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**TO:** Dennis Trudeau  
General Manager,  
Transportation and Solid Waste

**DATE:** August 31, 2015

**FROM:** Larry Gardner  
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**MEETING:** RSWAC, Sept. 17, 2015

**FILE:** 0360-20-RSWAC

**SUBJECT:** Regulatory Tools to Promote Increased Waste Diversion – Regional Solid Waste Advisory Committee

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### RECOMMENDATION

That the Regional Solid Waste Advisory Committee (RSWAC) receive this report for information.

### PURPOSE

The purpose of the report is to explore, at a conceptual level, regulatory approaches that might be applied to increase waste diversion as part of the Regional District of Nanaimo's (RDN) Solid Waste Management Plan (SWMP).

### BACKGROUND

The RSWAC has been advised of the authorities Regional Districts have regarding waste management, and, additional authorities that are available and may be accessed through Ministerial approval of a SWMP (staff report: *Authorities Provided to Regional Districts Through an Approved SWMP –RSWAC, July 2, 2015*). Furthermore, the RSWAC has been advised that Regional Districts do not have the authority to regulate consumer products (staff report: *Regional District Bylaw Authority to Manage Consumer Products – RSWAC, May 15, 2015*).

It is recognized that education, promotion and incentives are valuable tools to encourage and foster waste diversion efforts. However, the purpose of this report is to consider regulatory concepts that might push greater levels of diversion. A range of regulatory options are presented below and each is discussed in more detail in subsequent sections of this report:

1. *Mandatory Waste Collection Service* – This is akin to the residential curbside collection service provided throughout the RDN but expanded to all waste generators including multi-family, institutional and commercial. The current residential curbside collection system is mandatory and every single-family residential dwelling must pay for the service and there is no ability to opt out. A mandatory system could be provided by local government staff or contracted out to a private hauler. This is actually a “service” and not exclusively “regulatory”, however, it is a concept that closely aligns with other regulatory approaches and, therefore, is discussed in this report. An expanded mandatory service for all waste collection is within local government's authority to introduce without additional authorities obtained through the Solid Waste Management Planning process.

2. *Waste Hauler Franchise* - This is a system where the RDN would sign contractual agreements with waste haulers to provide waste collection services for the multi-family, commercial or institutional sector within the RDN. Under these agreements, waste haulers would abide by specific standards (e.g. waste/recyclables separation), set an established fee schedule, have reporting obligations and potentially remit fees to the RDN. A franchise system does not require mandatory participation by waste generators, although if a generator chooses to hire a service, it could only be done by a franchise hauler. A franchise system can be set up with a defined operating area for the franchisee or to allow many franchisees to offer service within a common area. To introduce a franchise system, additional authorities provided by the SWMP are required.
3. *Waste Hauler As Agents* – This is similar to a franchise system but does not establish contractual agreements with each hauler operating in the area. It does allow for setting fee levels based on the quantity or type of waste and varying fees by class of persons, activities or businesses. Haulers can be required to act as agents and collect and remit fees on behalf of the RDN. To establish haulers as agents, additional authorities provided by the SWMP are required.
4. *Flow Management* – Flow management is the ability to direct the hauling of waste, or the hauling of recyclables, within or through the area covered by the Solid Waste Management Plan. To establish flow management regulation, additional authorities provided by the SWMP are required.
5. *Waste Source Regulation* – This is the ability to impose requirements on waste generators such as the requirement for waste and recyclable separation. Regulations or Codes of Practices could be developed that might apply to different sectors or business areas such as multi-family homes, food preparation, or demolition projects. To impose waste source regulations, additional authorities provided by the Solid Waste Management Plan are required.

### **Mandatory Waste Collection Service**

#### *Diversion Implication*

In general, there is a propensity for most people to use a service that is provided. So where collection is provided for different material types (i.e. garbage, organics, recyclables), it is expected that most waste generators would begin to use the expanded service of their own accord, thereby significantly improving waste diversion. To further increase diversion, there is the ability to include limitations or variable rates for the amount of garbage that is set out. As well, there is the ability to require waste/recyclable separation or material bans.

#### *Administration and Enforcement Implication*

A mandatory system is a significant administrative burden to collect utility fees and either deliver the collection service directly or through contract.

Through a mandatory system, materials separation could be progressively implemented from education to enforcement aimed at higher diversion. Inspection at waste generators sites of trash and recyclables could be carried out to determine compliance with waste separation rules.

### *Community Implications*

At the two RDN waste receiving sites, there are approximately 170,000 customer visits annually. About 150,000 visits are self-haul customers with the balance being commercial haulers. A mandatory waste collection service would be expected to significantly reduce this traffic as essentially everyone would be provided with a waste collection service. Although the greenhouse gas benefit of less traffic would be difficult to predict, it is believed that a mandatory collection system would have some positive environmental benefit in this regard.

There are seven large waste hauling companies and many independent waste haulers that currently operate in the RDN. A mandatory collection system would essentially eliminate the free enterprise system that currently exists in the RDN. It is expected that this industry group would oppose an expanded mandatory waste collection system.

Community cost implications of such a system are not known at this time.

## **Waste Hauler Franchise**

### *Diversion Implication*

There are numerous examples of waste hauler franchises, particularly in the United States, and a couple of examples are:

- The City of Tampa, Florida requires those providing a waste hauling service to obtain a "Hauler Agreement" and those self-hauling to obtain a "Haul Your Own Permit". Commercial waste franchisees are required to remit 15% of their gross revenue to the City to support the City's solid waste system. The franchisees are compelled to collect trash, recyclable materials and green waste separately.
- The City of Gardena, California requires that all waste haulers working in the area must be franchisees. The franchise gives the hauler the right to collect waste and recyclable materials generated or accumulated with the City. A requirement of the franchise is to annually submit a Source Reduction and Recycling Plan that is reviewed by the City to ensure that it meets the state-mandated recycling requirements. Further, the franchisee is required to prepare and follow a C&D Waste Diversion Plan to assure conformance with the City's requirement that 50% of regulated C&D Wastes must be diverted.

A waste hauler franchise system in the RDN has the potential for significant increases in diversion consistent with that of a mandatory waste collection service described above.

### *Administration and Enforcement Implication*

A waste hauler franchise system is a significant administrative burden to set up the contracts and to monitor waste hauler performance but likely less onerous than what is required for a mandatory waste collection system. The level of compliance and enforcement oversight is likely to be higher than for a mandatory system. Overall, the resource demand on local government to support either system is anticipated to be similar.

### *Community Implications*

Depending on how a franchise system is designed (e.g. requiring a self-haul permit, levy on commercial waste collection), it could work as an incentive or disincentive for self-haul customers thereby increasing or decreasing traffic at RDN waste receiving sites.

A franchise system can be compatible with free enterprise and, as such, it is more likely to gain acceptance to the waste hauling industry as compared to a mandatory waste collection system.

Community cost implications of such a system are not known at this time.

### **Waste Hauler As Agents**

#### *Diversion Implication*

The previous two examples of systems, mandatory collection and franchising, are based on *compelling* an action and *enforcement* to make it happen (e.g. waste separation). Assigning waste haulers as agents, does have an enforcement component but it is more focused on an economic driver to affect the desired behavior. For example, it is possible to require waste haulers to collect and remit a fee to the RDN where a customer's waste is not separated or where a recycling or organics collection service is not provided. Such a system provides an economic driver to encourage waste diversion efforts and removes the enticement of low cost disposal. Such a system has similar waste diversion potential to the previous systems discussed. There is no known model of such a system in existence.

#### *Administration and Enforcement Implication*

Such a system is expected to be a moderate administration and a minor enforcement burden. Waste haulers would have some increased administration through the collection and remittance of fees as well as reporting. There would be a minor level of enforcement to ensure haulers are complying but very little enforcement activity at the waste source.

#### *Community Implications*

Such a system is entirely market based and promotes industry innovation to achieve the lowest cost with highest diversion. Haulers would be compensated for the additional administrative tasks associated with fee collection and remittance on behalf of the RDN. For these reasons, the waste hauling industry may be more amenable to such a system as compared to the others discussed.

Although community cost implications of such a system are not known at this time, this is considered to be a lower cost option than the other concepts presented.

### **Flow Management**

#### *Diversion Implication*

It is a well-recognized universal concept that with increasing costs, alternatives to avoid those costs are sought out. This concept applies equally to waste management and, therefore, those communities with the highest waste disposal costs also have the highest waste diversion success. Much of the RDN's waste diversion success can be at least indirectly attributed to high disposal costs. Often the high "tip fee" gives the waste an artificial value where there is a willingness to pay to have the waste recycled. So, as tip fees are inflated higher, it encourages more diversion even if true costs for disposal have not changed. This works until the tip fee exceeds other disposal options. This is the exact circumstance that currently exists in the RDN where waste is being exported out of the region for low cost disposal.

Flow management provides the ability to restore high cost disposal as an incentive for waste diversion. As local government can authorize where waste is shipped for disposal, low cost disposal options can be excluded. Flow management has at least the potential, or possibly greater, of achieving high diversion as compared to the other options presented above. The high potential is related to its simplicity of the approach and that it covers all waste types and sources.

It is worthy of note that in 2014, the Minister of the Environment, rejected a Metro Vancouver bylaw that proposed to introduce flow management. The bylaw also proposed to regulate facilities so it is not know to what extent the flow management component or facilities management component influenced the final decision. Reasons stated by the Minister in denying the bylaw were:

- The potential to create a monopoly on waste management;
- The potential for increased illegal dumping;
- The possible negative effects on the new packaging and printed paper recycling program; and
- The destabilizing effect it may have on private-sector collection and hauling.

#### *Administration and Enforcement Implication*

Such a system is expected to be a very low administration burden and a minor enforcement burden. Compliance and enforcement activities would be related to checking that waste is not being shipped outside the region for low cost disposal. It is expected that if flow management was brought into force that all major waste haulers would comply and not attempt to evade the regulations.

#### *Community Implications*

Overall waste management costs may be very similar to the other systems presented but there is likely to be a perception of high cost if tipping fees are high. Due to this perception, there may be reluctance to raise tipping fees high enough to encourage the desired diversion behavior. Such a system is entirely user pay and costs are not socialized (i.e. taxation). Other areas that have considered flow management have typically had industry opposition to this type of regulation.

### **Waste Source Regulation**

#### *Diversion Implication*

This is the ability to impose requirements on waste generators such as the requirement for waste and recyclable separation. An example of this is the City of Vancouver's Green Demolition bylaw which requires 75% recycling of materials on demolition of pre-1940 homes and 90% on pre-1940 character homes. Examples of this type of source control applied to all business sectors do exist in some United States communities. Diversion potential is likely higher than what exists with the other concepts, as strict requirements can be applied and enforced at the source site.

#### *Administration and Enforcement Implication*

Such a system is expected to be a moderate administration burden to develop and maintain regulations. Of all the concepts presented here, this has the highest compliance and enforcement burden as it attempts to regulate every waste source site.

### *Community Implications*

This system is entirely regulatory and attempts to compel an action with no incentive to encourage the desired behavior. As such, this system is likely to result in the most conflict.

Cost implications of such a system are not known at this time but are potentially the highest due to the necessary level of compliance and enforcement work necessary.

## **JURISDICTIONAL TRENDS**

A jurisdictional search of communities throughout North America show that there is a trend to ban materials from disposal. This is most evident with the banning of organic waste illustrated by the following examples:

- Scotland – in 2014 regulations came into force requiring all businesses and organizations to separate key materials (i.e. plastic, glass, metals, paper and card) and most food businesses to separate food waste. Maximum fines for failing to comply are £10,000.
- Seattle, Washington – is introducing fines to residents and businesses. Residents will receive a warning and then a \$1 fine is added to their bill when their trash contains 10% or greater food waste or certain paper products. Commercial properties will receive two warnings followed by a \$50 fine on their next bill.
- Vermont – a Universal Recycling law introduced in 2012 imposes landfill bans on plastic, aluminum and metal container, paper, yard & garden waste, and food scraps. Mandatory compliance is being phased in over 6 years beginning with the largest generators of food scraps who must start separating them if there is a permitted composting facility located within 20 miles. They are introducing a “pay-as-you-throw” variable rate pricing to incentivize recycling. Waste haulers must pick up residential recycling at no charge.
- Massachusetts – Starting in October 2015, food waste generators that produce more than one ton of food waste per week, must divert it from landfills.
- San Francisco, California – 2011 regulations came into effect allowing fines to be applied to those not effectively separating food scraps and recyclables. Following warnings, fines are \$100 for small businesses and single family homes and \$1000 for large businesses and multi-family buildings. The ability to fine came after decades of voluntary, convenient programs and financial incentives. San Francisco concluded that they would not achieve their diversion goals without mandatory recycling and composting.
- Capital Regional District – 2015 CRD introduced a ban on kitchen scraps at the Hartland Landfill. Commonly a Bylaws Enforcement Officer is situated at the landfill disposal area and applies fines to non-compliant waste haulers that range from \$100 to \$1000.
- Whistler, BC – They are considering an organics and recycling ban with the intention that haulers are fined if the load contains the banned materials.
- Metro Vancouver – They recently introduced an organics ban at the landfill and transfer station. As of July 1, 2015, waste loads with more than 25% visible food will be surcharged 50% of the cost of disposal. Metro plans to reduce the amount of food scrap allowed over time.


If the material bans are to be effective, there needs to be an absence of low cost disposal of mixed waste or the bans need to be undertaken in conjunction with some other regulatory control such as hauler franchising or waste source regulation. A number of the examples above rely on some combination of regulatory tools.

Starting 1991, under Bylaw 1531, the RDN has increased the number of banned materials at the landfill and transfer station including commercial organic waste, recyclable paper and stewardship materials (see Appendix 1 for the complete list). Currently enforcement of the bans is lax and fines are only applied to the most egregious violations. Although the RDN could immediately apply more aggressive enforcement of disposal bans it is more likely to exacerbate waste export and disposal rather than have the desired effect of increasing waste diversion. Enforcement of bans in combination with some other regulatory measures discussed here improves the certainty of higher diversion goals.

**SUMMARY/CONCLUSIONS**

The intent of this report is not to delve into the detail of alternate regulatory schemes. It is, however, intended to present alternative concepts that are likely to increase waste diversion.

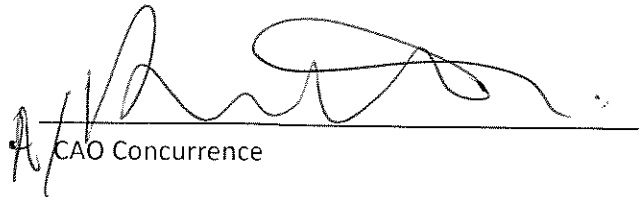
Other than *mandatory waste collection*, all the other regulatory approached presented in this report require additional authorities gained through Ministerial approval of the amended SWMP. In other words, the SWMP must state the desire for any or all of these authorities before they can be utilized. The actual implementation of the authorities would not happen until such time as they are adopted by the RDN at some future date and following extensive consultation on the specific bylaw. If such intent is not stated in the SWMP, the RDN can not take actions in these areas.



Report Writer



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## APPENDIX 1

### Prohibited Waste at RDN Facilities

At the Regional Landfill:

- (i) Biomedical Waste;
- (ii) Commercial Organic Waste;
- (iii) Concrete or asphalt pieces, or rocks greater than 0.03m<sup>3</sup> or 70 kg;
- (iv) Corrugated Cardboard;
- (v) Drums;
- (vi) Garden Waste;
- (vii) Gypsum;
- (viii) Hazardous Waste;
- (ix) Household Plastic Containers;
- (x) Ignitable Wastes;
- (xi) Land Clearing Waste;
- (xii) Liquids, except as permitted herein;
- (xiii) Metal;
- (xiv) Motor vehicle bodies and farm implements;
- (xv) Municipal Solid Waste that is on fire or smouldering;
- (xvi) Radioactive Waste;
- (xvii) Reactive Wastes;
- (xviii) Recyclable Paper;
- (xix) Stewardship Materials;
- (xx) Special waste, as defined in the Special Waste Regulation (British Columbia) except asbestos ;
- (xxi) Tires;
- (xxii) Wood Waste

At Church Road Transfer Station:

- (i) Biomedical Waste;
- (ii) Commercial Organic Waste;
- (iii) Concrete or asphalt pieces, or rocks greater than 0.03m<sup>3</sup> or 70 kg;
- (iv) Controlled Waste;
- (v) Corrugated Cardboard;
- (vi) Garden Waste;
- (vii) Gypsum;
- (viii) Hazardous Waste;
- (ix) Household Plastic Containers;
- (x) Ignitable Wastes;
- (xi) Land Clearing Waste;
- (xii) Liquids, except as permitted herein;
- (xiii) Metal;
- (xiv) Motor vehicle bodies and farm implements;
- (xv) Municipal Solid Waste that is on fire or smouldering;
- (xvi) Radioactive Waste;
- (xvii) Reactive Wastes;
- (xviii) Recyclable Paper;
- (xix) Special waste, as defined in the Special Waste Regulation (British Columbia) except asbestos;
- (xx) Stewardship Materials;
- (xxi) Tires;
- (xxii) Wood Waste.