



PLANNING

TO: Council

DATE: July 26, 2022 **DIVISION:** 5

TIME: Morning Appointment

FILE: 07212001 **APPLICATION:** PL20210207/208

SUBJECT: Master Site Development Plan - Roe Gravel Pit (PL20210207)
Redesignation – Direct Control District (PL20210208)

APPLICATIONS:

- PL20210207 - To approve the Roe Gravel Pit Master Site Development Plan, which provides a non-statutory policy framework to guide and evaluate aggregate extraction on the site.
- PL20210208 (Bylaw C-8268-2022) - To redesignate ± 19.32 hectares (± 47.75 acres) from Agricultural, General District (A-GEN) to Direct Control District to accommodate aggregate extraction operations.

GENERAL LOCATION: Located approximately 4.07 kilometres (2.53 miles) southwest of Irricana, approximately 0.81 kilometres (0.50 miles) south of Highway 567, and on the west side of Range Road 270.

EXECUTIVE SUMMARY: Council gave first reading to Bylaw C-8268-2022 on April 5, 2022.

The proposed land use amendment and Master Site Development Plan (MSDP) would facilitate aggregate extraction across an area of ± 19.32 hectares (± 47.75 acres) along the southern portion of the wider quarter section (SE-12-27-27-W04M). The quarter section is currently designated as Agricultural, General District (A-GEN) and is largely undeveloped except for three accessory buildings in the northwest corner to support agricultural pursuits. The surrounding area is primarily agricultural in nature; however, BURNCO has been engaged in significant and continuous aggregate extraction within the immediate vicinity with a total combined area of ± 304.00 hectares (± 751.00 acres).

The Roe Gravel Pit would operate as a satellite operation to serve the nearby active BURNCO pit with an estimated 1,200,000 tons of aggregate. The viable aggregate material is located entirely beneath the water table within an unconfined groundwater aquifer. The bailing and dewatering activities required to extract these materials would require Water Act approvals prior to commencement of activities because of the potential to contaminate the unconfined groundwater aquifer and impact groundwater levels within the area.

The Municipal Development Plan (County Plan) (Appendix C, Section 4) requires the submission of technical assessments to support the adoption of an MSDP. The Applicant has submitted the MSDP without meeting these technical requirements, as no technical assessments have been submitted to the County.

Administration has reviewed the application with careful consideration given to the site history as a former County gravel pit, geographical features and context, and the proposed operations outlined in the submitted MSDP. Given the limited operations proposed onsite, Administration recommends that some technical requirements could be scaled-back to appropriately reflect the site context and proposed operations.

Administration Resources

Gerrit Scheffel, Planning & Development Services



ROCKY VIEW COUNTY

Administration recommends that the following technical assessments and plans be submitted prior to MSDP approval, as they are critical to informing policies and protocols outlined in the MSDP: a Hydrological Assessment, an Environmental Screening Report (ESR), and separate memos addressing offsite noise and air quality impacts.

Administration also recommends that the MSDP policies should require that the following technical assessments and plans be submitted prior to any future Development Permit (DP) approval: a Stormwater Management Plan, a Transportation Impact Assessment (TIA), a Landscaping Plan, a Construction Management Plan, Traffic Management Plan, Erosion and Sediment Control Plan (ESC), and a detailed Reclamation Plan.

The body of this report outlines policy amendments to the submitted MSDP, which if implemented, would bring the MSDP into alignment with County policies and standard best practices. Administration suggests that a referral motion would allow the Applicant the further opportunity to submit the necessary technical reports and revisions to the MSDP to resolve the existing conflicts with the County Plan.

ADMINISTRATION RECOMMENDATION: Administration recommends referral of the MSDP and Redesignation in accordance with Option #2.

OPTIONS:

Master Site Development Plan Application (PL20210207):

- Option # 1: THAT the 'Roe Gravel Pit Master Site Development Plan' be approved as per Attachment 'D'.
- Option # 2: THAT the 'Roe Gravel Pit Master Site Development Plan' be referred to Administration to work with the Applicant on satisfying the technical requirements and submissions of a Master Site Development Plan. Specifically, the revised Master Site Development Plan shall address the following:
- Technical items to be submitted prior to further consideration of the MSDP. Specifically, a Hydrological Assessment, an Environmental Screening Report, a Noise Impact Memo, and an Air Quality Impact Memo.
 - Policies committing the Applicant to submit a Stormwater Management Plan, a Landscaping Plan, an Erosion and Sediment Control Plan, a Construction Management Plan, a Traffic Management Plan, and a Detailed Reclamation Plan prior to future Development Permit stage.
 - Removal of language in all policies that states the Applicant "will not submit" technical items or studies "as part of this MSDP or as part of any future DP application".
 - Amendments to policies as outlined in the report, including the requirement to reference additional regulations, standards, and County Policies.

Option # 3: THAT application PL20210207 be refused.

Redesignation Application (PL20210208):

- Option # 1: Motion # 1 THAT Bylaw C-8268-2022 be given second reading.
- Motion # 2 THAT Bylaw C-8268-2022 be given third and final reading.



ROCKY VIEW COUNTY

Option # 2: THAT Bylaw C-8268-2022 be referred to Administration to work with the Applicant on satisfying the technical requirements and submissions of a Master Site Development Plan.

Option # 3: THAT application PL20210208 be refused.

AIR PHOTO & DEVELOPMENT CONTEXT:



APPLICATION EVALUATION:

The application was evaluated based on the technical reports submitted with the application and the applicable policies and regulations.

APPLICABLE POLICY AND REGULATIONS: <ul style="list-style-type: none"> • <i>Municipal Government Act</i>; • Municipal Development Plan (County Plan); • Land Use Bylaw; and • County Servicing Standards. 	TECHNICAL REPORTS SUBMITTED: <ul style="list-style-type: none"> • N/A
-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	---------------------------------------------------------------------------------------------

BACKGROUND:

The proposed site is currently permitted as a Rocky View County gravel pit (Alberta Environment and Parks (AEP) Registration # 00015044-01-00). The County has excavated all viable materials located above the water table and has not conducted gravel extraction activities for approximately 30 years. The County has been engaged in restoration and reclamation activities at the site, having replaced topsoil and seeded the area. A successful grass catch is the final step remaining before the site can be considered fully reclaimed by AEP, which is estimated to require one to two seasons of growth.



Proposed onsite operations at the Roe Gravel Pit would include earthworks, bailing, loading, and scaling only. No material processing would occur at the subject site, as materials would be excavated and then hauled to BURNCO's adjacent pit for processing (crushing, washing, and loading). The Applicant anticipates a 5- to 10-year operating period.

MASTER SITE DEVELOPMENT PLAN OVERVIEW:

Development Permitting

As per the submitted MSDP (Policy 2), the Applicant would secure a DP before commencing operations onsite.

Administration recommends the MSDP be resubmitted with amendments to Policy 2, stating that the Applicant will secure a DP before commencing operations for each Phase of the development.

Hours of Operation

Section 3.2 of the submitted MSDP states the hours of operation and hauling are proposed to be from 7:00 a.m. to 7:00 p.m. on Monday through Saturday with no activities on Sundays or Statutory Holidays.

Administration recommends that Section 3.2 of the MSDP be amended to state the hours of operation and hauling to be from 7:00 a.m. to 7:00 p.m. on Monday through Friday, and 9:00 a.m. to 7:00 p.m. on Saturdays, to reflect the requirements of the County's Noise Control Bylaw (C-8067-2020).

Stormwater Management

The County Plan (Appendix C) requires that the MSDP include a Stormwater Management Plan addressing onsite stormwater management and the mitigation of potential offsite impacts caused by the development. Section 2.2 of the submitted MSDP states that all surface water within the pit area would be directed towards and confined within the excavation pit, and that stormwater management is not expected to be an issue.

As per the submitted MSDP (Policy 3), the Applicant would ensure that the stormwater from the active mining area is collected and not discharged from the site. The Applicant is proposing not to submit a conceptual or detailed Stormwater Management Plan as part of the MSDP or as part of any future DP.

Administration recommends that a policy should be added to Section 2.2 of the MSDP that states a Stormwater Management Plan shall be submitted at the DP stage to address the specific stormwater management requirements of each operational phase. The plan should address the appropriateness of stormwater draining into the uncontained groundwater aquifer, a drainage plan for the larger site including the proposed berms, and mitigation of drainage impacts to the County ditch along Range Road 270, if any.

Ground and Surface Water

The County Plan requires that the MSDP provide a technical summary and supporting documentation that provides an analysis of the potential impacts the development may have on the quality and availability of ground and surface water. Due to the aggregate reserves being located entirely beneath the water table and within an unconfined groundwater aquifer, Administration recommends the submission of a Hydrological Assessment, prior to approval of the MSDP, that addresses potential ground and surface water impacts from the proposed mining activities. Administration has specific concerns regarding potential offsite impacts to water quality should the aquifer become contaminated, and water availability should excavation impact water levels in the area.

While Water Act Approvals associated with wet extraction fall under the Province's jurisdiction, the County is the approving body for the MSDP and subsequent DPs in support of the development. Without the Hydrological Assessment, the County cannot make an informed decision on the potential



ROCKY VIEW COUNTY

risks and impacts that the development would have on the unconfined groundwater aquifer. The MSDP also currently excludes the possibility for groundwater monitoring to be implemented at the DP stage.

Administration recommends the MSDP be resubmitted with amendments to Section 2.3 that address the above concerns related to ground and surface water, and removal of the restrictive language in Policy 4 stating that a Hydrological Assessment will not be submitted at any future time.

Dewatering and Surface Water Management

Section 3.9 of the submitted MSDP does not adequately address dewatering and surface water management for the proposed gravel pit development.

Administration recommends that the applicant submit a Hydrological Assessment prior to approval of this MSDP, and the findings of this assessment should include an analysis of the potential impacts of dewatering operations and surface water management on the unconfined groundwater aquifer. This analysis should inform the protocols and procedures of Section 3.9 of the MSDP.

Administration recommends the MSDP be resubmitted with amendments to Section 3.9, which includes additional protocols and procedures that demonstrate adequate dewatering and surface water management will not result in unmitigated onsite and offsite impacts (i.e., aquifer contamination).

Environmental Overview

The County Plan requires that the MSDP provide a technical summary and supporting documentation that addresses an environmental overview of the site by the submission of a biophysical overview. Section 2.4 of the submitted MSDP outlines that the site was previously mined by the County, and the County has been unsuccessful in obtaining a reclamation certificate from AEP due to the unaddressed reclamation deficiencies. No environmental studies have been submitted with the applications, nor does the MSDP require such studies to be completed at DP stage.

Due to the current conditions of the site, Administration recommends that a Biophysical Impact Assessment (BIA) should not be submitted at this time; however, the Applicant should be required to submit an Environmental Screening Report (ESR). The ESR will determine if a BIA would be advised before the development commences. Should the ESR deem a BIA to be necessary, Administration would require the submission of a BIA prior to issuance of a future DP.

Development Concept and Phasing

As per Section 3.3 of the submitted MSDP, Phase 1 would commence with stripping of the topsoil within the phase 1 mining area. The stripped soil would be used to construct screening berms to the east and to the north of the pit. Additionally, the dedicated haul route to the processing site along Range Road 270 and Township Road 270 would be established.

Phase 2 would commence with stripping of the Phase 2 mining area. Enhancements to the screening berms and grading of the Phase 1 slopes would begin. The dedicated haul route would remain unchanged. Once aggregate extraction from mining Phase 2 is complete, grading of the Phase 2 slopes would be completed, utilizing overburden and topsoil from the north screening berm. The screening berm along Range Road 270 would be left in place.

Administration has reviewed the Development Phasing plan as submitted within the MSDP and has determined the plan to be appropriate in meeting the requirements of the County.

As per the submitted MSDP (Policy 7), the Applicant would follow all requirements in the Code of Practice for Pits (Section 5.2.5), which indicates that reclaimed sloping would be no steeper than 3:1.

Administration recommends that the submitted MSDP (Policy 7) be amended to include reference to Occupational Health and Safety Requirements.



Noise

The County Plan (Appendix C) requires that the MSDP provide a technical summary and supporting documentation that addresses noise mitigation strategies and reports. The County's standard practice is to require the submission of a Noise Impact Assessment prior to the adoption of the MSDP.

Due to the limited operations proposed, low density of nearby residents, and proximity of the proposed site to the existing BURNCO pit, Administration recommends that a Noise Impact Assessment is not required at this time. However, Administration recommends that the Applicant should be required to submit a memo from a qualified professional that indicates that the existing Noise Impact Assessment conducted for the existing BURNCO pit is appropriate for operations to be expanded to the Roe site.

Section 3.5 of the submitted MSDP outlines several noise assessment and control strategies, but does not include policy requiring the Applicant to establish noise monitoring equipment to measure noise levels periodically and in response to any complaints received. Administration recommends that noise monitoring requirements be included through policies within the MSDP.

Air Quality

The County Plan (Appendix C) requires that the MSDP provide a technical summary and supporting documentation that addresses dust mitigation strategies and reports. The County's standard practice is to require the submission of an Air Quality Assessment in accordance with the Alberta Ambient Air Quality Objectives (AAAQO) and Canadian Ambient Air Quality Standards (CAAQS), prior to the adoption of the MSDP.

Due to the limited operations and proximity of the proposed site to the existing BURNCO pit, Administration recommends that an Air Quality Assessment is not required at this time. However, Administration recommends that the Applicant should be required to submit a memo from a qualified professional that indicates that the existing Air Quality Assessment conducted for the existing BURNCO pit is appropriate for operations to be expanded to the Roe site.

Section 3.6 of the submitted MSDP outlines several measures to reduce dust generated from operations, including a 30 km/h speed limit in the stockpile area, watering the work area during overburden stripping operations, seeding of stockpile materials, and progressive reclamation of mined-out cuts. However, the MSDP does not include policies requiring air quality monitoring at the site, and so Administration recommends that this be included in the document to require air quality monitoring proposals at DP approval stage.

At this time, the submitted MSDP does not adequately address Administration's recommendation for monitoring, measurement, and reporting of air quality impacts, and excludes the possibility for submission of an Air Quality Assessment should it be deemed a requirement prior to issuance of future DPs.

Annual Reporting Requirements

Section 3.7 of the submitted MSDP outlines the annual reporting requirements that the Applicant would submit to the County. Administration recommends the addition of groundwater elevations, noise measurements, and air quality measurements be added to the annual reporting requirements once the recommended monitoring protocols have been updated and included in Sections 2.3, 3.5 and 3.6 of the MSDP.

As per the submitted MSDP (Policy 17), the Applicant would provide an Annual Report to Rocky View County in accordance with DP requirements; however, this would not include reporting related to groundwater elevations, unless required under a Water Act Approval issued by AEP.

Administration recommends removal of the restrictive language in Policy 17 stating that groundwater elevations would not be included within annual reporting.



Transportation

Appendix C of the County Plan requires that the MSDP provide a technical summary and supporting documentation that addresses transportation and access management through the submission of a Transportation Impact Assessment (TIA). Administration recommends that submission of the TIA not be required at this time; however, it should be submitted prior to issuance of a future DP.

The planned access to the subject site is along Range Road 270, which is currently a low volume gravel road. As per Policy 14.22 of the County Plan, any business not located within an approved business area needs direct access to a paved County Road or Provincial Highway.

As per the submitted MSDP (Policy 21), the Applicant would complete a TIA as a future DP condition. If offsite improvements are required as determined by the TIA, prior to issuance of a future DP, the applicant would be required to enter into a Development Agreement with the County for the offsite improvements. Policy 22 of the MSDP states that such improvements would not include the upgrade of Range Road 270 to a paved standard.

Administration recommends that the MSDP be resubmitted with amendments made to Policy 22, removing the restrictive language stating that the Applicant would not upgrade Range Road 270 to a paved standard at any future time.

Landscaping

Section 3.12 of the submitted MSDP outlines the landscaping and site screening protocols associated with each phase of the mining operation, which Administration has deemed satisfactory.

Policies within the MSDP do not commit the Applicant to submit a Landscape Plan to the County. Administration recommends that the Applicant submit a Landscaping Plan for each phase of the development at the future DP stage, and that the MSDP policies require this.

Erosion and Sediment Control

Appendix C of the County Plan requires that the MSDP provide a technical summary and supporting documentation that addresses erosion. The Applicant is not proposing to submit an Erosion & Sediment Control Plan (ESC). The County's standard practice is to require the submission of an ESC Plan prior to issuance of the future DP.

Due to the additional risk of negative offsite impacts that dredging below the water table carries, Administration recommends that the ESC Plan should be required prior to any land use amendment or MSDP approval, and the results should inform the protocols and procedures of Section 3.13 of the MSDP. These measures are to be implemented onsite during the operation of the pit.

Reclamation

Section 4.0 of the submitted MSDP outlines the protocols and policies of the Reclamation Plan. The intention is to reclaim the site back to an equivalent land capability and to re-establish a similar grade and drainage patterns that existed prior to disturbance. The site would be predominantly reclaimed back to agricultural use as per Appendix 2 of the MSDP.

Prior to issuance of future DP, the Applicant would be required to provide a detailed reclamation plan for the Phase 1 area in accordance with the MSDP and the requirements under the Code of Practice for Gravel Pits published by AEP. The plan would address the progressive reclamation of the pit to ensure areas being used for operations or un-reclaimed would be limited to 40 acres at any given time, a reclamation monitoring and maintenance plan, and implementation of the recommendations of the slope stability assessment prepared in support of reclamation activities.

Section 4.7 of the submitted MSDP proposes a permanent water body to remain in the final reclamation plan (Appendix 2 Drawing No. 7 – Reclamation Plan).



As per the submitted MSDP (Policy 34), the Applicant will secure Water Act Approval for the authorization of an end pit lake as part of the reclamation plan. Administration recommends that the MSDP be resubmitted with amendments made to Policy 34 to state that Water Act Approval will be obtained prior to issuance of future DPs and any onsite activity.

POLICY ANALYSIS:

County Plan

Section 15.0 (Natural Resources) of the County Plan states that the County is responsible for approving land use and issuing development permits for all aggregate extractions. Additionally, aggregate pits of all sizes are subject to provincial legislation.

The goal of the Natural Resource policies is to support the extraction of natural resources in a manner that balances the needs of residents, industry, and society, and to support environmentally responsible management.

- 15.1. *Minimize the adverse impact of aggregate resource extraction on existing residents, adjacent land uses, and the environment.*

The MSDP provides specific policies to address potential offsite impacts of the operation including hours of operation, dust control, noise mitigation, reclamation, and offsite trucking routes. The MSDP provides policies and procedures around mitigation and response to complaints from area residents if they are impacted by site operations. At this time, the MSDP does not incorporate adequate technical information to sufficiently mitigate all potential adverse impacts of aggregate extraction on existing residents, adjacent land uses, and the environment.

- 15.2. *Encourage collaboration between the County, the aggregate extraction industry, and affected residents to develop mutually agreeable solutions to mitigate impacts of extraction activities.*

The Applicant has not submitted the technical studies and submissions required by the County Plan. The Applicant and the County have been working together to develop mutually agreeable solutions that consider the history of the site and the context of the surrounding area, while meeting the needs of both the Applicant and the requirements of the County Plan.

- 15.4. *Direct all aggregate related traffic to identified major haul routes that are monitored and appropriately maintained.*

The Applicant has proposed a new haul route between the subject site and the existing BURNCO gravel pit where the extracted material would be processed. The haul route runs along Range Road 270 (a low volume gravel road) and eastward on Township Road 270 (a paved county road). Prior to issuance of a future DP, it is recommended that the applicant submit a Transportation Impact Assessment and contact the County's Engineering team to determine if Range Road 270 requires upgrading to a paved county road standard.

- 15.6. *Until such time as a County aggregate extraction policy is prepared, applications for aggregate extraction shall prepare a master site development plan that addresses the development review criteria identified in section 29.*

The MSDP application does not sufficiently address each of the development review criteria in section 29 and fails to adequately address specific items including traffic, ground and surface water quality, stormwater, noise, and air quality.

Land Use Bylaw

The proposed Direct Control District (C-8268-2022) is the appropriate land use for the intended operations. A Development Permit is required to approve the use, design, and servicing for the aggregate operations.



ROCKY VIEW COUNTY

The proposed Direct Control District Section 2.4.4 (b) defines the rear yard (west) setback requirement as 3.0 metres, allowing excavation to extend within 3.0 metres of the west property line. The landowner of the subject site also owns the quarter directly adjacent to the west, so impact on adjacent landowners is considered negligible at this time.

ADDITIONAL CONSIDERATIONS:

Water Act Approvals

All pits where groundwater is intercepted and disturbed requires Water Acts Approval prior to undertaking the activity and resource removal (i.e., excavation below the water table). The Applicant would be seeking Water Act approval to remove or disturb ground or other material in an unnamed aquifer and resultant end pit lake. The Applicant would submit the required application to AEP upon any approval of the land use and MSDP.

Alberta Environment and Parks (Code of Practice for Pits)

All pits greater than 5.0 hectares (12.4 acres) on private land require approval from Alberta Environment through the Code of Practice for Pits. The Code of Practice for Pits addresses pit operations, reclamation, and environmental monitoring. The Applicant would submit the required application to AEP upon approval of the land use and MSDP.

Alberta Culture Historic Resources

Historic Resource Act Clearance from Alberta Culture is required prior to development on the site. The Applicant would submit the required application to Alberta Culture and Historic Resources upon approval of the land use and MSDP.

Respectfully submitted,

Concurrence,

“Brock Beach”

“Dorian Wandzura”

Acting Executive Director
Community Development Services

Chief Administrative Officer

GS/rp

ATTACHMENTS

ATTACHMENT ‘A’: Application Information

ATTACHMENT ‘B’: Application Referrals

ATTACHMENT ‘C’: Bylaw C-8268-2022 and Schedule A

ATTACHMENT ‘D’: Roe Gravel Pit Master Site Development Plan

ATTACHMENT ‘E’: Map Set

ATTACHMENT ‘F’: Public Submissions