# INFRASTRUCTURE SERVICES COMMITTEE

## Thursday, May 17, 2018
## SCRD Boardroom, 1975 Field Road, Sechelt, B.C.

## AGENDA

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**CALL TO ORDER: 9:30 a.m.**

**AGENDA**

**1.** Adoption of Agenda

**PETITIONS AND DELEGATIONS**

**REPORTS**

| | | |
|---|---|---|
| **2.** | General Manager, Infrastructure Services<br>Water Sourcing Policy – Policy Framework<br>**(Voting – A, B, D, E, F, Sechelt)** | Annex A<br>pp 1 – 9 |
| **3.** | General Manager, Infrastructure Services<br>Referral Response - Water Licence Town of Gibsons<br>**(Voting – A, B, D, E, F, Sechelt)** | Annex B<br>pp 10 – 16 |
| **4.** | General Manager, Infrastructure Services<br>Chapman Creek Watershed Snowpack Update<br>**(Voting – A, B, D, E, F, Sechelt)** | Annex C<br>pp 17 – 20 |
| **5.** | Manager, Solid Waste Services<br>Regional Diversion – Annual Update<br>**(Voting – All)** | Annex D<br>pp 21 – 26 |
| **6.** | Manager, Solid Waste Services<br>SCRD Illegal Dumping Program – AVICC Update<br>**(Voting – All)** | Annex E<br>pp 27 – 30 |
| **7.** | Transportation Advisory Committee Minutes of April 19, 2018<br>**(Voting – All)** | Annex F<br>pp 31 – 33 |

**COMMUNICATIONS**

| | | |
|---|---|---|
| **8.** | Mayor Wayne Rowe, Town of Gibsons, dated April 17, 2018<br>Regarding Draft Watershed Management and Governance for the Sunshine Coast<br>**(Voting – A, B, D, E, F, Sechelt)** | Annex G<br>pp 34 – 42 |

**9.** Environmental Assessment Office, dated May 11, 2018 Annex H
Regarding BURNCO Aggregate Mine Project – Announcement about Federal Decision pp 43 - 45
**(Voting – All)**

**NEW BUSINESS**

**IN CAMERA**

**ADJOURNMENT**

# SUNSHINE COAST REGIONAL DISTRICT STAFF REPORT

**TO:** Infrastructure Services Committee Meeting – May 17, 2018

**AUTHOR:** Remko Rosenboom, General Manager Infrastructure Services

**SUBJECT:** **WATER SOURCING POLICY – POLICY FRAMEWORK**

## Recommendation(s)

**THAT the report titled Water Sourcing Policy – Policy Framework be received;**

**AND THAT this report be forwarded to member municipalities and First Nations for their comments;**

**AND THAT a further report and Water Sourcing Policy be brought forward for consideration once all technical studies required for development are completed.**

### BACKGROUND

The Board adopted the following resolution at the March 22, 2018 Board meeting:

139/18 **Recommendation No. 5** *Development of Water Sourcing Policy*

THAT the report titled Development of Water Sourcing Policy be received;

AND THAT the SCRD develop a Water Sourcing Policy in collaboration with local governments and First Nations.

A Water Sourcing Policy (WSP) outlines how the current and future long term water demand would be met using the available sources.

This report presents the policy framework and outlines the policy objective and guiding principles for the development of the first fulsome Water Sourcing Policy.

### DISCUSSION

Appendix A presents a draft policy framework for the Board's considerations. The document outlines the following:

A. Type of water supply needs
B. Characteristics of water sources
C. Policy Objectives – current and future
D. Current sourcing strategy
E. Principles for future sourcing strategy
F. Principles for development additional water supply sources

The policy framework is based on related directions received from the Board and supplemented with technical analyses.

*Timeline for next steps or estimated completion date*

The policy framework describes that several analysis will need to be concluded before a final Water Sourcing Policy can be developed. The following studies are scheduled to be completed early 2019:

- Updated water supply demand analyses based on population growth and climate change predictions (time horizon until 2050).
- Feasibility Study Raw Water Reservoir
- Groundwater Investigation, phase 2
- Direction on Regional Growth Strategy

Upon completion of all these studies staff would be able to confirm which additional supply sources would need to be developed and how they should be used in order to meet the policy objectives currently included in the policy framework.

*Engagement Local Governments and First Nations*

In the spirit of the SCRD's mission, the development of the Water Sourcing Policy will be undertaken in collaboration with member municipalities and First Nations. These parties will be engaged in the policy development and a taskforce with staff from the SCRD, local governments and First Nations will be established to assist in this process.

**STRATEGIC PLAN AND RELATED POLICIES**

As the current water supply for the Chapman System lacks redundancy and has a sustained supply deficit, it is in the spirit of the SCRD's mission of providing quality services to our community through effective and responsive government to develop a Water Sourcing Policy in collaboration with the other local governments and the *shíshálh* and Sḵwx̱wú7mesh Nations.

The development of a Water Sourcing Policy in transparent collaboration with SCRD partners, would further allow for an effective, cost efficient and environmentally sustainable use of all available water supply sources within the Chapman System.

**CONCLUSION**

The Water Sourcing Policy will guide any final recommendations to the Board on the development of a Raw Water Reservoir or any new wells and will guide the operational use of all available water supply sources.

This policy framework outlines the policy objectives and guiding principles for the development of the actual Water Sourcing Policy.

This policy will be developed in collaboration with Local Governments and *shíshálh* and Sḵwx̱wú7mesh Nations.

| Reviewed by: | | | |
|---|---|---|---|
| Manager | | Finance | |
| GM | | Legislative | |
| CAO | X – J. Loveys | Other | |

**Sunshine Coast Regional District**

**FRAMEWORK FOR THE DEVELOPMENT OF A WATER SOURCING POLICY**

## A. POLICY CONSIDERATIONS

The Comprehensive Regional Water Plan (CRWP) as approved in June 2013 includes the policy objective that:

> *The SCRD policy on source water supply (for surface water sources) is to maintain sufficient storage to meet water demands under a 1:25 year drought return period scenario.*

Combined with an increased understanding of the risks to the SCRD water supply infrastructure, staff recommend the policy objective be updated to:

> *The SCRD intent is that under a 1:5 year or lower frequency of a drought period, the communities dependent on water from the Chapman System are not subject to Stage 4.*
>
> *And that under a 1:25 year drought return period scenario restrictions on all outdoor use are not to last for more than 30 days.*
>
> *Emergency circumstances could significantly lengthen the above mentioned periods.*
>
> *If due to emergency circumstances the water supply for Chapman Creek is completely unavailable, the SCRD strives to have adequate alternative water supply sources available to address all essential community water demands for at least one week.*

Examples of emergency circumstance are an extremely large fire (including wildfires), an earthquake or significant failure of essential infrastructure.

## B. SCOPE

There are two driving factors for the determining the extent to which the SCRD is able to meet the above presented policy: a) water demands and b) the available supply sources. The following two sections will outline both factors.

### a. Supply Demand

The water supply demands for the Chapman System can be differentiated into several categories:

| | |
|---|---|
| Average Daily Demand (ADD): | the average daily water demand of the entire system (Average 2015-2017 is 13.4 million litres per day) |
| Maximum Daily Demand (MDD): | the highest daily demand of the entire system within a year (Average 2015-2017 is 22.7 million litres per day) |

| | |
|---|---|
| Fire/Emergency Demand: | unpredicted high supply demands for suppression of large fires or a different type of emergency requiring a large amount of water |
| Chapman Creek Source Failure Supply: | available water supply required to meet minimum water demand in case Chapman Creek cannot be used as main water supply source due to infrastructure failure |
| Environmental Flow Needs: | the legally required minimum flow to be maintained in Chapman Creek at all time (currently 200 litres per second) |

Each of these factors require a different strategy for water supply to be met. Where the ADD and MDD are directly linked to the daily water supply capacity, the Fire/Emergency Demand requires a very large volume of water to be available at all times for a longer period of time. The ADD and in particular the MDD would be significantly higher if the Drought Management Plan would not be fully implemented.

### b. Water Supply Sources

Each of the existing and additional water supply sources currently under consideration for development differ in their ability to meet the above listed supply demands as well as in their operational characteristics.

| | |
|---|---|
| Chapman Lake: | Large watershed resulting in large inflow after rain events, increasing the lake's ability to refill during summer. Typically fully replenished after five days of heavy rain in the fall. Remotely regulated outflow infrastructure. |
| Edwards Lake: | Small watershed resulting in limited inflow after rain event and almost no refill during summer. Remotely regulated outflow infrastructure. |
| Chaster Well: | Daily capacity of 1 million litres could sustainably be maintained throughout the summer. Significant power costs for pumping and semi-weekly visits by operator required. |
| Gray Creek: | As per the direction of Vancouver Coastal Health, water from this source can under normal circumstances only be provided to the Sandy Hook and Tuwanek neighborhoods resulting in a maximum daily capacity of 2 million litres. Requires daily attendance by operator. |
| Treated water reservoirs: | The total storage capacity in all current treated water reservoirs combined is 28.8 million litres. |
| Raw Water Reservoir: | The location of the reservoir will determine if inflow and outflow of the lake can be gravity fed or if pumping is required, which could significantly influence the operational costs. There will most likely be no refill potential after late spring. A reservoir has the potential for |

| | |
|---|---|
| | increased water quality issues over the course of a warm summer. Could require daily attendance by operator. |
| New wells: | Capacity of the four wells under consideration is to be determined. Significant power costs for pumping and frequent attendance by operator required. Could require frequent attendance by operator. |

## C. REASON FOR POLICY

The CRWP lists four projects to increase the water supply for the Chapman System to meet the current and future community demand. These projects are:

1. Universal Metering Project
2. Chapman Lake Expansion Project
3. Expansion of Groundwater Extraction
4. Raw Water Reservoir

As of April 2018 all four projects listed in the CRWP are in some stage of development. While the Universal Metering Project is intended to reduce the water demand, the other three water initiatives are intended to increase the supply, especially during the summer period.

In April 2018, Board direction was received to develop a Water Sourcing Policy for the Chapman System. Such Water Sourcing Policy (WSP) would outline how the current and future water demand of the Chapman System would be met using the available sources. The long-term water demand will be linked to the regional growth projections.

This policy framework outlines the objectives and principles to be applied during the development and implementation of the actual Water Sourcing Policy.

The Water Sourcing Policy is targeted for early 2019 and will be done in cooperation with member municipalities and First Nations.

## D. OUTLINE

### a. Current Supply Strategy

Table 1 presents the current strategy to supply the different types of demands with the supply sources currently available.

The current strategy is based on the following operational principles:

- Divert water from Chapman Lake prior to doing so from Edwards Lake as Chapman Lake could refill after a summer rain event, while Edwards Lake does not.
- Activate Gray Creek and Chaster Well sources when Chapman lake levels drop such that the weir needs to be opened to maintain the required lake outflow. This currently aligns with the calling of Stage 2 watering restrictions.
- Cease diversion from Chaster Well and Gray Creek once Stage 2 restrictions are lifted.
- The siphon installed since 2017 will only be used once all outdoor water use is prohibited (Stage 4 Watering restrictions) and only when authorized under provincial permits.

Table 1 Chapman System – Current sourcing strategy

| Sources / Functions | Chapman Lake natural outflow | Chapman Lake -3m | Chapman Lake Siphon | Edwards Lake | Gray Creek | Chaster Well | Water Reservoirs |
|---|---|---|---|---|---|---|---|
| Average Day Demand / Maximum Day Demand | Stage 1 | Stage 2-3 | Stage 4 | Stage 2-4 | Stage 3-4 | Stage 2-4 | |
| Environmental Flow Needs | Stage 1 | Stage 2-3 | Stage 4 | Stage 2-4 | | | |
| Fire / Emergency | | | | | | | X |
| Redundancy for Chapman Creek Flows | | | | | X | X | X |

Stages as per Drought Management Plan

### b. Development of additional water supply sources

As previously discussed, the CRWP includes three projects to develop additional water supply sources:

1. Chapman Lake Expansion Project
2. Expansion of Groundwater Extraction
3. Raw Water Reservoir

The timelines for the development and commissioning of these sources varies between late 2019 at the earliest and 2027. When considering the actual development of additional sources the following factors could be considered to allow for a good alignment with the Water Sourcing Policy:

- Contribution to address the community water supply demand in terms of:
  - Average Daily Demand;
  - Maximum Daily Demand;
  - Fire/Emergency Flows;
  - Chapman Creek Source Failure Supply; and,
  - Environmental Flow Needs.
- Construction costs and associated impacts to rates and fees
- Ongoing operational cost and associated impacts to rates and fees
- Sustainability of the additional supply source in terms of:
  - Direct and indirect impacts to the environment resulting from the construction and operations of these additional sources
  - Impacts to other physical interests from other parties
- Financial, legal and physical risk associated with construction and operation of these additional sources

### c. Future sourcing strategy

Once additional water supply sources are developed and commissioned, the current sourcing strategy will need to be revisited and updated. The actual sourcing strategy will be dependent

on the type of source (groundwater or raw water reservoir) and its capacity. The following general principles could guide any future water sourcing strategy.

Any future water sourcing strategy should:

- align with the objectives of this policy
- align with the Strategic Plan of the SCRD and other SCRD policies
- be in compliance with the provincial and federal regulatory frameworks
- be sustainable in terms of its impacts to stakeholders, member municipalities and the environment (incl. indirect impacts)
- respect the interests of the *shíshálh* and Skwxwú7mesh Nations
- allow for effective and (cost) efficient operation of the water distribution system
- maximize the degree that all current and future community water supply demands are met. These demands are defined as:
    - Average Daily Demand;
    - Maximum Daily Demand;
    - Fire/Emergency Flows;
    - Chapman Creek Source Failure Supply; and,
    - Environmental Flow Needs.

Appendix A presents a possible future water sourcing strategy if all additional water supply sources currently under consideration are developed. Such strategy will need to be updated once an additional water supply source is commissioned.

With the growing population on the Sunshine Coast, the changing demographic of that population and the changing climate, the water supply demands for the communities depending on the Sunshine Coast Regional District are constantly subject to change. As the changing climate will also impact the water supply sources itself, the supply and demand analysis for the Chapman system would have to be updated at least every five years. Based on this review, a decision would need to be made on whether to update the water sourcing strategy.

**Appendix A Chapman System – Possible future approach – all potential source developed**

| Sources / Functions | Chapman Lake natural outflow | Chapman Lake -3m | Chapman Lake -8m | Edwards Lake | Gray Creek | Chaster Well | Groundwater Wells - New | Raw Water Reservoir | Treated Water Reservoirs |
|---|---|---|---|---|---|---|---|---|---|
| Average Day Demand / Maximum Day Demand | Stage 1 | Stage 2-3 (3) | | Stage 3-4 (1) | Stage 3-4 (1) | Stage 2-4 (1) | Stage 2-4 (1) | Stage 2-3 (2) | |
| Environmental Flow Needs | Stage 1 | Stage 2-3 (2) | Stage 4 (1) | | | | | Stage 2-3 (1) | |
| Fire / Emergency | | | | | | | | | X |
| Redundancy for Chapman Creek Flows | | | | | X | X | X | X | X |

Stages as per Drought Management Plan
(1,2) Order in which supply sources to be operational

**SUNSHINE COAST REGIONAL DISTRICT STAFF REPORT**

**TO:** Infrastructure Services Committee Meeting – May 17, 2018

**AUTHOR:** Remko Rosenboom, General Manager Infrastructure Services

**SUBJECT:** **REFERRAL RESPONSE - WATER LICENCE TOWN OF GIBSONS**

**RECOMMENDATION(S)**

**THAT the report titled Referral Response - Water Licence Town of Gibsons be received;**

**AND THAT the SCRD responds to the Ministry of Forest Lands, Natural Resource Operations and Rural Development referral with the following comments:**

1. **SCRD supports the Town of Gibsons Water Licence application for their Existing Use as defined in the *Water Sustainability Act* and associated policy;**

2. **When the *Water Sustainability Act* came into force on February, 29 2016; the Town of Gibsons was providing water to Zone 1 and 2 only;**

3. **SCRD was and is still supplying water to Zone 3 from the Chapman System;**

4. **More recent population growth predictions from the Town of Gibsons indicate build-out capacity of 10,000 residents is not expected to be reached until at least 2050.**

**BACKGROUND**

Since the *Water Sustainability Act* (WSA) came into force on February 29, 2016, the use of groundwater is subject to a similar regulatory regime as the use of surface water already was under the *Water Act* since the 1909. Acknowledging that there was already a lot of existing use of groundwater, these users have until 2019 to apply for a Water Licence to get their use in early 2016 legally authorized.

In 2017 the Town of Gibsons applied to the Ministry of Forest, Land, Natural Resource Operations and Rural Development (FLNRORD) for a Water Licence for their existing use early 2016, this application was for 500,000 $m^3$ per year. Later, the application was amended to include potential usage if the Town would grow to 10,000 residents and increased the requested volume to be authorized to 1,200,000 $m^3$ per year.

As per standard policy, this application was referred to the SCRD for a response with an original timeline for a response of May 17, 2018 which was extended until May 30. This report presents a proposed referral response to be included in a letter to be sent by staff to FLNRORD.

Besides the SCRD, other existing groundwater users and the Sḵwx̱wú7mesh Nation will be requested to provide comments on this application referral as well.

**DISCUSSION**

*Legislative Framework*

As per the Constitution of Canada, the legal right to administer ground and surface water use is vested in the Crown and regulated by the Province and, specifically in British Columbia, the *Water Sustainability Act*. FLNRORD is responsible for the administration of this legislation. Upon application by any land owner or local government FLNRORD can issue Water Licences to applicants who meet their requirements and whose applications do not adversely impact other Water Right holders, land owners, the environment and the rights and title of First Nations. Parties who feel that their interests are insufficiently considered by the FLNRORD Statutory Decision Maker can appeal the decision to the Environmental Appeal Board. Under the current legislation. Local governments are treated in a similar manner as any application from a resident or commercial operation.

All groundwater users who were using groundwater prior to February 29, 2016 on an ongoing basis are eligible to apply for an *Existing Use Groundwater Licence* for the volumes as used on or immediately before February 29, 2016. Local governments might be granted an Existing Use Groundwater Licence which could include predicted water demand for the population growth included in an Official Community Plan until 2021 or potentially 2026.

Any applications for use of groundwater not already occurring on February 29, 2016 will require a *New Use Groundwater application* and have to meet more stringent requirements and a more detailed technical review and consideration of adverse effects. It is relevant to note that FLNRORD can cancel or amend Water Licences if licensees are not using their allocated amounts, this to prevent applicants from staking water rights and in doing so, prevent other potential users from being granted the right to use water.

Staff reviewed the application and noted the following:

- Town of Gibsons has applied for an Existing use application. The application is intended to get the actual ground water diversion of a user prior and on February 29, 2016 authorized.
- Town of Gibsons applied to authorize their usage from four existing wells situated in Lower Gibsons. Two of those wells are currently being used, one is considered a back-up well and one well has not been used as community water supply source for several years now.
- By using these wells, the Town of Gibsons diverts water from Aquifer 560 (common name: Lower Gibsons Aquifer).
- Just before and on February 29, 2016, the Town of Gibsons was extracting about 500,000 $m^3$ per year groundwater to supply to Zone 1 and 2. Under the Bulk Water Agreement, Zone 3 was, in its entirety, provided by the SCRD with water from the Chapman System.
- The Town of Gibsons' application is based on the assumption that in 2026 the Town of Gibsons' population would have grown to 10,000 residents, which is the High Growth Scenario (4.5% per year) included in the Official Community Plan as approved in 2013.

This population growth prediction differs from more recent predictions by the Town of Gibsons during the April 19, 2018 Infrastructure Services meeting and earlier on during their March 12, 2018 Water Information Session. During both meetings, information was provided that such population growth would not be reached until at least 2050 (see also figure 1).

- Figure 1 was presented by the Town during their March 12, 2018 Water Information Session. It indicates that based on the current usage per capita of 350 liter per day, Zone 1 and 2 at build-out capacity could be fully supplied with about 932,500 m3 per year, which is significantly less than the 1,200,000 $m^3$ per year applied for.

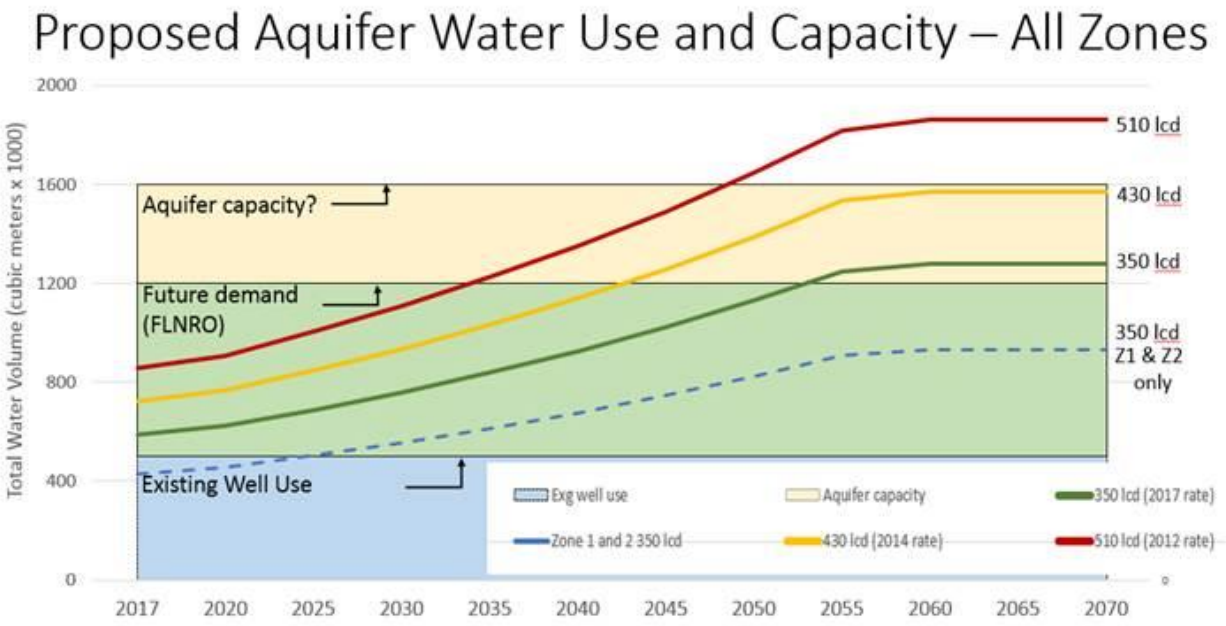



*Figure 1: Water use demand predictions as presented by Town of Gibsons at their March 12, 2018 Water Information Session*

According to this data, the Town would require the 1,200,000 $m^3$ per year to provide water to all zones including Zone 3 and at full build-out capacity. As Zone 3 is currently receiving water from the SCRD's Chapman System, this additional volume is legally considered New Use and hence should not be considered in this Exiting Use Water Licence Application.

- The Town's current rate of diversion of about 500,000 $m^3$ per year is not impacting any of SCRD's interests or the sustainability of the Aquifer 560.
- Staff are currently unaware of any concerns the Sḵwx̱wú7mesh Nation or other groundwater users might have regarding this application. Staff recommend their interests be known to all parties to better assist in cooperation and management of aquifer.

Staff is aware the a provincial policy is forthcoming to guide Statutory Decision Makers on Existing Use Water Licence applications and how to deal with anticipated short and medium term additional water diversions needs from an applicant. With respect to local governments, the current rationale is that any growth between 2016 and 2021 which could be predicted with a high degree of certainty could be considered in a decision on an Existing Use application. It is

expected that any growth predicted for after 2026 would require a New Use application to be submitted.

If a decision by the Statutory Decision Maker was made to grant the full applied for volume of 1,200,000 $m^3$/day as existing use to the Town of Gibsons, it could possibly reduce the feasibility for the SCRD of developing a production well at the Mahan Road site. This feasibility to be confirmed as part of the Groundwater Investigation, Phase 2 project and will be the subject of a future report.

As per resolutions 137/18 and 138/18 both adopted at the April 26, 2018 Board meeting, staff are initiating several initiatives to improve the cooperation regarding water management with the Town of Gibsons, including a working group, the development of a framework for a Groundwater Management Plan and a Bulk Water Review Committee.

**STRATEGIC PLAN AND RELATED POLICIES**

This referral response is considered in the spirit of the values Transparency, Collaboration and Environmental Leadership as listed in the 2015-2018 Strategic Plan.

This report and recommendation contribute to the Key Priorities of Embedding Environmental Leadership and Facilitate Community Development.

**CONCLUSION**

Upon review of the Water Licence Application and supporting documents, staff conclude that SCRD's current interests are not being impacted if the Town of Gibsons is issued an Existing Use Water Licence for the amount they are eligible for under current legislation and policy. In deciding on this application, the SCRD expects FLNRORD to consider that:

- When the WSA came into force on February, 29 2016, the Town of Gibsons was providing water to Zone 1 and 2 only. The SCRD was and is still supplying water to Zone 3 from the Chapman System.
- More recent population growth predictions from the Town of Gibsons are indicating that the build-out capacity of 10,000 residents is not expected to be reached until at least 2050.

This report and recommendations were prepared for the Committee's consideration and direction.

Attachment:

Referral letter from Shirley Wang, Authorization Specialist – Groundwater, FLNRORD, dated April 16, 2018 re: Water Licence File: 20002496 (part).

| Reviewed by: | | | |
|---|---|---|---|
| Manager | | Finance | |
| GM | | Legislative | |
| CAO | X- J. Loveys | Other | |

April 16, 2018 Water Licence File: 20002496

Sunshine Coast Regional District
1975 Field Road, Sechelt
BC V0N 3A1

Dear Sunshine Coast Regional District,

**Re: Application for Groundwater Licence Under the *Water Sustainability Act***

The Province of British Columbia has received an existing use application for a groundwater licence under the *Water Sustainability Act (WSA)*, details are as follow:

| | |
|---|---|
| Applicant: | Town of Gibsons |
| Aquifer: | 554 |
| Use/purpose: | Waterworks (Local Provider) |
| Volume: | 1.2 million cubic meters per year |
| Well Tag Numbers: | WTN 19896 (Town Well# 1)<br>WTN 33950 (Town Well# 2)<br>WTN 53237 (Town Well# 3)<br>WTN 76196 (Town Well# 4) |
| Well Location: | WTN 19896: Lot 4, Block A District Lot 686, Plan 14197<br>WTN 33950: Lot 11, District Lot 685, Plan 4060<br>WTN 53237: Lot 11, District Lot 685, Plan 4060<br>WTN 76196: Lot 3, Block B, District Lot 686, Plan 14197 |
| RESPONSE is requested by: | **May 17, 2018** |
| Primary Contact: | Shirley Wang<br>Ph: 604-586-2811<br>Email: Shirley.Wang@gov.bc.ca |

**Context of the Proposal:**

Town of Gibsons (Gibsons) is applying for an authorization to obtain a licence for the existing use of groundwater for the purpose of waterworks (local provider). Gibsons' water supply system consists of four wells located on the applicant's properties. Generally, three wells are in production on a year-round basis, and WTN 33950 is only active if WTN53237 is being maintained.

**Ministry of Forests, Lands,**
**Natural Resource Operations**
**& Rural Development**

Water Management
South Coast Natural Resource Region

Suite 200, 10428 - 153 Street
Surrey BC V3R 1E1
Phone: (604) 586-4400
Fax: (604) 586-4434

The total requested volume is 1.2 million cubic meters per year, with consideration for population growth. Gibsons have been using groundwater since 1966. Based on the current population of Gibsons supplied by groundwater, the current demand is approximately 500 000 cubic meters per year.

Population of Gibsons is projected to reach approximately 10 000 people in 2026 with a population growth rate of 4.5%. Assuming 73% of the 10 000 residents will be supplied by Gibsons' groundwater supply system, the projected water demand to support 7 300 people will be approximately 1.2 million cubic meters per year.

In 2013, Gibsons completed an aquifer mapping study (study). The source aquifer is a confined sand and gravel aquifer that is classified as high in productivity and moderate in vulnerability by the Province, and the application wells are currently artesian. Due to the confining nature of the aquifer, the application wells are not likely to be hydraulically connected to nearby streams.

The study (attached) determined that the aquifer has the potential of supplying water to 7 300 residents, with considerations for sea level rise and variability in aquifer recharge due to climate change. However, the effects of climate change have uncertainties, and can only be quantified by long-term monitoring. Therefore, Gibsons have indicated that a management and monitoring plan to mitigate salt water intrusion will be prepared for this authorization.

In addition, the study indicated that water quality for all four wells meet Health Canada's 2012 'Guidelines for Canadian Drinking Water Quality'. As part of this authorization, a condition will be included to inform the Gibsons that they will need to comply with the *Drinking Water Protection Act* and its regulations.

If you have any comments, please respond by **May 17, 2018**. Should you have any questions, please feel free to contact me directly.

**Additional Information for Groundwater License Application:**

The *WSA* came into force on February 29, 2016, and key changes and new regulations are now in effect under the WSA to better protect and manage of our groundwater and surface water resource. There is a three-year transitioning period for existing non-domestic groundwater users to submit an application, and the application fee will be waived if an application is received prior to March 1, 2019. More details can be found on FrontCounter BC at www.frontcounterbc.gov.bc.ca.

Sincerely,

Shirley Wang
Authorization Specialist - Groundwater
Phone: 604-586-2811
Email: Shirley.Wang@gov.bc.ca

Attached:

- Appendix A: Application Form
- Appendix B: Well Records for Town Well# 1 – 4
- Appendix C: Water Supply System Map
- Appendix D: Town of Gibsons Population Projection
- Appendix E: Town of Gibsons Official Community Plan (2015)
- Appendix F: Coastal Climate Change Report
- Appendix G: Town of Gibsons Aquifer Mapping Study (2013)

# SUNSHINE COAST REGIONAL DISTRICT STAFF REPORT

**TO:** Infrastructure Services Committee – May 17, 2018

**AUTHOR:** Lynda Fyfe, Environmental Technician

**SUBJECT:** **CHAPMAN CREEK WATERSHED SNOWPACK UPDATE**

## RECOMMENDATION(S)

**THAT the report titled Chapman Creek Watershed Snowpack Update be received for information.**

## BACKGROUND

The presence and quantity of snow and meltwater in the Chapman Creek Watershed influence the date when the SCRD will start to actively manage the weir at Chapman Lake. Once the influence of snowmelt in the watershed diminishes, the Chapman system is dependent on rain for recharge.

Snow pack assessments are one of the considerations by SCRD staff in preparing for this years' drought response.

The purpose of this report is to provide information on springtime snow data and seasonal weather information and compares it with past years.

A status update on the Tetrahedron High Elevation Weather Station is also provided.

## DISCUSSION

*Snow Survey*

The BC Ministry of Forests, Lands, Natural Resource Operations and Rural Development (FLNRORD) River Forecast Centre website states that by April 1 on average, nearly 95% of the provincial winter snowpack has been accumulated.

The April SCRD snow survey is therefore considered to be the most important survey of the year for evaluating the impact of snow pack on seasonal water supply. Snow data is collected at the Chapman and Edwards Snow Course locations as presented in Figure 1.

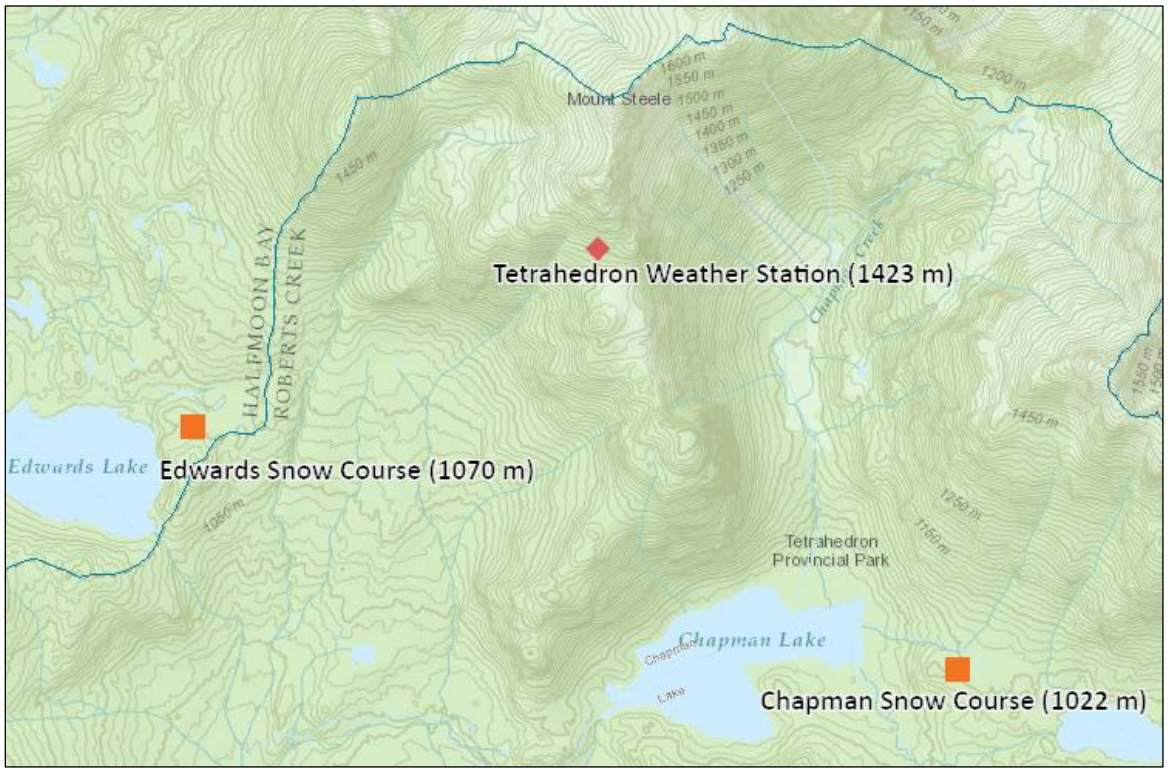



Figure 1. Location of Snow Courses and Tetrahedron High Elevation Weather Station.

In April 2018, a snow depth of 462 cm was recorded at the Chapman Snow Course. The historic average depth for April surveys at this location between 1993 and 2017 is 272 cm (see Figure 2); the April 2018 snow depth at Chapman Snow Course was 143% of the historic average. Snow depths at both Chapman and Edwards Snow Courses this year were the largest recorded by the SCRD for the month of April.

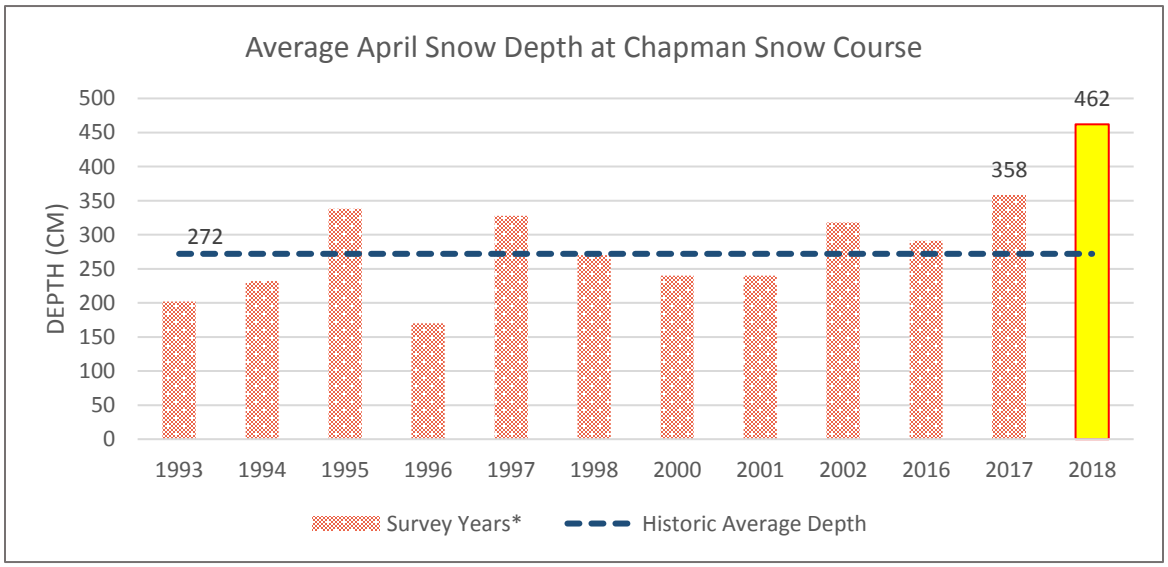



Figure 2. Average April Snow Depth at Chapman Snow Course.

The latest Snow Survey and Water Supply Bulletin, released in April 2018 by the River Forecast Centre, confirmed higher than normal snow pack across the South Coast.

The most recent 2018 snow survey, conducted on May 1, showed that the snow melt is underway at the Chapman Snow Course. An average snow depth of 370 cm was measured at this location and a high volume of water was shown to be contained in the snow pack.

The rate of snow melt is determined by temperature and rainfall conditions. Environment Canada's monthly prediction calls for a high likelihood of a warmer than average May and their seasonal prediction for May-July 2018 is calling for a 50-60% chance of higher than normal temperatures on the South Coast. This temperatures will certainly expedite the snowmelt in the watershed and could ultimately undermine the potential benefits for the above average snow depth for the SCRDs water supply this summer.

To compare with 2017, the April 2017 snow pack at Chapman Snow Course was also above average (358 cm, as shown in Figure 2). During the May-July 2017 snow melt period, the South Coast experienced higher than normal temperatures and below normal rainfall. In 2017 the SCRD began releasing water from the weir at Chapman Lake on July 26.

*Tetrahedron High Elevation Weather Station*

This is the first year that real-time online weather data is available via the Tetrahedron High Elevation Weather Station, located within the Chapman Creek Watershed (see Figure 1). The establishment of a weather monitoring station in Tetrahedron Provincial Park to monitor climate trends is a part of the 2012 Chapman Creek Source Assessment Response Plan. The weather station was installed in late 2017 and is operated and maintained in a partnership between the SCRD, FLNRORD and MOE. The data transmitted by this station is hosted and managed by the Coastal Hydrology and Climate Change Research Lab at Vancouver Island University.

Weather data produced by the station includes air temperature, snow depth, and rainfall. The data will allow SCRD staff to track rates of snow melt, and the time it takes until snow meltwater no longer contributes to Chapman Creek Watershed. This will provide a better understanding of the hydrological characteristics of the Chapman Creek Watershed and inform future water management decisions.

## CONCLUSION

The presence and quantity of snow and meltwater in the Chapman Creek Watershed influences the date when the SCRD will be required to actively manage the weir at Chapman Lake.

Snow depths this year at both Chapman and Edwards Snow Courses were the largest recorded by the SCRD for April.

Environment Canada predicts above average temperatures for the Sunshine Coast which would expedite the snowmelt in the watershed and could ultimately undermine the potential benefits for the above average snow depth for the SCRD's water supply this summer.

| Reviewed by: | | | |
|---|---|---|---|
| Manager | X – S. Walkey | Finance | |
| GM | X – R. Rosenboom | Legislative | |
| CAO | X – J. Loveys | Other | |

# SUNSHINE COAST REGIONAL DISTRICT STAFF REPORT

**TO:** Infrastructure Services Committee – May 17, 2018

**AUTHOR:** Robyn Cooper, Manager, Solid Waste Services

**SUBJECT:** **REGIONAL DIVERSION – ANNUAL UPDATE**

## RECOMMENDATION(S)

**THAT the report titled Regional Diversion – Annual Update be received.**

## BACKGROUND

The BC Ministry of Environment requires all regional districts in BC to have a Solid Waste Management Plan (SWMP).

The SCRD's current SWMP was adopted by the Board in 2011 and outlines twenty-four initiatives that contribute to reaching targets by 2016. There are two targets: diversion and per capita disposal. The diversion target is 65%-69% and the per capita disposal target is 315kg – 279kg.

The purpose of this report is to provide an update on the SCRD's regional diversion from 2011 to 2017, the first six years of the SCRD's SWMP.

## DISCUSSION

*Regional Diversion Data*

The format of the diversion data is consistent with the method utilized in the SWMP and was applied to the six year period of 2011 to 2017. This data was utilized for calculating waste generation, diversion rate and per capita disposal.

A summary of the diversion data is provided in Table 1.

Table 1: SCRD Regional Diversion Data 2011 to 2017

| Disposal and Diversion (t) | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 |
|---|---|---|---|---|---|---|---|
| **Disposal** | | | | | | | |
| Pender Harbour Landfill/Transfer Station | 1,246 | 1,155 | 1,158 | 1,338 | 1,816 | 1,183 | 1,155 |
| Sechelt Landfill | 10,923 | 10,524 | 9,071 | 10,447 | 10,545 | 11,493 | 11,820 |
| **Total disposal** | **12,169** | **11,679** | **10,229** | **11,785** | **12,361** | **12,677** | **12,976** |
| **Diversion** | | | | | | | |
| At Landfills | 1,444 | 2,434 | 2,239 | 2,200 | 3,572 | 4,374 | 4,818 |
| Green Waste | 2,499 | 3191 | 3,437 | 3,672 | 3,415 | 4,343 | 4,061 |
| Recycling - Curbside | 667 | 701 | 685 | 642 | 631 | 882 | 895 |
| Recycling - Depots | 1,257 | 1,510 | 1,495 | 1,367 | 1,121 | 1,179 | 1,204 |
| Extended Producer Responsibility | 963 | 983 | 1,000 | 1,005 | 1,068 | 1,089 | 1,089* |
| C&D Estimate (as per SWMP) | 4,255 | 4,255 | 4,255 | 4,255 | 4,255 | 4,255 | 4,255 |
| **Total diversion** | **11,085** | **13,074** | **13,112** | **13,141** | **14,062** | **16,121** | **16,323** |
| **Total waste generation (disposal + diversion)** | **23,254** | **24,753** | **23,341** | **24,926** | **26,423** | **28,769** | **29,298** |
| **Diversion rate (diversion/waste generation)** | **48%** | **54%** | **56%** | **53%** | **53%** | **56%** | **56%** |
| **Population**** | **28,918** | **29,222** | **29,270** | **29,512** | **29,390** | **29,243** | **29,390** |
| **Disposal per person per year (kg)** | **421** | **400** | **349** | **399** | **421** | **434** | **441** |

*2017 EPR data not yet available; 2016 data utilized
**Population estimates based on BC Stats as of March 6, 2017

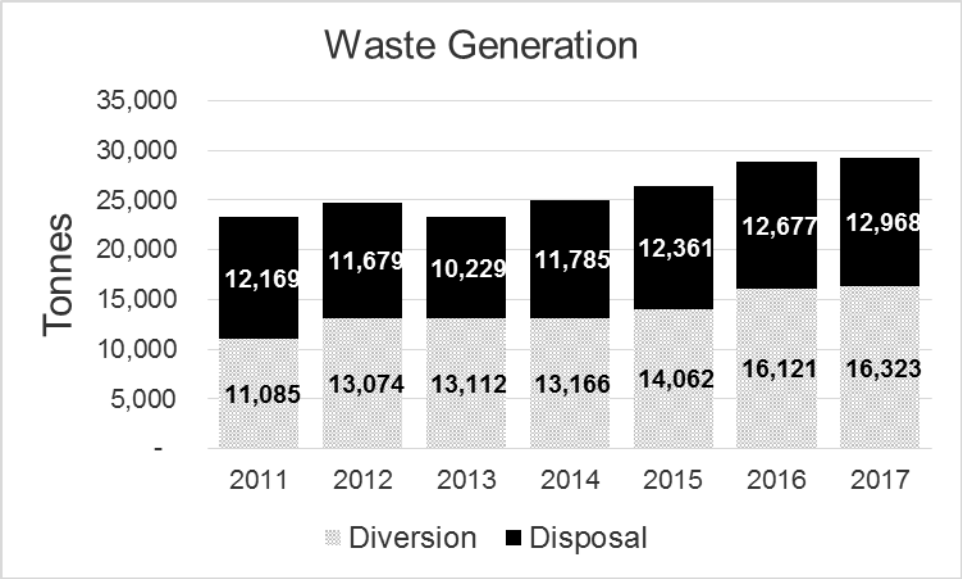
*Waste Generation*

Waste Generation is the sum of waste disposed and diverted. Disposal means buried in the Pender Harbour Landfill (until 2015) and at the Sechelt landfill. Whereas diversion means diverted from the landfill and includes materials recycled, composted, reused or waste exported for burial elsewhere (e.g. contaminated wood).

The trend since 2014 has been an overall increase to the total waste generated. The primary factors contributing to this increase is a growing economy. It should be noted that the diversion rate remained the same in 2016 and 2017 despite an increase in disposal.

A summary of waste generation is provided in Figure 1.

Figure 1: Waste Generation



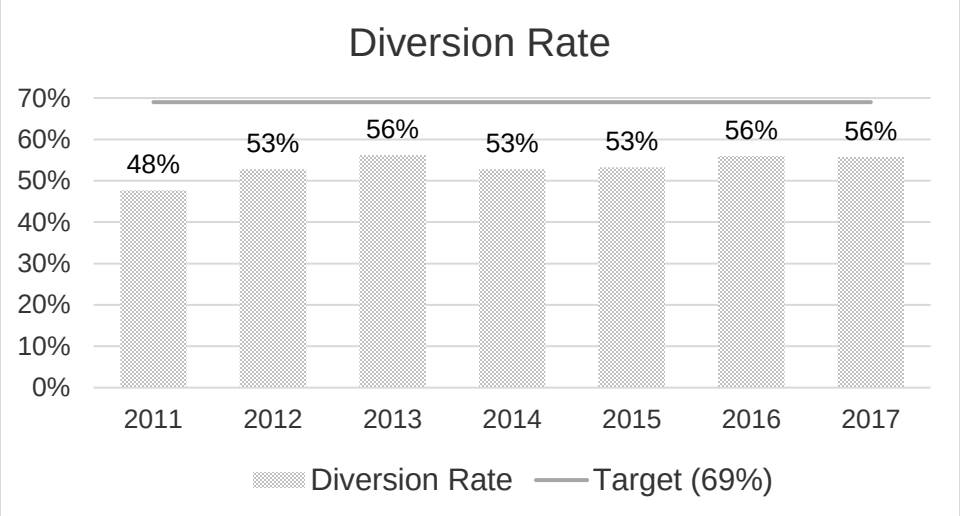

*Diversion Rate*

Diversion rate is calculated by dividing the diversion by the total waste generated.

2011 saw the lowest diversion rate at 48%. Since then, despite an overall increase in waste disposal, the diversion rate has remained fairly consistent with an improvement to 56% in 2016. The 56% diversion remained consistent for 2017 despite an increase in disposal as there was a corresponding increase to diversion. A summary of diversion is provided in Figure 2.

Based on 2017, a further 9%-13% diversion required to achieve the 65%-69% target. Implementation of the SCRD's Regional Organics Diversion Strategy are anticipated to contribute increase diversion.

Figure 2: Diversion Rate



*Per Capital Disposal*

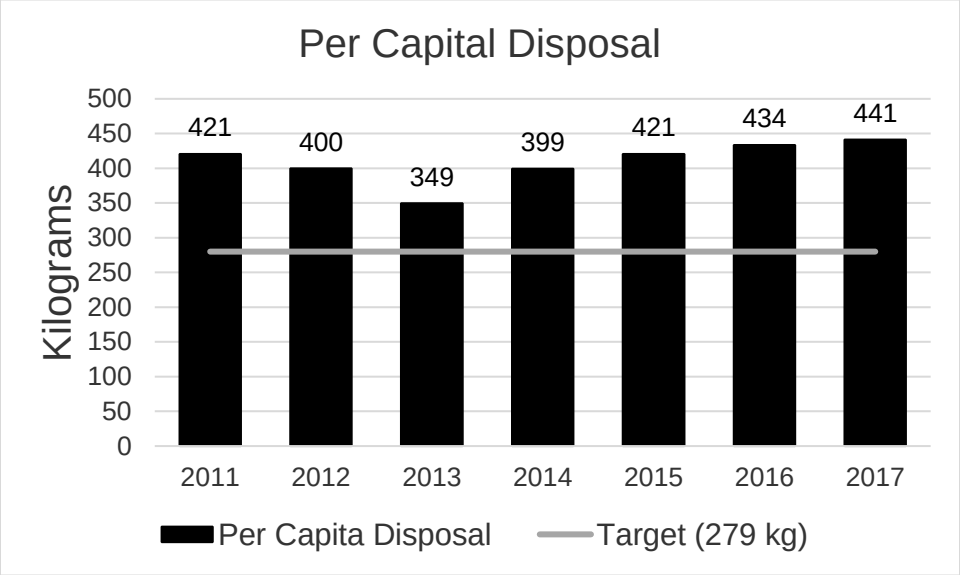
Per capita disposal is calculated by dividing the waste disposed by the population and is expressed in kilograms.

Disposal is typically related to economic trends. Since 2014, there has been a steady increase to the economy and there has been a correpsonding increase to disposal.

Based on 2017, a further 162kg reduction is required to meet the 279 kg/pp/yr target.

A summary of per capita disposal is provided in Figure 3.

Figure 3: Per Capita Disposal




*Waste Disposal*

Of the materials disposed, the top four materials are residential municipal solid waste (from collection or drop-off), construction waste, commercial waste and durable goods such as couches and chairs. A summary these materials based on site is provided in Figures 4 and 5.

Other materials disposed include items such as materials containing asbestos[1] (Sechelt Landfill only), dead animals and share shed items that are not taken by residents.

[1] Drywall containing asbestos is not accepted for disposal at the Sechelt Landfill as per MoE requirement.

Figure 4: Sechelt Landfill Top Materials Disposed

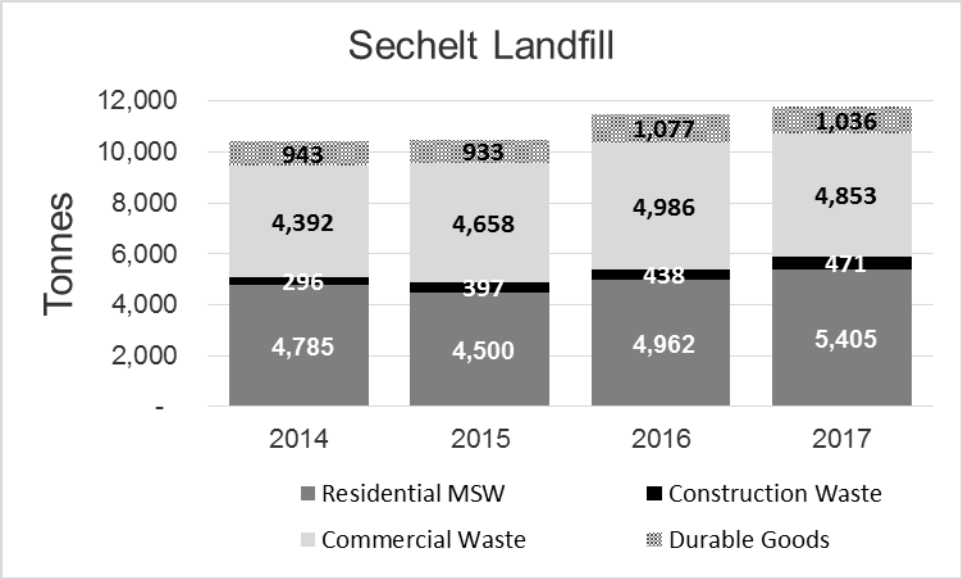
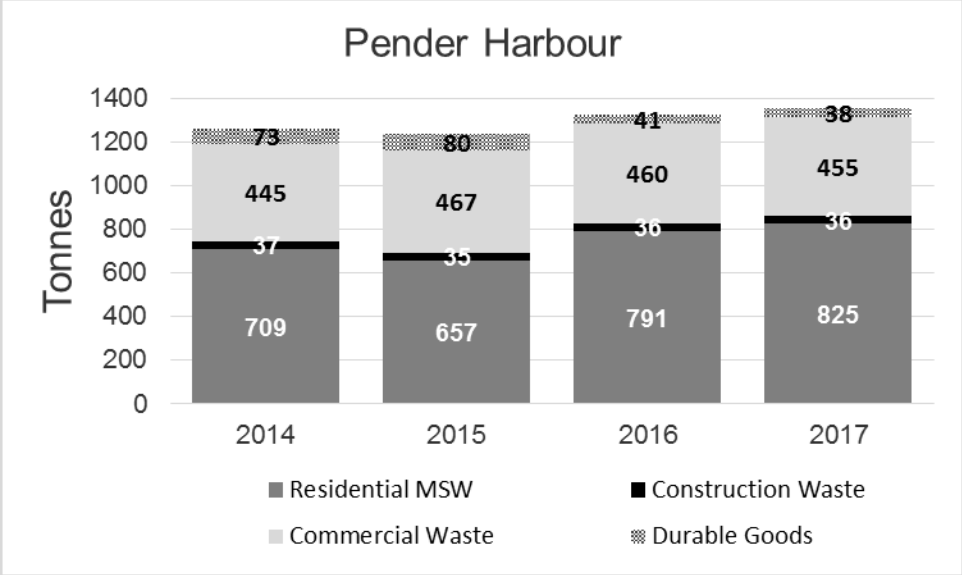



Figure 5: Pender Harbour Landfill/Transfer Station Top Materials Disposed




*Landfill Capacity*

Based on the 2017 Annual Report for the Sechelt Landfill prepared by XCG Consulting Ltd. on March 28, 2018, the Sechelt Landfill estimated remaining site life is approximately 7.6 years, to mid-2025 at status quo diversion programs and services and status quo per capita disposal.

*Next Steps*

Work continues on the implementation of the Regional Organics Diversion Strategy which represents the largest opportunity for diversion, including residential collection of organics for SCRD Electoral Areas B, D, E and F and a commercial ban of organics.

Where appropriate, the regional diversion data will be referenced in upcoming reports and recommendations will be provided in order to help achieve the targets

For landfill capacity, the 2018 solid waste work plan identifies to investigate options to increase landfill capacity.

*Updates to Diversion Data*

After the product stewardship agencies release their 2017 annual reports for the extended producer responsibility programs, the regional diversion data will be updated. Solid waste tonnage data will continue to be provided as part of the existing quarterly reports (green waste, depot recycling, garbage) and provide regional diversion annually.

*Communications Strategy*

A specific web page was created for diversion data in 2017, www.scrd.ca/diversion. The 2017 data will be added to the web page in June, if adopted by the Board.

## STRATEGIC PLAN AND RELATED POLICIES

This report is in support of the key strategic priority of Embed Environmental Leadership and the Solid Waste Management Plan.

## CONCLUSION

The SCRD collects disposal and diversion data and calculates annual waste generation, diversion and per capita disposal rates.

There has been an increasing trend in disposal, diversion and waste generation since 2014. The increase is likely attributable to a steady improvement to the economy.

At the end of 2017, the regional diversion rate was 56% and the per capita disposal was 441kg.

Further diversion and waste reduction is required in order to meet the targets identified in the SCRD's SWMP. Specifically, a 13% increase to diversion and a reduction of waste disposed by 162kg/pp/yr is required to meet the targets.

Staff continue to work on the Regional Organics Diversion Strategy and the 2018 solid waste work plan identifies to investigate options to increase landfill capacity.

| Reviewed by: | | | |
|---|---|---|---|
| Manager | | Finance | |
| GM | X – R. Rosenboom | Legislative | |
| CAO | X – J. Loveys | Other | |

# SUNSHINE COAST REGIONAL DISTRICT STAFF REPORT

**TO:** Infrastructure Services Committee – May 17, 2018

**AUTHOR:** Robyn Cooper, Manager, Solid Waste Services

**SUBJECT:** **SCRD ILLEGAL DUMPING PROGRAM – AVICC UPDATE**

## RECOMMENDATION(S)

**THAT the report titled SCRD Illegal Dumping Program – AVICC Update be received.**

## BACKGROUND

The SCRD is a participant in the Association of Vancouver Island and Coastal Communities (AVICC) Special Committee on Solid Waste Management, which is made up of elected representatives and senior staff from the nine AVICC regional districts.

Reporting to the Special Committee, the Ad Hoc Communications Group was created in 2017 and consists of solid waste services staff from the nine regional districts.

On March 3, 2017, the Special Committee approved the expenditure of $5,000 to develop a joint communications campaign on illegal dumping. The Communications Group met via teleconference on March 28, 2017 and proceeded with development of a joint AVICC-branded video on illegal dumping. The video is tailored for each AVICC regional district.

The Communications Group met again via teleconference on November 28, 2017 and exchanged updates on work plans and campaigns for 2018. Staff discussed opportunities for a joint promotion of the illegal dumping video.

On March 3, 2018, the Comox Valley Regional District (CVRD) shared radio scripts from the CVRD's 2017 illegal dumping campaign.

As of this report, a joint AVICC illegal dumping campaign has not been confirmed.

The purpose of this report is to provide an update of how SCRD Solid Waste Services staff will use the AVICC illegal dumping video and CVRD radio scripts, as well as other planned actions/resources to address illegal dumping in the region.

## DISCUSSION

The AVICC Illegal Dumping Video is currently posted online on the SCRD YouTube Channel and on the following webpage www.scrd.ca/stop-illegal-dumping.

In 2018, SCRD Solid Waste Services staff will promote the AVICC illegal dumping resources, the video and radio scripts, as follows:

*Table 1: AVICC Illegal Dumping Resources - 2018 Communications Plan*

| AVICC Resource | Action | Timeline |
|---|---|---|
| AVICC Illegal Dumping Video | Investigate logistics and costs to promote video via e-signage at the SCRD recreation facilities | May 2018 |
| | News release to raise awareness of illegal dumping video and how to report a dump site | June 2018 |
| | Targeted Facebook Ads | June – September 2018 |
| | Coast Reporter SCRD Bulletin Board ads to direct residents to SCRD Stop Illegal Dumping webpage | June – September 2018 |
| | Posters at community bulletin boards directing residents to SCRD Stop Illegal Dumping webpage | June 2018 |
| | Email outreach to SCRD Illegal Dumping Collaborative Meeting attendees, community associations and Sunshine Coast outdoor recreation groups directing to SCRD Stop Illegal Dumping webpage and video | June 2018 |
| Comox Valley Radio Scripts | Tailor radio scripts with SCRD content | May 2018 |
| | Radio Ads | June – September 2018 |

Staff will provide an update on the roll-out of this communications plan in the ISC Quarterly Reports.

*Organizational and Intergovernmental Implications*

SCRD Solid Waste Services staff will continue to participate on the AVICC Ad Hoc Communications Group and will modify the communications plan outlined in Table 1 should a joint AVICC illegal dumping campaign be implemented.

In addition, SCRD Solid Waste Services staff will notify attendees of the SCRD Illegal Dumping Collaborative Meeting about the AVICC Illegal Dumping Resources 2018 Communications Plan (Table 1). The meeting is hosted annually in Q4 by SCRD Solid Waste Services staff with updates on illegal dumping initiatives communicated via email throughout the rest of the year.

Stakeholders include staff from the District of Sechelt, Sechelt Indian Government District, Town of Gibsons, Ministry of Environment Conservation Officer Service (COS), Ministry of Forests, Lands, Natural Resource Operations and Rural Development (FLNRORD), the RCMP, BC Hydro and SCRD.

*Financial Implications*

Advertising and promotion costs related to the SCRD Illegal Dumping Program are funded from base budget. Staff time to implement roll-out of the Communications Plan is included in the Waste Reduction Coordinator 2018 Work Plan.

*Next steps*

SCRD Solid Waste Services staff will promote the AVICC illegal dumping video and radio scripts as outlined in Table 1.

In addition, staff have the following SCRD Illegal Dumping Program initiatives planned for 2018:

- **Pitch-In Canada Week**: continue to fund tipping fees from waste collected at community clean-ups from April 22 through May 31, 2018. Tipping fees are funded from the SCRD's Good Samaritan Program.

- **Stop Illegal Dumping Brochure**: develop a brochure with information on how to report an illegal dumpsite and the SCRD Good Samaritan Program. This brochure will be emailed to community associations and outdoor recreation groups along with the AVICC video.

- **2018 Backroad Trash Bash**: plan and host the 7$^{th}$ annual community clean-up for the Pender Harbour and Egmont area on Saturday, September 15 at the Pender Harbour Lions Park.

- **2018 Stop Illegal Dumping Signage:** Work with staff from the COS, FLNRORD, BC Hydro and other local agencies to pinpoint new locations for enforcement signage and collaborate on installation.

- **2018 Illegal Dumping Collaborative Meeting:** SCRD staff to host annual meeting on illegal dumping prevention and outreach with local agencies in Q4 2018.

## STRATEGIC PLAN AND RELATED POLICIES

This report is in support of the SCRD's key strategic priority of Embed Environmental Leadership and the Solid Waste Management Plan's initiative of Illegal Dumping Program.

## CONCLUSION

SCRD Solid Waste Services staff participated in two AVICC Ad Hoc Communications Group meetings in 2017. Staff from the nine AVICC regional districts collaborated to develop an AVICC illegal dumping video. In 2018, Comox Valley Regional District staff shared radio scripts from the CVRD's 2017 illegal dumping campaign.

This report provides an update on how the AVICC illegal dumping resources will be used and promoted within the SCRD with an implementation timeline in Table 1.

Additional SCRD Illegal Dumping Program initiatives are planned for 2018 including a wrap-up of the 2018 Pitch-In Canada Week, the 2018 Backroad Trash Bash, identification of new locations for signage, development of a Stop Illegal Dumping brochure and planning for the 2018 Illegal Dumping Collaborative Meeting in Q4 with local agencies.

| Reviewed by: | | | |
|---|---|---|---|
| Manager | | Finance | |
| GM | X – R. Rosenboom | Legislative | |
| CAO | X – J. Loveys | Other | |

**SUNSHINE COAST REGIONAL DISTRICT**
**TRANSPORTATION ADVISORY COMMITTEE**

**April 19, 2018**

RECOMMENDATIONS FROM THE TRANSPORTATION ADVISORY COMMITTEE MEETING HELD IN THE CEDAR ROOM OF THE SUNSHINE COAST REGIONAL DISTRICT AT 1975 FIELD ROAD, SECHELT, BC

| | | |
|---|---|---|
| **PRESENT:** | Director, Electoral Area E, Chair | Lorne Lewis |
| (Voting Members) | Director, Electoral Area A | Frank Mauro |
| | Director, Electoral Area B | Garry Nohr |
| | Director, Electoral Area D | Mark Lebbell |
| | Director, Electoral Area F | Ian Winn |
| | Director, District of Sechelt | Doug Wright |
| | Director, Town of Gibsons | Jeremy Valeriote |
| | Alt. Director, District of Sechelt | Alice Lutes |
| | Ministry of Transportation and Infrastructure | Don Legault |
| | Ministry of Transportation and Infrastructure | Colin Midgeley |
| | Transportation Choices (TraC) | Alun Wooliams |
| **ALSO PRESENT:** | GM, Planning and Community Development | Ian Hall |
| (Non-Voting) | GM, Infrastructure Services | Remko Rosenboom |
| | Transportation Superintendent | Steven Sears |
| | Constituency Assistant to MLA Simons | Michelle Morton |
| | BC Ferries | Hanna Josephson |
| | Area E Resident | Michael Maser |
| | Area E Resident | David Dick |
| | SCRD Administrative Assistant / Recorder | Tracey Hincks |
| | Media | 2 |

**CALL TO ORDER** 2:45 p.m.

**AGENDA** The agenda was adopted as amended to add to New Business:

- Road Safety at Gospel Rock

**ROUNDTABLE INTRODUCTIONS**

**MINUTES**

**Recommendation No. 1** *Transportation Advisory Committee Recommendations*

The Transportation Advisory Committee recommended that the recommendations of the January 18, 2018 Transportation Advisory Committee meeting be received.

**COMMUNICATIONS**

**Recommendation No. 2** *Communications*

The Transportation Advisory Committee recommended that the following communications be received:

- Diana Mumford, Southern Sunshine Coast Ferry Advisory Committee, regarding 2018 March FAC Bulletin.

Highlights from the Southern Sunshine Coast Ferry Advisory Committee March 2018 Bulletin are as follows:

- Reduced Fares on Route 3 – Langdale route reduced on average by 15 percent.
- Increased Seniors Discount – BC seniors' passenger discount increased to 100 percent for travel Monday through Thursday (excluding holiday Mondays)
- Experience Cards – reduced by 15 percent to $95 for vehicle and driver and $55 for passenger fees.
- New Summer Ferry Schedule – the Summer schedule has been updated with a simpler more concise look separating July and August for less clutter.
- 2018 Ferry Traffic - there continues to be strong traffic growth this year for most routes.

*Director Lewis passed the Chair to Director Lebbell at 2:58 p.m.*

**NEW BUSINESS**

Road Safety at Gospel Rock

*The Committee discussed a community meeting that was held on April 18, 2018 regarding Gospel Rock road safety concerns. A handout titled "Share the Load, Build Another Road" was circulated for discussion. There is a Public Hearing at the Town of Gibsons on May 23, 2018 where these concerns may be further raised.*

**Recommendation No. 3** *Gospel Rock Road Safety Handout*

The Transportation Advisory Committee recommended that the handout regarding Road Safety at Gospel Rock be received.

**ROUNDTABLE**

- *Ferry traffic is getting busy and waits times are going up. It is recommended to get to the terminal early.*
- *There is a concern about flooding at Rat Portage Hill across from Jack Road when rains are extreme.*
- *Davis Bay hill has a pot hole that has been filled but continues to resurface.*
- *Gibsons Way paving is in progress.*
- *Bike to Work Week is late May early June.*
- *Roads in Area F held up fairly well over the winter.*
- *New transit schedule begins May 17 and continues until Thanksgiving which aligns with new BC Ferries schedule.*

- *Expect road work delays along Davis Bay. There will be additional communication to advise commuters of delays.*
- *There is a concern at Camp Byng and Conrad Road regarding a ditch overflowing during rain storms.*
- *It was noted that there is a natural water spring at Neilson Road and Highway 101. It is wet and may be a freezing hazard.*
- *It was requested that MoTI provide a written briefing of quarterly activities to include in future agenda packages.*
- *There is concern of speeding along Pratt Road. It was noted that ducks, deer and children are often present along the straight stretch.*
- *There was further discussion about the Gospel Rock Connecter and concern that the road is not up to connecter standards.*

*Director Lewis resumed the Chair at 3:25 p.m.*

**NEXT MEETING** July 19, 2018

**ADJOURNMENT** 3:28 p.m.

_____

Committee Chair

Annex G

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info@gibsons.ca
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**OFFICE OF THE MAYOR | WAYNE ROWE**

April 17 2018

Sunshine Coast Regional District
Chairman Bruce Milne
1975 Field Road
Sechelt BC V0N 3A0

Dear Chairman Bruce Milne,

Reference: Draft Watershed Management & Governance for the Sunshine Coast

Further to, and as discussed at the March 12, 2018 Watershed Information Session for Elected Officials held in Gibsons, attached, for your consideration, is a draft Watershed Management and Governance Proposal.

Given significant water management challenges, complexities of land use, interests and rights holders in our region, we think future-proofing the Sunshine Coast's social, ecological and economic prosperity requires closely examining our options for both integrated watershed management planning and watershed governance. The Town of Gibsons respectfully requests the Sunshine Coast Regional District consider supporting this proposed approach.

On behalf of Council, thank you in advance for your consideration of this important issue.

Yours truly,

Wayne Rowe
*Mayor*

Cc: Janette Loveys, Chief Administrative Officer, Sunshine Coast Regional District

# Considering the Future of Watershed Management and Governance for the Sunshine Coast

# Introduction

Water is a strategic asset to the Sunshine Coast, which has critical ecological, economic, social, and spiritual importance. In recent years, the Sunshine Coast Regional District (SCRD) has experienced increasingly significant water pressures and management issues. On October 3, 2017, the Sunshine Coast Regional District (SCRD) declared Stage 4 water restrictions, the most severe level of restriction, banning all commercial use of water and residential outdoor tap use. To help ease the crisis, it also installed a siphon to extend the draw of water from Chapman Lake. The regional district also declared Stage 4 water restrictions in 2015, while in both 2014 and 2016, areas of the region were under Stage 3 water restrictions.

The water challenges the region is experiencing affect the quality of life of all citizens, the local economy and the overall sustainability of the Sunshine Coast. While this is well-recognized by local governments, it is also clear that existing management and planning tools, such as the 2013 Comprehensive Regional Water Plan, are having limited success at addressing this critical issue. Furthermore, these challenges are only expected to worsen, as they are exacerbated by the impacts of climate change, regulatory changes and population growth.

Recently, the SCRD administration responded to the water supply issue by proposing groundwater as a water source to supplement the Chapman Creek surface water supply. This option is consistent with the SCRD's Comprehensive Regional Water Plan and four sites were identified for further exploration. These sites included one that would draw water from the Gibsons Aquifer, which would jeopardize the Town of Gibson's ability to provide water for its future buildout. This situation exemplifies the need for a fully integrated approach to water management, to ensure that proposed solutions are coordinated and actively engage all affected rights and stakeholders.

*Overlapping Jurisdictions*

The Sunshine Coast is not alone in its water challenges. Regions across the province are addressing similar issues associated with the provision of safe water supplies but also of overall watershed health, management and governance. Ideally, watersheds should be managed as whole systems. Jurisdictional complexity makes this difficult because, generally, several levels of government are involved. Local governments typically oversee drinking water management and source water protection. They also directly influence water through land-use and zoning decisions, as is often articulated in community plans and regional growth initiatives. The provincial government has primary responsibility for making decisions about water and watersheds. It has the most direct constitutional powers related to land use, water management, and control over local government. First Nations have constitutionally protected rights to land and water resources requiring proper consultation to ensure that their interests are accommodated. This situation can be especially challenging in cases of undefined water rights

in advance of formal treaties or claims of aboriginal title.[1] Unresolved aboriginal rights and title influence all aspects of resource decision-making and development in the province.

Given the complexity created by these overlapping jurisdictions and the significance of local conditions in both watershed management challenges and solutions, we strongly believe it makes sense to work collaboratively to find effective solutions for our communities.

**The purpose of this document is to propose a process to consider a modernized watershed management plan and a regional approach to watershed governance.**

### What is Watershed Governance?

Governance is a complex concept but it generally refers to who has power, who makes decisions, who has the ability to influence, shape and execute decisions and how accountability is determined. Governance is a product of the context including laws, regulations, and formal institutions and incentives coupled with the norms, values, behaviours, and ethics influencing decisions and how they flow through the social networks of influence and action.[2] Watershed governance refers to the full range of watershed issues - water resources and delivery of water services, as well as the protection and conservation of water and aquatic ecosystems including their associated riparian area, and land use issues as they impact water at a watershed scale.[3]

### What is Watershed Management?

Watershed management is the process of implementing land use and water management practices to protect and improve the quality of the water and other natural resources within a watershed by managing the use of those land and water resources in a comprehensive way. Watershed features that governments manage include water supply, water quality, drainage, stormwater runoff, water licensing, and the overall planning and utilization of watersheds. Effective watershed management ensures the sustainable distribution of its resources and the process of creating and implementing plans, programs, and projects to sustain and enhance watershed functions. Many different actors play an integral part in watershed management including landowners, government, engineers, environmental specialists, water purveyors and communities.

[1] See Tsilhqot'in Nation v. British Columbia, 44 (SCC 2014).
[2] Oliver Brandes and J. O'Riordan POLIS (2014) A Blueprint for Watershed Governance in British Columbia.
[3] Linda Nowlan and K. Bakker, (2007) *Delegating Water Governance: Issues and Challenges in the BC Context* Report for BC Water Governance Project.

# What are we proposing?

We are proposing that the Sunshine Coast Regional District members undertake the exploration of two key initiatives:

1. The development of an integrated, regional watershed management approach, with supporting management strategies, programs, projects, bylaws, policies and tools.
2. The examination of models for regional watershed governance that would provide an opportunity for collaborative governance by bringing together relevant rights holders and stakeholders.

## What would be required to undertake this work?

The Town of Gibsons would like to work with the SCRD to identify a Convenor of this exploratory process. The Town has demonstrated its leadership in many areas of water management, including water conservation, monitoring, and aquifer mapping. It is leading the country in implementing natural asset management, which formally recognizes natural assets and the civic services they deliver as an essential part of a community's infrastructure. This exploratory process would build on the water management work that has been completed to date, including existing plans, assessments and monitoring data.

Below is a discussion of both the rationale and the next steps for the above-mentioned issues.

### 1. Develop an Integrated Regional Watershed Management Approach

Currently, the SCRD deals only with water distribution and land use planning – integrated decision making is a challenge. The development of a comprehensive, integrated watershed plan which identifies key regional issues and pressures, and proactively maps out its water resource capacity and data needs, would provide valuable guidance to decision-makers, resource managers, water users and residents regarding land and water resources in the watershed.

Developing a modern, forward-thinking regional approach would improve the SCRD's ability to deliver services and effectively partner with senior levels of government and First Nations, while ensuring the social, ecological and economic sustainability of the region.

**Characteristics of a plan**

An integrated watershed plan would likely be characterized by objectives such as:

- Healthy aquatic ecosystems that sustain native biodiversity and aquatic life;
- Reliable and adequate flows of clean water to support a sustainable economy and food system, and;
- Safe and secure water to support healthy communities.

Suggested guiding principles that could characterize the work include:

- Adaptive management;
- Natural asset management;
- Long-term monitoring, and;
- Two-eyed seeing (a framework for understanding indigenous and non-indigenous knowledge).[4]

**The initial steps in developing a watershed management approach would include:**

1. Convening an Advisory Committee with appropriate representation from all stakeholders to steward the process and to initially assess the capacity and resource requirements to pursue this work.
2. Developing a Terms of Reference and Project Charter that would define the scope and scale of the work to be undertaken.
3. Creating a Technical Advisory Committee with representatives from multiple third-party agencies and organizations.

Based on examples of similar work undertaken by other jurisdictions[5], we have learned that:

- the process typically works to identify a driving vision for the plan, guiding principles, key objectives or outcomes, and related activities to achieve the objectives;
- other jurisdictions have been able to secure external funding to help support this process, and;
- developing an integrated regional watershed management approach through an inclusive process could take up to two years.

[4] Two-Eyed Seeing is a principle created by Mi'kmaw Elder Albert Marshall that "refers to learning to see from one eye with the strengths of Indigenous knowledges and ways of knowing, and from the other eye with the strengths of Western knowledges and ways of knowing ... and learning to use both these eyes together, for the benefit of all." http://www.integrativescience.ca/Principles/TwoEyedSeeing/ for more information and background

[5] Examples include the Kettle River Watershed Management Plan, Comox Valley Regional Water Supply Strategy, Kiskatinaw Watershed Management Strategy (Dawson Creek), Shuswap Lake Integrated Planning Process.

## 2. Examine Models of Regional Watershed Governance

While examining watershed governance models is complementary to pursuing an integrated watershed management plan, it does require asking different questions. A governance model would need to be compatible with the objectives of a regional integrated watershed plan, as it would influence how the management plan is operationalized and how decisions would be made. In many communities, mounting concern about the sustainability of their water is driving demand to have more local engagement in decision-making with the Province. At the same time, many First Nations want collaborative consent or government-to-government agreements on decisions about water.[6] Local governments and First Nation communities around the province are considering watershed governance options given the potential provisions in the *Water Sustainability Act* for alternative governance arrangements. To date, the provincial government has not clearly identified what these arrangements could look like.

*Collaborating with First Nations*

The systematic exclusion of First Nations from governing water is no longer socially or legally acceptable under the provincial commitment to the principles of UNDRIP (UN Declaration on the Rights of Indigenous Peoples) or the federal and provincial commitments to government-government relationships. First Nations' strong historical, spiritual, cultural, and economic ties to the land and water make them a unique and important force in BC. First Nations are a level of government that must be properly acknowledged and hold an important place in any efforts to improve the governing of watersheds to ensure more ecologically and socially sustainable outcomes. The Sunshine Coast makes up part of the traditional territory of the shíshálh and the Skwxwu7mesh. Examining how local governments work together with First Nations on water is an important step towards reconciliation and meeting the principles of UNDRIP.

*Existing Watershed Governance Models*

In BC, there are different arrangements along the spectrum of watershed governance, from the large, formalized entity of the Okanagan Basin Watershed Board (OBWB), to the medium-scale Cowichan Watershed Board to smaller-scale organizations such as the Nechako Watershed Roundtable or the Coquitlam River Watershed Roundtable. Most of these organizations are partnerships that provide a forum for information-sharing and discussing and negotiating management actions, while formal government agencies retain decision-making power. The OBWB is a unique entity in BC as it is an autonomous, formalized body, established for the long

[6] Collaborative consent describes an ongoing process of committed engagement between Indigenous and non-Indigenous governments— acting as equal partners, each with their asserted authority—to secure mutual consent on proposed paths forward related to matters of common concern and all aspects of governance. Phare, M-A., Simms, R., Brandes, O.M., Miltenberger, M. (2017). *Collaborative Consent and Water in British Columbia: Towards Watershed Co-Governance*.

term with a wide range of stakeholders (public and private) that is empowered to implement water management decisions.[7]

The role that local governments play in these organizations vary from model to model. Currently, the Cowichan Watershed Board and its members are examining their model of co-governance with the Cowichan Tribes. At the same time, the Cowichan Valley Regional District is examining how the Cowichan Watershed Board helps to deliver the regional district's watershed management objectives. In the Canadian context, we do not have examples of delegated collaborative water governance where non-state actors (watershed entity, municipality, or region) are directly engaged in decision-making for water management.

In the case of the Sunshine Coast, examining potential regional watershed governance models is an opportunity to find the appropriate approach to bring together relevant rights holders and stakeholders to pursue shared regional objectives, specific to our watershed.

**The initial steps in developing an appropriate watershed governance model would include:**

1. Convening an Advisory Committee, including shíshálh and Skwxwu7mesh to discuss guiding principles.
2. Reviewing the related work that has been done in other jurisdictions around the province.
3. Developing a proposal for a regional watershed governance model with options specific to the Sunshine Coast context to bring before the respective Councils/Board.

We are fortunate that BC has generated significant literature on watershed governance, Indigenous Co-Governance and Collaborative Consent. These resources would provide invaluable assistance in guiding this work, should the relevant parties agree to proceed.

[7] Ontario's Conservation Authorities are another example of a formal watershed governance entity.

**Conclusion**

Given the significant water management challenges, complexities of land use, interests and rights holders in our region, we think that future proofing the Sunshine Coast's social, ecological and economic prosperity requires closely examining our options for both **integrated watershed management planning and watershed governance**.

The *BC Water Sustainability Act* and associated enabling regulations are evolving and they will influence watershed management and governance. Positioning the Sunshine Coast as a proactive region on these issues will make it an appealing partner for collaboration with the Province and other levels of government.

**From:** Hamblin, Gerry EAO:EX [mailto:Gerry.Hamblin@gov.bc.ca]
**Sent:** Friday, May 11, 2018 11:19 AM
**Subject:** BURNCO Aggregate Mine Project- Announcement about Federal decision

Hello Burnco Working Group members, please see the following announcement from CEA Agency:

The Canadian Environmental Assessment Agency would like to inform you that the Honourable Catherine McKenna, Minister of Environment and Climate Change (the Minister), has today issued her environmental assessment Decision Statement for the BURNCO Aggregate Mine Project (the Project). The Minister concluded, after taking into consideration the implementation of mitigation measures, that the Project is not likely to result in significant adverse environmental effects.

Link to Minister's Decision Statement: http://ceaa-acee.gc.ca/050/evaluations/document/122619?culture=en-CA
Link to News Release: http://ceaa-acee.gc.ca/050/evaluations/document/122621?culture=en-CA

In accordance with section 37 of the former *Canadian Environmental Assessment Act*, the Minister has now referred the Project back to Fisheries and Oceans Canada, as the Responsible Authority, for appropriate action.

Gerry Hamblin
Project Assessment Manager
Environmental Assessment Office
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EAO | Environmental Assessment Office

# Environmental Assessment Decision Statement
# BURNCO Aggregate Mine Project, British Columbia

The Honourable Catherine McKenna, Minister of Environment (the Minister), has reviewed the federal environmental assessment of the BURNCO Aggregate Mine Project (the Project) proposed by BURNCO Rock Products Ltd. Pursuant to section 125 of the Canadian Environmental Assessment Act, 2012 (CEAA 2012), the environmental assessment of this Project was completed under the former Canadian Environmental Assessment Act (the former Act).

Having taken into consideration the federal Comprehensive Study Report (the Report) and the public comments filed pursuant to subsection 22(2) of the former Act, the Minister is of the opinion that:

- the Project is not likely to cause significant adverse environmental effects on components of the environment, taking into account the mitigation measures described in the Report; and
- the mitigation measures and follow-up program described in the Report are appropriate for the Project.

The Minister has referred the Project back to Fisheries and Oceans Canada for appropriate action under section 37 of the former Act.

The Minister requests that Fisheries and Oceans Canada ensures the implementation of the mitigation measures described in the Report. The Minister also requests that Fisheries and Oceans Canada ensures the implementation of the follow-up program described in the Report, in order to determine the effectiveness of the measures taken to mitigate any adverse environmental effects and to verify the accuracy of the environmental assessment of the Project.

**News Release**
**BURNCO Aggregate Mine Project - Environmental Assessment Decision**

May 10, 2018 — Ottawa — Canadian Environmental Assessment Agency

The Government of Canada is working to protect the environment for future generations while growing our economy. Today, the Honourable Catherine McKenna, Minister of Environment and Climate Change, announced that the proposed BURNCO Aggregate Mine Project is not likely to cause significant adverse environmental effects when the mitigation measures described in the Comprehensive Study Report are taken into account. In reaching her environmental assessment decision, the Minister considered the Comprehensive Study Report as well as comments received from Indigenous groups and the public.

The project is a sand and gravel mine located on the northwest shore of Howe Sound, 22 kilometres southwest of Squamish, British Columbia.

The project was assessed as a comprehensive study under the Canadian Environmental Assessment Act (the former Act of 1992). The Minister has referred the project to the responsible authority, Fisheries and Oceans Canada (DFO), for a decision regarding a Fisheries Act authorization. DFO will ensure that all necessary mitigation measures and follow up programs, as described in the Comprehensive Study Report, are implemented.

Today's announcement reflects the Government of Canada's Interim Approach and Principles for environmental assessments, which ensures that project decisions are informed by meaningful consultations with Indigenous peoples, public input and scientific evidence, including Indigenous Traditional Knowledge, and an assessment of greenhouse gas emissions.

**Quote**

"Our government is committed to protecting the environment while growing our economy. This finding was based on rigorous science, extensive consultation with Indigenous groups and a diversity of Canadians, and input from experts across various disciplines. We are confident the mitigation measures outlined for this project will allow it to move forward in a way that protects the environment, while supporting the local economy and creating good middle-class jobs."

— The Honourable Catherine McKenna, Minister of Environment and Climate Change

**Relevant Links**

- Environmental Assessment Decision Statement (Canadian Environmental Assessment Agency)
- BURNCO Aggregate Mine Project (Canadian Environmental Assessment Agency)

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