INFRASTRUCTURE SERVICES COMMITTEE

Thursday, October 17, 2019
SCRD Boardroom, 1975 Field Road, Sechelt, B.C.

AGENDA

CALL TO ORDER 9:30 a.m.

AGENDA

1. Adoption of Agenda

PRESENTATIONS AND DELEGATIONS

REPORTS

2.	General Manager, Infrastructure Services Bylaw Opportunities for Water Conservation **(Voting – A, B, D, E, F and DoS)**	Annex A pp 1 - 16
3.	General Manager, Infrastructure Services Analysis of the Impact Resolutions Ltd. Policy Options on Water **(Voting – A, B, D, E, F and DoS)**	Annex B pp 17 - 21
4.	Water and Energy Projects Coordinator Sechelt Landfill Greenhouse Gas Emissions Update **(Voting – All)**	Annex C pp 22 - 31
5.	Manager, Solid Waste Operations Analysis of Implementation of a baler or shredder at Sechelt Landfill **(Voting – All)**	Annex D pp 32 - 35
6.	General Manger, Corporate Services / Chief Financial Officer Short Term Borrowing for Canoe Road and Merrill Crescent Septic Field Replacements **(Voting – A, B, D, E and F)**	Annex E pp 36 - 39
7.	Manager, Utility Services Water Services - Pipes, Valves and Fittings Contract Term Extension **(Voting – A, B, D, E, F and DoS)**	Annex F pp 40 - 42
8.	General Manager, Infrastructure Services Budget Request for Implementation of *shíshálh* Nation Foundation Agreement **(Voting – All)**	Annex G pp 43 - 44
9.	General Manager, Infrastructure Services 2019 Q3 Quarterly Report **(Voting – All)**	Annex H pp 45 - 56

COMMUNICATIONS

10. Jas Chonk, Legislative Services Clerk Islands Trust dated September 12, 2019 — Annex I, pp 57 - 59
Regarding Request for Support for Solar Energy in Rural and Remote Communities
(Voting – All)

11. Keely Kidner, District of Squamish dated October 2, 2019 — Annex J, pp 60 - 68
Regarding Provincial Plastics Action Plan joint submission letter to the Ministry of Environment and Climate Change Solutions
(Voting – All)

NEW BUSINESS

IN CAMERA

That the public be excluded from attendance at the meeting in accordance with Section 90 (1) (d), (e), (k) and 2(b) of the *Community Charter* – "the security of the property of the municipality", "the acquisition, disposition or expropriation of land or improvements, if the council considers that disclosure could reasonably be expected to harm the interests of the municipality", "negotiations and related discussions respecting the proposed provision of a municipal service that are at their preliminary stages and that, in the view of the council, could reasonably be expected to harm the interests of the municipality if they were held in public", "the consideration of information received and held in confidence relating to negotiation between the municipality and a provincial government or the federal government or both, or between a provincial government or the federal government or both and a third party".

ADJOURNMENT

SUNSHINE COAST REGIONAL DISTRICT STAFF REPORT

TO: Infrastructure Services Committee – October 17, 2019

AUTHOR: Remko Rosenboom, General Manager, Infrastructure Services
Ian Hall, General Manager, Planning and Community Development Services

SUBJECT: **BYLAW OPPORTUNITIES FOR WATER CONSERVATION**

RECOMMENDATION(S)

THAT the report titled Bylaw Opportunities for Water Conservation be received;

AND THAT the review of Water Rates and Regulations Bylaw 422 scheduled for 2020 include a review of water conservation provisions and the service connection application process;

AND THAT the review of Subdivision Servicing Standards Bylaw 320 planned for 2021 incorporate water conservation measures;

AND FURTHER THAT the review of Development Cost Charges Bylaw 693 planned for 2023 incorporate a water conservation lens.

BACKGROUND

Following discussion at the June 20, 2019 Infrastructure Services Committee meeting, the following resolution was adopted at the June 27, 2019, regular Board meeting:

181/19 **Recommendation No. 9** *Managing Growth to Address Water Supply Deficit*

THAT staff report to a future Committee on the scope of influence on water conservation measures that the SCRD can implement in its bylaws related to subdivision servicing and zoning.

This directive followed discussion of a staff report that provided a high-level scan of tools for managing growth to address water supply deficit, included for ease of reference as Attachment B.

Planned bylaw reviews were evaluated for opportunities where scope could be expanded to include water conservation.

This report focuses on bylaw tools. Programs the SCRD could develop to further promote water conservation will be addressed in a forthcoming report.

DISCUSSION

Staff have prepared further analysis on water conservation measures and how bylaw tools may incentivize these measures in subdivision servicing and zoning.

Bylaw tools can foster different water conservation measures. These measures will target different water uses. The discussion first outlines water conservation measures and examples of how they can influence water demand. A summary of specific bylaw tools follows. Finally, analysis of applicability of the bylaw tools to the water conservation measures as well as further considerations is found in the table in Attachment A.

Water Conservation Measures

1. **Summer Irrigation and Landscaping** are the primary contributors to the doubling of water demand in summer compared to winter. These outdoor water uses have been the primary focus of the Drought Management Plan's water conservation regulations. Many specific measures may be taken to reduce water demand in this area. Some examples include:

    - Regulating what plant and what watering method may be used;
    - Requiring drought tolerant landscaping, also known as xeriscaping;
    - Requiring 8" of topsoil or composted yard waste as finish grading for new developments;
    - Regulating permanently installed sprinkling systems;
    - Requiring Low Impact Development (LID) landscaping, which may include features such as vegetative swales and permeable surfaces to maximize groundwater infiltration; and
    - Limiting forest cover removal to protect resilience of hydrological cycle.

    These measures may include co-benefits such as stormwater management and avoided deforestation or reforestation to help address climate change.

2. **Appliances** are large water users. Washing machines specifically account for 15% to 40% of indoor water demand in an average household. More efficient models exist but capital cost barriers prevent more widespread adoption.

3. **Fixtures** are another large water user in a house. Toilets can account for 24% of indoor water use while faucets can account for 19%. This category describes measures targeting low flow shower heads and toilets as well as tap aerators. The long standing Toilet Rebate Program and the Fixture Replacement Program were the focus of these water uses. Low flow toilets are required in Bylaw 422 as well as the Provincial Building Code. Low flow fixtures are not currently regulated locally.

4. **Greywater and Composting Toilets** are measures with water conservation potential. These systems are allowed but have capital and maintenance costs. Greywater systems use a parallel purple pipe plumbing system and in many cases, need filtration. Composting toilets, like all septic systems, need approvals from a certified Wastewater Practitioner and Vancouver Coastal Health, which would lead to Building Inspector sign off.

5. **Rainwater Harvesting** is gaining popularity. Previous reports have discussed rainwater harvesting, leading to SCRD's Rainwater Harvesting Rebate Program. Rainwater harvesting contributes to resilience of local gardens and behavioral change. Its contribution to reducing water demand depends on how the system is used and maintained.

6. **Institutional, Commercial, and Industrial (ICI) Water** can describe many different uses such as hospitals, beverage industries, concrete manufacturing, and restaurants. A large use in some ICI sites is single flow through cooling systems. By replacing the one at the Sunshine Coast Arena with a closed loop system, the Arena reduced water demand by approximately 85%.

7. **Water Service Connection Refusal** could be a measure to limit demand, specifically from growth. Discussion on how growth is correlated to water demand was included in the previous report in Attachment B.

8. **Densification** generally leads to lower per capita water demand in part due to less irrigation demand. Lower servicing costs are a water related co-benefit. Densification also has the potential to reduce land-use changes, which impact the hydrological cycle and climate change.

9. **Volumetric Rate Structure** could be introduced when all water meters are installed in a water system. It is proven that such a rate structure could result in a substantial reduction of water demand.

Related factors influencing hydrological cycle

Although not specifically targeting demand, source protection ensures sources are protected and supply deficits are not exacerbated or created. Natural asset identification and protection can complement source protection efforts and mitigate demand by maintaining a healthy hydrological cycle as well as help with climate adaptation. Natural Assets will be included in the SCRD's Asset Management approach in the upcoming years.

Bylaw Tools

1. **Water Conservation Regulations.** These regulations lie within the Water Rates and Regulations Bylaw 422. They include four relevant aspects to this discussion: a) specific conservation provisions; b) the Drought Management Plan's (DMP) Stages; c) applications for water service connections; and d) water rates.

   Specific provisions include measures such as low flow toilets, now required by the Building Code, and rain sensors on irrigation systems. Other jurisdictions, such as Abbotsford, regulate once-through cooling systems. Should these requirements be expanded, they could provide enforceable definitions that can be used in various ways, including the Utility Services Comments on Referrals for Subdivisions. There may also be an avenue for greater engagement with applicants for Building Permits. These areas could be explored further as part of a planned review of Bylaw 422 in 2020.

   The Drought Management Plan, as outlined in Schedule J of the Bylaw, outlines allowable uses for water at different stages. The purpose of the DMP is to create an escalating mechanism for mandatory water conservation to manage demand in periods of drought or unforeseen water supply interruption. A public consultation on this year's

drought approach is currently taking place. A summary of the consultation for the Board's review will be forthcoming.

The Bylaw outlines procedural steps for water service connection applications. There are no requirements, thresholds, or triggers for Board input or service connection refusal. Integrating processes and thresholds for Board approval of water service connections could be explored during a Bylaw 422 review.

Lastly, the Bylaw defines the rate structures and sets the actual rates. In order for a volumetric rate structure to be contemplated water meters would need to be installed at all service connections and a water system specific asset management plan would need to be developed. For the North and South Pender Water systems the review of the rate structure is currently scheduled for 2021 and for the Regional Water system in 2022.

Actions:

- Drought Management Plan review currently underway;
- Recommended: review of conservation provisions and service connection application process as part of 2020 Bylaw review;
- Rate structure review in 2021 for the North and South Pender water systems and in 2022 for the Regional water system.

2. **Subdivision Servicing Standards** are outlined in the Subdivision Servicing Bylaw No. 320 and applies to new subdivisions.

   The purpose is to outline requirements for infrastructure that the Regional District will adopt. For example water main extensions and fire hydrants or other aspects outside of private properties.

   Utility Services' comments generally include extension of watermains but can also require modeling and requirements for maintaining pressure for fire flows. In addition to requirements, Utility Services has recommendations such as encouraging Low Impact Development landscaping, xeriscaping, rainwater harvesting, and other best practices.

   This Bylaw also authorizes the SCRD to refuse to service a new development if it lies beyond the service area or is in too high of altitude and cannot be serviced. As previously outlined in the report in Attachment B, available supply in the water system is a requirement for the establishment of a new service connection but has not been enforced.

   The Subdivision Servicing Standards Bylaw is planned for review in 2021 and could include a review of water conservation measures.

   Action:

   - Recommended: inclusion of water conservation measures in the 2021 Bylaw 320 review.

3. **Development Cost Charges** are collected as per Development Cost Charges Bylaw No. 693 at the time of subdivision or building permit if applicable.

   Their purpose is to raise funds to pay for the capital costs of providing, constructing, altering or expanding water facilities to service, directly or indirectly, the development for which the charge is being imposed. Development Cost Charges (DCC) currently apply

per dwelling unit as defined by a kitchen and bathroom, per bed in a care facility, or per square meter of floor space in a commercial or industrial building.

A revised DCC could offer a rebate or a surcharge for specific measures. The measures long term savings and resulting diminished impact on the water system would have to be demonstrated and guaranteed to justify a DCC rebate. This could be done through modeling but may be challenging given the impact user behaviors have on water demand. DCC could also use different criteria such as square footage of residential dwelling units.

The current DCC rates are based on a subset of costs for implementing the Comprehensive Regional Water Plan. Changes to the supply expansion projects and associated costs, combined with greater understanding of the scale of supply expansion needs mean targeted DCC revenue was under-estimated. Therefore, DCC rates will have to be reviewed. An interim review of the DCC rates is proposed in 2020 once more insight in the costs for the major supply expansion projects is available. A more in-depth review of Bylaw 693 is planned following completion of the asset management plan and a rate structure review, and is currently scheduled to take place in 2023. The in-depth review could be done with a conservation lens.

Action:

- Recommended: inclusion of a water conservation lens in the 2023 Bylaw 693 review.

4. **Zoning** Bylaw implements the policies of an OCP. It regulates density of dwellings and appropriate land uses in each zone. Since the SCRD Zoning Bylaw 310 is being reviewed at this time and includes many considerations outlined in this report, this tool was not included in the table.

   The Zoning Bylaw review presents a regulatory opportunity to increase protection of the hydrological cycle from development impacts. Increasing the resilience of the hydrological cycle will ensure water resources are available for the future and limit increases in demand that come from topsoil removal, tree removal, or damages to riparian areas. For example, this could be done by including requirements to Zoning Bylaws 310 and 337 to meet or exceed provincial riparian regulations.

   Another subset of zoning is Groundwater Management Zones, where requirements to protect groundwater are enacted. Staff will collaborate with the Town of Gibsons on expanding the Town's framework onto lands under SCRD jurisdiction as directed in the March 22, 2018 recommendation.

107/18 **Recommendation No. 1** *Regional Groundwater*

AND THAT the SCRD collaborate on a framework with the Town of Gibsons to establish a Groundwater Management Zone related to the Gibsons Aquifer and that staff bring forward a future report;

Actions:

- Bylaw 310 review currently underway;
- Groundwater Management Zone development work planned for 2020.

5. **Water Conservation Development Permit Area**. A development permit area (DPA) can be applied to an area that matches a water service area. It would be implemented through an amendment to Official Community Plans and apply to all new construction, building alterations, or parcel subdivisions within the DPA.

   The purpose of a Water Conservation DPA is to set requirements that can assist with water conservation. Requirements can apply to landscaping, specific features in the development, or systems external to buildings and other structures.

   Precedents include the City of Fort St. John regarding landscaping and stormwater infiltration, the District of Lake Country regarding landscaping, and the Resort Municipality of Whistler regarding roof design for rainwater collection.

   Developing, administering, and enforcing a Water Conservation DPA may not be the most impactful use of public resources since existing tools may be expanded to incentivize similar measures. Enforcing development permits requires court injunctions and is without precedent at the SCRD. The Universal Water Metering Program may also incentivize many of the measures a DPA would target.

   Action:
   - Staff do not recommend developing a Water Conservation Development Permit Area at the current time.

Organizational and Intergovernmental Implications

Incremental resources are required for the review of Bylaw 422 in 2020 and will be reflected in a 2020 budget proposal.

In addition to the specific bylaw revisions, there are opportunities to increase cross-departmental and inter-governmental collaboration, simplify the development regulatory process, and increase clarity of water conservation expectations with developers. These opportunities will be pursued in 2020.

STRATEGIC PLAN AND RELATED POLICIES

Pursuing water conservation through various bylaw tools will contribute to the Strategic Plan priorities of securing a sustainable water supply as well as developing and implementing asset management plans including natural assets.

Specifically, the bylaw revisions outlined can contribute to the following tactics:

- Feasibility study and decision on implementation of water supply related growth management tools (link with growth management approach);
- Expand water conservation programs and increase engagement with residents and stakeholders on water conservation;
- Develop strategic watershed protection action plan;
- Incorporate Natural Asset Management into Corporate and Departmental Asset Management Plans.

CONCLUSION

Staff were requested to bring back information on the scope of influence of Bylaw tools on water conservation measures. Upcoming Bylaw reviews provide an opportunity to expand the revision process with a water conservation lens.

The Water Rates and Regulations Bylaw 422's Drought Management Plan is currently the subject of a public consultation. Bylaw 422 is also scheduled for more in-depth review in 2020 and could include a review of conservation provisions and service connection application process. A review of the rate structure is currently scheduled for 2021 for the North and South Pender water systems and for 2022 for the Regional water system.

The Subdivision Servicing Bylaw 320 is planned for review in 2021 and could include a review of opportunities for water conservation measures.

The Development Cost Charge Bylaw 693 will need an in-depth review once the asset management plan and rate structure review are completed in 2023. This could be undertaken with a water conservation lens.

The current Zoning Bylaw 310 review process has an opportunity to enhance protections of the hydrological cycle possibly contributing to demand management and source protection.

Finally, developing, administering, and enforcing a Water Conservation DPA may not be the most impactful use of public resources at this time.

Attachments:

Attachment A: Analysis of Tools to Manage Water Demand from Growth – October 17, 2019

Attachment B: Managing Growth to Address Water Supply Deficit – May 16, 2019

Reviewed by:			
Manager		Finance	X-T-Perreault
GM		Legislative	X – S. Reid
Interim CAO	X – M. Brown	Other	X – R. Shay

Analysis of Tools to Manage Water Demand from Growth (October 17, 2019)

Tool	Jurisdiction	Bylaw Authority	Scope of Influence	Tool Development & Additional Considerations								
				Summer irrigation / landscaping	Low flow appliances	Low flow fixtures	Greywater / Composting toilets	Rainwater	Commercial process water	Water service connection refusal	Densification	
Water Conservation Regulations	Regional Water Service Area	Water Rates and Regulations Bylaw No. 422	All water users (current and future)	Yes	No	Yes	No	No	Yes	Yes	No	-Commercial process water can be regulated. For example, water bottling could be made illegal everywhere. Single flow through cooling systems or other inefficient equipment can also be prohibited. -The Drought Management Plan section of the Bylaw will be reviewed in the Fall and Winter of 2019. This could generate other suggestions for Board consideration. -Water Rate Structure review as part of Universal Water Metering Program may incentivize conservation. -Water Service Connection application details are part of this Bylaw and could be expanded with terms and conditions or include a threshold beyond which a Board review process is triggered.
Subdivision Servicing Standards	Regional Water Service area	Subdivision Servicing Bylaw No. 320	Subdivisions only	Yes	No	No	No	Yes	No	Yes	No	-Could require a water demand model or water conservation plan.
Development Cost Charges	Regional Water Service Area	Development Cost Charges Bylaw No. 693	All new development (subdivisions or building permits)	Yes	No	Yes	Yes	Yes	No	No	Yes	-Charges in Bylaw 693, as well as Bylaws 65, 72, 73, 74, 79 and 87 for North and South Pender Water Systems, will need to be reviewed. A review of demand management measures could be undertaken in parallel. -Could be a points system to demonstrate lower impact and qualify for lower DCC (demand based pricing). -Additional study of unintended consequences should be explored. For example, as it relates to affordability. -There is a risk that the incentivized measures would be short term. For example, landscaping can be changed and rainwater systems depend on user maintenance and operation. Covenants may be a tool to ensure longer lifespan of measure but would have challenging enforcement implications. -The Local Government Act restricts local governments from providing assistance to a business.
Water Conservation Development Permit Area (DPA)	Planning jurisdiction (i.e. SCRD, DoS, ToG, SIGD, Islands Trust)	Official Community Plan Bylaws (multiple)	All new construction, building alterations, or parcel subdivisions within DPA (which could be matched to regional water service area)	Yes	No	No	No	Yes	No	Yes	No	-Tool development would require collaboration with other local governments as well as stakeholder engagement to better understand costs, measurable benefits, lifecycle costs of implementation, ongoing operational requirements, and risks of unintended consequences. -Could be in the form of a checklist requiring the implementation of a certain number of measures.

SUNSHINE COAST REGIONAL DISTRICT STAFF REPORT

TO: Infrastructure Services Committee, May 16, 2019

AUTHOR: Angie Legault, Interim Chief Administrative Officer
Ian Hall, General Manager, Planning & Community Development
Remko Rosenboom, General Manager, Infrastructure Services

SUBJECT: **MANAGING GROWTH TO ADDRESS WATER SUPPLY DEFICIT**

RECOMMENDATION(S)

THAT the report titled Managing Growth to Address Water Supply Deficit be received for information.

BACKGROUND

The SCRD Board adopted the following resolution at the January 10, 2019 Board meeting:

003/19 **Recommendation No. 10** *Growth Management Options*

THAT staff provide a report to a Committee in Q1 2019 regarding tools, options, and approaches related to the management of growth and development on the Sunshine Coast in the context of a water supply deficit.

At the December 13, 2018 Planning and Community Development Committee the report titled Regional Growth Strategy - Options Report was received for information. The purpose of that report was to outline "the current framework [for regional growth management] contained in the *Local Government Act*, a chronology of discussions on the Sunshine Coast and current practices".

The purpose of this report is to provide an overview of tools, options and approaches to manage growth to address the water supply deficit and to seek direction on next steps.

DISCUSSION

As stated in the Regional Growth Strategy - Options Report there are growth pressures facing the Sunshine Coast beyond water supply management, many of which are external to SCRD authority. Highway capacity, ferry service, housing prices and availability, residential and forestry interfaces are examples of additional growth pressures. A comprehensive regional review of growth trends and pressures in co-operation with other levels of government would be beneficial for the SCRD. Such a review could inform the development of a more comprehensive regional growth management approach.

Issue Definition

There is a community narrative that growth and water demand are directly linked. This linkage is implied in the question considered by this report. In order to ensure that any growth management strategy that is applied in an effort to ensure adequate community water supply meets its aim, the scope and nature of this link should be explored.

Key considerations:

- Recent growth trends: 2016 Census data shows continued moderate (less than 1.1% annually) growth in the resident population of the entire Sunshine Coast from 2011. The District of Sechelt had a 10% growth in population over this time period (2% per year).

- Exact seasonal population and tourism figures are unknown but are a factor requiring further analysis.

- Despite the above-mentioned resident and tourism growth the recent trends in water demand are: Over the last 8 years, the annual average daily water use remains at 13,500m^3 per day. The maximum daily demand during the summer months has fallen from 28,000m^3 per day in 2009 to 21,500m^3 per day in 2017 – a reduction of 23% that can largely be attributed to water conservation initiatives.

- Based on the best available information about local water use, significant water demands not related to new residential or business growth are (in no particular order) – (1) water use by tourist and seasonal residents, (2) water used for residential irrigation, especially of ornamental lawns, (3) water demand associated with leaks on private properties (especially in unmetered areas), (4) potable water used for applications where alternatives may be available.

- Presently only areas served by the Chapman Creek and Eastbourne water systems are impacted by a water supply deficit. These service areas include areas within the District of Sechelt, Town of Gibsons, Islands Trust, and Sechelt Indian Government District (all lands not under SCRD planning and development jurisdiction), as well as four of the five rural electoral areas.

Based on these considerations it can be concluded that while every individual development results in an increased water demand, the total water demand on the Chapman Creek Water System has declined in the summer months over the last decade. The current water supply deficit is caused by a significantly longer period of little or no rain during the summer months and an improved protection of aquatic ecosystems during those months.

Combined, the above factors point to the need for a nuanced approach to looking at how growth relates to water demand. For example, a subdivision leading to development of new dwellings that are water efficient, and which replaces a former sprinkler-based irrigation system with xeriscaping or with tree plantings may result in a net increase year-round but a decrease in water demand during dry summer months.

Legislative Authority

The ability of local governments to manage growth is a complex consideration that depends, in large part, on the nature of the growth to be managed. There is no specific authority available to local governments through the *Local Government Act, Community Charter* or other legislation for a blanket moratorium on development approvals.

By considering specific categories of development applications it is possible to identify potential growth management mechanisms. Broadly speaking, these are:

1. Building permits – an applicant for a building permit is entitled, as of right, to a building permit if they comply with the zoning bylaw, building bylaw and building code and so one would have to look to any provisions in the two building enactments regarding water supply as a basis to refuse a building permit. Staff suggest this would be an especially challenging approach to regulation.

2. Development permits – the only authority for refusal of a development permit relates to conditions or guidelines set out in the Official Community Plan and in the absence of that, there is no general discretion on a broad level to refuse based on water supply issues. See below for additional discussion of development permit areas and Development Cost Charges.

3. Zoning amendments – land use decisions are within the discretion of the Board and so a concern over water supply would be an acceptable rationale for not approving rezoning to a more water-intensive use or amending the zoning to a less water-intensive use.

4. Subdivision approval – a refusal to approve a subdivision based on clear statutory grounds (for example excess cost to local government) or the residual discretion (contrary to the public interest) by an approving officer would have a reasonably strong chance of withstanding any judicial challenge. SCRD is not the subdivision authority for electoral areas; staff provide input to the Ministry of Transportation and Infrastructure Approving Officer.

5. Water Service Application for subdivisions – an applicant for new water service connections resulting from a subdivision has to meet all terms and conditions of Subdivision Servicing Bylaw No. 320. Not meeting all these terms and conditions could be grounds for the SCRD to refuse a water service connection associated with a subdivision within the water supply service area. The current bylaw includes a section 302 (1) (1.1) which states that:

   "An extension to a water system shall only be connected to an existing community water system if the water sources used for the combined system are adequate to serve each parcel to be served by the combined system with at least 2,500 litres of water per day year round."

   To date no new service connection has been refused based on this bylaw provision. While the intent of this section is to balance growth with water supply availability, the wording of this section is considered to be insufficient to withstand a judicial challenge.

Water Service for undeveloped property for which the water parcel tax is being paid, could not be refused as long as all technical requirements are met.

6. Water Rates and Regulations – Bylaw No. 422 regulates the actual allowable use of water provided by the SCRD, including during drought conditions. While the allowable water uses during drought conditions are reviewed annually (Drought Management Plan), this is not the case for the more general water use provisions.

Precedents

There is precedent in other jurisdictions for managing growth to maintain water service levels.

The **North Salt Spring** Waterworks District Board of Trustees (improvement district) significantly restricted all new, large-scale development in 2014. Undeveloped properties paying parcel taxes are limited to one 19mm service connection for a single residential or single commercial unit, regardless of zoning. Given the impact to the community this moratorium is not supported by the local municipality.

The **Town of Okotoks**, Alberta has a Water Allocation Policy to maintain service levels while accommodating growth. Developers are required to transfer a provincial water license to the Town with sufficient capacity to support increased population prior to development approvals. The Water Allocation Policy applies to lands that have not yet been serviced by municipal water service but considered for expanding urban development.

The **Municipality of Gig Harbor** through authority of Washington State's Growth Management Act, requires all developments and redevelopments to empirically show there is water, sewer, and transportation capacity available to serve their needs. Should capacity be lacking, applicants are required to provide service expansion (for example, develop and licence a ground water source) prior to the granting of land use approvals or building permits.

Considerations Related to Approach

With regard to regulating development, generally, key considerations are:

- Transparency – any policy or regulation respecting ability/restriction of development should be clear, easy to understand, and widely known.
- Equity – consistent, fair treatment must be provided for all citizens, property owners, or water users (as applicable) based on defensible criteria and established process.
- Unintended Consequences – restricting growth generally, or in a specific area, or of a specific type may have unplanned results including impacts on property values, economic effects, social effects, etc. Consideration of possible impacts and mitigating strategies may be required.

These considerations are variously prescribed by legislation, core values of good governance and/or prudent risk management to avoid legal challenges.

Specific Tools to Consider

Beyond the ability to plan for growth through Official Community Plans and Regional Growth Strategies, local government tools to manage growth include:

1. **Water Conservation Development Permit Area:** In 2008 the Province of BC adopted the *Local Government (Green Communities) Statutes Amendment Act*, which added additional development permit area possibilities including the establishment of development permit areas to promote water conservation. This particular development permit area has not yet been utilized on the Sunshine Coast specifically and would only apply to the areas within the planning jurisdiction of the SCRD while the majority of the growth is occurring outside of the SCRD jurisdiction.

2. **Development Cost Charges:** The Development Cost Charges Bylaw No. 693 allows the SCRD to collect Development Cost Charges (DCCs) for approved subdivisions or issued building permits which impose a capital cost burden on the regional water system. This bylaw applies to the entire regional water supply service area and is hence not restricted to the area the SCRD has planning jurisdiction over. Updating this bylaw would not allow for a direct regulation of the water use of new developments but could do so indirectly. It could promote water conservation through financial incentives for low water use developments or location-based fees that could result in increased DCC revenue to support development of water service(s).

3. **Regulating Water Use:** Expanding water use regulations within Water Rates and Regulations Bylaw No. 422 could impact both new use resulting from growth as well as existing uses. Updates could include a review of both the Zoning Bylaw and Bylaw 422 to look at a combination of blanket restrictions on certain allowable uses and/or placing terms and conditions on other uses e.g. establishing a maximum allowable volume per residential property or a ban on using water for certain commercial uses like water bottling or cannabis production. Bylaw 422 applies to the entire water supply service area and is hence not restricted to the area the SCRD has planning jurisdiction over. If this option was pursued, a careful review of the issues that might arise would be required to avoid any legal challenges.

4. **Subdivision Servicing Standards:** Updating Subdivision Servicing Bylaw No. 320 could result in additional terms and conditions to be set for applicants for new water service connections associated with subdivisions. This bylaw applies to all water supply service areas and is hence not restricted to the area the SCRD has planning jurisdiction over.

5. **Resolution for Comments on Subdivision:** The SCRD could develop a standard resolution for comments on subdivision referrals indicating that subdivision applications within the water supply service area should not be approved by the Approving Officers as that would result in excessive cost to the SCRD in water supply management and also not be in the general Public Interest.

Analysis of Tools

Aspects that should be considered in the selection or design of any of these tools are:

- Time to develop
- Cost to develop
- Cost to administer
- Jurisdiction – SCRD rural electoral areas only or shared with member/other Local Governments
- Enforceability
- Complexity / possibility of unintended consequences
- Effect on cost of housing
- Effect on economic development
- Community acceptance
- Precedent/proven/legally acceptable
- Fairness/equity
- Effectiveness and efficiency in achieving water demand reduction, especially during dry months

Developing a recommendation or making a decision on a preferred approach requires intergovernmental dialogue and would benefit from public participation. Questions to explore are:

1. What is the specific water demand target(s) in a service area?
2. What interest is there in cooperating/coordinating tools across jurisdictions? Would tools that are fully within the SCRD's jurisdiction be preferred?
3. From the community perspective, what are the costs and benefits associated with tools that change (1) allowable land use (planning-driven); (2) water use (infrastructure-driven) or (3) development costs?
4. What level of impact on the cost of housing and/or economic development is acceptable?
5. What are the costs and benefits of an approach that applies to all development versus a specific focus on subdivisions?

Staff recommend that if the Board directs that growth management to address the water supply deficit be further explored then these and other relevant questions form part of upcoming public participation opportunities related to water. Subsequently they can be discussed with other local governments on the Sunshine Coast.

Organizational and Intergovernmental Implications

Recent amendments were made to SCRD rural area official community plans for density strategies to promote affordable housing. This was a consistent policy applied to several official community plans. A similar consistent approach across OCPs could be undertaken to create a development permit area for water conservation. It would have to be determined under which condition this would apply; building permit, subdivision, etc. and whether it would apply to both rural area and municipal OCPs. SCRD does not have authority to amend municipal OCPs, however this initiative could be undertaken concurrently by local governments if each agrees.

In addition to policy development of when, where and how to apply any of the described tools, consideration must also be given to the additional resource pressure associated with these proposed changes, such as review of applications, record management and enforcement.

Financial Implications

Changes to growth trends/patterns could have financial implications for SCRD related to revenue from permits, DCCs and applications. Additional lenses/requirements applied as part of any of the growth related application processes could require additional staff time with commensurate impacts to fees, per SCRD's Financial Sustainability Policy.

Further financial analysis should be undertaken as part of considering application of any particular tool.

Timeline for next steps or estimated completion date

To be determined based on Board direction.

Communications Strategy

Refining of options, specific tools, and recommendations for action related to growth management could have significant impact for a broad constituency of stakeholders. SCRD's Public Participation Framework would support a participation strategy prior to decision making.

STRATEGIC PLAN AND RELATED POLICIES

The SCRD has a mission of providing leadership and quality services to our community through effective and responsive government. Prioritizing water uses in a way that respects the organization's values of collaboration, environmental leadership, and transparency contributes to this mission.

The SCRD's strategic priority to Embed Environmental Leadership is supported by the Region's overall water supply strategy, as outlined in the Comprehensive Regional Water Plan (2013) and furthering the SCRD's goal to reduce water consumption by 33% relative to 2010 levels by 2020.

CONCLUSION

There are nuances to the linkage between growth and water demand. As well, local government authority to manage/restrict growth is provided through a variety of tools that have specific and different constraints on application, areas of jurisdiction, social impacts, etc.

If the Board directs further exploration of growth management to address water supply deficit, intergovernmental dialogue and public participation are recommended to occur. There are possible financial implications to the selection of any particular approach.

Reviewed by:			
Manager	X - A. Allen X - S. Walkey	Finance	
GM	X - I. Hall X - R. Rosenboom	Legislative	X - A. Legault
Interim CAO	X - A. Legault	Other	

SUNSHINE COAST REGIONAL DISTRICT STAFF REPORT

TO: Infrastructure Services Committee – October 17, 2019

AUTHOR: Remko Rosenboom, General Manager, Infrastructure Services

SUBJECT: **ANALYSIS OF THE IMPACT RESOLUTIONS LTD. POLICY OPTIONS ON WATER**

RECOMMENDATION(S)

THAT the report titled Analysis of the Impact Resolutions Ltd. Policy Options on Water be received of information.

BACKGROUND

In response to Board direction, Impact Resolutions Ltd. and SCRD staff collaborated on the organization of three Water Dialogues events held on June 3, 4 and 5, 2019. The primary role of Impact Resolutions Ltd. was to facilitate the events, provide strategic advice to the SCRD regarding format and messaging, and provide a report with output of these events.

The final report from Impact Resolutions Ltd was presented at the June 27, 2019 Corporate and Administrative Services Committee and provided details on the following:

- Their community outreach and planning prior to the events
- A description of the three Water Dialogues events and the input received from the public during these events
- The strategic communications support provided
- A list of Public Recommendations based on all of the public input received during and after the three events
- Recommendations on future public engagement

Impact Resolutions Ltd. also choose to include several policy options in an appendix to the report.

The following resolution was adopted at the July 11, 2019 Board Meeting (in part):

196/19 **Recommendation No. 14** *Water Dialogues 2019*

THAT staff review the options presented in the Impact Resolutions "A New, Integrated Approach: Sunshine Coast Regional District Water Public Participation Events" and report back with the results of the analysis to a future Infrastructure Services Committee.

The purpose of this report is to provide an analysis of the policy options from Impact Resolutions Ltd.

DISCUSSION

The analysis of the policy options by staff included in this report is intended to determine the extent the policy options are part of the Board's 2019 Strategic Plan or part of the SCRD's current operations.

Options and Analysis

Recommended option A

That the SCRD communicate "a new, integrated approach" to resolve the water supply crisis on the Sunshine Coast by bringing together the following initiatives:

i. Addressing storage by building a significant reservoir into the Chapman system as soon as possible.

ii. Continuously expanding different supply sources by completing the Church Road groundwater project as soon as possible, evaluating the feasibility of the Dusty Road and Gray Creek sites by the end of 2019, and considering a new set of supply opportunities to investigate in each of the next three budgets.

iii. Completing the metering program already begun by the Board in 2013.

iv. Continuing to expand the rebates program, with particular consideration for the agricultural industry.

v. Supporting the Town of Gibsons Zone 3 expansion project, collaborating with the Town to ensure the project includes the necessary infrastructure to provide the SCRD with emergency supply in times of drought, and completing the review of the Bulk Water Agreement and Groundwater Management Plan.

vi. Continuing to refine the Drought Management Plan to adapt to climate, public feedback, and progress with other water management initiatives.

Analysis option A

This policy option aligns with the approach taken to date by the current SCRD Board since being elected in the fall of 2018.

The SCRD is working in an expedited manner on the development of infrastructure which would, once constructed, result in an increased water supply for the community. This includes the development of new wells, a raw water reservoir and water meters. Other opportunities to expand the water supply will be investigated once such work would not slow down the development of the current water supply expansion initiatives. The SCRD collaborates with the Town of Gibsons and the District of Sechelt to address all water supply concerns on the Sunshine Coast.

Reports with an update on several water supply expansion projects will be presented to Committee in the upcoming months.

The SCRD is seeking input from the community on the initiation of new rebate programs as part of this year's evaluation of its drought management approach. Staff are aiming to include the results of this evaluation in a report to a committee meeting in Q4 2019, to allow for any updates to the Drought Management Plan to be adopted by the Board early 2020.

Recommended option B

And further that SCRD reporting, planning, financing and communications consistently reflect an integrated approach by bringing together and referring to all water management initiatives wherever possible, to clarify that there is no single solution.

Analysis option B:

This integrated approach is in place and will be continued.

Recommended option C

That the SCRD Board prominently prioritize addressing the Sunshine Coast's water crisis in its new Strategic Plan and fully update the Comprehensive Regional Water Plan.

Analysis option C:

The Board's Strategic Plan 2019-2023 aligns with this policy option and several budget proposals related to its implementation will be brought forward as part of the 2020 budget process.

Recommended option D:

That the general manager of infrastructure services, chief administrative officer and chair of the Board publicly report on their work towards the integrated approach on a monthly basis.

Analysis option D

Staff are updating the Board quarterly on the progress of all water supply expansion projects and drought management initiatives. Staff will also do so through Board reports when significant milestone have been reached and are available to provide an update as requested during Committee and Board meetings.

Recommended option E

That the SCRD immediately invite the shíshálh and Skwxwú7mesh Nations, District of Sechelt, Town of Gibsons, MLA and Vancouver Coastal Health to collaboratively form an emergency Water Security Committee with the following mandate:

i. serve as a steering committee for the regional water governance initiative;

ii. advocate as one coordinated voice to the provincial government and any other permitting authorities to expedite project approvals and expand non-potable water use;

iii. work immediately on negotiating any intergovernmental and private-sector logistics of siting a reservoir;

iv. engage citizen science, industry and advocacy groups;

v. work on long-term protection of watersheds, integrating the Joint Watershed Management Agreement, and aquifers from which the water supply is drawn;

vi. coordinate Coast-wide consideration and implementation of initiatives to conserve water in new and existing developments; and

vii. direct an immediate update of growth and climate / water supply data in the Comprehensive Regional Water Management Plan to guide decision-making regarding balancing growth with an adequate water supply, and using this work as a basis towards a Regional Growth Strategy.

Analysis option E

Discussions between the Board and elected officials of other Sunshine Coast local governments regarding improvements to the current water governance structure are ongoing. Staff are seeking direction whether it could support the Board in their water governance efforts, for example by reviewing this policy option in the context of this ongoing discussion.

Recommended option F

That the SCRD immediately escalate enforcement of the drought management plan, including fining users that aren't following water restrictions, and exploring the logistics and legality of shutting off supply to users who won't fix leaks.

Analysis option F:

The water conservation enforcement approach in 2019 was more stringent compared to previous years and will be part of the overall evaluation of this year's drought management approach this fall. Shutting off the water supply to users that are not addressing private leaks could be one of the items considered, if the Water Rates and Regulations Bylaw 422 is updated. A budget proposal to update the bylaw in 2020 will be brought forward as part of the 2020 Budget process.

Recommended option G

That the SCRD continue to track the highest water users and work with them to reduce their use as much as possible; and further that the SCRD communicate publicly about these efforts, including what kinds of commercial, industrial and agricultural uses are requiring the most water.

Analysis option G

To the extent possible with the current amount of water meters installed, this type of information is already being tracked and those users are contacted to propose water conservation measures to be implemented. Public communication about these efforts will continue to occur within the boundaries of the privacy legislation.

Recommended option H

That the Board of the SCRD unreservedly communicate its ongoing support for the metering program as an integral component of the integrated approach to securing water security on the Sunshine Coast.

Analysis option H

This policy option is included as a tactic in the Board's 2019-2023 Strategic Plan and related budget proposals will be brought forward as part of the 2020 Budget process.

Recommended option I

That the SCRD continue to expand water conservation and water management communications efforts.

Analysis option I

The Board's Strategic Plan included a tactic to increase the engagement with the community on water conservation and the long-term water management strategy. Related budget proposals will be brought forward as part of the 2020 Budget process.

STRATEGIC PLAN AND RELATED POLICIES

Plan for and ensure year-round water availability now and in the future is one the strategies of the Board's 2019-2023 Strategic Plan. All policy options discussed in this report can be considered to be supporting this strategy.

CONCLUSION

This report analyzes the extend the policy options made by Impact Resolutions Ltd. are part of the Board's strategic plan or part of the SCRD's current operations.

Based on staff analysis, these policy options align well with strategies and tactics identified in the Board's 2019-2023 Strategic Plan. Some policy options are part of the SCRD's current regular operations, while others are being discussed with partners or plan to be initiated and will be subject to 2020 budget proposals.

Reviewed by:			
Manager		Finance	
GM		Legislative	
Interim CAO	X -- M. Brown	Other	

SUNSHINE COAST REGIONAL DISTRICT STAFF REPORT

TO: Infrastructure Services Committee – October 17, 2019

AUTHOR: Raphael Shay, Water and Energy Projects Coordinator
Arun Kumar, Manager, Solid Waste Operations

SUBJECT: **SECHELT LANDFILL GREENHOUSE GAS EMISSIONS UPDATE**

RECOMMENDATION(S)

THAT the report titled Sechelt Landfill Greenhouse Gas Emissions Update be received;

AND THAT greenhouse gas emissions be claimed and reported in the CARIP Public Report to offset corporate emissions once the organics curbside collection program is initiated and sufficient data on volumes collected;

AND FURTHER THAT a 2020 budget proposal for investigating Biocover to reduce greenhouse gas emissions at the Sechelt Landfill be brought forward.

BACKGROUND

The following resolution was adopted at the July 25, 2019 Board Meeting (in part):

204/1 **Recommendation No. 7** *Sechelt Landfill Green House Gas Emissions Update*

THAT a report be provided that identifies the calculation methodology for greenhouse gas emissions for the Sechelt landfill, impact of organics diversion and how landfill emissions factor into the SCRD community GHG target;

AND THAT the report include a copy of the July 2, 2015 Infrastructure Services Committee staff report titled "Sechelt Landfill Gas to Energy Innovation Project – Update" for information and discussion on possible next steps.

At the May 27, 2010 Board meeting, *Our Coast, Our Climate – Sunshine Coast Community Energy and Emissions Plan* was adopted with a target of 7% GHG emission reductions by 2031 compared to 2007 levels.[1] The 2007 emissions were calculated to be 355,000 tonnes of GHG with a 2031 target of 332,000 tonnes per year.

The 2007 Community Energy and Emissions Inventory (CEEI) included large industrial emissions that skewed the results and were subsequently removed from community inventories. The latest CEEI was completed by the Province for 2012 but data quality issues led to on-road transportation being excluded. The 2010 inventory does not have the large industrial emissions

[1] The Intergovernmental Panel on Climate Change (IPCC), in its 2018 report on limiting climate change to 1.5°C recommended a 45% reduction over 2010 levels by 2030 and net zero emissions by 2050.

and has an estimate for on-road transportation. It is therefore a useful year to understand community emissions.

In the 2010 inventory, on-road transportation accounted for 65% of the Sunshine Coast Regional District's emissions. Based on the 2010 inventory, solid waste accounted for 11% of the community's emissions with 18,309 tonnes of CO_2e.

In order to tackle solid waste emissions, the SCRD successfully applied for a Strategic Priorities Fund-Gas Tax Grant administered by the Union of BC Municipalities (UBCM) for 100% of the capital costs of a landfill gas (LFG) to energy project. This occurred in 2007. After pursuing the project in good faith, the SCRD abandoned the project in 2015 due to lack of suitable technology to capture the amount of gas generation at the site, making the project not viable.

The landfill was not constructed or filled to optimize gas capture. Initial assessments estimated a LFG "collection efficiency of 50% based on the small and elongated shape of the Landfill, the lack of an impermeable bottom liner, and no synthetic final cover."[2] This would have represented 10,750 tonnes of carbon dioxide equivalent (CO_2e) in 2006. A gas pumping test in 2014-2015 yielded much lower results, representing approximately 2,100 tonnes of CO_2e. These test results were too low to proceed.

A copy of the July 2, 2015 Infrastructure Services Committee staff report titled "Sechelt Landfill Gas to Energy Innovation Project – Update" is included as Attachment A.

The purpose of this report is to provide an overview of landfill greenhouse gas emissions calculations, the impact of organics diversion on GHG targets and to seek direction on possible next steps.

DISCUSSION

Landfill Greenhouse Gas Emissions Calculations

Environment and Climate Change Canada (ECCC) lowered the threshold for greenhouse gas (GHG) reporting for landfills to 10,000 tonnes of carbon dioxide equivalent (CO_2e) in 2017. The Sechelt Landfill exceeds this revised threshold and started calculating and reporting on emissions that year.

ECCC scope for landfills includes emissions from three elements: onsite generation, vehicles and equipment, and landfill gas. Onsite generation includes a propane generator that supplements the solar system for power, as this location is off the grid. Vehicles and equipment captures fuel emissions. Landfill gas (LFG) represents the vast majority of emissions and comes from organic matter decomposing in the landfill.

Landfill gas calculations are based on tonnage of buried materials per year and takes into account local weather and landfill cover design. Methane, a component within the makeup of landfill gas, has a global warming potential (GWP) 21 times higher than carbon dioxide.

[2] Golder Associates, December 2008. p.11(2006: 29,000GJ = 10,750tonnes CO2e)

Impact of Organics Diversion

Organics diversion will decrease the amount of GHG which would have been emitted if the same organics where barrier in the landfill. Already buried organics will continue to produce emissions at a decreasing rate for the next 100 years.

Composting the diverted material, rather than landfilling, will reduce emissions that would have occurred by up to 90%. "Every tonne of organic waste that is diverted from a landfill into a centralized composting system will result in roughly a tonne of GHG emission reductions."[3]

The organics diversion program is expected to compost approximately 4,600 tonnes annually, which would lead to approximately 4,600 tonnes of CO_2e reduction. Using the 2010 CEEI, the organics diversion program is expected to reduce the annual community solid waste emissions by 25 to 33%, and community emissions by 2% to 3%.

Next Steps – Related to Landfill Gas (FLG)

1. Biocovers are used in a number of other small landfills in BC. They are a common strategy used by local governments to offset emissions as part of their Climate Action Charter commitment.

   A biocover system increases the proportion of organic material in the landfill cover soils to increase methane oxidizing bacteria. These typically consist of wood chips and biosolids from municipal sludge or compost. It is included in the BC Ministry of Environment and Climate Change Strategy's 2011 *Technologies and Best Management Practices for Reducing GHG Emissions from Landfills Guidelines*.

   One third of Sechelt Landfill is already closed with a final cover system in place. The slope and impermeability of the current cover likely limit the applicability of a biocover on this section.

   The remaining two thirds has six years remaining until full closure (possibly seven with the implementation of curbside food waste collection in the SCRD and District of Sechelt, and a landfill disposal ban on food waste). An application feasibility study and an amendment to the landfill's Design Operating Closure Plan (DOCP) would be required in order to utilize a biocover on this section. The current DOCP is approved by the BC Ministry of Environment and Climate Change Strategy and does not allow for this form of final cover system.

   Staff recommend exploring the feasibility of a biocover on this part of the landfill, including likely emissions reductions given the lateral flow of gas at the landfill. Such feasibility study would assess the technical, financial and regulatory feasibility. The current DOCP outlines that based on several assumptions the next section is currently scheduled to be closed in 2022. The feasibility study will confirm if an implementation schedule for a biocover would align with the actual timeline for the closure of this next landfill section.

2. Capturing LFG remains an option although, as previously stated, only a small portion of the landfill gas would be captured. The way the landfill was constructed and the lack of

[3] Becoming Carbon Neutral: Guidebook for BC Local Governments, July 2014, p.37

impermeable liners under the landfill mean a large amount of gas migrates sideways or underground out of the landfill and not out of the top. The LFG pumping test of 2014-2015 found that approximately 15% of the landfill gas could be captured.

3. Once captured, the LFG may be flared or scrubbed and sold to Fortis BC. Flaring remains an expensive proposition for the small quantity of gas captured. Selling the gas to Fortis BC may be of greater interest with Clean BC's policy target for a minimum of 15% of residential natural gas coming from renewable gas. Staff recently contacted Fortis BC to discuss this option. Fortis BC has showed no interest in Sechelt Landfill site given the high costs and low production potential.

4. Take no further action on LFG is the current approach in the DOCP. It was reached after eight years of work on the LFG to energy project.

Next Steps – Not Related to Landfill Gas

1. The SCRD can offset corporate emissions by claiming carbon offsets from the curbside collection program. This is the most commonly used strategy by local governments to offset emissions as part of the Climate Action Charter commitments and would become part of the Climate Action Revenue Incentive Program (CARIP) report. Staff are recommending this step.

2. One of strategies included in the draft strategic plan 2019-2023 to achieve carbon neutrality is the development of a corporate fleet management strategy. One of the approached to be considered for inclusion in such a strategy is requiring certain emission standards be met by heavy equipment used by our contractors, including our landfill contractor. This fleet management strategy is scheduled for development in 2020.

Organizational and Intergovernmental Implications

Organizational capacity on climate action is currently very limited. Claiming carbon offsets from the organics curbside program is possible once additional climate change specific staff resources have been hired.

Timeline for next steps

Further investigation of the possibility to cover the remaining two thirds of the landfill with a biocover to capture LFG will require external support. Depending on the Board direction received a 2020 budget proposal could outline the estimated costs of this work.

STRATEGIC PLAN AND RELATED POLICIES

The recommendations in this report support the following 2019-2023 Strategic Plan focus areas:

1. Infrastructure Management - sustainable solid waste management: ensuring all options for landfill closure are explored to help limit the negative impacts of the site and maximize potential benefits.

2. Climate Change and Resilience – achieve corporate carbon neutrality: Landfill gas is a large contributor of greenhouse gas emissions. Reducing these emissions will have a

positive impact and leading to the possibility of claiming carbon offsets to help the SCRD achieve carbon neutrality.

CONCLUSION

A LFG to energy project was abandoned in 2015 due to lack of gas generation. The landfill was not constructed or filled to optimize gas capture.

Organics diversion will decrease the annual increase of GHG emitted from the Landfill. Already buried organics will continue to produce emissions at a decreasing rate for the next 100 years. The organics diversion program will reduce community solid waste emissions by 25 to 33%, and community emissions by 2% to 3%. These emission reductions can be claimed to offset corporate SCRD emissions.

Staff recommend exploring the feasibility of a biocover on this part of the landfill, including likely emissions reductions given the lateral flow of gas at the landfill. Such feasibility study would assess the technical, financial and regulatory feasibility. The current DOCP outlines that based on several assumptions the next section is currently scheduled to be closed in 2022. The feasibility study will confirm if an implementation schedule for a biocover would align with the actual timeline for the closure of this next landfill section.

The SCRD will also work on a corporate fleet management strategy. The strategy may require certain emission standards be met by heavy equipment used by our contractors, including our landfill contractor.

Attachments:

Attachment A: July 2, 2015 Sechelt Landfill Gas to Energy Innovation Project – Update

Reviewed by:			
Manager		CFO/Finance	X-T.Perreault
GM	X -- R. Rosenboom	Legislative	
Interim CAO	X – M. Brown	Other	

SCRD STAFF REPORT

DATE: June 22, 2015

TO: Infrastructure Services Committee – July 2, 2015

FROM: Shane Laye, Corporate Energy Manager
Bryan Shoji, General Manager, Infrastructure Services

RE: **SECHELT LANDFILL GAS TO ENERGY INNOVATION PROJECT - UPDATE**

RECOMMENDATION(S)

THAT the Corporate Energy Manager and General Manager Infrastructure Services' report entitled "Sechelt Landfill Gas to Energy Project - Update" dated June 8, 2015 be received for information;

AND THAT the landfill gas to electricity generation project be abandoned;

AND THAT the SCRD submit a notice of project cancellation to UBCM.

The purpose of this report is to summarize the progress made to date on the Sechelt Landfill Gas to Energy Innovation Project and propose future project plans.

BACKGROUND

An application to the Innovation Fund (Gas Tax Agreement), dated February 12, 2007 was submitted to UBCM which proposed the implementation of a full-scale landfill gas (LFG) management and utilization program at the Sechelt Landfill to combust landfill gas to generate electricity. Upon review by UBCM, as the funding administrator, the SCRD was awarded $1.08 million to cover 100% of the estimated eligible costs associated with the project.

The project was originally slated for completion in 2010, however, as outlined in previous staff reports, the engine technology that the original grant application was based on was no longer commercially available when the project came forward for procurement. As the technology was no longer available, UBCM approved a grant extension to April 30, 2016, to allow the SCRD to pursue alternative designs that would still fall within the general terms of the Grant Funding Agreement.

Further to receiving the grant extension, the Board approved a 2015 budget proposal to issue a design/build RFP for a landfill gas to energy system.

To support the development of the RFP, a gas pumping test was performed at the Sechelt Landfill. The test provided the gas collection rate which would enable proponents to design an appropriately sized system. A summary of the gas pumping test is attached.

DISCUSSION

The current project scope involves issuing an RFP to secure a proponent to design and construct a landfill gas collection and combustion system to generate electricity. Due to the low gas pump test results, an updated financial analysis has been carried out and additional options investigated. The following provides a summary of the financial analysis for the options available at this time.

Carbon Credit Revenue and Expenses

The current project scope would be expected to mitigate approximately 2,100 equivalent tonnes of carbon dioxide annually. In order for the organization to claim offsets and/or sell credits to open market the project must be registered with the Provincial Climate Investment Branch and would have a one-time cost of approximately $17,000. In addition to the one time registration fee, an annual report and verification fee of approximately $20,000 is required.

The amount of revenue generated through the sale of offsets greatly depends on the external market. A realistic amount would be $5 per tonne resulting in $10,500 annually, therefore, the organization would be faced with a first year net cost of $26,500 and future years net cost of $9,500.

Option #1 - Current Project Scope: Landfill Gas to Electricity

The current project scope is to combust landfill gas to generate electricity. This type of system requires dedicated technical staff to operate and maintain the system. The annual cost to operate and maintain the system would be approximately $50,000. This includes the costs for additional staffing to operate and maintain the system, contractors to service specific instrumentation, and consultants with technical expertise to troubleshoot any issues. The annual cost for capital replacement would be approximately $25,000. Equipment planned for replacement includes mechanical blowers, gas analyzers, and the well field. Accounting for one time carbon offset verification process, the first year operating cost would be $112,000, decreasing to $95,000 in future years.

Based on the gas pumping test, there would be approximately 6,570 GJ of landfill gas available to serve as a fuel source for generating electricity. The revenue created through electricity generation would be about $39,000 ($5.94/GJ) and a carbon credit revenue of $10,500 annually. Therefore, the overall cost to own and operate the system would be $62,500 in year one and $45,500 in future years.

Option # 2 - Re-Scope Project: Landfill Gas to Renewable Natural Gas

An alternative to the current project scope is to inject the landfill gas into the nearest utility gas main. This has been done in other areas of the Province, but would require the following:

1. Re-scope the project to UBCM and have the grant funding agreement re-evaluated.
2. Form a partnership with FortisBC to design and build a system.
3. Establish a purchase agreement with FortisBC for the supply of landfill gas to the utility.
4. Establish an operating agreement with FortisBC to operate and maintain the facility on behalf of the SCRD.

Additional works would be needed to achieve landfill gas quality suitable for injection into the utility main. The additional costs associated with 'conditioning' the gas is estimated at $1.5 to $2.0 million. As mentioned in the previous option, the planned replacement costs and third party verification would be approximately $62,500 in year one and $45,500 in future years. However, the 6,570 GJ energy captured from the system could be supplied to FortisBC for $8 - $12 per GJ which could generate revenues of $54,000 - $81,000. With revenue from carbon credits of $10,500 each year. Therefore, this option would generate overall net operating revenue to the organization of $2,500 to $29,500 in year one, and $19,500 to $46,500 in future years. However, this does not account for the additional carrying cost of the additional $1.5 to $2 million in capital funding needed.

Option #3 – Re-scope Project: Landfill Gas Collection and Flare System

This option involves only installing the gas collection wells and piping network to collect the landfill gas for flaring. The flaring system will not generate any energy, however, it will reduce the greenhouse gas emissions.

The operating cost of a flare system is estimated to be $45,000, including annual maintenance costs of $30,000 and an estimate staffing budget of $15,000. Instead of proceeding with the carbon credit verification process for external sale, it would be suggested that the carbon credits be accounted for internal to the organization and that each internal operation contribute $25 per tonne in order for the organization to claim carbon neutrality. This would generate internal revenue of roughly $20,000 with an annual cost of $5,000 for a third party consultant to verify the carbon offsets.

Another challenge with this system is that, due to the significant scope change, the project would have to be resubmitted for grant consideration and most likely will no longer qualify as it no longer meets the "innovation" criteria. Best case scenario would be that the project is accepted, however, the grant value will be decreased accordingly due to the significant reduction in scope. Therefore, in addition to the net annual operating cost, it is anticipated that there will have to be significant up front capital cost in order to proceed.

Option #4 – Terminate the Project

The SCRD has continued to pursue the Landfill gas to energy project in good faith within the terms and spirit of the grant agreement, and with the support of UBCM. The total project costs claimed to date is $132,117. Should the SCRD terminate the project as it is no longer economically viable, based on discussions with UBCM administration staff, it is anticipated that UBCM would not require the SCRD to repay the grant funds claimed to date as the Innovation Fund recognizes that the granted projects do have a higher degree of risk. However, the final decision is still subject to the UBCM Management Committee review

FINANCIAL IMPLICATIONS

A summary of annual operating costs and revenues from Options 1 to 3 are presented below.

Item Description	Annual Budget Estimate		
	Option #1 Electricity	**Option #2 Natural Gas**	**Option #3 Flare**
Operating Costs	($50,000)	0	($45,000)
Capital Replacement Costs	($25,000)	($25,000)	included
Carbon Offset Registration Fee (Year 1 only)	($17,000)	($17,000)	$0
Carbon Offset Verification Costs	($20,000)	($20,000)	($5,000)
Revenue from sale of 6,570 GJ	$39,000	$54,000 - $81,000	$0
Revenue from sale of 2,100 carbon credits	$10,500	$10,500	$20,000
Year 1 Total Future Years	**($62,500) ($45,500)**	**$2,000 to $29,500 $19,000 to $46,000**	**($30,000)**

CONCLUSION

Based on the pump test results, the current landfill gas to electricity project scope is not found to be economically viable. A landfill gas to renewable natural gas option could potentially generate positive operating revenue, however, the additional $1.5 to $2.0 million in additional up front capital to condition the landfill gas quality makes the natural gas conversion project unfeasible. A gas collection flare system is anticipated to not qualify for grant funding and is also projected to have an annual operating deficit.

As there are no economically viable options at this time, it is recommended that the SCRD terminate the Sechelt Landfill Gas to Energy Project.

SUNSHINE COAST REGIONAL DISTRICT STAFF REPORT

TO: Infrastructure Services Committee – October 17, 2019

AUTHOR: Arun Kumar, Solid Waste Operations Manager

SUBJECT: **ANALYSIS OF IMPLEMENTATION OF A BALER OR SHREDDER AT SECHELT LANDFILL**

RECOMMENDATION(S)

THAT the report titled Analysis of Implementation of a Baler or Shredder at Sechelt Landfill be received;

AND THAT the inclusion of a shredder and/or waste baler be considered as part of a Project Option Analysis for Future Waste Disposal to be initiated in 2020.

BACKGROUND

On May 16, 2019 the Infrastructure Services Committee received a report titled Update to landfill lifespan and options to extend the lifespan of the existing landfill. At its May 23, 2019 the Board adopted the following recommendation (in part):

158/19 **Recommendation No. 5** *Updated Lifespan and Options to Extend the Lifespan of Existing Landfill*

THAT the report titled Updated Lifespan and Options to Extend the Lifespan of Existing Landfill be received;

AND THAT a report on the feasibility and financial implications of adding the use of a waste baler and/or shredder to the current Sechelt Landfill Operations contract be provided to a future Committee.

This purpose of this report is to provide the requested information on the feasibility of the use of a waste baler and/or shredder to the current Sechelt Landfill Operations.

DISCUSSION

Options and Analysis

The ultimate intent of adding a waste baler or shredder to landfill operations is to extend the lifespan of the Sechelt Landfill. This could be achieved by increasing density which is the ability to place more material in the same amount of airspace. A shredder would increase density by reducing the size of large items like bulky furniture and wood, but would not significantly further reduce the size of regular municipal solid waste from when it is delivered to the landfill. A waste baler is highly effective when it comes to compacting household garbage and is less suitable for compacting bulky waste such as furniture and wood.

Table 1 summarizes the effect each machine would have on the different types of materials landfilled in 2018. It illustrates the advantages of a baler over a shredder.

Table 1 2018 Summary of Material Landfilled

Material	Total (Kg)	% of Total Landfilled	Shredder	Baler
Residential MSW	5,324,452	41.29%	No effect	Increase compaction
Construction Waste	339,980	2.64%	Increase compaction	Increase compaction
Commercial Waste	4,960,555	38.47%	No effect	Increase compaction
Dead Animals	880	0.01%	No effect	Increase compaction
Asphalt	170	0.00%	No effect	No effect
Asbestos	24,880	0.19%	N/A	N/A
Durable Goods	1,016,815	7.89%	Increase compaction	Increase compaction
Concrete	1,990	0.02%	Increase compaction	No effect
Bulky Items (Boats, Campers)	2,640	0.02%	Increase compaction	½ effect
Pender Transfer Station Waste	1,197,435	9.29%	some effect	Increase compaction
Share Shed	24,532	0.19%	Increase compaction	some effect
Total	**12,894,329**	**100%**	**2.5 % increase in overall compaction**	**15% increase in overall compaction**

The percentages of overall compaction increases are estimates based on information received from several suppliers and comparing those to the current landfill operations.

While a shredder could theoretically be included in the current operations, doing so with a waste baler is more complicated. It would require a complete change in the way the landfill is build-up and would result in uneven settlement of the landfill, resulting in increased maintenance efforts as well as additional leachate creation and thus long term environmental impacts.

Organizational implications

There is currently no space at the landfill to place a waste baler or shredder. SCRD staff and the landfill contractor are currently not trained to operate these pieces of equipment.

Both pieces of equipment would also require the purchase of an excavator to feed the machine and a large diesel generator to operate. In addition, the construction of a new building would be required to operate the baler.

The current Ministry-approved Design, Operations and Closure Plan for Sechelt Landfill does not allow for the use of a waste baler or shredder. Amending this plan is a process that can take up to a year to complete.

Financial Implications

The following chart (table 2) compares the cost of the two different machines, their related support equipment, and the cost to operate for a one year period. It does not, however, include the cost to hire or contract out a mechanic for routine repairs. It also shows the cost offset which may be possible due to landfill life gain. The annual cost offset portion of the table shows the amount of expected increase in compaction for each type of machine. The expected increase in compaction can be calculated to represent airspace gain, which results in landfill life gain. Additional tipping fees can be collected due to the increase in available landfill airspace.

Table 2: Cost Comparison

Cost Type	**Details**	**Shredder**	**Baler**
Purchase Cost	Average Cost to Purchase	$ 875,000	$ 975,000
	Transportation	$ 15,000	$ 15,000
	Setup	$ -	$ 10,000
	Support Equipment	$ 225,000	$ 215,000
	Average Building	$ -	$ 150,000
	Total	**$1,115,000**	**$1,365,000**
Yearly Operating Cost	Fuel	$113,750	$ 113,750
	Staff	$ 95,550	$ 95,550
	Maintenance	$ 10,000	$ 6,000
	Total	**$ 219,300**	**$ 215,300**

Annual cost offset		
Increased compaction rate	2.5%	15%
Landfill life gained	16 days	99 days
Additional tipping fees to be collected due to increase available airspace	$ 51,183.99	$ 344,555.64

The current landfill operator contract expires in 2022 and currently does not include an option for the addition of a waste baler or shredder to the landfill operations and may result in having to amend or retender the services. This may result in an increased overall contract rate and, therefore, is not suggested at this time.

Timelines for next steps

As a shredder would not result in a substantial additional landfill life it is not recommended to pursue implementing one moving forward.

While a waste baler could result in increased landfill lifespan, the substantial regulatory, operational, environmental and financial implications of a waste baler could be considered too prohibitive to pursue implementing one in the current landfill operations.

A waste baler may benefit the SCRD as part of its approach towards waste disposal once the current landfill is full. Therefore, it is recommended that a waste baler should be considered as part of the *Options Analysis Study for Future Waste Disposal*. A 2020 budget proposal for this project is forthcoming.

Conclusion

Implementing shredding of materials before landfilling is not suitable in either the current landfill operations, future landfill operations or for the purpose of exporting waste.

Implementing a waste baler at the current Sechelt landfill could result in increased environmental impacts and operational issues and would require significant financial resources.

It is expected that a baler could be beneficial as part of a future waste disposal option, once the current landfill is full and closed. For this reason, staff recommend that a waste baler be considered in the Options Analysis Study for Future Waste Disposal project scheduled to be initiated in 2020.

Reviewed by:			
Manager		Finance	
GM	X – R. Rosenboom	Legislative	
Interim CAO	X – M. Brown	Purchasing	X – V. Cropp

SUNSHINE COAST REGIONAL DISTRICT STAFF REPORT

TO: Infrastructure Services Committee – October 17, 2019

AUTHOR: Tina Perreault, General Manager, Corporate Services / Chief Financial Officer

SUBJECT: **SHORT TERM BORROWING FOR CANOE ROAD AND MERRILL CRESCENT SEPTIC FIELD REPLACEMENTS**

RECOMMENDATION(S)

THAT the report titled Short Term Borrowing for Canoe Road and Merrill Crescent Septic Field Replacements be received;

AND THAT a short term non-renewable loan be requested through the Municipal Finance Authority under section 403 of the *Local Government Act* (Liabilities Under Agreement) in the amount of $33,400 to fund the Sunshine Coast Regional District's (SCRD) share of capital costs for the Canoe Road and Merrill Crescent septic field replacement projects;

AND THAT the loan principal be repaid to the Municipal Finance Authority in five annual installments of $6,880 payable on or before June 30 of each year beginning in 2020 and ending in 2024;

AND FURTHER THAT Bylaw No. 428 be amended to increase annual frontage charges for Canoe Road by $424 and for Merrill Crescent by $227 subject to any additional considerations as part of the annual rate review.

BACKGROUND

The SCRD applied for grant funding through the Clean Water and Waste Water Fund in November 2016 for the replacement of the septic field systems for the Canoe Road and Merrill Crescent systems within the SCRD Sewage Treatment Facilities Local Service (Bylaw No. 1026).

The estimated eligible expenditures for grant purposes were $75,000 for Canoe Road and $65,000 for Merrill Crescent. Ineligible expenditures, consisting mainly of staff wages, were estimated at $3,500 and $3,000 respectively in the grant applications.

In March 2017, the SCRD was informed that the grants were approved for funding of up to 83% of eligible expenditures. Subsequently, the Board adopted the following resolution (excerpt) at its regular meeting on April 27, 2017:

152/17 **Recommendation No. 6** *Clean Water and Wastewater Fund (CWWF) 2016 Grants*

THAT the report titled Clean Water and Wastewater Fund 2016 Grants be received;

AND THAT the Canoe Road [389] Replacement of Septic Field System project in the amount of $75,000 funded $62,250-CWWF Grant and $12,750-Short-term Borrowing be approved;

AND THAT the Merrill Crescent [390] Replacement of Septic Field System project in the amount of $65,000 funded $53,950-CWWF Grant and $11,050-Short-term Borrowing be approved;

AND FURTHER THAT the 2017-2022 Financial Plan be amended accordingly.

The resolution and resulting financial plan amendment only addressed the eligible expenditures associated with this grant. A funding contingency for ineligible expenditures (staff wages) and potential cost overruns was not included.

The purpose of this report is to seek a resolution to formally apply for short term borrowing to fund the SCRD's share of eligible expenditures as originally budgeted as well as $1,800 in eligible cost overruns and $7,800 in ineligible expenditures incurred in 2019 during construction.

DISCUSSION

Short term borrowing, through the Municipal Finance Authority, for this purpose would be undertaken through a Liability Under Agreement (LUA) under Section 403 of the *Local Government Act*. In order to apply for a loan under this section, a Board Resolution specifying the amount to be borrowed and repayment schedule is required, along with a report detailing the purpose of borrowing, repayment sources and timing.

The Board has previously approved short term borrowing of $23,800 through resolution 152/17 No. 6 to fund the SCRD's share of the capital costs associated with these projects. The remaining $116,200 was funded through Clean Water and Waste Water Fund grants.

Additional borrowing of $9,600 is now required to fund cost overruns and ineligible costs not contemplated in the original project budget as approved by the Board but identified in the grant applications.

Summary of Expenditures and Grant Funding

The following table summarizes the eligible project expenditures, grant funding, 2019 ineligible expenditures and balance of SCRD funding required.

	Canoe Road	Merrill Crescent	Totals
Eligible Expenditures	$ 76,800	$ 65,000	$ 141,800
Less: Grant Funding	(62,250)	(53,950)	(116,200)
SCRD Share of Eligible Expenditures	14,550	11,050	25,600
2019 Ineligible Expenditures	4,557	3,243	7,800
Balance of Funding Required	**$ 19,107**	**$ 14,293**	**$ 33,400**

Options and Analysis

Per section 4.3 of the Debt Management Policy, reserves are to be considered as a funding source before debt. In this instance, the combined uncommitted operating and capital reserve balance is $3,716 for Canoe Road and $3,052 for Merrill Crescent. Given the low values, it is

recommended that these balances be maintained to allow some flexibility to address any emerging issues with these two systems in the near term.

Long term borrowing is not considered a viable option given the value of the anticipated borrowing and the cost to administer an elector approval process.

Short term borrowing as originally planned is the preferred option for funding the SCRD's share of costs. Although short term borrowing will require significant rate increases, these increases have been identified as being required, regardless of debt servicing considerations, in order to build up reserves to fund long term capital requirements. Once the debt has been fully repaid, the revenue resulting from increased fees can be redirected to capital reserves to fund future requirements.

Financial Implications

Debt servicing costs for the planned borrowing are included in the 2019-2023 Financial Plan beginning in 2020; however, existing revenues are insufficient to accommodate these costs.

At the time the grant applications were approved, it was estimated that frontage charges would need to increase by $265 for Canoe Road and $165 for Merrill Crescent in order to fund the annual debt servicing costs over the five year term.

Funding capital projects is challenging for small systems such as these given the low number of properties being serviced. Canoe Road has only 10 fronting properties and 6 users while Merrill Crescent has 14 fronting properties and 12 users. Without grant funding, it was estimated that these projects would have resulted frontage rate increases of $1,565 and $970 respectively.

Based on the revised borrowing amount required and current short term borrowing rates, the estimated frontage charge increase is now $424 for Canoe Road and $227 for Merrill Crescent.

The table below summarizes debt servicing costs and the required frontage rate increases for each system:

	Canoe Road	**Merrill Crescent**
Estimated Annual Debt Servicing Cost (Year 1)	$4,243	$3,174
No. of Fronting Properties	10	14
Cost per Property	$424	$227
Existing Frontage Rate	$153	$265
Required Frontage Rate in 2020	$577	$492
% Increase over 2019	277%	86%

Although these increases are significant, asset management planning work to date has identified required increases exceeding these amount to adequately fund long term capital replacement of these facilities. Upon repayment of the debt servicing costs, revenue generated from the higher fees will be placed in capital reserves.

Organizational and Intergovernmental Implications

The comprehensive asset management plan for the SCRD's wastewater facilities is scheduled to be complete in Q4-2019 and will be presented as part of a future committee meeting. This will inform the SCRD Board and service users of the operational, capital, resource and funding requirements for the various wastewater facilities. This will assist the Board on service level policy decisions and recommended rate structures for these facilities for 2020 and the future.

The debt servicing for these facilities has been contemplated as part of these plans.

Timeline for next steps or estimated completion date

If the borrowing application is approved and endorsed by the Board. Borrowing will be undertaken prior to 2019 fiscal year end.

Communications Strategy

As the asset management planning assessments for the wastewater facilities roles out to the SCRD Board and the service users, a communication and engagement component will be included as part of the plan.

STRATEGIC PLAN AND RELATED POLICIES

This report is consistent with the SCRD's Debt Management Policy and is aligned with the development and implementation of a comprehensive asset management strategy.

CONCLUSION

The SCRD applied for grant funding through the Clean Water and Waste Water Fund in November 2016 for the replacement of the septic field systems for the Canoe Road and Merrill Crescent systems. In March 2017, the SCRD was informed that the grants were approved for funding of up to 83% of eligible expenditures, with remaining funds to come from short term borrowing.

The project costs totaled $141,800 with $116,200 funded through the grant, leaving $33,400 to be funded through short term/loan under agreement with the Municipal Finance Authority. Based on the revised borrowing, the estimated frontage charge to service the debt will be $424 for Canoe Road and $227 for Merrill Crescent.

The comprehensive asset management plan for the SCRD's wastewater facilities is scheduled to be complete in Q4-2019 and will further inform future rate increases. A communication and engagement component will be included as part of the plan.

If the borrowing application is approved and endorsed by the Board. Borrowing will be undertaken prior to 2019 fiscal year end.

Reviewed by:			
Manager	X - S. Walkey	Finance	X – B. Wing
GM	X – R. Rosenboom	Legislative	
Interim CAO	X – M. Brown	Other	

SUNSHINE COAST REGIONAL DISTRICT STAFF REPORT

TO: Infrastructure Services Committee – October 17, 2019

AUTHOR: Shane Walkey, Manager, Utility Services

SUBJECT: **WATER SERVICES - PIPES, VALVES & FITTINGS CONTRACT TERM EXTENSION**

RECOMMENDATION(S)

THAT the report titled Water Services – Pipes, Valves & Fittings Contract Term Extension be received;

AND THAT the SCRD exercises the right to extend the existing contract with ICONIX Waterworks Limited Partnership for Water Services – Pipes, Valves & Fittings for an additional one (1) year period in the amount up to $196,235.

BACKGROUND

The Utilities Division purchases and maintains an inventory of pipes, valve and fittings on an ongoing basis to ensure the water and wastewater systems are suitably maintained, repairs can be effected in a timely manner and supplies are available for new servicing and system renewal.

In 2016, the SCRD sought proposals from qualified water and wastewater services supply companies to supply and deliver pipes, valves and fittings and signed a three year contract with ICONIX Waterworks Limited Partnership (formerly Corix Water Products Limited Partnership).

The current term of the contract with ICONIX is November 1, 2016 to October 31, 2019 with options to renew for two (2) one (1) year periods.

The purpose of this report is to review the option to extend the original term of the contract with ICONIX for an additional one (1) year term.

DISCUSSION

The SCRD has benefitted from having a supply contract for waterworks material, in effect since 2016 and has realized efficiencies in the procurement process, including timeliness of ordering and receiving goods as well as the reliability in the supply chain.

Options and Analysis

Staff have been satisfied with the level of service as well as quality of material supply from ICONIX since the original contract inception. ICONIX continues to offer shipping and unloading of pipe, valves and fittings at no cost which is of added value to the SCRD. Staff have found the reliability of material supply to be adequate and the pricing to have remained competitive.

As requested by SCRD Staff, on September 5, 2019 ICONIX provided updated pricing for material supply for the term of November 1, 2019 to October 31, 2020. This pricing submission was evaluated and compared to both current market pricing, and ICONIX's 2016 submission.

Table 1 outlines both the overall percentage increase(s) since 2016 and the average annual increase since 2016.

Table 1: ICONIX Contract Pricing Comparison (%)

	Average Annual Increases (2016 - 2019)	**Proposed Increases (2019-2020)**
Fittings	1.67%	5.00%
Bends	1.67%	5.00%
Hydrants	1.67%	0.00%
Valves	1.58%	0.00%
Meter Boxes	2.10%	0.00%
Pipe	0.00%	7.13%
Misc.	1.68%	3.34%

The average annual increases between 2016 and 2020 are within or below consumer and/or industrial inflationary indexes (i.e. CPI, RMPI, IPPI) that have been documented within the same period. Staff view ICONIX's pricing to be acceptable, competitive and recommend that an additional one (1) year term be signed with ICONIX for the supply of pipes, valves, fittings and other materials identified in the original contract documents.

Financial Implications

Staff have reviewed historical and anticipated material quantities that will be required over the next contract term of one year and have estimated the figures in Table 2 (below).

Table 2: Contract Value Estimate

2019/2020 Contract Value Estimate	$156,988
25% Contingency	$39,247
One (1) Year Contract Upset Value	**$196,235**

The estimated annual quantities of material that were considered when calculating the 2019/20 values were based on historical and anticipated material supply requirements but the total quantity of items purchased will be determined as and when required by the volume of work approved through the budget process, level of third party servicing requirements, and planned and reactive maintenance.

The purchase of the pipes, valves and fittings will be funded through annual operations and capital budgets as approved through the annual budgeting process. Costs will be allocated to the service function that the work is being carried out within.

It is estimated that the average costs of all the materials under the revised pricing schedule are reasonable and competitive.

In addition to the base costs, it is recommended that a 25% contingency be added into the final purchase order value to allow for variations in projects and/or scheduled and reactive maintenance during this next contract term.

STRATEGIC PLAN AND RELATED POLICIES

The procurement of materials to support the improvement of capital infrastructure is consistent with Section 4.10 Capital Maintenance and Replacement of the District's Financial Sustainability Policy.

Scheduled maintenance and capital asset repairs and betterments are consistent with organizational Asset Management principles.

CONCLUSION

The SCRD entered into a three year contract in 2016 with ICONIX for the supply of waterworks materials, which expires on October 31, 2019. The contract included the option to extend the original contract for up to two (2) one (1) year periods.

Staff have reviewed the submission of updated pricing from ICONIX and recommend exercising the right to extend the contract for an additional period of one (1) year for the supply and delivery of pipes, valves & fittings for SCRD utility infrastructure work to ICONIX Waterworks Limited Partnership, with a maximum 2019/2020 annual upset value of $196,235.

Reviewed by:			
Manager		CFO/Finance	X- T. Perreault
GM	X – R. Rosenboom	Legislative	
Interim CAO	X – M. Brown	Other (Purchasing)	X - V. Cropp

SUNSHINE COAST REGIONAL DISTRICT STAFF REPORT

TO: Infrastructure Services Committee, October 17, 2019

AUTHOR: Remko Rosenboom, General Manager Infrastructure Services

SUBJECT: **BUDGET REQUEST FOR IMPLEMENTATION OF *SHÍSHÁLH* NATION FOUNDATION AGREEMENT**

RECOMMENDATION(S)

THAT the report titled Budget request for Implementation of *shíshálh* Nation Foundation Agreement be received;

AND THAT $25,000 be allocated for the project Implementation of *shíshálh* Nation Foundation Agreement to be funded from the Regional Water Service [370] Operating Reserves;

AND FURTHER THAT the 2019-2023 Financial Plan be amended accordingly.

BACKGROUND

At the September 19, 2019 Infrastructure Services Committee meeting staff from the Ministry of Indigenous Relations and Reconsolidation provided a status update on the land transfer component of the implementation of the *shíshálh* Nation Foundation Agreement. More details were provided on the legal mechanisms considered to protect SCRD interests and on the targeted timelines for the steps leading up to the actual land transfer of the first parcels of land between the Province and the *shíshálh* Nation.

The purpose of this report is to request a budget for external professional services to support the SCRD in this process.

DISCUSSION

Staff are working in a collaborative manner with staff from the Ministry of Indigenous Relations and Reconsolidation (MIRR) and the *shíshálh* Nation to develop the agreements required to protect the SCRD interests on the land parcels to be transferred from the Province to the Nation. The first parcels are targeted to be transferred during the summer of 2020. During this process it has been identified that external professional legal and technical support to the SCRD is required.

Staff are therefore seeking a $25,000 budget for external professional services to support the implementation of *shíshálh* Nation Foundation Agreement. It is recommended this be funded from the operating reserves of function [370] Regional Water Service.

Timeline for next steps or estimated completion date

Updates on the implementation of the *shíshálh* Nation Foundation Agreement will be provided at future committee meetings.

STRATEGIC PLAN AND RELATED POLICIES

This project supports the Strategy to Enhance First Nations Relations and Reconciliation.

CONCLUSION

Staff are working in a collaborative manner with staff from MIRR and the *shíshálh* Nation to develop the agreements required to protect the SCRD interests on the land parcels to be transferred from the Province to the Nation.

Staff are therefore seeking a $25,000 budget for external professional services to support the implementation of *shíshálh* Nation Foundation Agreement.

Reviewed by:			
Manager		CFO/Finance	X - T. Perreault
GM		Legislative	
Interim CAO	X – M. Brown	Other	

SUNSHINE COAST REGIONAL DISTRICT STAFF REPORT

TO: Infrastructure Services Committee – October 17, 2019

AUTHOR: Remko Rosenboom, General Manager, Infrastructure Services

SUBJECT: **INFRASTRUCTURE SERVICES DEPARTMENT – 2019 Q3 REPORT**

RECOMMENDATION(S)

THAT the report titled Infrastructure Services Department – 2019 Q3 Report be received.

BACKGROUND

The purpose of this report is to provide an update on activities in the Infrastructures Services Department for the Third Quarter (Q3) of 2019: July 1 – September 30.

The report provides information from the following divisions: Water, Wastewater, Transit and Fleet, Solid Waste Programs and Solid Waste Landfill Operations.

Utilities Division [365, 366, 370]

The Utilities Division serves three water service areas, the North Pender Water Service Area [365], the South Pender Water Service Area [366], and the Regional Water Service Area [370]. The Regional Water Service Area includes the Chapman water system as well as the smaller systems of Egmont, Cove Cay, Granthams, Soames Point, Langdale, and Eastbourne. The Utilities Division is also responsible for 18 wastewater facilities in Areas A, B, D, E, and F.

The SCRD water systems supply potable water to approximately 23,000 residents between Egmont and Langdale. This includes operations and maintenance of the Langdale, Soames Point, Granthams Landing, Eastbourne (Keats Island), Chapman/Gray Creek including the Chapman Creek Water Treatment Plant, the South Pender Harbour Water Treatment Plant, Cove Cay, Egmont and the North Pender Harbour Water Systems. In addition to water for drinking, these water systems supply potable water used for fire protection, recreation (pools and ice rinks), industrial use and irrigation.

Combined, the SCRD Water Systems consist of over 379 km of watermains, 16 storage reservoirs, 15 pump stations, 29 pressure reducing valve stations, 1145+ fire hydrants, 10 chlorination stations and approximately 11,475 water connections.

The quarterly report includes information about larger capital works and projects, and noteworthy program developments, as well as, monthly water treatment volumes from the Chapman Creek Water Treatment Plant and the South Pender Water Treatment Plant, and a summary of work orders.

PROJECTS - CAPITAL WORKS

- **Watermain Replacement Program**
    - North and South Pender Harbour Watermain Replacement
        - All of the North Pender and South Pender water main replacement has been completed.
    - Chapman Creek Bridge Watermain Replacement
        - The watermain attached to the Chapman Creek Bridge has been replaced with a new insulated watermain.
    - Exposed Watermain Rehabilitation
        - The first tender process was unsuccessful, one bid was received and over budget. Staff explored alternate methods and construction techniques to complete the work as required and concluded that due to the current market conditions this project could not be completed within the existing budget. A 2020 budget proposal for additional budget will be brought forward.
    - Henry Road Watermain Replacement
        - 480 metres of ductile iron water main was installed and functioning, final paving will be completed in October.
    - Mark Way Watermain Replacement
        - The planning and design work is underway for the replacement of the old watermain on Mark Way. This project was part of the 2019 budget and is expected to be completed in 2020.
- **Water Projects**
    - Groundwater Investigation– Phase 3
        - Drilling of the second test well was conducted in July and tested in late August. The results will be incorporated into the preliminary infrastructure design required to connect the well field to the current water distribution network. A water license application was submitted in late September. A report on this project will be presented at the December Planning and Community Development meeting.
    - Raw Water Reservoir(s) – Feasibility Study Phase 3
        - The consultant completed several assessments including of the geotechnical, hydrological, environmental and regulatory requirements for each of the four sites. A preliminary design for each site will also be completed. The final project results will be presented at the November Infrastructure Services Committee meeting
    - Town of Gibsons Zone 3 uncoupling
        - Staff met in early July to discuss next steps and align project planning. As the Town of Gibsons secured the funding for the implementation of this project staff will schedule follow-up meetings to ensure continued alignment between the planning of several infrastructure projects of the Town and the SCRD.

- Review Bulk Water Agreement Town of Gibsons
  - This process has been delayed due to other work priorities.
- Chapman Water Treatment Plant Chlorination Project
  - Tendering for engineering of an On-Site Generation system was issued in late September. The intent is to complete the engineering in Q2 2020 followed by construction in Q3 2020 and completion in Q4 2020.
- Langdale Well Upgrade
  - The preliminary design of the interior piping is complete as well as a draft version of the tender documents to be issued in Q1 2020. During the actual well upgrade, the well will be out of commission for up to 30 days. Testing of the back-up water supply from the Hopkins Improvement District's system functioned as desired during a two day test in June. The projected project completion in Q2 2020.

- **Wastewater**
  - Curran Road
    - The outfall weights on the Curran Road outfall pipe are failing and need replacement. A proposal to replace all of the aging outfall pipe weights on the Curran Road outfall was incorporated into the 2019 and a RFQ document for construction will be issued in Q1 2020.
  - Woodcreek Wastewater Plant
    - A RFP for engineering and design services for the replacement sand-filter septic system will be issued in Q4 2019.

- **Drought Management Plan 2019**
  - The following dates of the watering restriction stages were called in 2019:

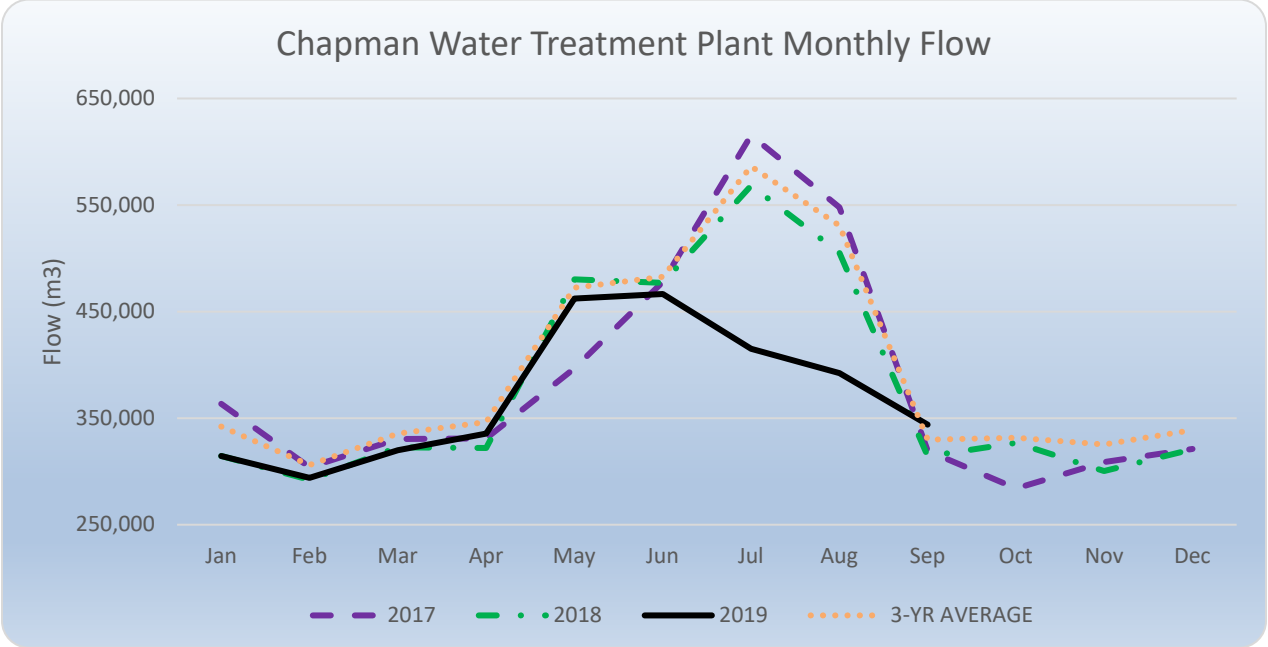
Stage 2	Stage 3	Return to Stage 2	Stage 1
June 7	June 27	August 27	September 16

  - The 2019 Drought Management Plan implementation will be evaluated, and recommendations will be brought to the November 21, 2019 Infrastructure Services committee meeting.
  - Staff responded to 117 complaints between May 1 and September 9 and issued 53 verbal warnings, 17 official Notices of Violation and two fines.
  - Community Consultation on water conservation regulations, rebate programs, education, enforcement and communication will include a Questionnaire that is open between September 30 – October 30 and Community check-ins which will be held at Frank West Hall on Wednesday, October 23, 4:30pm to 6:30pm and Chatelech Secondary school on Monday, October 28, 5pm to 7pm.

OPERATIONS - WATER DISTRIBUTION SYSTEM

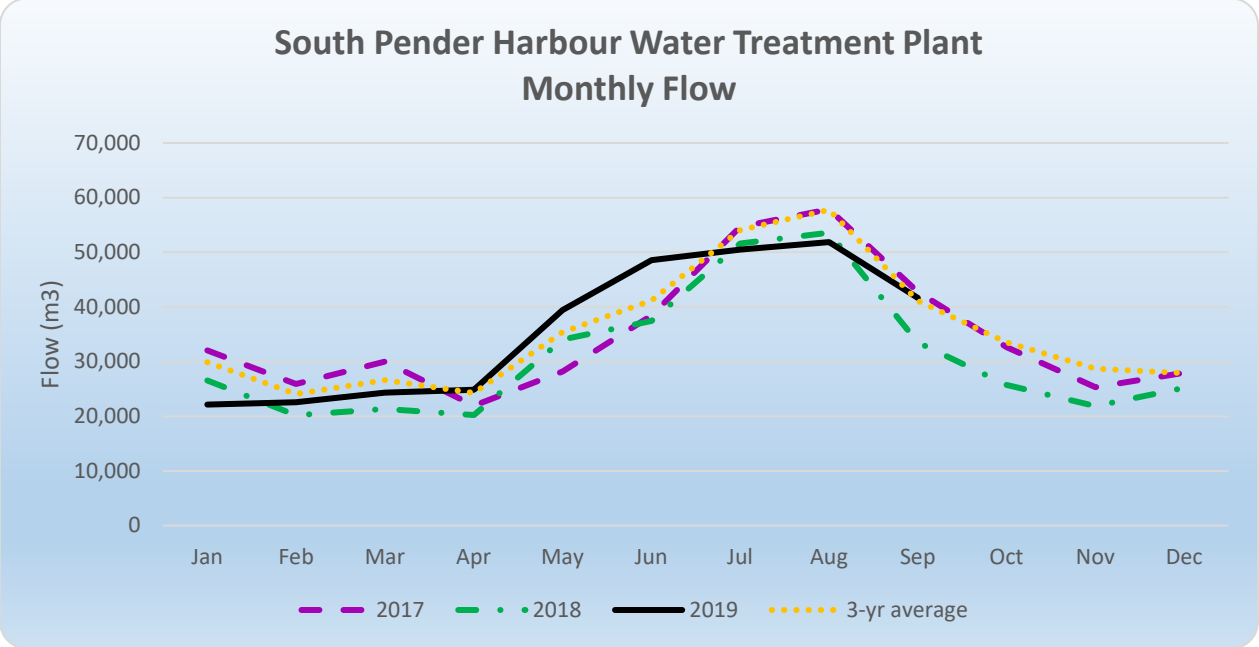
CHAPMAN WATER TREATMENT PLANT

In the Q3 2019, the Chapman Creek Water Treatment Plant produced and supplied 1,151,191 m^3 of potable water to residents, a 16% decrease over the three year average.



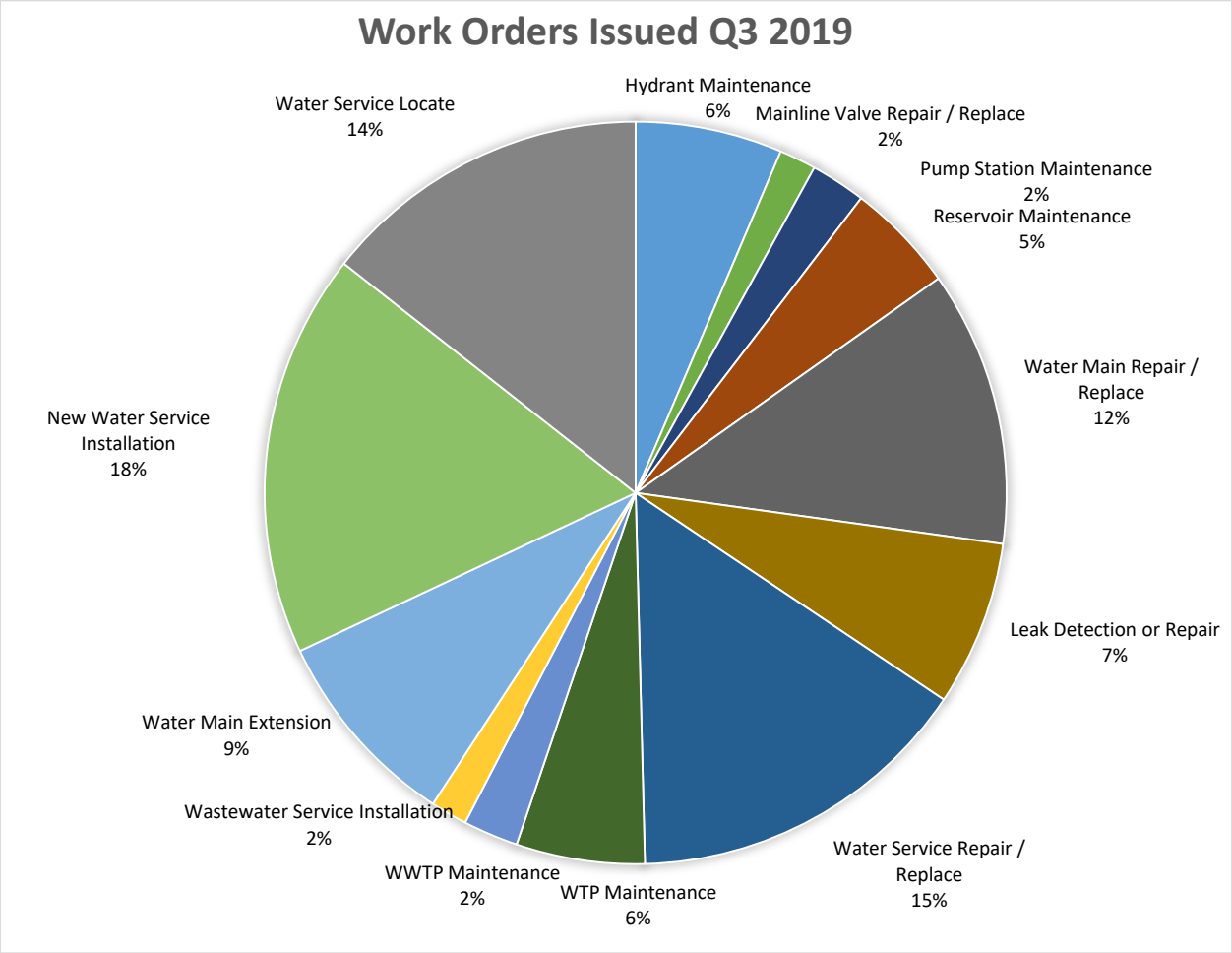
SOUTH PENDER WATER TREATMENT PLANT

In the Q3 2019, the South Pender Water Treatment Plant produced and supplied 144,018 m^3 of potable water to approximately 2,300 full and part-time residents of Madeira Park, Francis Peninsula and the surrounding area. This is an 11.9% decrease over the three year average.



Work Orders Issued in Q3 2019

Work performed by SCRD Utility Services is tracked through the department's work order management system. Work may include scheduled or reactive maintenance and repairs, service locates or capital asset work.



Transportation and Facilities [310, 312, 345, 350]

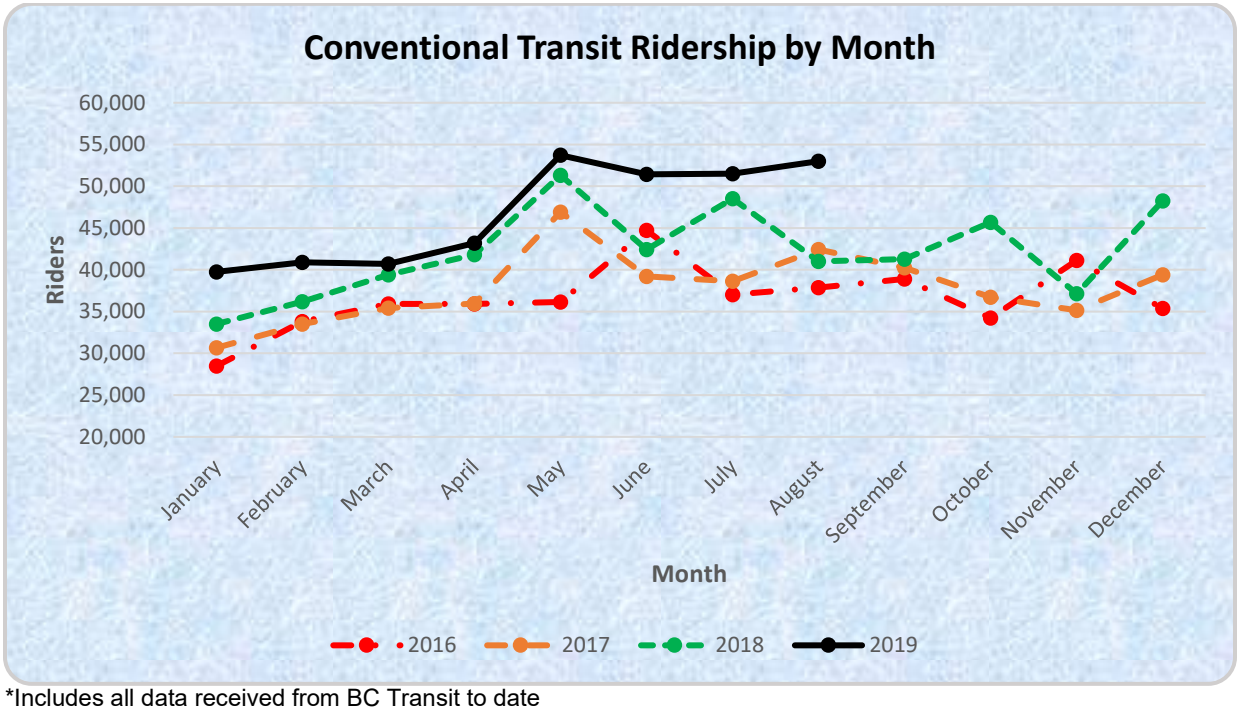
In contrast to most BC Transit systems, the SCRD functions as both the Local Government partner and the service contractor in relationship with BC Transit. This provides a clearer picture of costs than would otherwise be the case.

PROJECTS

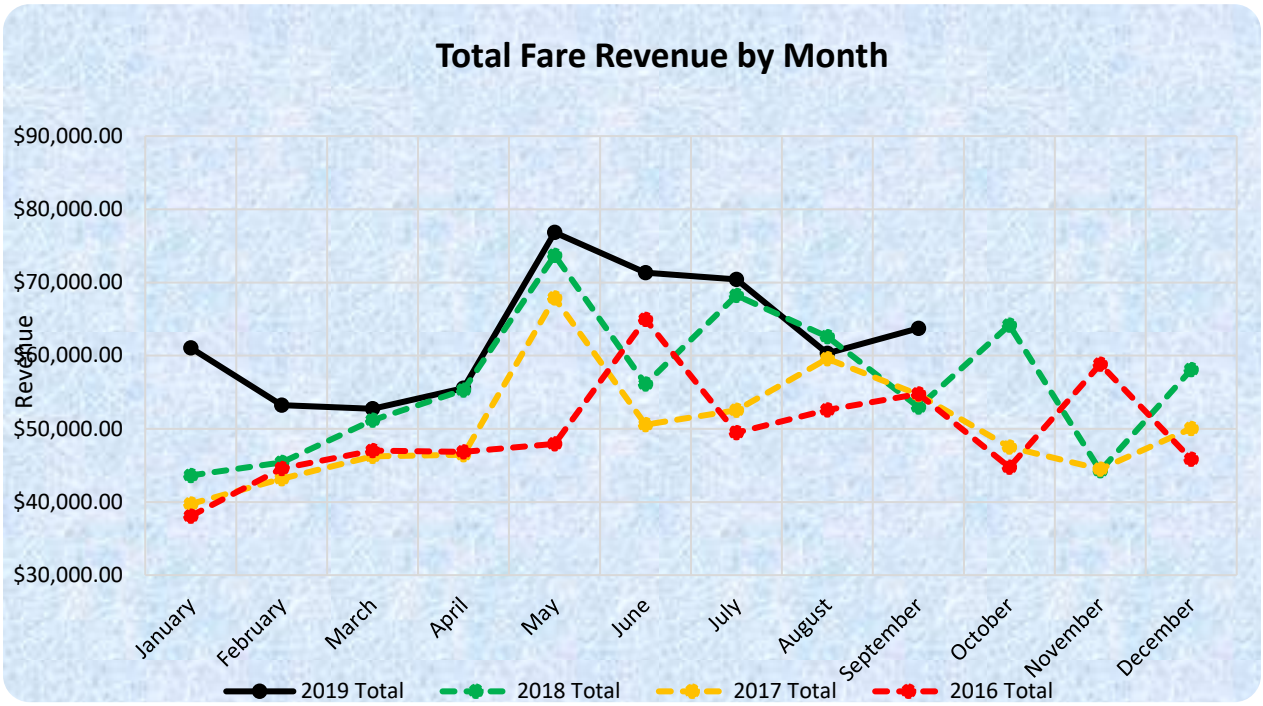
Transit

Transit ticket sales have shown a positive growth throughout the summer months. Monthly pass sales continue to increase significantly indicating transit riders' commitment to using transit. Conventional transit ridership has risen steadily with August 2019 outperforming August 2018 substantially.

The implementation of additional recovery time and scheduling for increased summer volumes have contributed to an improvement in on-time performance results.



*Includes all data received from BC Transit to date



As the Manager of Transit and Fleet position has been vacant since mid-August the review of the Custom transit service and the development of a bus shelter program will be delayed until early 2020.

Solid Waste [350, 351, 352, 355]

The Solid Waste Division provides solid waste management for the Sunshine Coast. In British Columbia, Regional Districts are mandated by the Provincial *Environmental Management Act* to develop Solid Waste Management Plans. The SCRD's Solid Waste Management Plan 2011(SWMP) guides how the SCRD manages its solid waste including waste diversion programs, services and disposal activities.

The division oversees the operation and maintenance of the Sechelt Landfill and the Pender Harbour Transfer Station. The division also maintains the contracts for curbside garbage collection services for Electoral Areas B, D, E and F, three recycling depots and green waste drop off locations.

The SCRD adopted the Regional Organics Diversion Strategy in January 2018. The goal of the Strategy is to develop a financially sustainable roadmap that will lead to a robust, region-wide organics diversion program.

The quarterly report provides an update on current projects, diversion programs, services and monthly statistics.

SOLID WASTE PROGRAMS

Love Food Hate Waste 2019 Provincial Campaign

The Province of British Columbia has invited local governments to join a provincial partnership to promote food waste reduction across BC. Solid Waste Services staff received print materials and a tall banner from the campaign. These print materials will be brought to all public outreach events and are displayed in the foyer of the Field Road Administration building. The Manager, Solid Waste Programs participated in a conference call on September 26, 2019 to discuss campaign collaboration this year.

AVICC Solid Waste Communications Group

The Solid Waste Programs Coordinator attended a meeting in Nanaimo on September 23, 2019 to review this past year's collaborative campaigns and to discuss plans for future collaborations. Options that were discussed include taking past campaigns and developing a shared communication calendar to promote reduction in waste, illegal dumping and recycling contamination.

British Columbia Product Stewardship Council (BCPSC)

Solid Waste Programs Coordinator attended a BCPSC meeting on July 16, 2019 in which staff were informed on updates from product stewards. On August 22, 2019 staff attended a BCPSC organized meeting to hear from the Brewers' Recycled Container Collection Council (BRCCC) on the stewardship plan that is being updated.

Metro Vancouver Municipal Waste Reduction Coordinator Committee (MVMWRCC)

On July 17, 2019 and September 18, 2019 the Solid Waste Programs Coordinator attended via conference call meetings with MVMWRCC. Updates on the single-use item reduction and recycling processing in the lower mainland were provided. As well, regional municipalities shared their current campaigns to reduce waste, food waste, textile waste and reuse opportunities.

Metro Vancouver also provided updates on the upcoming winter campaign, a waste composition study and Clean BC Plastic Action Plan feedback.

Moving Canada toward Zero Plastic Waste - Environment and Climate Change Canada

The Manager, Solid Waste Programs and Solid Waste Programs Coordinator participated in a webinar on July 30, 2019 hosted by Environment and Climate Change Canada regarding Moving Canada toward Zero Plastic Waste.

CleanBC Plastics Action Plan Policy Consultation Paper

The Manager, Solid Waste Programs and Solid Waste Programs Coordinator participated in a webinar on September 17, 2019 regarding the CleanBC Plastics Action Plan Policy Consultation Paper. As well, both staff completed their online survey. Survey and feedback was open until September 30, 2019.

CCME Survey on Phase 2 of the Action Plan on Zero Plastic Waste

The Manager, Solid Waste Programs completed the online survey for the CCME's Phase 2 of the Action Plan on Zero Plastic Waste. The survey was open until October 10, 2019.
Recycling Council of BC (RCBC) Forum on Future EPR Priorities

As reported in Q2, the Solid Waste Coordinator attended a June 26, 2019 forum on product categories that are currently not included within an approved EPR program in BC. On September 27, 2019, RCBC released their Report on EPR Priorities that was submitted to the BC Ministry of Environment and Climate Change Strategy.

Islands Clean up

The Islands Clean Up is complete for 2019. The SCRD collected approximately 4.9 tonnes of electronics and small appliances from residents this year as the special item. 23.36 tonnes of municipal solid waste, 25.62 tonnes of metal was collected for recycling, and 1.4 tonnes of household recyclables was also collected. This is in-line with prior years.

The number of participants is estimated based on the number of registrants (for flag stops) and number of people participating at the land events.

Islands Clean Up Event	Event Date	Estimated Participants
Nelson Island – flag stops	July 6, 2019	17
Gambier Island – flag stops	July 27, 2019	150
Thormanby and Trail Islands – land and flag stops	August 10, 2019	80
Keats Island – flag stops	August 24 ,2019	45
Keats Island – land events	August 24, 2019	100
Gambier Island – land event	August 24, 2019	75

Backroad Trash Bash

The 8th Annual Backroad Trash Bash took place on September 21, 2019. The event hub was located in Sechelt and targeted illegal dumpsites in the Halfmoon Bay, Sechelt and Roberts Creek areas.

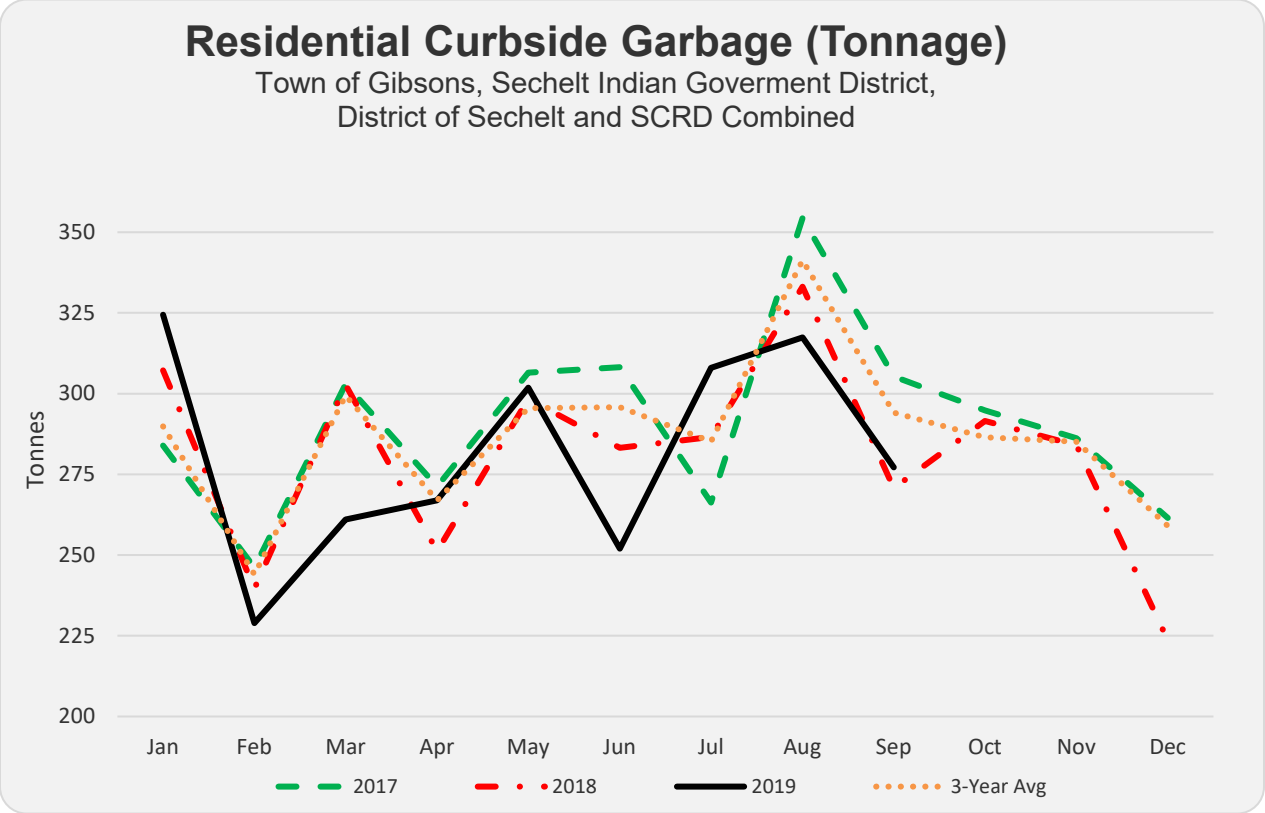
In total, 60 community volunteers cleaned up 6.73 tonnes of household garbage, scrap metal, furniture, tires and construction and demolition material from 31 illegal dump sites.

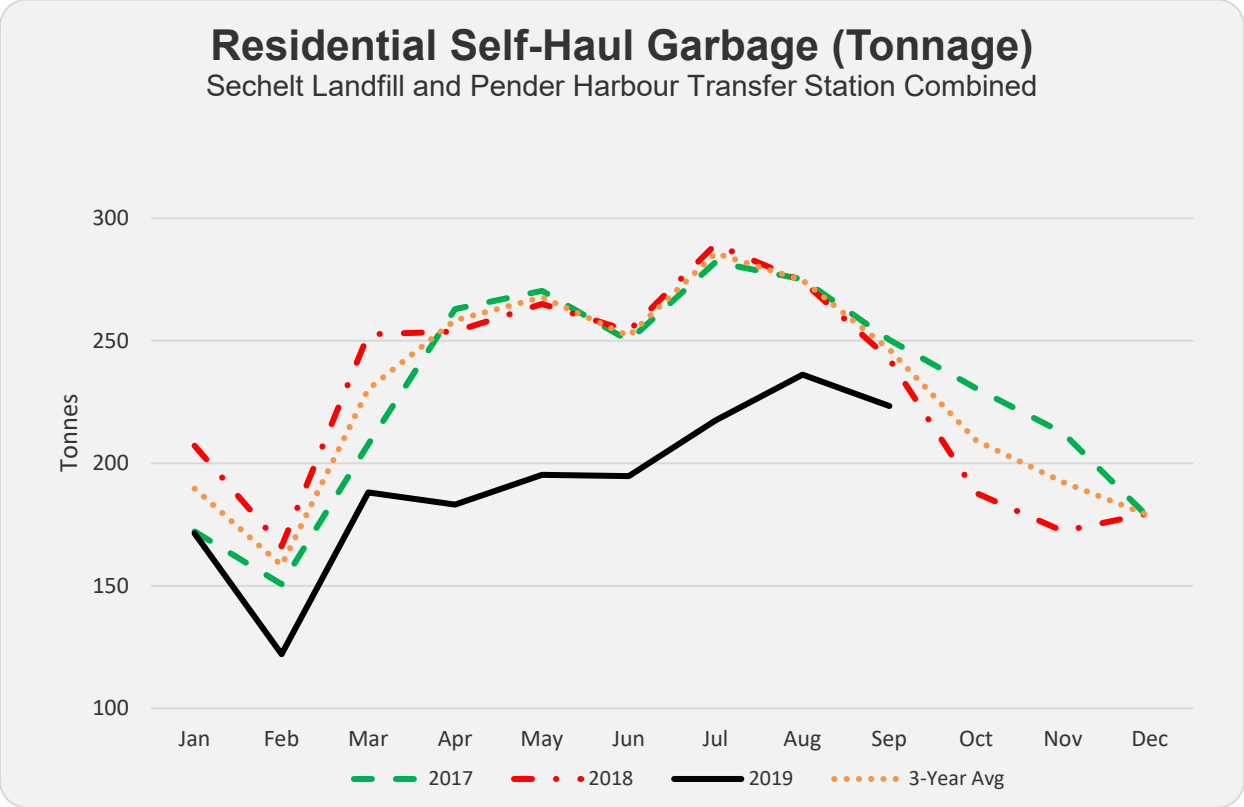
SOLID WASTE OPERATIONS

An RFP and RFQ were issued to address the wood waste stream accumulating at both sites. The contract was awarded and staff are in the process of implementation.

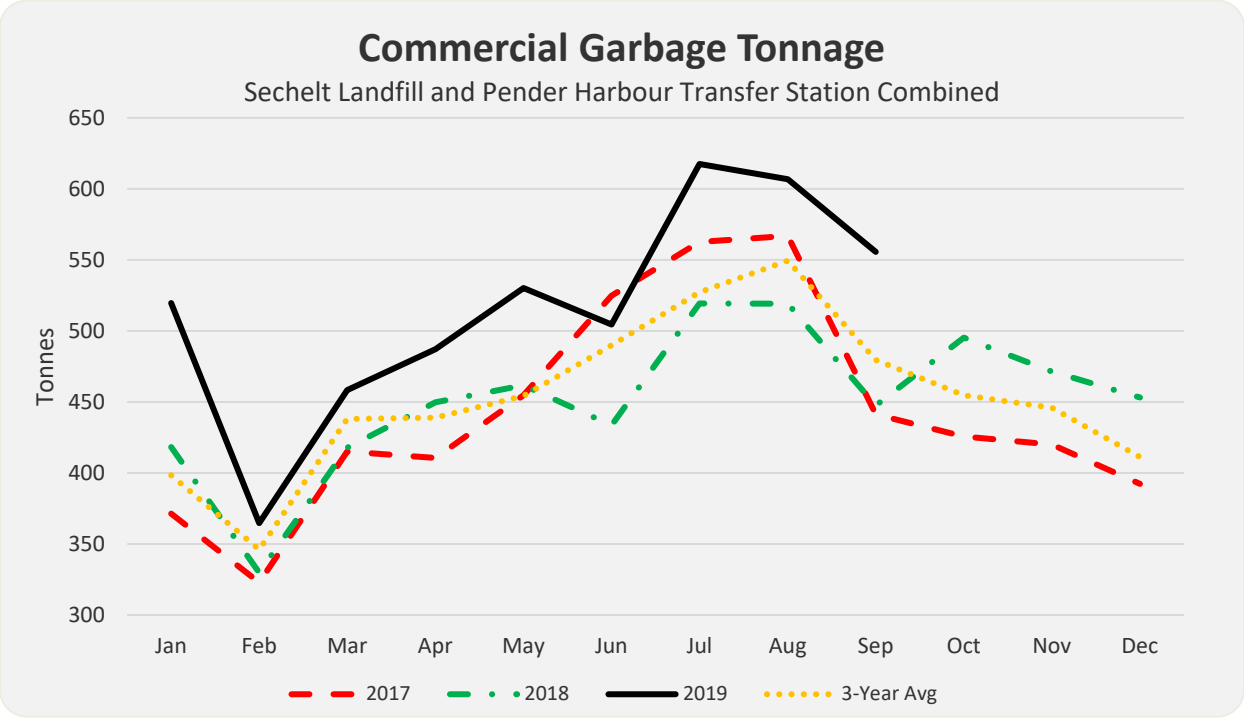
Statistics – Landfill

Residential garbage consists of both garbage collected curbside and garbage self-hauled by residents to the Pender Harbour Transfer Station and Sechelt Landfill. The residential curbside garbage tonnage presented includes a combined total of garbage collected curbside from residential dwellings in the Town of Gibsons, Sechelt Indian Government District, District of Sechelt and Sunshine Coast Regional District. Curbside residential garbage is then delivered to the Sechelt landfill and buried. The residential self-haul garbage presented includes a combined total of garbage self-hauled by residents to the Sechelt landfill or the Pender Harbour Transfer Station.



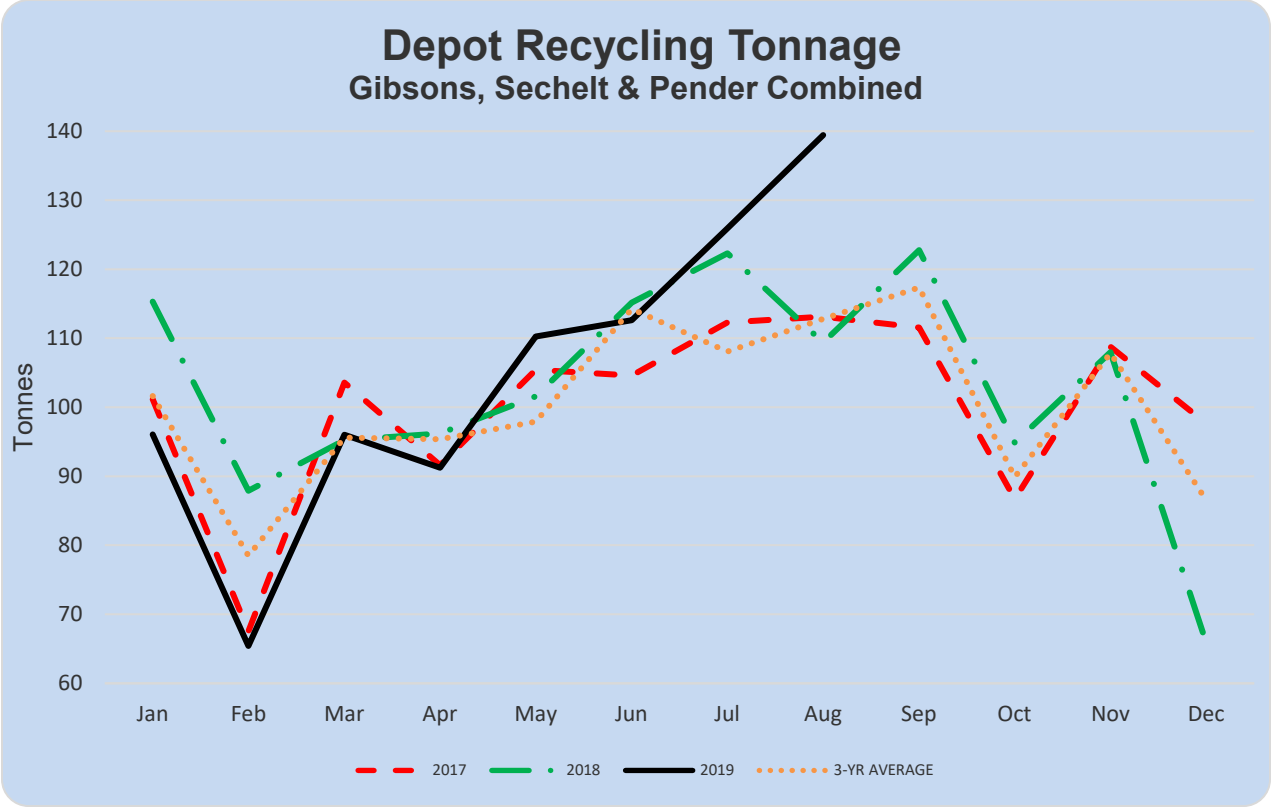


The commercial garbage tonnage presented includes garbage generated by commercial activity picked up from businesses and multi-family dwellings (SCRD), or dropped off at the Sechelt landfill and Pender Harbour Transfer Station. This does not include other landfilled items such as construction/demolition waste, asbestos or furniture.



Statistics – Recycling

The SCRD has an agreement with Recycle BC to provide PPP Depot Recycling Services in Gibsons, Pender Harbour and Sechelt. The SCRD contracts these services to Gibsons Recycling, GRIPS and Salish Soils respectively. The data presented is provided by RecycleBC and is updated as it is received. The data represents the combined monthly weight (by tonne) of the materials dropped off at the three recycling depots.

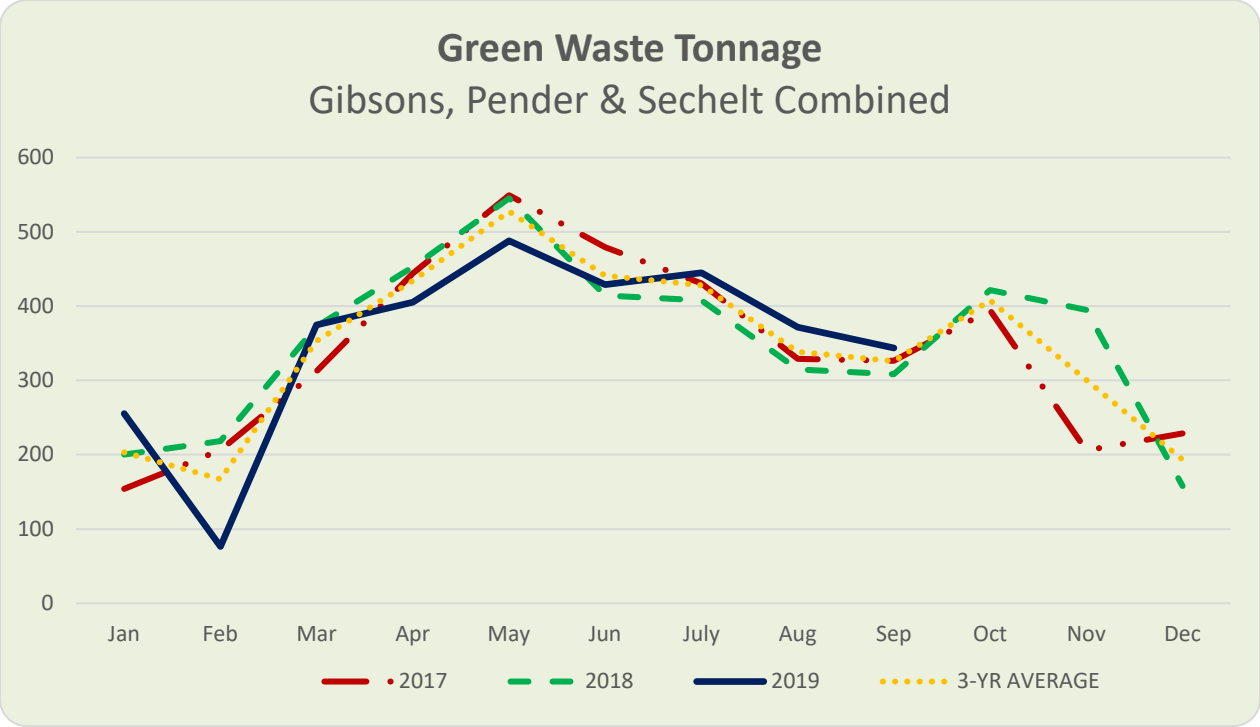


*September data is not yet available from RecycleBC

Statistics - Green Waste

The SCRD green waste recycling program provides collection locations for residents to self-haul and drop off yard and garden green waste at the Town of Gibsons Green Waste Facility, Pender Harbour Transfer Station, Sechelt Landfill and residential self-haul at Salish Soils. The collected green waste is then processed in Sechelt for composting.

The data presented provides the combined monthly weight (by tonne) of green waste dropped off at the collection locations.



INFRASTRUCTURE SERVICES OUTREACH EVENTS

Event	***Event Date***	***Attendees***
Canada Day	July 1, 2019	100
Solid Waste Presentation to Mama's Rising Group	July 9, 2019	12
Chapman Water Treatment Plant Tour	July 25, 2019	22
Chapman Water Treatment Plant Tour	August 15, 2019	10
Backroad Trash Bash	September 21, 2019	60

Reviewed by:			
Manager	X – A. Kumar X – R. Cooper X – S. Walkey X – S. Misiurak	Finance	
GM		Legislative	
Interim CAO	X – M. Brown	Other	

ANNEX I

Tracey Hincks

From: Jas Chonk <jchonk@islandstrust.bc.ca>
Sent: Thursday, September 12, 2019 3:45 PM
To: 'crdboard@crd.bc.ca'; 'administration@comoxvalleyrd.ca'; Board Chair; 'icentre@metrovancouver.org'; inquiries@rdn.bc.ca; administration@qathet.ca; SCRD General Inquiries
Subject: Letter from Islands Trust Council Chair re Request for Greater Support for Solar Energy in Rural and Remote Communities
Attachments: TC_2019-09-12_SolarEnergyRegionalDistrcits_LTR_FINAL.pdf

Hello Board of Directors,

Please find attached a letter from Islands Trust Council Chair Peter Luckham re Request for Greater Support for Solar Energy in Rural and Remote Communities.

Thank you.

Jas Chonk
Legislative Services Clerk
Islands Trust
200-1627 Fort St.
Victoria BC V8R 1H8
In Victoria 250-405-5164
jchonk@islandstrust.bc.ca
Enquiry BC Toll-free call 1-800-663-7867
or from the lower mainland 604-660-2421
Websites: www.islandstrust.bc.ca | www.islandstrustconservancy.ca
Preserving Island communities, culture and environment since 1974

Islands Trust

200 - 1627 Fort St., Victoria, BC V8R 1H8
Telephone (250) 405-5151 Fax (250) 405-5155
Toll Free via Enquiry BC in Vancouver 604.660.2421. Elsewhere in BC 1.800.663.7867
Email information@islandstrust.bc.ca
Web www.islandstrust.bc.ca

September 12, 2019

File No.: 0400-50; 5590-30

Capital Regional District
Board of Directors
Via Email: CRDBoard@crd.bc.ca

Comox Valley Regional District
Board of Directors
Via Email: administration@comoxvalleyrd.ca

Cowichan Valley Regional District
Board of Directors
Via Email: board@cvrd.bc.ca

Metro Vancouver Regional District
Board of Directors
Via Email: icentre@metrovancouver.org

Regional District of Nanaimo
Board of Directors
Via Email: inquiries@rdn.bc.ca

qathet Regional District
Board of Directors
Via Email: administration@qathet.ca

Sunshine Coast Regional District
Board of Directors
Via Email: info@scrd.ca

Dear Board of Directors:

Re: Request for Greater Support for Solar Energy in Rural and Remote Communities

I am writing on behalf of the Islands Trust Council to invite your Board to consider signing the attached draft letter (Appendix 1) to the Honourable Michelle Mungall, Minister of Energy, Mines and Petroleum Resources, requesting a financial incentive program for hybrid solar photovoltaic systems with batteries for community buildings in rural and remote communities.

In June 2018, the Islands Trust Council received a community presentation regarding the benefits of solar photovoltaics systems within the Islands Trust Area. In response to that presentation, the Islands Trust Council resolved to work with regional districts in the Islands Trust Area to develop a strong, united voice in support of solar energy in rural and remote communities.

We have learned that hybrid solar photovoltaic systems with batteries can be used by rural and remote communities throughout the year and are particularly useful for off-grid communities to help reduce or eliminate their need for diesel generators to produce power. Solar photovoltaic systems with batteries are also beneficial during emergency situations when power outages occur, since power can be generated and used throughout the day and stored in batteries for use at night. The application and benefits for solar energy are multiple which is why Islands Trust wants to ask Minister Mungall to offer a financial incentive program for the use of these systems in rural and remote communities.

.../2

Appendix 1

IslandsTrust

200-1627 Fort Street, Victoria BC V8R 1H8
Telephone (250) 405-5151 Fax (250) 405-5155
Toll Free via Enquiry BC in Vancouver 604.660-2421. Elsewhere in BC 1.800.663.7867
Email information@islandstrust.bc.ca
Web www.islandstrust.bc.ca

Commented [LV1]: Regional Districts – your logo will go along side Islands Trust logo if you sign on to the letter going to Minister Mungall.

XXXX XX, 2019

File No. 0400-30; 5590-30

DRAFT for review and comment

Via e-mail: EMPR.Minister@gov.bc.ca

The Honourable Michelle Mungall
Minister of Energy, Mines and Petroleum Resources
PO Box 9060, STN PROV GOVT
Victoria BC V8W9E2

Dear Minister Mungall:

Re: Request for Greater Support for Solar Energy in Rural and Remote Communities

On behalf of the Islands Trust Council and the XX Regional Districts, we are requesting that the Ministry of Energy, Mines and Petroleum Resources offer a financial incentive program for hybrid solar photovoltaic systems with batteries for community buildings in rural and remote communities.

Hybrid solar photovoltaic systems with batteries are a low-carbon renewable energy source and can be used with grid-tied and off-grid systems. We are seeking a funding program for these systems on community buildings such as fire halls, community halls, and schools because installation of these systems can ensure there is a community space with light, internet, and working groundwater wells during emergency situations such as wind and rainstorm event that cause power outages. In addition, communities would be able to reduce costs during normal operating conditions since they would be using less electricity from a grid or diesel generated system.

We understand that hybrid solar photovoltaic systems with batteries are designed to automatically disconnect from the grid when the power goes out to ensure the safety of hydro workers, thus making them a safe and reliable power source uniquely suited to address the issues rural and remote communities face during power outages.

In remote locations where there is no grid or when power is temporarily unavailable due to an emergency, a hybrid solar photovoltaic system with batteries can provide power day or night. The powerful wind storm of December 2018, resulted in many coastal communities being without power for extended periods. Galiano Island was without power for 10 days, and community members on Galiano Island benefited from the Galiano Conservancy's off-grid solar system which was able to power a community space with lights and internet, and power the groundwater well pump for residents who had run out of fresh water.

.../2

ANNEX J

Tracey Hincks

From: Cecilia Garcia
Sent: Wednesday, October 2, 2019 11:08 AM
To: Tracey Hincks
Subject: FW: MOECCS Joint Letter Signatories Press Release
Attachments: 2019-09-29 Joint Local Government Submission to MOECCS re. Plastics Acti.._.pdf; 2019.10.01MR_JointLetter-BC Plastics Action Plan.pdf

From: Keely Kidner [mailto:KKidner@squamish.ca]
Sent: Wednesday, October 2, 2019 10:49 AM
Subject: MOECCS Joint Letter Signatories Press Release

Hello,

You are receiving this email as your Mayor or Board Chair is a signatory to the attached joint submission to the Ministry of Environment and Climate Change Solutions regarding the Provincial Plastics Action Plan.

A copy of the letter is provided for your organization's records; please distribute to your Mayor/Board Chair and any internal departments responsible for solid waste or environmental management.

In order to promote the collective efforts of all local government signatories, the Districts of Squamish, Tofino and the City of Victoria have released this letter to the media (available here: https://www.victoria.ca/EN/main/city/news-room/media-releases/latest-media-releases.html). Please feel free to adapt the attached news release to suit your needs, share with your community or distribute in any way your organization sees fit.

Thank you,
Keely

Keely Kidner |Outreach Sustainability Coordinator
District of Squamish | *Hardwired for Adventure*
C: 604.848.4547 | kkidner@squamish.ca | www.squamish.ca

SQUAMISH

I humbly acknowledge that I work on the traditional territory of the Squamish Nation, Sḵwx̱wú7mesh Úxwumixw.

Never miss your waste collection day again! *Visit here to find your curbside collection day, sign up for weekly reminders, print your own calendar, or download into your personal electronic calendar.*

your system. Please note that correspondence with any government body, including District of Squamish Council and Staff, can be subject to disclosure under the Freedom of Information and Protection of Privacy Act.

Ministry of Environment and Climate Change Strategy
Recycling Regulation Amendments
PO Box 9341 Stn Prov Govt
Victoria, BC V8W 9M1

Dear Minister Heyman,

September 29, 2019

Joint Local Government Response to Provincial Plastics Action Plan

As local governments who have taken steps to reduce single-use items in our communities, we write together in response to the Ministry of Environment & Climate Change Strategy's (the Ministry) call for submissions regarding proposed amendments to the *Recycling Regulation* of the *Environmental Management Act* to address plastic waste.

In reviewing the "Plastics Action Plan Policy Consultation Paper" (Consultation Paper), the following five topic areas were collectively determined as matters requiring specific feedback from the local government sector. In addition to this letter, local governments may also be submitting individual feedback relevant to their communities. We thank you for your time and consideration, and we look forward to continuing the conversation on these important matters.

1. FOCUS ON REDUCTION AND REUSE

The pollution prevention hierarchy emphasizes reduction and reuse over recycling and disposal. These priorities are also apparent in the Ministry's Consultation Paper, which discusses reducing plastic consumption through the use of Extended Producer Responsibility (EPR) programs and bans on single-use items. However, local governments feel that these programs can only be considered successful if any unintended shift to excessive consumption of damaging single use alternatives is avoided. To avoid this shift, we recommend that EPR policies be accompanied by incentives to encourage the use of sustainable, reusable options.

In addition, the Consultation Paper frames reuse in terms of recyclability, "ensuring recycled plastic is re-used effectively" through standards on recycled content. We agree that this approach can help reduce emissions and support EPR programs, but there is also an opportunity to consider reuse in terms of behaviour. We urge the Ministry to adopt a policy which supports and enables practices of reuse outside of recycling, with the ultimate goal being reduction of single-use items. This includes encouraging refillable containers (e.g. growlers, wine bottles, soap bottles, etc.), allowing patrons to bring their own container (e.g. takeout food, restaurant leftovers, bulk food shopping, etc.), enabling the right to repair (e.g. repair cafes, requirements for the provision of spare parts and services, online publication of manuals, etc.), and promoting zero waste shopping (e.g. zero waste stores, farmers' markets, etc.). This added focus on reduction and reuse will help move the Plastics Action Plan forward in accordance with pollution prevention best practices.

2. CLARIFY LOCAL GOVERNMENT AUTHORITY

We appreciate that the Ministry has acknowledged the actions being taken by local governments to address the local impacts of single-use items in BC communities. Indeed, more than 23 communities in B.C. have been actively developing bans, fees and levies, to address single-use items. However, as noted in the Consultation Paper, the B.C. Court of Appeal ruling regarding the City of Victoria's business licence regulation bylaw is of major concern to local governments as its implications for municipal authority to adopt bylaws under sections 8 and 9 of the *Community Charter* are potentially significant.

Until the Court of Appeal decision was issued, it has been the view of many municipalities that the nature of concurrent powers expressly described by statute in sections 8 and 9 of the *Community Charter* allowed for the regulation of unsustainable business practices. To be certain, there are numerous examples of municipal business regulations which already include one or more provisions intended to protect the environment, including imposing requirements or prohibitions on the pollution of waterways, drains and sewers.

As the Province reviews the Court of Appeal's decision, we urge the Minister to consult with the Ministry of Municipal Affairs and Housing to provide clarity on the limits and intent of the general concurrent authorities shared by local governments and the Province in relation to the protection of the natural environment, and specifically as it applies to single use items. Moreover, we request that a clear, timely and uniform process be developed for local governments who choose to act on those matters which fall under section 9(1) [*spheres of concurrent authority*] of the *Community Charter*.

3. A "STEPPED" OR PHASED APPROACH

As each local government faces unique challenges with respect to recycling and solid waste management, a one-size-fits-all provincial regulation may not meet the needs or expectations of all communities. To this end, we recommend the Minister regulate single-use plastics through a "stepped" or "phased" approach akin to the *BC Energy Step Code Regulation.* A phased approach would allow local governments to move at a pace appropriate for their communities, while also providing industry with a set of consistent targets for waste reduction and recycling across British Columbia. This flexibility is particularly important for smaller rural communities while also enabling faster action to be taken by those local governments who are ready for more ambitious, multifaceted approaches to regulating waste and single-use items. In this way, communities can adopt these regulations gradually or more quickly depending on their ability and resources. Moreover, a consistent incremental framework that raises standards would ensure that, as the recycling and packaging industries innovate, we are able to avoid the current patchwork of disparate standards in each community.

The *BC Energy Step Code* is an excellent example of collaboration between the Province, local governments, industry, and other stakeholders. We encourage the Ministry to consider a similar approach to the regulation of single-use items to encourage innovation while respecting the capacity of all municipalities.

4. IMPROVING EXTENDED PRODUCER RESPONSIBILITY (EPR)

BC is a leader in implementing EPR programs and moving ahead on its commitments to the Canadian Council of Ministers of Environment Canada-wide Action Plan on EPR. As the Ministry now has experience with these programs, it is important to foster continuous improvement, address problems that have arisen and push for programs to meet their full potential.

EPR programs are designed so that producers pay for their products' end of life management, but also so that products and packaging become better designed. The *Recycling Regulation* and the work of the Ministry have focused on collection for recycling or responsible handling, however few programs are achieving success in redesign, reduction or reuse. There needs to be a focus higher up the hierarchy, which would hold the business sector accountable. This could include exploring ways to redesign products, reduce the amount of packaging, or change the materials used. There are different ways to achieve this, including mandating differential fees based on environmental-impact or waste-creation (rather than fees set by operational costs only), implementing financial penalties for non-compliance, or requiring targets for reduction or redesign.

Another area for expansion within the EPR framework is the inclusion of industrial, commercial and institutional (ICI) materials. The main driver for participation by businesses in diversion is the cost of participation relative to disposal. As changes in global markets drive down the revenue potential of these diverted materials, and with high costs of hauling to recycling markets, the segregation and recycling of materials (e.g. plastic containers, plastic film and expanded polystyrene) are challenging to justify for many businesses. Thus, the segregated collection and diversion of materials from the ICI sector is cost prohibitive to the businesses, and in many cases is substantially subsidized by local governments and taxpayers. Inclusion of ICI materials (with a focus on packaging) into the *Recycling Regulation* would create efficiencies within the transportation network from remote communities and prevent landfilling of recyclables by the ICI sector. In this way, the expansion of regulated products captured by the *Recycling Regulation* is supported, including packaging-like products, mattresses, single-use household pressurized cylinders, and new and used gypsum drywall.

EPR programs also need to be structured to ensure that they are accountable and cover the full costs related to the product disposal. Often, many of the costs associated with the collection of EPR products are not covered by the stewardship programs, which results in fees or taxpayer subsidization of the collection, transportation, and responsible disposal of the materials (e.g. tires). In addition, local governments are subsidizing the collection and management of material that escapes the stewardship collection program (through streetscapes, litter collection, illegal dumping, etc.). On a final note, EPR programs should enhance accountability and transparency. This includes local government and public representation on boards, open access to information given to boards and to their decisions, and the inclusion of financial and material management information for all programs. These changes to EPR programs would greatly enhance their effectiveness in the reduction of plastic waste.

5. ENSURING INTERNAL AND EXTERNAL CONSULTATION

Finally, it is unclear from the Consultation Paper how and when other Ministries and impacted stakeholders will be specifically consulted. When policy tools are evaluated, it is important to consider all impacts and to ensure that viable alternatives are available. To this end, we recommend that the Ministry of Health be specifically consulted regarding potential regulatory changes to allow restaurants to fill take-out orders in reusable containers brought in by customers. This measure is integral to the implementation of bans on single-use containers and packaging, as the City of Vancouver found that nearly 50% of all garbage collected from public waste bins consists of take-out containers and disposable cups. Compostable and recyclable packaging materials often get mixed up when discarded, contaminating both streams and making them impossible to process.

In the development of exemptions, we support evidence-based policies that have been shown to be effective at reducing waste. Moreover, disability advocates, care facilities, local governments, and other provincial agencies (such as the Ministry of Social Development and Poverty) should be specifically consulted in the development of exemptions as a means to highlight and ensure accessibility.

CONCLUSION

We appreciate the opportunity to provide comment and strongly encourage the Ministry to continue to consult with local governments in the upcoming regulatory process. In this letter, we have highlighted the need for a focus on reduction and reuse, clarification of local government authority, and further internal and external consultation. We have also made suggestions for the improvement of EPR programs and a community-led approach akin to the existing *BC Energy Step Code* adoption model. We hope that these concerns are taken into consideration and we look forward to further engagement with the Ministry.

Sincerely,

Karen Elliott, Mayor
District of Squamish

Josie Osborne, Mayor
District of Tofino

Lisa Helps, Mayor
City of Victoria

Kathy Moore, Mayor
City of Rossland

Mayco Noël, Mayor
District of Ucluelet

John Jack, Board Chair
Alberni-Clayoquot Regional District

Leslie Baird, Mayor
Village of Cumberland

Toni Boot, Mayor
District of Summerland

Jack Crompton, Mayor
Resort Municipality of Whistler

Mike Richman, Mayor
Village of Pemberton

Barb Desjardins, Mayor
Township of Esquimalt

Colin Plant, Board Chair
Capital Regional District

Rob Martin, Mayor
City of Colwood

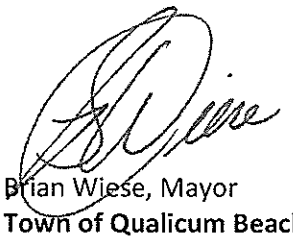
Fred Haynes, Mayor
District of Saanich

Lori Pratt, Board Chair
Sunshine Coast Regional District

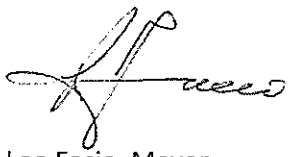
Margo Wagner, Board Chair
Cariboo Regional District

Pam Alexis, Mayor
District of Mission

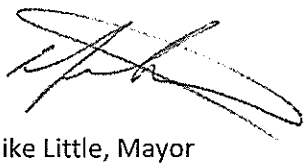
Tony Rainbow, Board Chair
Squamish-Lillooet Regional District



Brian Wiese, Mayor
Town of Qualicum Beach

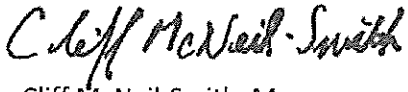


Leo Facio, Mayor
Village of Harrison Hot Springs

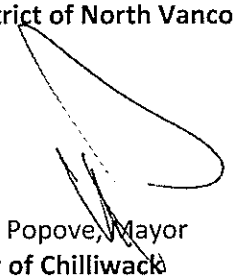


Mike Little, Mayor
District of North Vancouver

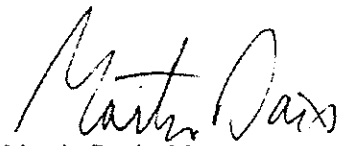
Maja Tait, Mayor
District of Sooke



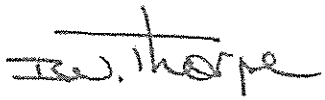
Cliff McNeil-Smith, Mayor
Town of Sidney



Ken Popove, Mayor
City of Chilliwack



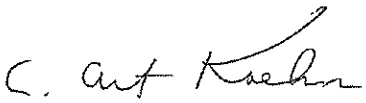
Martin Davis, Mayor
Village of Tahsis



Ian Thorpe, Board Chair
Regional District of Nanaimo

Karla Kozakevich, Board Chair
Regional District Okanagan-Similkameen

Bob Wells, Mayor
City of Courtenay



Art Kaehn, Board Chair
Regional District of Fraser-Fort George

Media Release

CITY OF VICTORIA

29 Local Governments Speak as One in Feedback to the Province on Plastics Reduction

Date: Tuesday, October 1, 2019 For Immediate Release

VICTORIA, BC – Local governments across British Columbia have worked together to present a joint letter to the Ministry of Environment and Climate Change Strategy in response to the Province's call for input to its Plastics Action Plan. In all, 29 governments have signed the letter aligning their voices and calling for the Province to adopt bold legislation to significantly reduce and regulate plastics in British Columbia.

"We are grateful to the Province for engaging British Columbians on the future of waste reduction," says City of Victoria Mayor Lisa Helps. "Local governments are on the front lines of dealing with waste and have the best potential to help the Province move to a zero waste economy. I'm confident this coalition of communities represents a strong voice that will resonate with the Province's aims."

Signatories include many local governments who have, or who are in the process of, adopting single-use plastics regulations. The letter represents a unifying voice, which brings a strong message to the Province on behalf of municipalities and regional districts all over B.C.

"Local government is the level of government closest to the ground. Every single day, we deliver services that citizens depend on, and we hear from those same citizens about what matters to them", says Josie Osborne, Mayor, District of Tofino. "By collaborating to provide our collective advice to the Province on the regulation and management of single-use plastics, we are more likely to be heard and less likely to be ignored. It's an effective strategy to maintain a healthy working relationship between local government and the Province."

The joint letter highlights five topic areas which include:

1. the need for a greater focus on reduction and reuse over recycling and disposal;
2. clarification of local government authority to regulate for environmental reasons through local bylaws;
3. an appeal for a stepped or phased implementation approach;
4. improved extended producer responsibilities; and
5. sufficient consultation with key stakeholders when policy tools are developed and evaluated.

The signatories include:

Alberni-Clayoquot Regional District
Capital Regional District
Cariboo Regional District
City of **Chilliwack**
City of **Colwood**
City of **Courtenay**
Village of **Cumberland**
Township of **Esquimalt**
Regional District of **Fraser-Fort George**
Village of **Harrison Hot Springs**
District of **Mission**
Regional District of **Nanaimo**
District of **North Vancouver**
Regional District **Okanagan-Similkameen**
Village of **Pemberton**
Town of **Qualicum Beach**
City of **Rossland**
District of **Saanich**
Town of **Sidney**
District of **Sooke**
District of **Squamish**
Squamish-Lillooet Regional District
District of **Summerland**
Sunshine Coast Regional District
Village of **Tahsis**
District of **Tofino**
District of **Ucluelet**
City of **Victoria**
Resort Municipality of **Whistler**

"Individual municipalities want to work with the Province to introduce stronger regulations around single use plastics and at the same time, protect their right to regulate local business practices. The level of collaboration we have seen in the development of this submission has real power, and it is incredibly exciting to see how we can learn from one another and adopt best practices," says Karen Elliott, Mayor, District of Squamish. "The bigger opportunity here is that this level of local government collaboration can work across so many other topics that our communities are all grappling with, from climate change to affordable housing and beyond."

Many of the 29 local governments are also sending individual letters to the Province in addition to the joint letter.

The joint letter to the Province can be viewed here: http://www.tofino.ca/plastics

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Media contacts:

District of Squamish: Christina Moore, cmoore@squamish.ca, 604.815.5025
District of Tofino: Elyse Goatcher-Bergmann, egoatcher-bergmann@tofino.ca, 250.725.3229 ext 610
City of Victoria: Bill Eisenhauer, beisenhauer@victoria.ca, 250.858.1061