

Fee and Mineral Tax Models for British Columbia's Placer Mining Industry

Discussion Paper

Introduction

The mining industry is a foundational industry in the Province of British Columbia. It provides over 30,000 direct jobs across the province, with operations ranging in scale from individuals to major mines employing hundreds of people. The industry is overseen by the Ministry of Energy, Mines and Low Carbon Innovation (the Ministry), which aims to ensure that the sector remains well-regulated, environmentally sound, advances reconciliation with Indigenous Nations, provides economic benefits to communities and ensures public confidence in mining.

Placer mining is a type of mining where one mines for loose or fragmented minerals and precious metals that can be found in loose earth, gravels, and sand. There is a wide variety in the methods and scale of placer mining operations. Some small operations use only hand tools and have a very small area of disturbance, while larger operations may use multiple pieces of heavy machinery.

Placer mining, particularly for gold, has been an integral part of British Columbia's history and continues to have an important presence in many regional communities. However, in some cases, changes in technology have facilitated an increased scale of operations, leading to greater environmental impacts and potential impacts on Aboriginal Rights and Title. The challenges of regulating and mitigating these aspects of the industry are compounded by the high number of applications and compliance verification, all of which place a strain on government resources. Regulating the placer industry requires a high level of resources with little direct return to the Province or benefits to communities impacted by placer activity.

In 2019, the Province passed the [Declaration on the Rights of Indigenous Peoples Act](#) (*Declaration Act*) to implement the [United Nations Declaration on the Rights of Indigenous Peoples](#) (UN Declaration) as the framework for reconciliation in British Columbia. The Declaration Act commits the Province to ensure Indigenous peoples are fully engaged in processes of consultation and co-operation on matters that impact or are of interest to them, and to "take all measures necessary to ensure the laws of British Columbia are consistent with the Declaration."

The Ministry is proposing to examine options for a potential new fee structure and mineral tax regime for the placer industry. At this time, this review is focused on options relating to placer mining for precious metals, such as gold. The Discussion Paper is a continuation of the Ministry's ongoing efforts to support an inclusive, sustainable mining sector that brings value to British Columbians. This paper puts forward ideas for cost-recovery options that are more equitable across all mine sectors and incorporates feedback from engagement with Indigenous representatives on the placer sector that took place in 2018 and early 2019. More specifically, this discussion paper seeks to solicit new ideas and feedback on potential options, including new indicators and thresholds that could be used to determine the scale and complexity of an operation, which in turn can be used to inform both permit fees and mineral tax rates.

Small Scale Placer Mining Activities

Early placer miners and prospectors used hand-held pans to wash and agitate pay dirt (Box 1) to recover placer minerals, such as gold. Soon after, they developed methods that allowed them to process pay dirt more efficiently. Although technology has advanced to allow for the mechanization of some processes, this concept of using water and agitation to separate high value minerals from other material still guides placer mining today.

Regional placer mining operations in BC are restricted to designated areas within the province and are generally located near streams or rivers. It is often necessary for placer miners to process a certain amount of their claim area as a 'test' to know what is available for production. Because of this, small scale placer mining has historically been regulated differently than other types of mining, as it is considered to be a form of "prospecting for minerals."

Box 1: What is pay dirt?

Pay dirt refers to the earth material (e.g. gravel) that contains the target mineral. It is often buried beneath layers of organic material and overburden, which is earth material not containing the mineral. Pay dirt is processed, or "washed," during placer operations to separate out the mineral. The amount of pay dirt being processed is commonly used as a unit of measurement.

Fee Structure

What changes have been considered previously?

Past government initiatives¹ committed the Ministry to explore cost-recovery options for all mine types (sectors) in BC to ensure the permitting process remains timely and efficient. Consultation on the strategy took place in 2014 and led to a new permit fee structure for major mines, pits, quarries and major placer mines in BC².

The 2014 consultation³, however, revealed that further work was necessary for regional placer operations, which make up the majority of placer activity in BC. The proposed permit fees were calculated to be 1-2% of exploration costs, based on a sample of small, medium and large mineral

| 2014 Proposed Permit Fees <i>[not implemented for regional placer mines]</i> | | |
|--|---------------------|--------------|
| | Area of Disturbance | Proposed fee |
| Small Scale Placer and Mineral/ Coal Exploration | <1 ha | \$2000 |
| Medium Scale Placer and Mineral/ Coal Exploration | 1-3 ha | \$4000 |
| Large Scale Placer and Mineral/ Coal Exploration | >3 ha | \$6000 |

Table 1: A fee structure proposed in 2014 considered the area of disturbance, but was not adopted for placer mining.

¹ <https://www2.gov.bc.ca/assets/gov/farming-natural-resources-and-industry/mineral-exploration-mining/documents/permitting/miningstrategy2012.pdf>

² <https://www2.gov.bc.ca/gov/content/industry/mineral-exploration-mining/permitting/mines-act-permit-inspection-fees>

³ A more comprehensive summary of the 2014 engagement can be found here: https://www2.gov.bc.ca/assets/gov/farming-natural-resources-and-industry/mineral-exploration-mining/documents/developing-a-mine/permit_fee_consultationsummaryreport_14may2014_final.pdf

exploration operations (Table 1). The most common concern was that these proposed permit fees were prohibitively expensive for placer operations and could negatively impact the viability of operations.

Placer miners felt that their operations would be disproportionately affected by fees based on area of disturbance, as placer mining often requires a large surface area. It was suggested that fees based on activities, rather than area of disturbance, would more accurately reflect the scale and impacts of a proposed program.

What is the current fee structure?

Permit and inspection fees are regulated under the Mines Fee Regulation⁴. Permit fees are determined when an applicant submits a Notice of Work (NOW) application, in which they outline their proposed work and the amount of pay dirt to be moved (Table 2). All operations that involve mechanized disturbance

| Column 1 | Column 2 | Column 3 |
|---|---|------------|
| Tonnes proposed to be moved in highest producing year | | Permit fee |
| Placer mine proposed to operate for 5 years or less | Placer mine proposed to operate for more than 5 years | |
| < 60 000 | < 10 000 | \$0 |
| 60 000 – < 125 000 | 10 000 – < 60 000 | \$4 000 |
| 125 000 – < 250 000 | 60 000 – < 125 000 | \$8 000 |
| 250 000 – < 500 000 | 125 000 – < 250 000 | \$16 000 |
| ≥ 500 000 | ≥ 250 000 | \$32 000 |

Table 2: This table, from the Mines Fee Regulation, outlines permit fees based on amount of pay dirt to be moved.

require a NOW application and authorization. However, most placer operations are small enough that they do not meet the threshold to pay permit fees (Table 3).

| Year | Placer Applications | | | Quarry Applications | | | Sand and Gravel Applications | | |
|------|---------------------|-----------------------|------|---------------------|-----------------------|-------|------------------------------|-----------------------|-------|
| | Number Rec'd | Number Triggering Fee | % | Number Rec'd | Number Triggering Fee | % | Number Rec'd | Number Triggering Fee | % |
| 2015 | 296 | 5 | 1.7% | 43 | 14 | 32.6% | 189 | 35 | 18.5% |
| 2016 | 327 | 4 | 1.2% | 42 | 9 | 21.4% | 184 | 68 | 37.0% |
| 2017 | 231 | 5 | 2.2% | 42 | 22 | 52.4% | 224 | 67 | 29.9% |
| 2018 | 216 | 10 | 4.6% | 29 | 28 | 96.6% | 105 | 86 | 81.9% |
| 2019 | 169 | 2 | 1.2% | 42 | 38 | 90.5% | 199 | 64 | 32.2% |
| 2020 | 203 | 3 | 1.5% | 39 | 33 | 84.6% | 175 | 64 | 36.6% |

Table 3: This table shows the number of applications that triggered a permit fee and the amount of revenue that was generated for placer, quarry, and gravel applications in BC from 2015 – 2018.

Permit holders also pay mine inspection fees to cover the cost of health and safety inspections. Permit holders pay this fee for each mine, pit or quarry under their permit until the reclamation is completed and reclamation security has been returned. For mineral and coal mines, the inspection fee is \$0.70 per hundred dollars of payroll. If the amount calculated for the placer mine is less than \$300, the permit holder is not required to pay, but still needs to file the return. For pits and quarries, inspection fees are based on the materials extracted and paid annually (Table 4). Placer mines are not subject to inspection

⁴ http://www.bclaws.ca/civix/document/id/complete/statreg/54_2015

fees; however, a fee could be introduced as a means of recouping costs and providing greater consistency between sectors.

| Tonnes Extracted | Fee Amount |
|-------------------|------------|
| 10,000 or less | \$150 |
| 10,001 to 25,000 | \$450 |
| 25,001 to 50,000 | \$900 |
| 50,001 to 100,000 | \$1,950 |
| 100,000 or more | \$3,750 |

Table 4: Inspection fee for pits and quarries.

What does the government want to know now?

The government is considering changing the fee structure and mineral tax regime for placer mining activities regulated under the *Mines Act*⁵, to ensure the sector remains well-regulated and environmentally sound. The following proposed revisions are contemplated, and your feedback will inform any potential recommendations to Cabinet. It is important to note that the proposed revisions are not final and may change as a result of input from Indigenous Nations, industry and the public.

It costs the Ministry approximately \$2 million per year to regulate the placer industry. Only a small portion of this is recovered through the current permit fee structure (Box 2). The Ministry is looking at updating the permit fees and introducing an inspection fee to help recuperate some of the costs of regulating the sector.

| Box 2: Placer permit fee revenue | |
|-------------------------------------|----------|
| 2017 | \$28,000 |
| 2018 | \$88,000 |
| 2019 | \$8,000 |
| 2020 | \$13,000 |

Objectives of a new fee structure

- Enhance the operations of the Ministry through new cost-recovery measures.
- Encourage more environmentally responsible practices.
- Introduce greater consistency between sectors in the fees paid.
- Set thresholds and amounts for fees that reflect the scale of placer operations in BC.
- Ensure Indigenous interests are reflected.

How to determine the scale and complexity of placer operations?

The Ministry is exploring options for permit fees that ensure placer mining remains economically viable for operators. Currently, the scale of an operation is determined by the volume of pay dirt to be

⁵ http://www.bclaws.ca/civix/document/id/complete/statreg/96293_01

processed. The Ministry is looking at other potential indicators to measure the scale of production, and how fees can be tiered to reflect the scale of an operation. This would mean that small operations would pay a lower fee and larger or more complex operations would pay a higher fee.

Below are potential indicators and thresholds that could be used to determine the scale and permit fees for an operation.

Area of Disturbance

The Ministry is considering using the proposed area of disturbance to determine the scale of an operation (Box 4). The potential thresholds are scaled more appropriately to the size of placer operations in BC than those proposed in 2014. The threshold would be based on the maximum area to be disturbed at any one point under the proposed authorization, which could be minimized by the use of progressive reclamation (Table 5). This indicator could be used in conjunction with other indicators.

Box 4: What benefits does measuring area of disturbance or volume of material moved provide?

- Better reflects Ministry resources required to review an application.
- Easier to predict when planning and to verify on site.
- Promotes practices to minimize disturbance, including better testing and more informed operations.
- Encourages progressive reclamation by considering the maximum disturbance at any one point.
- Thresholds can more accurately reflect the scale of placer operations.

Table 5: Proposed thresholds for the area of disturbance of placer mine operations, which could be used to determine permit fees.

| | Proposed Threshold |
|----------------|--------------------|
| Small | 0 - .5ha |
| Medium - small | >.5ha – 2ha |
| Medium - large | >2ha – 10ha |
| Large | >10ha |

Volume of Material Moved

The Ministry is also considering using the volume of material moved to determine the scale of an operation (Table 6). This would capture operations that have less surface disturbance but are very deep, as well as those with a shallow, but large area of disturbance. The threshold would be determined by the total amount of material proposed to be moved under that authorization. This indicator could be used in conjunction with other indicators.

| | Proposed Threshold |
|----------------|--|
| Small | 0 - 2000 m ³ material moved |
| Medium - small | 2001 m ³ – 10 000 m ³ material moved |
| Medium - large | 10 001 m ³ – 50 000 m ³ material moved |
| Large | >50 000 m ³ material moved |

Table 6: Proposed thresholds for volume of material moved for placer operations, which could be used to determine the scale of operations. A rough ratio of 2 tonnes per 1 m³ is used to convert between volume and weight of material.

Activities

The Ministry is considering how activities could be used to indicate the complexity of the operation. This is in response to the 2014 feedback and in recognition that more complex operations require more

resources to review and regulate. Currently, the Ministry is considering that the initial scale of an operation can be determined by the disturbance (area of disturbance and/or material moved); and the presence or creation of any of the listed features below could elevate the application into the next fee category, at the discretion of the inspector. The following is an initial list of features that could potentially indicate complex activities:

- Dams
- Underground operations
- Multi-bench pits
- Working within sensitive ecosystems (e.g. fish sensitive streams)
- Diversions or other infrastructure requiring engineered design
- Steep or unstable terrain
- Groundwater near surface

During engagement with Indigenous Nations in early 2019, the recommendation arose that an “impact calculator” be developed, similar to the Regional Bond Calculator, to calculate permit fees based on area of disturbance and the complexity of operations. This would assist the Ministry’s goals of increasing transparency and predictability, but could require significant Ministry resources to develop.

What permit fees should be recommended for placer operations?

The Ministry is seeking input on the potential permit fee amounts that could be recommended to Cabinet. The proposed fees would be more equitable across sectors (Box 5), allow the Ministry to recover some of the costs of regulating the industry and provide more resources for compliance verification and enforcement.

The Ministry is considering a tiered permit fee structure to reflect the scale of an operation (Table 7). The intention of a tiered structure is to ensure the sector remains economically viable for permit holders and to encourage practices that minimize impacts to the environment.

| Scale of operations* | Proposed Permit Fee |
|----------------------|---------------------|
| Small | \$500 |
| Medium - small | \$750 |
| Medium - large | \$1200 |
| Large | \$2000 |

Table 7: The Ministry is considering that permit fees are based on the scale and complexity of operations; with the opportunity to increase the base fee, based on complexity.

*Scale will align with volume and/or area of disturbance thresholds

Box 5: How much do other sectors pay?

Permit fees for pits and quarries are tiered. A sample of the thresholds and fees are listed below:

| Tonnes^ per year | Fee |
|------------------|----------|
| < 5000 | \$0 |
| 5000 – <10 000 | \$1500 |
| 40 000 - <50 000 | \$12 000 |
| ≥170 000 | \$50 000 |

Permit fees for mineral and coal mines are based on the complexity of the application:

| | Fee |
|--|-----------|
| Not referred to advisory committee | \$10,000 |
| Referred to advisory committee | \$60,00 |
| Referred to advisory committee – complex | \$125,000 |

^2 tonnes = approximately 1 m³

Permit Fee Questions

The Ministry welcomes all thoughts and questions on the proposed options. You do not need to limit your feedback to the questions below. They are meant as a starting point to spark discussion about the potential options outlined above.

1. Should placer operations pay the same permit fees as other mining sectors?
2. Are the proposed thresholds for area of disturbance and/or volume of material moved appropriate for the scale of operations in BC? Which is a more appropriate indicator?
3. What activities should be added to or removed from the list to indicate increased complexity of an operation?
4. Considering the impact of operations and fees paid by other sectors, what permit fees do you think are appropriate for the different scale of operations?
5. What ways could the proposed indicators above be combined to establish a more effective permit fee structure?
6. Should the Ministry introduce a separate inspection fee for placer operations? Should this permit fee be a flat rate or tiered, based on the area of disturbance?
7. How could the permit fee structure reflect Indigenous interests?
8. What other options should the Ministry consider?

Mineral Tax

How are mineral taxes regulated?

Mineral taxes are regulated by the *Mineral Tax Act*. Mineral taxes are the taxes paid to government for extracting minerals and are intended to capture the value of resources to the Province.

All gold placer mines are required to pay mineral tax on the transactional value of gold they sell. Although the trend of annual tax revenue from placer mining activity is generally increasing (Table 8), it remains low relative to other sectors. There are a number of potential reasons for this:

- The tax rate for placer gold is based on a proportionate share of transactional value, compared to a net revenue basis.
- It is challenging to track or verify how much placer mines produce and sell.

Table 8: Revenue generated by placer gold mineral tax has remained low

| Fiscal Year | Placer Gold Tax Revenue |
|-------------|-------------------------|
| 2008-2009 | \$8,696 |
| 2009-2010 | \$21,139 |
| 2010-2011 | \$18,755 |
| 2011-2012 | \$22,033 |
| 2012-2013 | \$38,926 |
| 2013-2014 | \$33,641 |
| 2014-2015 | \$47,068 |
| 2015-2016 | \$65,692 |
| 2016-2017 | \$113,057 |
| 2017-2018 | \$59,711 |
| 2018-2019 | \$129,671 |
| 2019-2020 | \$58,436 |

For mineral and coal operations, permit holders pay a 2% net current proceeds tax until they have recovered the capital invested in their mine. Thereafter, they are subject to a tax of 13% on their net revenue. Placer operations pay mineral tax on the total sales of minerals from the mine. This tax rate is 0.5% of mineral product sold.

Objectives of a new mineral tax for placer mining

- Better capture the value placer minerals extracted in the Province.
- Respond to concerns of Indigenous Nations that have been expressed through consultation and engagement.
- Better capture and compensate for impacts on the land.
- Ensure Indigenous interests are reflected.

What approaches are being considered?

The Ministry is examining options to potentially change the existing mineral tax for placer mining to address the challenges listed above. Some involve using indicators, other than the proportionate share of mineral product sold, to determine the mineral tax. Among the options being considered, the Ministry looks forward to public, Indigenous Nations’ and industry input to further develop these ideas.

The Ministry is considering using area of disturbance to calculate mineral tax for placer operations. This could be either through a flat rate per hectare or through a tiered system, where the rate increases with a greater area of disturbance (Table 9). These would be based on the maximum area of disturbance in a particular year. The tax could be minimized by doing progressive reclamation, which would decrease the amount of land that is disturbed at any one point. The total tax due would be calculated by multiplying the area of disturbance by the rate per hectare.

| Proposed Tiers | Proposed Tax Rate |
|----------------|-------------------|
| 0 - .5ha | None |
| >.5ha – 2ha | \$1000/ha |
| >2ha – 10ha | \$3000/ha |
| >10ha | \$4500/ha |
| Flat Rate | Proposed Tax Rate |
| All operations | \$3000/ha |

Table 9: Proposed tax rates for both a tiered and flat rate approach.

Rate based on area of disturbance

Under this framework, permit holders would be encouraged to minimize their disturbance on the land, as small operations would be exempt from paying mineral tax. The challenge with this framework is it depends on the self-reporting of the permit holder and may not capture the total value of minerals extracted.

Increase the Tax Rate

The Ministry is considering recommending an increase in the mineral tax rate for placer operations. This could either be a flat rate, as it currently is, where all operations pay the same rate. Alternatively, this rate could be tiered, where the fee increases as the profit increases. This could be used in conjunction with other indicators.

By increasing the tax rate, the Ministry could capture the value of the minerals being extracted and provide greater consistency between mining sectors. However, similarly to introducing a tax rate based on area of disturbance, this framework depends on the self-reporting of operators and may not capture the total value of minerals being extracted. Additionally, this proposal does not incentivize decreased environmental impacts.

Increase Enforcement

The Ministry is considering ways to increase accountability and enforcement of the system that is already in place, including opportunities to enhance established processes for verification and audit. This could be done in conjunction with any of the options discussed above.

While this proposal would not require legislative changes, it may not lead to increased revenue from mineral tax or capture the total value of minerals being extracted. Increasing enforcement also would not address the inconsistency in tax rate between sectors.

Mineral Tax Questions

The Ministry welcomes all thoughts and questions on the proposed options. You do not need to restrict your feedback to answer the questions below. They are meant as a starting point to get you thinking about the potential options outlined above.

1. What additional pros and cons can you identify for each of the options listed above?
2. Which options do you think are the most appropriate and why?
3. What thresholds and related tax rates would you recommend for each of the options above?
4. How could the mineral tax reflect Indigenous interests?
5. What other options should the Ministry consider?

Next Steps

The Ministry will review public input that is received, which will be summarized in a “What We Heard” report. The Ministry will then develop an “Intentions Paper,” focusing on the course of action the Ministry has chosen to pursue. Once produced, the Intentions Paper will be available for public consultation.

Please provide your feedback on these proposals by visiting the Placer Mining Revenue blog at:

<https://engage.gov.bc.ca/govtogetherbc/consultation/fee-and-mineral-tax-models-for-british-columbias-placer-mining-industry>

You may also provide input to this process and/or questions about this discussion paper by email at PlacerRevenue@gov.bc.ca

The deadline for comment is July 28, 2021.

The Ministry strives to ensure BC’s mining industry remains well-regulated and environmentally sound, provides economic benefits to communities and ensures public confidence in mining.