

To: CAO for the Electoral Area Services Committee

Date: 2019-09-10

From: Graham Daneluz, Dep. Director of Planning & Development

File No: 4530-01

**Subject: The Use of Land for Processing Aggregates in FVRD's Electoral Area Zoning Bylaws**

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## RECOMMENDATION

**THAT** the Fraser Valley Regional District Board direct staff to provide information and assistance to the BC Stone, Sand & Gravel Association and individual gravel operators so that they can apply for zoning amendments or temporary use permits to allow gravel processing at mine sites;

**AND THAT** the Fraser Valley Regional District Board express its preference to consider zoning amendment applications to allow gravel processing after the results of independent monitoring of noise and dust emissions associated with gravel operations in priority areas is available so that baseline data about community impacts may be considered in conjunction with any applications submitted;

**AND FURTHER THAT** staff be directed to prepare, for consideration by the FVRD Board, a policy to: 1) focus Soil Removal service resources on implementation of *FVRD Commercial Gravel Operations Bylaw No. 1181*; and, 2) not enforce zoning provisions related to processing at existing mines if the mine is in compliance with *Bylaw No. 1181*.

## STRATEGIC AREAS OF FOCUS

Foster a Strong & Diverse Economy

Support Healthy & Sustainable Community

Provide Responsive & Effective Public Services

## SUMMARY

The BC Stone, Sand & Gravel Association (BCSSGA) has asked FVRD to address their concerns with zoning bylaws that do not allow the processing (e.g. crushing) of gravel at a number of established gravel mine sites in the Electoral Areas. BCSSGA believes that zoning provisions create uncertainty for the industry and hinder desirable investment that reduces environmental and community impacts associated with mining.

FVRD's new *Commercial Gravel Operations Bylaw No. 1181* regulates noise and dust emissions from gravel operations and provides resources for monitoring and compliance. With *Bylaw No. 1181* now in

place, the FVRD Board may wish to consider options for addressing the longstanding issue raised by the BCSSGA. This Corporate Report outlines potential options.

## **BACKGROUND**

The BC Stone, Sand & Gravel Association (BCSSGA) represents the aggregate industry in British Columbia. FVRD has engaged with the BCSSGA, and individual gravel operators, since 2004 to improve regulations affecting the gravel industry and to minimize negative impacts to communities that surround gravel operations.

In July, 2019, BCSSGA representatives attended the FVRD Board meeting to ask that long-standing concerns with the treatment of gravel processing in FVRD bylaws be addressed. In many cases, Electoral Area zoning bylaws do not allow gravel processing where mines are located. According to BCSSGA, this leads to uncertainty for gravel operators and hinders investments that would improve efficiency and reduce community impacts. BCSSGA has asked the Board to consider solutions to this problem.

### **Local Government Zoning Authority for Gravel Extraction and Processing**

The processing of rock, sand and gravel is noisy and dusty (although these emissions can be minimized). It involves heavy machinery and mechanical processes to break and sort rock. It occurs in the open air where noise and dust emission can easily spread to surrounding properties. As a result, gravel processing can cause nuisances for surrounding communities that have led to persistent and intense conflicts in FVRD's electoral area and elsewhere. In the absence of effective tools and resources to manage these conflicts, many local government zoning bylaws have differentiated the extraction of rock, sand and gravel from the processing of it.

The primary tool local governments have for regulating land use and avoiding use conflicts is zoning. Extraction is not considered a land use and it cannot be regulated or prohibited through zoning bylaws.<sup>1</sup> However, the processing of gravel is a use of land and it may be addressed by zoning bylaws. Since zoning bylaws cannot regulate where gravel extraction occurs, local governments have used zoning powers to influence where the processing occurs with the intention of avoiding conflicts over noise and dust emissions.

In the view of the Industry, the distinction in zoning between extraction and processing divides a single integrated enterprise – a gravel operation – into two separate parts (extraction and processing) that generally need to be together to be viable. Gravel is a low value bulk commodity. A large part of the cost

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<sup>1</sup> The extraction of mineral resources is viewed in law as a consumption of land; not a use of land subject to local government zoning. There is a complex body of law around this distinction and the scope of local government authority. Generally, jurisdiction over mineral extraction is reserved for the Province. It may be regulated and prohibited by local governments only through a soil removal bylaw (not a zoning bylaw) approved by the Minister of Mines. *FVRD Commercial Gravel Operations Bylaw No. 1181*, adopted in 2016, is such a bylaw. It is one of the few bylaws in BC that have received ministerial approval.

to the user – half or more - is in the transportation of the gravel. Added transportation and handling greatly increase the price to the user and make the produce uncompetitive in the marketplace.

### **Gravel Processing in FVRD Zoning Bylaws**

FVRD has nine zoning bylaws that cover different parts of the Electoral Areas. For the most part, these bylaws have a consistent approach to gravel extraction and processing.

Extraction is defined as:

“the pulling out or drawing out of primary forest, mineral, and other natural resource materials on a lot; includes only the preliminary grading, cutting, separation, or crushing of such materials for shipment; excludes all manufacturing of products from such materials and any processing not specifically included in this definition; also excludes the excavation of land as a necessary part of a construction project, the removal of unwanted stones from the surface of land undergoing cultivation, and the cleaning out or enlarging of a drainage system for the purpose of improving the drainage of lands.”<sup>2</sup>

Note that this definition includes, “the preliminary grading, cutting, separating or crushing... for shipment.” This recognizes that some degree of processing is often required simply to put the material in a state in which it can be removed from the mine site. This is particularly true of quarry rock, but can also be the case for sand/gravel deposits as well. If the resource is not able to be broken or sorted to a degree sufficient to enable shipping, the extraction rights would be frustrated.

Extraction is typically listed as a permitted use in large-lot zones such as Agriculture, Rural, and Limited Use. However, as outlined above, it is outside of local government jurisdiction to prohibit gravel extraction by way of zoning bylaw and so zoning bylaws do not effectively prohibit extraction anywhere.<sup>3</sup>

Most FVRD zoning bylaws contain a zone, such as the Resource Industrial (I-1) zone, that allows, “uses necessary to the primary manufacture of products from forest, mineral and other extracted natural resource materials, such as sawmill, pole treatment plant, gravel sorting, screening and crushing.”<sup>4</sup>

There about 11 electoral area properties with zones that would permit gravel processing. Only one is associated with a gravel operation.

### **Processing at Electoral Area Mine Sites**

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<sup>2</sup> This excerpt is from Division 1 of Zoning Bylaw No. 100 (Area “C”) but all FVRD zoning bylaws contain the same or a similar definition.

<sup>3</sup> This is explicitly recognized in Sumas Mountain Rural Land Use Bylaw No. 500 which states that, “Notwithstanding that Section 7.6.2 does not permit land to be used for mineral, aggregate, and energy extraction activities, such activities may occur on land designated Limited Use/Resource because the Mines Act and the Municipal Act do not enable the Regional District to regulate mining activity as a land use, despite the fact that the Regional District is opposed to mining activities in this designation.” Various FVRD official community plans also acknowledge this limitation.

<sup>4</sup> Division 8 of Zoning Bylaw No. 100 (Area “C”). The same provisions exist in five other FVRD zoning bylaws (BL# 85, 90, 801, 75 and 66. Two more zoning bylaws provide zones for similar uses (BL#559, 500). Only Zoning Bylaw No. 823 (part of Area A) provides no provisions for gravel processing.

Aggregates are used for many different purposes, including roads, buildings, infrastructure, sports fields, and construction. Different purposes require different aggregate products. There are a variety of factors that differentiate aggregate products including the size of the stones; the shape of the stones (round or angular); the mixture of sizes and materials; the mineral qualities of the rock; the ratio of sand to rock; and, a variety of other things. Some uses - like structural concrete, road building and sewage disposal systems - require aggregates of very strict specifications that can only be met by controlled processing systems.

For that reason, most gravel operations process the material they extract to create consistent products of specific sizes and qualities to address a variety of needs. The operations in FVRD's electoral areas are no different. Most process gravel and, of these, most do not have zoning that permits processing. A small number are zoned to permit processing or are 'grandfathered'.<sup>5</sup>

Processing can include washing, screening, crushing and other processes to refine and improve the quality of the sand/gravel or hard rock mined from the earth.

Over half - and potentially up to two-thirds - of electoral area gravel operations may be processing contrary to zoning.<sup>6</sup> There are three open bylaw enforcement files.

### **The Effectiveness of Zoning Prohibitions against Gravel Processing**

As a strategy to reduce land use conflicts, the strategy of separating gravel extraction from processing in zoning bylaws has probably allowed some influence over the location of gravel operations that wouldn't otherwise have been possible. However, as the preceding section suggests, the overall success of this approach in minimizing conflicts has been greatly limited by:

- uncertainty about the extent of local government authority, mixed case law on the matter, and the high cost of defending legal challenges;
- ambiguity regarding the line between 'processing for shipment' versus processing to create a marketable product;
- organized and well-funded opposition from the gravel industry;
- and little provincial support for local government involvement in this arena and particularly the practice of the Ministry of Mines to allow processing in Mines Permits without regard to local government bylaws;
- the lack of effective enforcement, in good part due to the intensity of effort required and very limited resources; and,

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<sup>5</sup> One mine has appropriate zoning, another has land within the mine site located in an adjacent jurisdiction that is zoned for processing. Processing at a small number of mines is likely 'grandfathered' or partly 'grandfathered'.

<sup>6</sup> This report does not provide detailed statistics on electoral area gravel operations because: 1) I have attempted to focus attention on the 'big picture' rather than individual operations; and, 2) our data and knowledge of electoral area gravel operations is incomplete and that is a challenge for presenting accurate numbers. Staff are building an organized knowledge base and we will be able to provide more specific and reliable information as the work progresses. In the meantime, if EA Directors wish to have more detailed information, we would be pleased to what we currently have.

- market and economic realities of the gravel industry that often require extraction and processing to occur in the same location.

### **Alternative Approaches to Reduce Conflicts**

In the early 2000's, FVRD was taking steps to enforce its zoning bylaw against a new gravel quarry on Sumas Mountain that was processing contrary to the bylaw. Community concerns with noise and dust from the quarry were widespread. After normal enforcement efforts failed, the Regional District was preparing for legal action to obtain an injunction to stop processing at this site. Faced with the costs, timeline and uncertainty of the court process, FVRD appealed to the Province to assist in finding a better way to address these land use conflicts. This began a lengthy process with the Province and the BCSSGA to improve the framework for managing the aggregate production in the electoral areas. Bylaw enforcement efforts were suspended pending the outcome of the Aggregate Pilot Project.

This effort resulted in a 2009 Recommendations Report that was endorsed by the FVRD Board and by the Industry. With respect to gravel processing, the report recommended that, "in most cases, processing should occur at the location of extraction."<sup>7</sup>

Many of the principles in the Recommendations Report were implemented in *FVRD Commercial Gravel Operations Bylaw No. 1181* which was approved by the Minister of Mines and adopted by the FVRD Board in late 2016.

### ***FVRD Commercial Gravel Operations Bylaw No. 1181***

*Bylaw No. 1181* is intended to better balance the economic needs of the region for sustainable, accessible gravel supplies with the impacts that gravel operations can have on surrounding local communities. It provides a strong framework for avoiding and managing community impacts associated with gravel operations because it:

- sets out "Restricted Areas" where new gravel operations are not permitted
- establishes "Community Areas" with measurable limits for noise and dust emissions;
- requires operators to submit annual compliance reports; and,
- generates revenues through annual fees which support bylaw administration, compliance, independent compliance monitoring.

The bylaw is still in an implementation stage. The focus to date has been on building relationships and permitting existing operations. After providing a transition period (2017), the first year of fee collection was 2018 (fees paid in early 2019). Staff intend that monitoring and compliance activities will ramp up this fall with enforcement actions addressing unpermitted operations and proactive independent monitoring in priority areas to establish noise and dust emission baselines.

This bylaw provides an effective tool for reducing land use conflicts associated with gravel operations as well as the resources needed monitor emissions and enforce the bylaw. With this now in place, the FVRD

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<sup>7</sup> Section 3.3.3. Aggregate Pilot Project Recommendations Report. 2009.

Board could consider the BCSSGA request and evaluate options for addressing zoning prohibitions against gravel processing in permitted mine sites.

## DISCUSSION

### Options

The FVRD Board may wish to consider the following options:

1. Do nothing at this time

The Board may elect to do nothing at this time, or defer the matter for future consideration once EA Directors have had greater opportunity to: a) gauge the success of *Bylaw No. 1181* and related efforts in minimizing land use conflicts associated with gravel operations; b) assess community interests and opinions; and c) learn more from Industry and staff about the issues.

2. FVRD Board could initiate zoning amendments

The Board could direct staff to prepare amendments to electoral area zoning bylaws to permit processing at mine sites.

3. BCSSGA and/or individual gravel operators could apply for zoning amendments or temporary use permits

The Board could direct staff to provide information and assistance to BCSSGA and individual gravel operators to assist them in making applications for zoning amendment or temporary use permits (as appropriate) to permit processing at mine sites.

There will be a strong community interest in any changes to bylaws that relate to gravel operations. The public engagement process for any zoning amendment applications would need to be considered if/when applications are made.

The BCSSGA has expertise, materials and resources to effectively communicate with the public and stakeholders about the industry. This option would best position Industry to directly present their case to Electoral Area communities and respond to any concerns raised.

4. Interim Policy

In conjunction with Options 2 and 3, the FVRD Board may wish to consider a policy to clarify that bylaw compliance and enforcement resources will be focused on fully implementing *Bylaw No. 1181* and undertaking related monitoring and communications initiatives. Through the policy, the Board could formalize the practice of non-enforcement of zoning provisions related to processing where a permit under *Bylaw No. 1181* has been obtained and the operation is in compliance with the bylaw.

This would provide staff with clear direction and reduce uncertainty for industry in the short term while bylaw amendments or other options are contemplated.

### **Independent Monitoring of Community Impacts**

*Bylaw No. 1181* establishes annual fees to support administration of the bylaw and related efforts. Now that fee revenues for 2018 have been received, it is the intention of staff to step up compliance and monitoring activities. Independent baseline monitoring of noise and dust emissions will be performed by third-party technicians in priority areas such as Lake Errock and Hatzic Valley.

Monitoring will be the subject of a future report to the EASC and Board to determine priority areas and provide more information about methods, costs and timelines. Results should be available in early summer of 2020 because noise levels needs to be assessed under a variety of climactic conditions and dust emissions should be measured during drier months.

The Board will be in a better position to evaluate zoning amendments to allow processing within mine sites once we have a fuller picture of community impacts associated with gravel operations and compliance with *Bylaw No. 1181*. Ideally, applications to amend FVRD bylaws would be considered after monitoring results are available.

### **Interim Measure: Policy to Guide Bylaw Enforcement Efforts**

In the meantime, the Board may wish to consider a policy to:

- Focus limited resources for bylaw administration and compliance/enforcement on administering and obtaining compliance with FVRD Commercial Gravel Operations Bylaw No. 1181, including the permitting of unpermitted operations, the collection of fees, independent monitoring, relationship building with community and industry partners, coordinating with the Ministry of Energy & Mines and other stakeholders, reporting and communications.
- As a temporary measure, the policy could formalize the practice of non-enforcement of zoning provisions related to processing at existing mine sites where a permit under *Bylaw No. 1181* has been obtained and the operation is in compliance with the bylaw. The policy would only address the zoning prohibition against processing. All other aspects of the operation would be subject to compliance and enforcement efforts in the event that a violation of FVRD's bylaw occurs.

Such a policy would provide staff with clear direction and reduce uncertainty for industry in the short term while bylaw amendments or other options are formulated.

## **COST**

Costs for preparing zoning amendments or drafting policies would be covered by the existing Soil Removal budget.

## **CONCLUSION**

The BC Stone, Sand & Gravel Association has asked the FVRD Board to address long-standing concerns with the treatment of gravel processing in FVRD zoning bylaws. EA zoning bylaws do not allow gravel processing where mines are located.

With the adoption of *Commercial Gravel Operations Bylaw No. 1181*, FVRD has better tools and resources to reduce conflicts over noise and dust emissions from gravel operations.

Staff recommend that the Board:

1. Direct staff to provide information and assistance to BCSSGA and individual gravel operators so that they can - together or separately - apply for zoning amendments or temporary use permits to allow processing at mine sites;
2. Express its preference to consider zoning amendment applications after the results of independent monitoring of noise and dust emissions is available so that baseline data about community impacts may be considered in conjunction with the applications; and
3. Direct staff to prepare for consideration a policy to:
  - a. Focus resources on administering and obtaining compliance with FVRD Commercial Gravel Operations Bylaw No. 1181; and,
  - b. As a temporary measure, formalize the practice of non-enforcement of zoning provisions related to processing at existing mine sites where a permit under Bylaw No. 1181 has been obtained and the operation is in compliance with the bylaw.

## **COMMENTS BY:**

**Margaret Thornton, Director of Planning & Development:** Reviewed and supported.

**Mike Veenbaas, Director of Financial Services:** No further financial comments

**Jennifer Kinneman, Acting Chief Administrative Officer:** Reviewed and supported.