

CSRD ENVIRONMENTAL HEALTH SERVICES



Solid Waste Management and Recycling in the CSRD Reference Guide



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EXECUTIVE SUMMARY

Solid waste and recycling programs are governed by the Ministry of Environment in British Columbia. The purpose of the Reference Guide for Solid Waste and Recycling in the CSRD is to provide elected officials with a history, overview and status of solid waste and recycling within the CSRD. The following is a high-level overview of the roles and responsibilities:

Roles and Responsibilities

Ministry of Environment

- Regulate discharges to the environment
- Approve Solid Waste Management Plans
- Approve landfilling authorizations including:
 - Operational Certificates
 - Design, Operation and Closure Plans
- Conduct inspection of landfill authorizations

CSRD

- Prepare and submit to the Ministry of Environment:
 - Solid Waste Management Plans
 - Design, Operation and Closure Plans
 - Annual Reports
- Compliance with:
 - Operational Certificates
 - Design, Operation and Closure Plans
- Manage operations of CSRD landfills and transfer stations
- Respond to complaints related to landfill and transfer station operations
- Forward complaints regarding collection programs to member municipalities

Member Municipalities

- Administer curbside garbage and recycling collection programs
- Respond to complaints related to collection programs
- Forward complaints regarding landfill operations to the CSRD

PURPOSE AND OVERVIEW

This Solid Waste Management and Recycling Reference Guide is intended to provide elected officials and local government staff a document that provides an overview of the CSRD's solid waste and recycling programs that impact the waste management services that the CSRD and member municipalities administer.

History of Solid Waste Management Plans in BC

In an effort to consolidate the management of solid waste in BC, in the early 1990's, the provincial government amended the Environmental Management Act and mandated all regional districts to develop regional solid waste management plans for the management of municipal solid waste and recyclable materials.

In 1994, the Province developed the *Guide to the Preparation of Regional Solid Waste Management Plans for Regional Districts*, which provided support to the amendments to the Environmental Management Act, the Guide was updated in 2016. The Solid Waste Management Plan (SWMP) process and reporting process is a proven way to publicly develop a region wide waste management program that aims to reduce the amount of solid waste requiring disposal in a particular region, contributing to environmental protection. SWMP's are required to be adopted by a Regional District Board as well as signed by the provincial Minister of the Environment. Items in an approved SWMP can be implemented without assent of the electors. The CSRD's SWMP can be found at:

<https://www.csr.bc.ca/services/solid-waste-recycling/solid-waste-management-plan-review>

A SWMP document is developed by establishing public advisory committees, setting regional targets, reviewing the existing waste management systems, identifying strategy options for achieving waste reduction targets, and requires broad and sufficient demonstrated support of the electorate. Five-year effectiveness reviews are provincially recommended and SWMP's require formal reviews and renewals every 10 years. The CSRD's current SWMP was approved by the Ministry of Environment in 2015 and most recently updated in 2018 to facilitate a land acquisition project for the Salmon Arm Landfill.

The CSRD has a Public Monitoring Advisory Committee (PMAC), made up of members of the public, staff from member municipalities and technical experts in the field of solid waste management. The PMAC meets twice annually to review progress on the SWMP goals and targets, to share information related to solid waste in member municipalities and electoral areas and to work together to achieve SWMP objectives.

History of Landfills in the CSRD

One of the many SWMP goals for regional districts in early editions of SWMPs was to consolidate landfilling across the province. As such, many rural landfills were closed in the 1990s and either converted to transfer stations or closed indefinitely, in favor of regional landfill receiving sites. Furthermore, because regional districts were mandated to manage solid waste, discussions and agreements were formed with municipalities to take over municipal landfills.

In 1993, the MoE released the first edition of the *Landfill Criteria for Municipal Solid Waste* (Criteria). The Criteria was a guidance document that outlined recommendations on how landfills were to be constructed, operated and monitored and presented ideal situations to maximize environmental protection. The Criteria was used by landfill owners to develop Design and Operating Plans (DOCPs), which provided clear and concise engineering and operational plans to manage and operate landfills across BC.

Present Day Landfill Standards

The MoE updated the Criteria in 2016, which continues to be a guidance document for municipal landfills in BC. Although, existing historical landfills are generally included in the scope of this guidance document, those landfills can be specifically excluded (by the MoE) from some siting and design requirements that are not feasible or implementable. Furthermore, the Criteria recommends that landfill operators develop landfill Conformance Plan Reviews, which compare existing site conditions to the Criteria and provides a reasonable timeline to implement upgrades if possible.

The MoE has gone through substantial transformations over the years and the current model is structured such that there are two separate and distinct divisions. An Authorizations Division is responsible for authorization administration, which provides approvals or recommendations on the permitting aspects of landfill development, including reviewing and approving Operating Certificates and Permits, Design and Operations Plans, SWMP Reviews, Conformance Plan Reviews, etc. The Compliance Division is responsible for landfill inspections and compliance against approved authorization documents.

SWMP Funding Model in the CSRD

The CSRD operates its solid waste and recycling programs under separate regional budgets. The majority of the solid waste function is funded by tipping fee revenues collected by site users. The recycling function is funded by a combination of region wide taxation model, extended producer revenues and tipping fees. Tipping fee revenues are estimated based on previous year revenues that are generally consistent. In addition to funding day to day operations, tipping fees are required to fund environmental monitoring, landfill closure, capital projects, waste hauling, and closure and reserve fund allocations. The tax rate used to help fund the recycling function is established on an annual basis by the CSRD Board of Directors.

SWMP Program Delivery in the CSRD

The CSRD's SWMP was approved by the Province in the spring of 2015. An amendment to the SWMP was approved in 2018 to facilitate the acquisition of a 20-acre property adjacent to the existing Salmon Arm Landfill site. The SWMP is typically compiled by a Qualified Professional and incorporates public input via a number of mechanisms including online surveys, mail in surveys, public meetings and input from a plan review advisory committee. The SWMP review process follows the Provincial guidelines for preparing and adopting SWMP's and is approved by the CSRD Board before being submitted to the Minister of Environment for approval.

The 2015 CSRD SWMP outlines a number of objectives and targets to help guide work plans and budgeting. Typically, a SWMP will identify high level, broad waste management programs to manage solid waste and recycling. The CSRD uses the SWMP to develop and implement specific programs to achieve the higher-level goals contained within the SWMP. The 2015 CSRD SWMP identified nine main program themes:

1. Target Setting and Waste Composition Confirmation
2. Establish a Promotion and Education Budget
3. Establish Permanent HHW drop off facilities at each waste receiving site.
4. Adopt policies that support waste diversion
5. Curbside Program Enhancements
6. DLC Waste Diversion
7. Expand Materials Collected at RDFs
8. Corporate Policies and Ongoing Review
9. Downtown Core Public Space Recycling

The CSRD is required by the MoE to submit a Five-Year review of the SWMP by March 31, 2023 and to conduct a complete review of the SWMP for submission to the MoE for approval by December 31, 2028.

Municipal vs. Regional District Roles and Responsibilities under the CSRD SWMP

The CSRD is responsible for receiving and managing solid waste and recyclable materials, generated within electoral areas and municipalities of the CSRD boundary. The CSRD delivers this service through a network of transfer stations (18) and landfills (4). Transfer stations offer residents in rural areas a host of services including recycling and garbage disposal. The CSRD operates eight transfer stations including Parson, Trout Lake, Malakwa, Falkland, Glenemma, Skimikin, Scotch Creek and Seymour Arm. Waste received at these facilities is collected in roll-off bins and then hauled to the nearest landfill operated by the CSRD; either Golden, Revelstoke, Sicamous or Salmon Arm.

In addition to refuse disposal, all transfer stations and landfills support the Recycle BC Depot Collection program, which accepts printed paper and packaging for recycling. Furthermore, the CSRD operates six additional Recycle BC collection depots at the Golden, Revelstoke, Salmon Arm and Sicamous bottle depots, as well as locations in Sorrento and Tappen. Lastly, CSRD landfills and transfer stations offer a variety of recycling programs, dependent upon the size and level of use of the site. Recycling programs include metal, wood waste, yard waste, mattresses, books, appliances, batteries, reuse centres, asphalt shingles, hazardous waste, propane cylinders, etc. More information can be found on the CSRD website at www.csr.bc.ca/services/solid-waste-recycling.

Under the CSRD waste management model, member municipalities are responsible for delivering residential collection services. Member municipalities offer a range of curbside collection services which are administered by either contracted or municipal staff. Furthermore, similar to the regional district, municipalities have partnered with Recycle BC to deliver curbside recycling collection services. The CSRD does not currently provide a residential curbside collection program in any electoral area.

Regulatory Requirements

Under the BC Environmental Management Act, an authorization from the Province is required to discharge waste into the environment. Examples include air discharges from industry, sewage treatment discharges and landfill discharges. As such, the CSRD is required to have authorizations for its four regional landfills. Authorizations are granted in the form of an Operational Certificate.

An Operational Certificate outlines a number of requirements which the CSRD must adhere to in order to maintain compliance with the authorization. A key component of CSRD Operational Certificates is the requirement to operate the site in accordance with an approved Design, Operation and Closure Plans (DOCP). The DOCP is prepared by a Qualified Professional and outlines landfill development, reporting requirements and monitoring plans. DOCPs require review every five years.

CSRD Landfill Oversight and Monitoring

The CSRD employs a contractor-based model to deliver services at all CSRD transfer stations and landfills. Contractors include scale attendants, equipment operators and environmental monitoring. The CSRD's Environmental Health Services Division has three full time staff members who oversee the Solid Waste Management and Recycling program. A Team Leader provides oversight and direction to a Recycling Coordinator and a Facilities Superintendent. The Division is contained within the Operations Management Department that provides senior administrative support to the Division.

The CSRD's Facilities Superintendent works closely with the landfill site contractors and transfer station attendants to ensure sites are being maintained in accordance with CSRD contracts. CSRD contracts require that landfill operators are trained to the Waste Association of North America standards in order to ensure landfills are being operated in accordance to present day landfilling standards. In addition, CSRD staff members in the Environmental Health Services Division are trained to this level as well.

In order to ensure that contract requirements are being met, CSRD staff regularly visit sites on a monthly basis to ensure the landfill is being developed in accordance to approved DOCPs. During these site visits, CSRD staff may conduct a formal contractor inspection or simply provide direction on site or provide project management. The CSRD conducts a minimum of three formal inspections per year at its landfill sites and at least one formal inspection at all of its transfer stations. Formal site inspections also cover all aspects of MoE landfill authorizations. Furthermore, CSRD staff carry out landfill gas probe monitoring and rely on Qualified Professionals to carry out groundwater monitoring as specified by MOE authorization documents.

Being Better Neighbours

Ideally, and as per the MoE's 2016 Landfill Criteria, landfills in BC are to be sited 500 metres from sensitive areas, which include residential developments. However, the majority of landfills in BC were sited back in the 1960s and 1970s, and neighborhoods have and continue to be developed around existing landfills. Given the nature of materials received and managed at landfills, the CSRD has implemented the following measures to help mitigate conflicts with neighbouring property owners:

- dust control;
- litter pick up;
- litter netting;
- bird control;
- metal cover plates;
- phased closure; and
- reporting and compliant procedures.

The CSRD is committed to continuous site improvements in order to reduce impacts on neighbouring property owners.

Inquiries

From time to time, public inquiries may be received by area directors or municipal councilors and municipal staff members that relate to the operation or regulation of a CSRD owned and operated waste receiving sites (landfills, transfer stations and/or recycle depots). As identified in this guideline, there are a number of CSRD approved documents that pertain to waste management including DOCP's, SWMP's, Conformance Review documents, groundwater monitoring reports, etc. as well as provincial legislation and Guidelines including the Environmental Management Act, Contaminated Sites Regulation, Operational Certificates, Landfill Criteria, and many others.

The CSRD recommends this Reference Guide be used for general guidance and knowledge and that public questions, concerns or inquiries be sent directly to the CSRD for follow up.

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