal, provincial, and municipal levels to ensure safe and responsible extraction practices. **A municipality's role in regulating aggregate operations includes determining where these land uses should be located and regulating specific impacts (i.e. road and traffic safety, noise, dust, air quality, development setbacks, hours of operation, and end land uses, etc.).** Regulations impose standards for mitigation, monitoring and enforcement of many aspects of aggregate operations, including:

- Water (*water table protection and water quality*);
- Air quality (*including dust, and maximum levels of specific particulate*);
- Transportation impacts (*including intersection requirements, traffic impact assessments, road use agreements, and more*);
- Noise (*noise level requirements, mitigation requirements, etc.*);
- Visual Impacts (*screening required, standards for reducing visual impacts, etc.*);
- Wildlife Management; and,
- Reclamation & end land uses (*reclamation requirements, standards, timelines*).

Sturgeon County has a comprehensive variety of tools to monitor and regulate resource extraction at the municipal level, thus addressing the areas explained above. These tools include (but are not limited to) the following.

- **Municipal Development Plan (MDP)** – This is the most authoritative document produced by any municipality. Sturgeon County's MDP identifies Resource Extraction as a Primary Industry and identifies where resource related aggregate operations are currently located, available and supported.
- **Calahoo Villeneuve Sand and Gravel Area Structure Plan (CVSG-ASP)** – This regional plan was adopted in 2001 and helps regulate the impacts of aggregate operations in the Calahoo-Villeneuve area. The CVSG-ASP outlines development guidelines, and a framework for industry to develop a valuable resource efficiently and in a socially and environmentally responsible manner.
- **Land Use Bylaw (LUB)** – Sturgeon County's LUB identifies the public process to redistrict land (within provincial frameworks) to allow for Resource Extraction. The LUB further outlines the requirements for development permit approval, and the operating standards that must be complied with.
- The **Calahoo Villeneuve Sand and Gravel Advisory Committee (CVSG-AC)** – This advisory committee is made up of public, Council, and gravel industry members. The CVSG-AC plays an important role in advising Council on issues related to sand and gravel extraction in the Calahoo-Villeneuve area. Members look at various aspects of extraction, including groundwater monitoring, traffic impacts, and environmental considerations to help ensure a coordinated approach. The committee also plays an integral role in granting funds collected from the Community Aggregate Payment (CAP) Levy to community organizations to contribute to community enhancement projects. (e.g. West Sturgeon Aging in

Place; Knights of Columbus; Villeneuve Hall; Alcomdale Playground; Morinville Community High School; West Country Hearth Attack; and the Dale MacMillan Scholarship.)

- **Road Use Agreements** – Sturgeon County uses Road Use Agreements to manage the use of roads as related to aggregate extraction. These agreements require the operators of aggregate facilities to abide by specific rules (e.g. times of hauling, dust suppression, etc.) to ensure that Sturgeon County roads are not unduly damaged or impacted and thus protect both residents and Sturgeon County as a municipality.

Bylaw Amendment Options Summary

The table below summarizes four options being tabled as potential approaches to revise and refine Sturgeon County’s approach to aggregate regulations and that will be brought forward for public engagement during Public Engagement Phase Two. These options may be refined or changed based on feedback received during Public Engagement Phase Two.

Full [detail on each Bylaw Amendment Option](#) is provided in Part C of this report.

Summary of Bylaw Amendment Options	
Option	Summary
Current Regulations	<i>Sturgeon County’s current approach to aggregate regulation does not require performance standards (addressing specific impacts with an emphasis on monitoring and compliance) and relies heavily upon high buffer zones determined by setbacks. Details are provided in subsequent sections. The most similar option to current regulations below is Option 3.</i>
Option 1 – Stringent Performance Standards, with Setbacks Fixed at Regional Lowpoint	This option adopts a performance standards based approach to regulation in conjunction with reduced setbacks that are aligned near the low end of regional averages. Performance standards and ongoing monitoring and enforcement remain a crucial component of approving and overseeing operations. Resource extraction setbacks are fixed and align with some of the lowest options in the region. Option 1 would follow the lead of other municipalities taking a low-setback approach, while positioning Sturgeon County to be economically competitive and environmentally sustainable. Various other process and consultation adjustments may also be recommended.
Option 2 – Moderate Performance Standards, with Setbacks Fixed at Regional Average	Option 2 incorporates some performance standards, and setbacks are fixed to be approximately average when comparing to other municipal jurisdictions. This option would adopt commonly “accepted” setbacks that balance economic competitiveness with greater setbacks than Option 1. Performance standards and ongoing monitoring and enforcement may be important in approving and monitoring regulations. Various other process and consultation adjustments may also be recommended.
Option 3 – Minimal Performance Standards, with Setbacks Fixed at Regional Highest	Option 3 utilizes significant setbacks or ‘buffer zones’ in lieu of performance standards. Setbacks are fixed and align with some of the highest options in the region. This approach emphasizes large buffers / setbacks, and minimal performance standards are applied. Economic competitiveness is low in this model. Various other process and consultation adjustments may also be recommended.
Option 4 – Performance Standards and Setbacks Science Based / Case by Case	Option 4 involves a science-based approach, where setbacks are applied on a case-by-case basis. Each site-by-site setback and performance standards are based on the contents of technical, scientific reports that must be prepared by qualified professionals. Performance standards and ongoing monitoring and enforcement remain a crucial part of the development process. Economic competitiveness is likely enhanced but balanced with resident quality of life considerations. Various other process and consultation adjustments may also be recommended.

PART B: Regional Assessment

The following pages review approaches to aggregate approaches in 20 municipalities across Alberta and British Columbia, well known for their deposits of aggregate resources.

1. **Table 1** summarizes the setbacks in each of the 20 sample municipalities. Setbacks for different aggregate-related uses are provided and summary statistics are calculated at the bottom of this table.
2. **Table 2** reviews key components of regulations in each municipality. While regulations are often complex, this table aims to highlight some of the most important pieces of the land use bylaws examined.
3. **Table 3** answers commonly asked questions about how municipalities compare when discussing aggregate regulations. Summary statistics are discussed, and in some cases compared with the bylaws that Sturgeon County currently has in place. Graphics support the analysis and comparisons developed.

Table 1: Jurisdictional Review of Aggregate Operations Setbacks: Summary

Notes for table interpretation:				
<i>(v)</i> indicates a setback can be varied.				
In most cases, dwelling setbacks are measured from the outer wall of a dwelling.				
Municipality	Setback to Property Line	Setback to Dwelling	Processing-Specific Setback	Multi-Lot Setback
Sturgeon County	N/A	400m	N/A	800m
Leduc County	6m	100m	N/A	No separate multi-lot setback
Strathcona County	NO minimum setbacks	NO minimum setbacks	N/A	No separate multi-lot setback
Lacombe County	NO minimum setbacks	NO minimum setbacks	N/A	No separate multi-lot setback
Parkland County	NO minimum setbacks	NO minimum setbacks	300m	300m (v)
Camrose County	3m	N/A (3m, see left)	N/A	No separate multi-lot setback
Thorhild County	NO minimum setbacks	NO minimum setbacks	N/A	No separate multi-lot setback
Lac La Biche County	NO minimum setbacks	NO minimum setbacks	N/A	800m (if on-site processing occurs for >2 weeks)
Lac Ste. Anne County	500m	800m	1500m	1500m (v)
Lamont County	3m	3m	N/A	No separate multi-lot setback
Westlock County	NO minimum setbacks	NO minimum setbacks	N/A	No separate multi-lot setback
Barrhead County	NO minimum setbacks	NO minimum setbacks	N/A	305m (v)
Foothills MD	NO minimum setbacks	NO minimum setbacks	N/A	No separate multi-lot setback
Red Deer County	N/A	165m (v)	165m	No separate multi-lot setback
Rocky View County	NO minimum setbacks	NO minimum setbacks	N/A	No separate multi-lot setback
Lethbridge County	N/A	300m (v)	300m	400m
MD of Big Horn	N/A	150m	300m (v)	No separate multi-lot setback
Yellowhead County	N/A	400m	750m	No separate multi-lot setback
Wetaskiwin County	NO minimum setbacks	NO minimum setbacks	N/A	No separate multi-lot setback
Wood Buffalo	N/A	800m	800m	No separate multi-lot setback
Regional District, Central Okanagan	NO minimum setbacks	NO minimum setbacks	N/A	No separate multi-lot setback
Sequenced Dataset	n = 4 3, 3, 6, 800	n = 9 3, 3, 100, 150, 165, 300, 400, 800, 800 Mean = 302.33, Median = 165	n = 7 165, 300, 300, 300, 750, 800, 1500 Mean = 587.86, Median = 300	n = 5 300, 305, 400, 800, 1500 Mean = 661, Median = 400

Table 2: Jurisdictional Review of Aggregate Setbacks & Regulations

Legend for Tables 1 and 2

- Edmonton Capital Region municipality*
- Alberta municipality*
- Non-Alberta municipality*

Municipality	Summary of Setbacks & Regulations
Leduc County	<ul style="list-style-type: none"> • 100m setback applies between existing dwellings and proposed resource extraction developments. • 6m setback applies from the property line (where no dwelling setback applies). • There are no separate regulations for processing operations vs. extraction-only operations. • Require the notification of residents within a radius and along haul routes.
Strathcona County	<ul style="list-style-type: none"> • Strathcona County does not have minimum setbacks for any type of standard operations (extraction, processing, or multi-lot subdivisions). • Only one setback is prescribed, in a very unique scenario: an 800m setback applies to the environmentally sensitive area of Trappers Lake. • Permits for resource extraction are granted for ten years before requiring renewal. • Where the province does not take securities for reclamation, the municipality requires them.
Lacombe County	<ul style="list-style-type: none"> • Lacombe County does not have minimum setbacks for any type of standard operations. • The County does require a community consultation plan be submitted and approved by the operator.
Parkland County	<ul style="list-style-type: none"> • Parkland County does not have a minimum setback for extraction in general. • A 300m setback applies to a multi-lot subdivision, but this setback can be varied if no processing occurs within the variance area and minimum criteria are adhered to. • A 300m setback that cannot be varied applies for processing activities.
Camrose County	<ul style="list-style-type: none"> • No minimum setbacks apply beyond the 3m setbacks prescribed from property lines. • Where the province does not take securities for reclamation, the municipality requires them.
Thorhild County	<ul style="list-style-type: none"> • Thorhild County does not have minimum setbacks for any type of standard operations. • Where the province does not take securities for reclamation, the municipality requires them.

Table 2: Jurisdictional Review of Aggregate Setbacks & Regulations

Legend for Tables 1 and 2

- Edmonton Capital Region municipality
- Alberta municipality
- Non-Alberta municipality

Municipality	Summary of Setbacks & Regulations
Lac La Biche County	<ul style="list-style-type: none"> • Lac La Biche County has an 800m setback to multi-lot subdivisions that applies <i>only if</i> crushing is taking place for a time period of 2 weeks or more. • If crushing is not to occur for more than two weeks, then no minimum setback to multi-lot subdivisions (or other setbacks) is in place.
Lac Ste. Anne County	<ul style="list-style-type: none"> • 1500m setbacks from multi-residential subdivisions – this setback distance <i>can</i> be varied downwards. • List of requirements for operators (hours of operation, etc.) • The setback for processing facilities is 1500m – cannot be varied downwards for processing facilities. • 800m setback from a dwelling.
Lamont County	<ul style="list-style-type: none"> • The minimum setback for aggregate resource extraction is 3m in Lamont County. • Where the province does not take securities for reclamation, the municipality requires them. • While setbacks do not exist for processing (e.g. crushing), there are specific regulations surrounding crushing – for example, the crusher must be located at the bottom of the pit to reduce noise impacts. • Permits for resource extraction are granted for nine years before requiring renewal. • New proposed subdivisions in proximity to resource extraction deposits are discouraged in order to support sustainable extraction of resources.
Westlock County	<ul style="list-style-type: none"> • There are no minimum setbacks restricting aggregate resource development. • Where the province does not take securities for reclamation, the municipality requires them. • Proposed subdivisions and development in proximity to resource extraction deposits are discouraged through municipal policy in order to support sustainable extraction of resources. • Minimum setbacks related to resource extraction do exist; however, these setbacks are imposed on proposed residential development, not the aggregate development. In Westlock County, a buffer of 1.6km is placed around existing operations that prevents new residential development.
Barrhead County	<ul style="list-style-type: none"> • No minimum setbacks exist for all dwellings or parcels. • A minimum setback of 305m exists for multi-lot subdivisions.

Table 2: Jurisdictional Review of Aggregate Setbacks & Regulations

Legend for Tables 1 and 2

- Edmonton Capital Region municipality
- Alberta municipality
- Non-Alberta municipality

Municipality	Summary of Setbacks & Regulations
	<ul style="list-style-type: none"> The 305m setback for multi-lot subdivisions can be varied, provided no processing (crushing, washing) occurs in the variance area. Where the province does not take securities for reclamation, the municipality requires them. Proposed subdivisions or developments in proximity to resource extraction deposits are not supported if they will later result in development restrictions of aggregate operations, in order to encourage the sustainable extraction of resources.
MD of Foothills	<ul style="list-style-type: none"> No minimum setbacks exist. Limited other regulations or performance standards.
Red Deer County	<ul style="list-style-type: none"> Setbacks in Red Deer County are 165m. The 165m setback is variable for extraction activities where parties agree to the variance. The 165m setback is <i>not</i> variable for processing activities. Hours of operation vary with setbacks adhered to.
Rocky View County	<ul style="list-style-type: none"> No minimum setbacks exist. Proposed subdivisions and development in proximity to resource extraction deposits are discouraged in order to support sustainable extraction of resources.
Lethbridge County	<ul style="list-style-type: none"> A 300m setback to a residential dwelling applies for extraction – this setback <i>can</i> be varied if there is no processing. A 400m setback to multi-lot residential area boundaries applies – this setback cannot be varied. A 300m setback to any residential dwelling applies where processing activities are occurring. New dwellings proposed in the RA (Rural Agricultural) area are tied to these setbacks reciprocally, and the re-designation of land to a multi-residential zone is not allowed within 400m of an existing or proposed resource extraction operation.
MD of Big Horn	<ul style="list-style-type: none"> A 150m setback applies between any dwelling and any extraction activity. A 300m setback applies between processing activities and any dwelling or extraction activity; this setback <i>is variable</i> at the discretion of the development authority.

Table 2: Jurisdictional Review of Aggregate Setbacks & Regulations

Legend for Tables 1 and 2

- Edmonton Capital Region municipality*
- Alberta municipality*
- Non-Alberta municipality*

Municipality	Summary of Setbacks & Regulations
	<ul style="list-style-type: none"> • Permits for resource extraction are granted for nine years before requiring renewal. • Where the province does not require a reclamation plan and take securities for reclamation, the municipality requires them.
Yellowhead County	<ul style="list-style-type: none"> • A 450m setback applies between all dwellings and extraction uses. • A 750m setback applies between all dwellings and aggregate processing uses. • The above setbacks do not apply to resource extraction uses and residences separated by a divided highway.
Wetaskiwin County	<ul style="list-style-type: none"> • No minimum setbacks exist.
RM Wood Buffalo	<ul style="list-style-type: none"> • A universal 800m setback applies. • Limited other regulations or performance standards.
Regional District of Central Okanagan	<ul style="list-style-type: none"> • No minimum setbacks exist. • Limited other regulations or performance standards.

Table 3: Assessing the Jurisdictional Review of Aggregate Setbacks – Key Comparisons & Data Points

How many municipalities have *no setbacks* to begin with (in all cases)?

8 of 20 (40%) of municipalities examined have *no setbacks* outlined at all (whether for extraction, processing, or multi-lot subdivisions), and setbacks are determined on a case-by-case basis.

How many municipalities have *no setbacks* for *some or all* situations (and defined setbacks in others)?

11 of 20 (55%) of municipalities examined have *some or all scenarios* where setbacks are not defined; rather, they are determined on a case-by-case basis.

How many municipalities employ setbacks that can be varied?

Of the 12 municipalities that do employ setbacks in some or all cases, 6 municipalities (50%) allow for a variance of these prescribed setbacks if certain criteria are met and the Development Authority deems it suitable to allow the proposed variance.

How many municipalities have setbacks that are different for multi-lot and single-lot subdivisions?

15 of 20 (75%) municipalities *do not* employ separate setbacks for multi-lot versus single-lot subdivisions; 25% of the municipalities examined (5) do employ this approach.

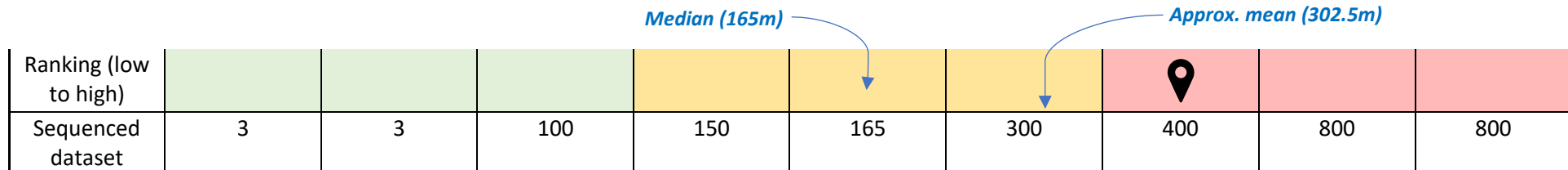
How many municipalities have setbacks for different types of uses (i.e. extraction vs. processing)?

From the 20 municipalities examined, 12 use prescribed setbacks. Of the 12 utilizing prescribed setbacks, 7 (58%) employ separate setbacks for extraction-only, versus activities involving processing (i.e. crushing, washing, etc.).

Of the municipalities that employ prescribed setbacks, what is the “average” setback from a property line or dwelling?

Because of the intricacies and details involved in regulating aggregate (setbacks can be applied with different criteria, and in conjunction with other regulations), it is difficult to accurately name an “average” setback. Most municipalities regulate setbacks, if applicable, with a setback to the dwelling (versus the property

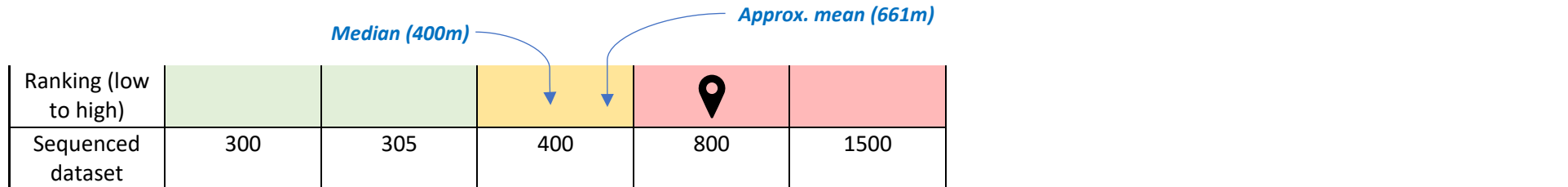
line), making this the most applicable statistic. The average (mean) setback from a dwelling is **302.5m**, while the median is **165m**. The range of setbacks from a property line or dwelling varies from 3.0m to 800.0m. The sequenced dataset is shown below, depicting the numbers from the dataset analyzed. Visualizations do not use a bell curve configuration due to the small dataset being incompatible with such a statistical approach.



Pin icon indicates current Sturgeon County regulation compared to the dataset. Green = low data; Yellow = middle data; Red = high data.

Of the municipalities that employ separate setbacks for multi-lot subdivisions, what is the “average” setback from a multi-lot subdivision?

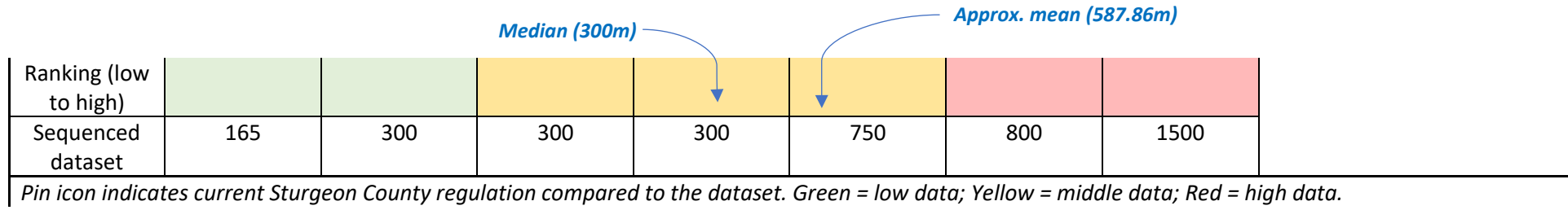
Once again, because of the intricacies and details involved in regulating aggregate (setbacks can be applied with different criteria, and in conjunction with other regulations), it is difficult to accurately name an “average” setback for multi-lot subdivisions. However, simplifying the data shows that of the five municipalities employing separate setbacks for multi-lot subdivisions, the average (mean) setback is **661m** and the median is **400m**. Visualizations do not use a bell curve configuration due to the small dataset being incompatible with such a statistical approach.



Pin icon indicates current Sturgeon County regulation compared to the dataset. Green = low data; Yellow = middle data; Red = high data.

Of the municipalities that employ prescribed setbacks and have setbacks for processing activities such as washing, crushing etc., what is the “average” setback for such activities?

Seven municipalities have separate setbacks outlined for processing activities, and amongst these municipalities the average (mean) setback for processing is **587.86m**, while the median is **300m**. Visualizations do not use a bell curve configuration due to the small dataset being incompatible with such a statistical approach.



PART C: Bylaw Amendment Option Summary




Part C reviews the four potential bylaw amendment options in detail. Note that these four options are subject to change based on feedback from continued consultation processes and may be refined before a recommendation and reading process at Council begins.

Each of the four options are compared in identical tables that address the following components of the option:





- **Summary** – A high-level description of the option.
- **Outcomes** – Reviews the potential impacts of adopting the given option.
- **Economic Impacts** – Reviews the likely economic impacts of adopting the given option.
- **Setbacks** – Addresses the potential setbacks under each option.
- **Development Authority** – Discusses who the development authority for each option would be.
- **Performance Standards & Specific Regulations** – Reviews the performance standards that would or could be integrated into each given option.
- **Application** – Reviews the requirements for developers seeking a development permit for an aggregate operation.
- **Community Consultation** – Discusses the enhancements that may be made to community consultation and communications processes.

Icons are used with each option summary to facilitate interpretation and comparisons.

Please note the meanings of the following icons:

Icon	Meaning
	The green cross indicates a key component of the proposed option, that is an addition or change from Sturgeon County's existing bylaw.
	The orange checkbox indicates a key component of the proposed option that remains the same as Sturgeon County's current bylaw .
	The blue question circle indicates a component of the proposed option that will be engaged on heavily during the second public engagement. Changes in this area are possible, but specifics have yet to be determined.

Option 1: Stringent Performance Standards, with Setbacks Fixed at Regional Lowpoint

Summary of Bylaw Amendment Option 1	
Summary	<p>This option adopts a performance standards based approach to regulation in conjunction with reduced setbacks that are aligned near the low end of regional averages. Performance standards and ongoing monitoring and enforcement remain a crucial component of approving and overseeing operations. Resource extraction setbacks are fixed and align with some of the lowest options in the region. Option 1 would follow the lead of other municipalities taking a low-setback approach, while positioning Sturgeon County to be economically competitive and environmentally sustainable. Various other process and consultation adjustments may also be recommended.</p>
Outcomes	<ul style="list-style-type: none"> • Significantly increased economic competitiveness. • Unification of arbitrary setback differences between single-lot and multi-lot residential uses. • Decreased sterilization of resources, increased environmental sustainability in the long-term. • Likely increased CAP levies received. • May result in more enforcement related inquiries or complaints over time • May impact residents' enjoyment of their property
Economic Impacts	<ul style="list-style-type: none"> • Resource lifespans would be approximately: <ul style="list-style-type: none"> ○ 55 years for construction aggregate ○ 36 years for silica sand ○ 144 years for other sand types • The net present value of each resource value to the County would be ~\$73.4 million over the lifespan of the resources. <ul style="list-style-type: none"> ○ For construction aggregate, \$50.7 million ○ For silica sand, \$20.3 million ○ For other sand types, ~\$2 million
Setbacks	<ul style="list-style-type: none">  The development setback would be 100m (between the outside walls of dwellings and extraction operation boundaries).  The development setback would be the same for multi-lot and single-lot subdivisions.  There would not be an opportunity for these setbacks to be varied by the development authority.  Additional setbacks would be in place for extraction versus processing (i.e. crushing, washing, etc.). The development setback would be 300m between processing activities and the outside wall of a dwelling.

Summary of Bylaw Amendment Option 1

<p>Development Authority</p>	<ul style="list-style-type: none"> ? The Development Authority would be the Development Officer or the Municipal Planning Commission. <ul style="list-style-type: none"> • Applications for resource developments would involve: <ul style="list-style-type: none"> <input checked="" type="checkbox"/> <ul style="list-style-type: none"> ○ First, a redistricting to the “Resource Extraction” district, involving a public hearing. ○ A development permit being issued as a discretionary use. ○ Bylaw amendments could include the requirement for additional consultation at the development permit stage. ○ The opportunity for appeal exists.
<p>Performance Standards & Specific Regulations</p>	<ul style="list-style-type: none"> • The developer would be required to submit the scientific studies identified in “application” (below). ? Some specific regulations may include: <ul style="list-style-type: none"> ○ Where the province does not take securities, the municipality may require them. ○ Progressive reclamation and enhanced landscaping, where possible, must be undertaken to reduce impacts. ○ Where crushing does exist on the extraction site, the crusher should be located at the bottom of the pit where possible. ○ Extraction should be prioritized closest to residential dwellings. ○ Extraction and reclamation hours of operation may be restricted where appropriate. ○ Proof of current Alberta Sand and Gravel Association Membership for all aggregate resource haulers and identification with the Truck Registry, for those who will operate from the site if the development is to be used for commercial purposes.
<p>Application</p>	<ul style="list-style-type: none"> ? As part of their application for development, the developer would need to include the following with their application for the development as due diligence: <ul style="list-style-type: none"> ○ A site context plan illustrating the setbacks ○ Traffic Impact Assessment (TIA) ○ Noise Impact Assessment ○ Noise Monitoring Plan ○ Hydrogeological Impact Assessment ○ Groundwater Monitoring Plan ○ Air Quality Impact Assessment ○ Air Quality Monitoring Plan ○ Visual Impact Assessment ○ Landscaping and Screening Plan

Summary of Bylaw Amendment Option 1	
	<ul style="list-style-type: none"> ○ A Reclamation Plan ○ Public Consultation Report ○ A summary of the operator’s commitments to reasonably mitigate concerns expressed during the public consultation process.
Community Consultation & Communication	<ul style="list-style-type: none"> ❓ A Stakeholder Consultation plan could be required for issuance of a development permit. This plan would require the developer to engage (on an ongoing basis) with affected landowners within a certain radius. ❓ Enhanced communications processes and portals could be developed by Sturgeon County. This would promote a streamlined, simplified way for Sturgeon County residents, aggregate operators, and the municipality to communicate, gather information, and discuss concerns.
Location under the Land Use Bylaw	<ul style="list-style-type: none"> ☑ Resource extraction operations would be allowed only within the Resource Extraction (RE) district.
Other	<ul style="list-style-type: none"> • This proposal would involve changes to the land use bylaw, but these changes would not be significant and the overall process for permitting an operation would remain the same. ☑ Development permits would be issued for five years. Permit renewal would be required every five years until final reclamation. A report prepared by a practicing professional shall be submitted with a development permit application for renewal, addressing the progression of pit activities, amendments to any previous approvals, and the estimated lifespan of the pit. ➕ A summary of the monitoring programs for noise, air quality, and groundwater, in addition to a summary of concerns expressed by surrounding landowners and how the developer responded to the same during the previous five years, shall be reviewed and considered as part of the Development Permit renewal process and in some cases, development permits may not be renewed depending on the results. • Sturgeon County recognizes that a transition plan will need to be created for existing operations, as development permits are renewed every five years. Discussion on such transitions will begin during Engagement Phase Two.

Option 2: Moderate Performance Standards, with Setbacks Fixed at Regional Average

Summary of Bylaw Amendment Option 2	
Summary	Option 2 incorporates some performance standards, and setbacks are fixed to be approximately average when comparing to other municipal jurisdictions. This option would adopt commonly “accepted” setbacks that balance economic competitiveness with greater setbacks than Option 1. Performance standards and ongoing monitoring and enforcement may be important in approving and monitoring regulations. Various other process and consultation adjustments may also be recommended.
Outcomes	<ul style="list-style-type: none"> • Somewhat increased economic competitiveness compared to the existing regulations, but this scenario may still force operators to extract in other regions where aggregate is more economical and accessible. • Unification of arbitrary setback differences between single-lot and multi-lot residential uses. • Decreased sterilization of resources (compared to current), increased environmental sustainability in the long-term. • Potential increase in CAP levies received, but not as significant.
Economic Impacts	<ul style="list-style-type: none"> • Resource lifespans would be approximately: <ul style="list-style-type: none"> ○ 7 years for construction aggregate ○ 27 years for silica sand ○ 122 years for other sand types • The net present value of each resource value to the County would be ~\$26 million over the lifespan of the resources. <ul style="list-style-type: none"> ○ For construction aggregate, \$8 million ○ For silica sand, \$16 million ○ For other sand types, ~\$1.8 million
Setback	<ul style="list-style-type: none"> + The development setback would be 300m between the outer wall of a dwelling and an aggregate operation (extraction or processing). Had to do some spacing here too. + The development setback would be the same for multi-lot and single-lot subdivisions. ☑ There would not be an opportunity for these setbacks to be varied by the development authority.

Summary of Bylaw Amendment Option 2

<p>Development Authority</p>	<ul style="list-style-type: none"> ? The Development Authority would be the Development Officer or the Municipal Planning Commission. <ul style="list-style-type: none"> • Applications for resource developments would involve: <ul style="list-style-type: none"> ○ First, a redistricting to the “Resource Extraction” district, involving a public hearing. ○ A development permit being issued as a discretionary use. ? Bylaw amendments could include the requirement for additional consultation at the development permit stage. <ul style="list-style-type: none"> ○ The opportunity for appeal exists.
<p>Performance Standards & Specific Regulations</p>	<ul style="list-style-type: none"> • The developer would be required to submit the scientific studies identified in “Application” (below). ? Some specific regulations may include: <ul style="list-style-type: none"> ○ Where the province does not take securities, the municipality may require them. ○ Progressive reclamation and enhanced landscaping, where possible, must be undertaken to reduce impacts. ○ Where crushing does exist on the extraction site, the crusher should be located at the bottom of the pit where possible. ○ Extraction should be prioritized closest to residential dwellings. ○ Extraction and reclamation hours of operation may be restricted where appropriate. ○ Proof of current Alberta Sand and Gravel Association Membership for all aggregate resource haulers and identification with the Truck Registry, for those who will operate from the site if the development is to be used for commercial purposes.
<p>Application</p>	<ul style="list-style-type: none"> • The developer would be required to satisfy the existing requirements under section 11.2 of the Land Use Bylaw, in addition to satisfying provincial requirements.
<p>Community Consultation & Communication</p>	<ul style="list-style-type: none"> ? A Stakeholder Consultation plan could be required for issuance of a development permit. This plan would require the developer to engage (on an ongoing basis) with affected landowners within a certain radius. ? Enhanced communications processes and portals could be developed by Sturgeon County. This would promote a streamlined, simplified way for Sturgeon County residents, aggregate operators, and the municipality to communicate, gather information, and discuss concerns.

Summary of Bylaw Amendment Option 2

<p>Location under the Land Use Bylaw</p>	<p><input checked="" type="checkbox"/> Resource extraction operations would be allowed only within the Resource Extraction (RE) district.</p>
<p>Other</p>	<ul style="list-style-type: none"> • This proposal would involve changes to the land use bylaw, but these changes would not be significant and the overall process for permitting an operation would remain the same. <input checked="" type="checkbox"/> Development permits would be issued for five years. Permit renewal would be required every five years until final reclamation. A report prepared by a practicing professional shall be submitted with a development permit application for renewal, addressing the progression of pit activities, amendments to any previous approvals, and the estimated lifespan of the pit. • Sturgeon County recognizes that a transition plan will need to be created for existing operations, as development permits are renewed every five years. Discussion on such transitions will begin during Engagement Phase Two.

Option 3: Minimal Performance Standards, with Setbacks Fixed at Regional Highest

Summary of Bylaw Amendment Option 3	
Summary	Option 3 utilizes significant setbacks or 'buffer zones' in lieu of performance standards. Setbacks are fixed and align with some of the highest options in the region. This approach emphasizes large buffers / setbacks, and minimal performance standards are applied. Economic competitiveness is low in this model. Various other process and consultation adjustments may also be recommended.
Outcome	<ul style="list-style-type: none"> • This option most closely reflects the current land use bylaw regulations in Sturgeon County. • Will directly sterilize a significant amount of resources. • May result in uneconomical operations (indirect sterilization), forcing operators to leave and extract in other regions. This would result in the requirement to truck aggregate further, resulting in increased costs, truck traffic, and emissions.
Economic Impacts	<ul style="list-style-type: none"> • Resource lifespans would be approximately: <ul style="list-style-type: none"> ○ 0 years for construction aggregate ○ 21 years for silica sand ○ 105 years for other sand types • The net present value of each resource value to the County would be ~\$14 million over the lifespan of the resources. <ul style="list-style-type: none"> ○ For construction aggregate, negligible ○ For silica sand, \$12.9 million ○ For other sand types, ~\$1.5 million
Setbacks	<ul style="list-style-type: none"> ➕ The development setback would be 400m between the outer wall of a dwelling and an aggregate extraction operation. ➕ The development setback would be 800m between the out wall of a dwelling and secondary processing operation. ☑ There would not be an opportunity for these setbacks to be varied by the development authority. ➕ The development setback would be the same for multi-lot and single-lot subdivisions.
Development Authority	<ul style="list-style-type: none"> ❓ The Development Authority would be the Development Officer or the Municipal Planning Commission. ☑ Applications for resource developments would involve: <ul style="list-style-type: none"> ○ First, a redistricting to the "Resource Extraction" district, involving a public hearing.

Summary of Bylaw Amendment Option 3	
	<ul style="list-style-type: none"> ○ A development permit being issued as a discretionary use. ❓ Bylaw amendments could include the requirement for additional consultation at the development permit stage. ○ The opportunity for appeal exists.
Performance Standards & Specific Regulations	<ul style="list-style-type: none"> • The developer would be required to submit the scientific studies identified in “application” (below). ☑ Performance standards approaches are limited in Option 3, with a reliance on buffer zones to mitigate impacts.
Application	<ul style="list-style-type: none"> • The developer would be required to satisfy the existing requirements under 11.2 of the Land Use Bylaw, in addition to satisfying provincial requirements.
Community Consultation & Communication	<ul style="list-style-type: none"> ❓ A Stakeholder Consultation plan could be required for issuance of a development permit. This plan would require the developer to engage (on an ongoing basis) with affected landowners within a certain radius. ❓ Enhanced communications processes and portals could be developed by Sturgeon County. This would promote a streamlined, simplified way for Sturgeon County residents, aggregate operators, and the municipality to communicate, gather information, and discuss concerns.
Location under the Land Use Bylaw	<ul style="list-style-type: none"> ☑ Resource extraction operations would be allowed only within the Resource Extraction (RE) district.
Other	<ul style="list-style-type: none"> • This proposal would involve changes to the land use bylaw, but these changes would not be significant and the overall process for permitting an operation would remain the same. ☑ Development permits would be issued for five years. Permit renewal would be required every five years until final reclamation. A report prepared by a practicing professional shall be submitted with a development permit application for renewal, addressing the progression of pit activities, amendments to any previous approvals, and the estimated lifespan of the pit. • Sturgeon County recognizes that a transition plan will need to be created for existing operations, as development permits are renewed every five years. Discussion on such transitions will begin during Engagement Phase Two.

Option 4: Performance Standards and Setbacks Science-Based

Summary of Bylaw Amendment Option 4	
Summary	<p>This option involves a science-based approach, with setbacks determined within a specific range. A standard setback applies, but the variance of such setbacks on a site-by-site basis based on the contents of technical, scientific reports may be permitted. Performance standards and ongoing monitoring and enforcement remain a crucial part of the development process. Economic competitiveness is enhanced but balanced with resident quality of life. Increased community consultation and communication processes may also be enhanced.</p>
Outcome	<ul style="list-style-type: none"> • Every site is unique, so rather than set arbitrary setbacks, all of the development regulations including the setbacks could be based on the results of a number of studies – TIA, Noise Impact Assessment, Hydrogeological Impact Assessment, Air Quality Impact Assessment, a landscaping plan to show an adequate buffer to improve aesthetics, a stakeholder consultation plan, etc. • The Direct-Control (DC) process provides the opportunity for operators to propose appropriate setbacks if the context makes sense and the scientific studies support the request. • The County could request certain studies as part of the application process and the DC fees could cover the cost of the review of the studies by a third party. Administration would make a recommendation on the proposal to Council based on the results of the third-party review, among other considerations. • The County could enforce if the operator does not follow the development regulations agreed to and approved by Council. • Transparent process - members of public can follow application, review application file on record at the County, and present their position to Council at the Public Hearing.
Economic Impacts	<ul style="list-style-type: none"> • Resource lifespans would vary – it is difficult to predict since setbacks are not prescribed. If an average setback of 200m were applied: <ul style="list-style-type: none"> ○ 37 years for construction aggregate ○ 32 years for silica sand ○ 136 years for other sand types • The net present value of each resource value to the County would be ~\$59.2 million over the lifespan of the resources. <ul style="list-style-type: none"> ○ For construction aggregate, \$38.5 million ○ For silica sand, \$18.6 million ○ For other sand types, ~\$2 million

Summary of Bylaw Amendment Option 4	
Setbacks	<ul style="list-style-type: none"> + Development setbacks are to be determined on a site-specific basis, based on technical and scientific reports and presented as part of the application submission.
Development Authority	<ul style="list-style-type: none"> + County Council would be the development authority for development permits and would oversee direct control districts.
Performance Standards & Specific Regulations	<ul style="list-style-type: none"> • The developer would be required to submit the scientific studies identified in “Application” (below). ? Some specific regulations may include: <ul style="list-style-type: none"> ○ Where the province does not take securities, the municipality may require them. ○ Progressive reclamation and enhanced landscaping, where possible, must be undertaken to reduce impacts. ○ Where crushing does exist on the extraction site, the crusher should be located at the bottom of the pit where possible. ○ Extraction should be prioritized closest to residential dwellings. ○ Extraction and reclamation hours of operation may be restricted where appropriate. ○ Proof of current Alberta Sand and Gravel Association Membership for all aggregate resource haulers and identification with the Truck Registry, for those who will operate from the site if the development is to be used for commercial purposes. + Specific development regulations related to performance standards may be included in the Development Permit, particularly where a variance to the setback is approved.
Application	<ul style="list-style-type: none"> • As part of their application for development, the developer would need to include the following with their application for the development as due diligence: <ul style="list-style-type: none"> ○ A site context plan illustrating the setbacks ○ TIA ○ Noise Impact Assessment ○ Noise Monitoring Plan ○ Hydrogeological Impact Assessment ○ Groundwater Monitoring Plan ○ Air Quality Impact Assessment ○ Air Quality Monitoring Plan

Summary of Bylaw Amendment Option 4	
	<ul style="list-style-type: none"> ○ Visual Impact Assessment ○ Landscaping and Screening Plan ○ A Reclamation Plan ○ Public Consultation Report ○ A summary of the operator’s commitments to reasonably mitigate concerns expressed during the public consultation process.
Community Consultation & Communication	<ul style="list-style-type: none"> ❓ A Stakeholder Consultation plan could be required for issuance of a development permit. This plan would require the developer to engage (on an ongoing basis) with affected landowners within a certain radius. ❓ Enhanced communications processes and portals could be developed by Sturgeon County. This would promote a streamlined, simplified way for Sturgeon County residents, aggregate operators, and the municipality to communicate, gather information, and discuss concerns.
Location under the Land Use Bylaw	<ul style="list-style-type: none"> ☑ Resource extraction operations would be allowed where a Direct Control district is developed to allow such.
Other	<ul style="list-style-type: none"> • This proposal would involve changes to the land use bylaw, and a change in the overall approach to regulating aggregate operations within Sturgeon County to rely more on science-based approaches. ☑ Development permits would be issued for five years. Permit renewal would be required every five years until final reclamation. A report prepared by a practicing professional shall be submitted with a development permit application for renewal, addressing the progression of pit activities, amendments to any previous approvals, and the estimated lifespan of the pit. ✚ A summary of the monitoring programs for noise, air quality, and groundwater, in addition to a summary of concerns expressed by surrounding landowners and how the developer responded to the same during the previous five years, shall be reviewed and considered as part of the development permit renewal process. In some cases, development permits may not be renewed depending on the results. • Sturgeon County recognizes that a transition plan will need to be created for existing operations, as development permits are renewed every five years. Discussion on such transitions will begin during Engagement Phase Two.