Food Services Operations
in the Capital Regional District

Making a difference...together

Environmental Regulations & Best Management Practices | **2015**

This manual is published by the Regional Source Control Program.

For more information contact us at:
250.360.3256 or
625 Fisgard Street, PO Box 1000
Victoria, BC V8W 2S6
or visit the CRD web site at www.crd.bc.ca

Contents

Introduction

Food service businesses are abundant throughout the capital region. Some 1,200 to 1,500 businesses in this area are involved in the preparation, packaging, shipping, sales or serving of food. Food services can generate a variety of by-products and recoverable wastes in their operations, including substances such as fats, oils and grease (FOG).

The Capital Regional District (CRD) Regional Source Control program (RSCP) has developed this document in cooperation with representatives from industry associations, local municipal public works departments, material suppliers, businesses and institutions. It serves as a guide to the requirements of the Code of Practice for Food Service Operations for food service operations within the regional district. This publication provides information on best management practices and services that help meet these regulations and improve their overall environmental performance.

What is Meant by the Food Services Sector?

The food services sector includes all businesses where food is prepared, packaged, shipped, sold or eaten. This includes bakeries, butcher shops, grocery stores, institutional kitchens (including health or residential care facilities), restaurants, caterers, wholesale food processors, delicatessens, fast-food outlets, cafeterias, pubs or other similar places and operations.

Why is Food Service Effluent a Concern?

The main problem is caused by discharged FOG and other food wastes plugging sewer lines and fouling sewage pump and lift stations. This problem exists throughout the sewer system but is particularly evident in areas where there are concentrations of food service sector businesses. Plugged sewer lines can result in sewer overflows, which can be a serious public health and/or environmental concern. To ensure that this does not occur, municipalities have been faced with significant maintenance costs to periodically remove grease buildup in sewers.

Summary of Regulatory Requirements

The CRD Sewer Use Bylaw

The CRD is empowered, under the provincial Environmental Management Act, to regulate the discharge of waste into its own sewers and into sewers owned and operated by member municipalities.

The CRD's Regional Source Control program is one of five liquid waste control programs that the CRD Board committed to following a 1992 referendum on liquid waste. On August 10, 1994, the CRD Board passed a bylaw to regulate the discharge of waste into sewers connected to a sewage facility operated by the CRD. This bylaw has been recently updated as CRD Sewer Use Bylaw No. 5, 2001, and is generally referred to as the Sewer Use Bylaw.



Grease adhering to sewer pipes below Wharf Street.

The main intentions of the Sewer Use Bylaw (Bylaw 2922) are to protect:

* the marine receiving environment,
* public health and safety,
* sewerage works,
* wastewater treatment processes, and
* sewer sludge quality.

Other Regulations

Other regulations that may apply to the handling and disposal of wastes from food service operations within the CRD include:

* CRD Septage Disposal Bylaw: regulates the discharge of septic tank contents into CRD Septage Disposal Facilities.
* Municipal Storm Sewer Bylaws: regulate the discharge of wastes into municipal storm drains and watercourses.
* BC Plumbing Code: specifies standards for the design and installation of plumbing systems.
* Municipal Plumbing Bylaws: specify requirements for installation and maintenance of plumbing and drainage equipment.
* Food Premises Regulation: includes regulatory requirements for fixtures, equipment and procedures for cleaning and sanitizing cooking and serving equipment and utensils. Administered in the CRD by Island Health.
* Hartland Landfill Tipping Fee and Regulation Bylaw (CRD): regulates the disposal of wastes at the CRD's Hartland Road Sanitary Landfill.

Hartland Landfill — disposal of solid wastes

Mandatory and Recommended Practices

The Code of Practice

In many cases, companies require a waste discharge permit to discharge industrial or commercial wastes into the sewers. However, the CRD's Sewer Use Bylaw also provides for the discharge of certain types of waste under industry-specific Codes of Practice.

A Code of Practice (CoP) is a regulatory document, developed by the District, which contains mandatory sanitary sewer discharge standards for specific industrial, institutional or commercial sectors. Codes of Practice set out minimum effluent treatment, equipment maintenance and record keeping requirements for various sector operations. A business or organization operating under an approved Code of Practice will not require a waste discharge permit.

This section is a summary of the regulatory requirements contained in the CRD Sewer Use Bylaw that apply to food service operations. It is intended for information and guidance purposes only. If there is any discrepancy between this information and the bylaw, the bylaw will take precedence.

Food service operations that follow the Code of Practice for Food Service Operations (Schedule "I" of the Sewer Use Bylaw) are authorized to discharge waste into a sanitary sewer without a waste discharge permit. The CRD reserves the right to require any food service operation to obtain a waste discharge permit if deemed necessary by the sewage control manager. All other terms and conditions of the Sewer Use Bylaw apply to the discharge of wastes to the sanitary sewer.

Food service operations that discharge to sewer are required to follow the CoP and will realize a number of benefits by following the practices recommended in this guidebook. These benefits include reduced frequency and severity of problems with drains, increased recovery of recyclable materials, improved operating performance and a reduced risk of liability. The purpose of the guidebook is to provide an easy-to-read educational tool for food services sector businesses to enable them to control the levels of contaminants discharged to sewers and drains.

Full copies of the bylaw are available from the CRD Parks & Environmental Services department (see Section 4.0).

Note that the "M" symbol indicates a mandatory requirement that is enforceable under the CRD Sewer Use Bylaw. Owners and operators of food service operations are also encouraged to implement the other guidelines described.

Grease Interceptors

* A grease interceptor (GI) is a treatment device installed in the plumbing line to control the flow of wastewater to allow fats, oils and grease to float and solids to settle (see Diagram 1). These contaminants can then be removed from the grease interceptor for disposal in a suitable manner.

Grease interceptors are required under the BC Plumbing Code and the Code of Practice and require municipal plumbing permits.

M All food service operations that discharge any amount of FOG and are connected to the CRD sanitary sewer system are required to have a grease interceptor in place to pre-treat the discharge.

Fixtures required to be connected to a grease interceptor

M The following fixtures must be connected to grease interceptors:

~ sinks used for washing pots, pans, dishes, cutlery and kitchen utensils, including pre-rinse sinks;

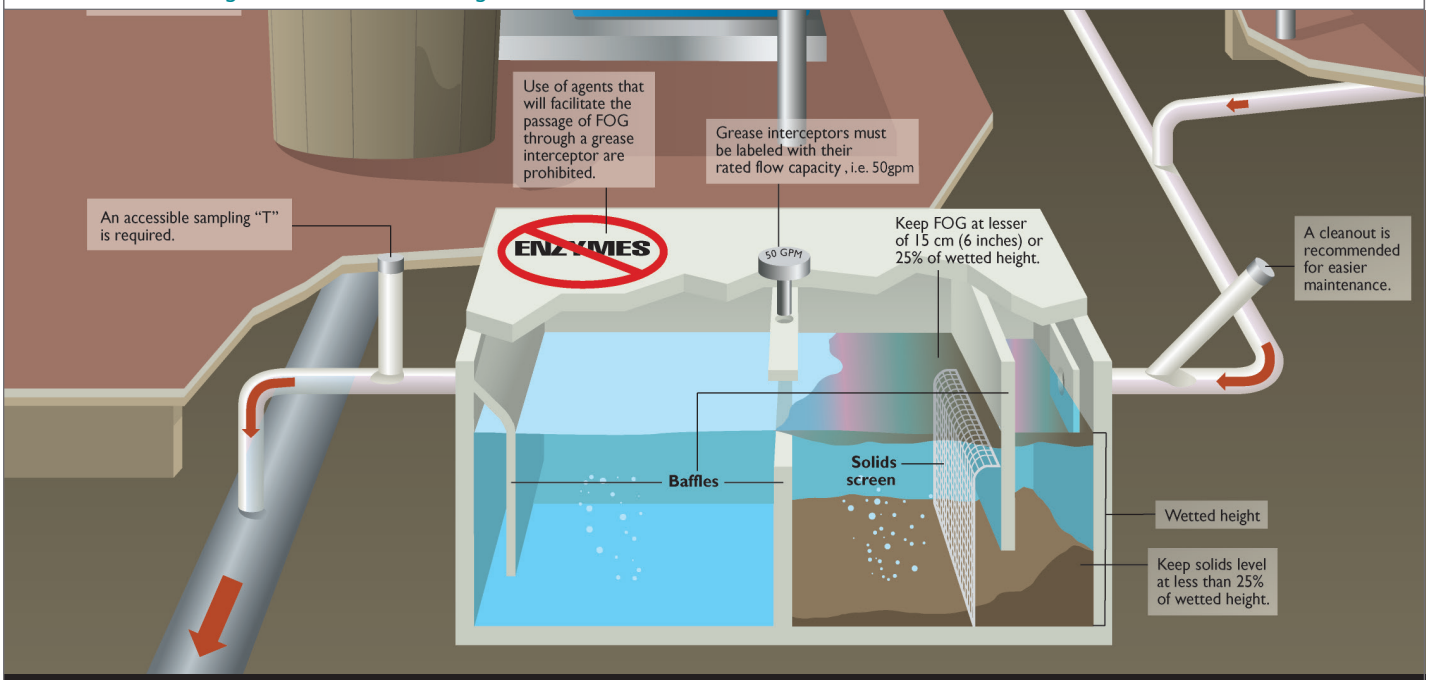


Diagram 1: Typical grease interceptor.

- ~ self-cleaning exhaust hoods installed over commercial cooking equipment;
- ~ commercial cooking equipment, such as tilt kettles, designed to discharge to a sewer or drain; and
- ~ fixtures that discharge wastewater containing fats, oils or grease such as ice cream scoop, dip wells and drains servicing wok taps.

M Operations that commenced on or after January 1, 2002 are required to connect floor drains and automatic dishwashers to a grease interceptor (in addition to the fixtures listed above).
Note: Floor drains that have been capped do not have to be connected to a grease interceptor.

M The following fixtures must not be connected to a grease interceptor:

- ~ potato peelers and similar equipment that produce waste solids
- ~ toilets, urinals and hand wash sinks
- ~ garburators (see below)

Garburator Use

M Operations that commenced on or before December 31, 2001 that have a garburator installed must, by January 1, 2003, either:

- ~ cease discharge from the garburator to the sanitary sewer, or
- ~ have installed a properly sized solids separator followed by a grease interceptor.

M From January 1, 2002, no new or additional garburators were permitted to be connected to the sanitary sewer in any food service operation.

Automatic Dishwashers

It is recommended that dishwashers be connected to a dedicated grease interceptor, providing some level of treatment to the dishwasher discharge, without interfering with the performance of grease interceptors servicing other fixtures.

M The maximum discharge flow rate specified by the dishwasher manufacturer must be used to calculate the flow rate for the automatic dishwasher.

Grease Interceptor Sizing – Bigger is Better

M The rated flow capacity of grease interceptors in food services operations must be equal to or higher than the maximum flow from all fixtures connected to the grease interceptor that will discharge simultaneously.

Do not confuse the liquid capacity with the rated flow capacity. Liquid capacity is typically

rated in gallons or litres, while flow capacity is typically rated in US gallons per minute (gpm) or litres per minute (lpm). In comparing units, be sure to compare on the same basis. For example, some pre-fabricated units with a rated flow capacity of 250 US gpm have a liquid capacity of 500 US gal.

M The rated flow capacity of the grease interceptor must be established using the plumbing and drainage institute standard PDI-G101, or a test approved by the RSCP manager.

After sizing the grease interceptor to meet the flow requirements, consider increasing the size of the grease interceptor to provide additional oil and grease storage capacity. This will allow longer periods between clean-outs. Small grease interceptors require more frequent maintenance because they do not have as much room as large interceptors to accumulate separated fats and settled solids and may not be economical when factoring in the associated cost of more frequent clean-outs. However, do not design for an excessively long period between grease interceptor clean-outs because of the potential for odour problems.

Typical grease intercepter label.

Sinks

Calculate the total volume (length x width x height), to overflowing, of the fixture and assign a drain time of one minute.

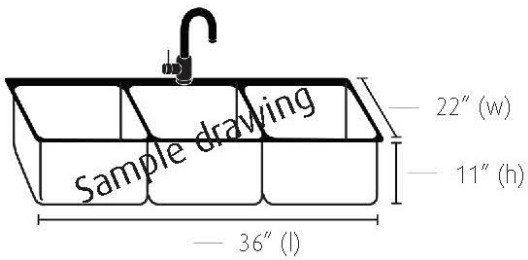
Calculate the Total Flow Rate

Volume Conversion factors

1.0 L = 0.264 USgallons

$$\frac{\text{cubic inches}}{231} = \text{USgallons}$$

Fixture	Dimensions (inches)	Volume (US gpm)
Sinks	____(l) x ____ (w) x ____(h) then divide by 231*	
Drain(s) - Refer to section 2.13 (c) of COP	⟷ _____	
Dishwasher flow rate =		
Other:		



Measurements: 36 x 22 x 11 = 8712 cubic inches

Divide above results by 231* = 37.7 US gallons

Assign 1 minute drain down = 37.7 gallon per minute (gpm)

(*Note: 231 cubic inches = 1 US gallon)

Provide the dimensions (in inches) of ALL grease bearing fixtures

- Engage an experienced plumbing consultant or mechanical engineer to assist in sizing, selecting and designing a proper grease interceptor installation.

Commercial grease dishwasher

Dishwashers and Self-cleaning Exhaust Hoods
Measure the discharge flow rate or use the manufacturer's estimate of peak or maximum discharge flow rate.

Note: standpipes do not change the sink volume.

Floor Drains
Estimate the flow rate using the following table for drains two inches in diameter or larger:

Floor Drain Diameter		Drain Rate		
ml	inches	L/min	Imperial gpm	US gpm
51	2	84	18.3	22
76	3	142	31.2	37.5
102	4	170	37.5	45

Other Drains
If the drain size is less than two inches in diameter:

* either measure the discharge flow rate,
* refer to manufacturers estimated peak or maximum discharge flow rate; or
* use a minimum of 84 L/min.

Flow Control Fittings (refer to Diagram 1)

M All grease interceptors must be equipped with a flow control fitting sized to match the rated flow capacity of each grease interceptor and considering the head pressure. The requirements for the type of fitting and installation date are based on the date the grease interceptor was installed:

- Each grease interceptor installed on or after January 1, 2002 is required to immediately have installed either an externally vented or a non-removable internal flow control fitting, or a flow control fitting integral in the design of the grease interceptor.
- Grease interceptors installed before January 1, 2000 are required to have either an externally vented or internal flow control fitting installed.

A cleanout fitting on the inlet line to the GI is highly recommended.

Solids Separator
It is highly recommended that a solids separator be installed upstream of the grease interceptor to capture solids. Solids that collect in a grease interceptor take up volume, contribute to odour problems, and can block facility piping, resulting in the need for increased maintenance.

- Food particles greater than 0.5 centimeters in any dimension are not allowed to be discharged to sewer.

Grease Interceptors Installed on or after January 1, 2000:

- Must be stamped or labeled with information containing the rated flow capacity of the unit or manufacturer, and installation drawings must be maintained and be available for inspection;
- Must be located so that they are readily and easily accessible for inspection and maintenance;
- Must be equipped with a sampling tee. The sampling tee must be not less than the diameter of the grease interceptor outlet pipe; and
- Records of the locations of all sampling tees must be kept on site. Contact the CRD or your municipal plumbing department for more information.

  Grease interceptors may be installed indoors or outdoors. Units that are installed indoors offer the advantage of shorter distances from the fixture served to the grease interceptor, providing less opportunity for grease to congeal in the inlet piping. Outdoor units offer the advantage of ease of access for maintenance.

Grease Interceptor Operation and Maintenance

- The cover of the grease interceptor must be removed for the purpose of inspection, when requested by an officer.
- All grease interceptors must be maintained to provide effective service at all times.
- The maximum depth of oil and grease permitted to accumulate in a grease interceptor prior to servicing must not exceed the lesser of 15 cm or 25% of the wetted height of the grease interceptor.
- The maximum depth of solids permitted to accumulate in a grease interceptor prior to servicing must not exceed 25% of the wetted height of the grease interceptor.

Open, inspect and clean grease interceptors frequently. Depending on the menu, kitchen practices and the size of the grease interceptor, cleaning may be required daily, weekly or monthly. The following inspection procedure is recommended:

* Verify that the oil and grease retention capacity of the grease interceptor has not been exceeded and is not likely to be exceeded prior to the next scheduled inspection.
* Remove excess FOG or food particles.
* Collect and store any removed oil and grease in a waste grease container for subsequent disposal in the garbage or by a contractor.

Open, inspect and clean grease interceptors following any unusual discharge that may interfere with the normal operation of the grease interceptor.

In addition to the maintenance recommended above, it is also recommended that grease interceptors be fully cleaned and inspected at least once every two months in accordance with the following procedure:

* Completely empty and rinse grease receptors.
* Inspect and make any necessary repairs.

There are several companies in the region that will provide grease trap cleaning services for a fee.

The CRD's Trucked Liquid Waste Service Providers Directory can be accessed by visiting the CRD's website (**www.crd.bc.ca**) or **www.crd.bc.ca/tlwdirectory**

Grease Interceptor Inspection: Maintenance Records

- A record of all grease interceptor inspection and maintenance activities must be kept for a period of two years and be available on site for inspection by a CRD officer. An example of a maintenance form is included in this Guidebook. (See back cover.) Additional copies can be downloaded from the CRD website **www.crd.bc.ca/food**.

Floor Drains

Recessed or below grade installations offer the opportunity to connect floor drains to the grease interceptor.

M Floor drains that discharge to sewer in kitchen and food processing areas of operations that commence on or after January 1, 2002 must be connected to a grease interceptor. It is also advisable to have a separate connection for floor drains to prevent drainage from other fixtures backing up through the floor drain.

Once-Through Cooling

* Once-through, water cooled, refrigeration condensing units and ice makers should never discharge to a floor drain, or any other drain, that connects into the grease interceptor. Once-through, water cooled, refrigeration equipment uses a large volume of water and will seriously impair the function of the grease interceptor.

Waste Disposal

M Fats, oils and grease removed from grease interceptors must not be disposed of to the sanitary sewer.

Most municipalities in the regional district strictly prohibit the discharge of fats oils and grease to stormdrains, ditches or waterbodies. Inappropriate disposal of this type can cause significant environmental degradation.

Fats, oils and grease should be allowed to solidify before disposal in the regular garbage or disposed of as trucked liquid waste by a contractor.

A list of trucked liquid waste service providers can be accessed by visiting the CRD's website (**www.crd.bc.ca**) or go directly to **www.crd.bc.ca/tlwdirectory**.

Waste Handling

Do not pour oily liquids such as gravy, sauce or salad dressing down the drain. Collect this material in a container and seal with a tight fitting lid for subsequent disposal in the garbage.

Do not pour used cooking fats, oils or grease down the drain. These wastes can be recycled into useful products. Contact the CRD for more information on recycling alternatives.

* Place signs in the kitchen, especially over the sink, to advise staff what can and cannot be put down the drains.
* Scrape off greasy trays and pans into a waste grease container before putting them into a sink or dishwasher.
* Scrape food waste from pots, pans or dishes into a kitchen scraps container before putting them into a sink or dishwasher.
* Place a basket strainer in sink drains to catch solids.
* Do not pour coffee grounds or tea leaves down the drain.

M The use of enzymes, bacteria, solvents, chemical agents, hot water or other agents that cause oil and grease to pass through a grease interceptor is prohibited. Use of these products just moves the problem further down the sewer system.

Cleaning Kitchen Exhaust Hoods

The BC Fire Code requires that kitchen hoods and vents must be kept clean to reduce the risk of fires. There are businesses that specialize in hood and vent cleaning.

The Sewer Use Bylaw includes regulation for kitchen equipment cleaning operations.

The following requirements apply to kitchen equipment cleaning operations:

* Collect cleaning solutions and rinse water.
* Adjust the pH of the rinse water to between 5.5 and 12.5.
* Discharge the collected waste water at an authorized facility and
* Keep records of all kitchen equipment cleaning.

Cleaning and Housekeeping

Evaluate your current use of chemicals and cleaners. Reduce quantities used and substitute

with less environmentally hazardous alternatives where possible.

Do not clean equipment outdoors or in any area where water may flow to a street, gutter, storm drain or creek.

Use a sink or tank to clean any kitchen equipment coated with oil to ensure the dirty water is disposed of down a drain connected to a grease interceptor.

Ensure that garbage dumpsters and containers of used cooking oil and grease are always tightly covered to minimize problems with odours and pests.

Recycling

Develop and implement a plan to reduce, reuse or recycle waste materials such as cans and glass, cardboard and paper. For technical assistance and advice with your business recycling program, please visit our website at **www.crd.bc.ca/bluebox**.

Set up a recycling service for your used cooking oil.

Separate food waste for delivery to a composting facility (where available). For the latest information on composting facilities, visit our website at **www.crd.bc.ca/kitchenscraps**.

Separate food waste for delivery to a composting facility.

Garbage Compactors

M Garbage compactors used for food waste and that has drains that connect to a sewer, must be connected to a grease interceptor.

M Outdoor garbage compactor installations that connect to the sewer must be provided with a rain cover and curbing as necessary to prevent rainwater from entering the drain connected to the grease interceptor.

Spill Prevention and Response

Ensure that adequate and secure storage is provided for new cooking oil, used cooking oil and waste oil and grease. Ensure that proper containers are used that will not corrode, leak or overturn. Install chains or other restraining devices on storage barrels to prevent accidental overturning. Provide storage areas with secondary containment to prevent leaks and spills from draining to the sanitary sewer or storm drain systems.

Develop a spill response plan that includes:

* procedures for different types of spills,
* a schedule for training and refreshing employees about procedures, and
* designation of a key employee who monitors the clean-up.

Post the spill response plan in the work area to provide guidance to employees in the event of a spill.

Assemble clean-up kits and place in well-marked, accessible locations. Ensure that clean-up materials are handy to the dumpster and loading dock areas.

If you have a non-liquid spill, use dry sweeping methods:

* First, stop the spill at source.
* Next, dry sweep.

If wet cleaning is required, use this three-step process:

1. Clean up as much as possible with disposable rags.

2. Use granular absorbents (e.g. cat litter) to collect residue. Sweep and dispose of in garbage if hazardous materials are not involved.
3. Mop and collect water, and dispose of water in sink that is serviced by a grease interceptor.

Employee Training

Train your employees so that they are better equipped to contribute to your goals in responsible waste management. Provide training in:

* proper function, operation and maintenance of grease interceptors;
* proper storage, handling and disposal of wastes;
* proper separation and storage of materials;
* proper use and handling of cleaning aids;
* proper housekeeping; and
* the benefits of following the Code of Practice and these guidelines for food sector facilities.

Discharge Limits

M The following wastes are not allowed to be discharged: prohibited wastes, restricted waste* (including food waste particles larger than 0.5 centimeters in any dimension), hazardous waste, storm water or uncontaminated water as defined in the Sewer Use Bylaw.

Exceeding these limits may lead to enforcement action by the CRD under the Sewer Use Bylaw.

*Not including biochemical oxygen demand, chemical oxygen demand, and total oil and grease

Codes of Practice Implementation Plan

The implementation plan for CRD Codes of Practice includes the following components: education, inspection, monitoring, enforcement, administration and review. RSCP staff will carry out activities related to each component in partnership with each code sector.

Inspection, Monitoring and Enforcement

RSCP staff may carry out inspections, examine records or other documents and take samples of effluent for analysis as specified under the Sewer Use Bylaw. Compliance sampling may also be conducted at any time on the effluent from operations regulated under a Code of Practice. Repeat sampling may be necessary if non-compliance with the Code is suspected or high contaminant concentrations are detected in previous samples.

A cooperative, gradually escalating approach to enforcement will be used for all CRD Codes of Practice. This approach is established in an enforcement policy that has been approved by the CRD Board.

Where cooperative efforts to achieve compliance using the enforcement policy have failed, tickets of between $50 and $1000 per offence may be issued under the CRD Ticket Information Authorization Bylaw. For more serious or continuing offences, fines up to $10,000 per offence per day may be issued under the Sewer Use Bylaw.

Inspections and monitoring of wastewater quality

Other CRD Requirements

Water Efficiency and Conservation

Preparing and serving food and drinks safely can be water intensive, and food service businesses often have large water bills. However, the largest water uses in many food service facilities can be easily and cost-effectively reduced, sometimes slashing water bills by thousands of dollars per year. In some restaurants, preparing food and cleaning dishes represent less than one quarter of the overall water bill! Here are some easy ways to keep your water bill under control:

* **Eliminate once-through cooling.** If you have water cooled, refrigeration condensers or ice makers that are not connected to a re-circulating system, you are paying too much for water. You may be able to cut your water bill in half by replacing them with air cooled systems, and you will probably recover the cost of making the switch within two years.
* **Replace old toilets that use more than six litres per flush.** Restaurant toilets are flushed many times every day, so the savings add up quickly when you install efficient toilets.
* **Install pre-rinse sprayers that use 6 litres per minute or less.** Efficient spray valves reduce your water and energy bills. And the reduced flow will improve the performance of your grease interceptor.
* **Consider new, more efficient dishwashers and boilerless food steamers.** Dramatic water and energy savings are available if you have an old dishwasher or a boiler type food steamer. You might be surprised how quickly you can recover the replacement cost!
* **Find and fix leaks.** Leaky taps, toilets or equipment control valves can easily double your water bill. Regular maintenance and prompt repairs will save water and energy and improve productivity.
* **Watch your irrigation.** If you water lawns, gardens or even hanging baskets around your facility, hire an Irrigation Industry Association of British Columbia's (IIABC) Certified Irrigation Technician to maintain your system and ensure you are watering efficiently.

M **Cross Connection Control.** Backflow Prevention in the potable water system is mandatory. CRD Bylaw 3516 requires all Industrial, Commercial and Institutional businesses to either have or install, and maintain, backflow prevention devices in the potable water systems throughout their businesses. CRD staff members are currently in the process of doing inspections of these sectors. After the inspection is completed, the business will receive a letter outlining the required upgrades.

M **Kitchen Scraps.** The Regional Kitchen Scraps Strategy has been developed by the CRD as a way to promote sustainable waste management. The CRD Board voted in April 2012 to implement a region-wide kitchen scraps strategy starting in 2013 that applies to both the residential and commercial sectors. The strategy was implemented in three phases starting January 2013 through January 2015, when a restriction at Hartland landfill took effect.

CRD Water Services offers free water efficiency audits to eliminate once-through cooling and inefficient toilets at facilities connected to Greater Victoria's water supply system.

Call 250.474.9684, email waterwise@crd.bc.ca, or visit **www.crd.bc.ca/ici** for more information.

Other Contaminants of Concern

Avoid the use of urinal pucks and toilet bowl cleaners that contain paradichlorobenzene (or 1,4-dichlorobenzene). This compound is considered to be an occupational health concern to humans and potentially harmful to organisms in the marine environment. Check MSDS sheets from your supplier and consider using alternative products.

For More Information

* For more information on the Code of Practice for Food Services Operations, or CRD Sewer Use Bylaw, please contact the RSCP at 250.360.3256 or visit the CRD web site at **www.crd.bc.ca/food**.
* For general inquiries, call:
  - ~ BC Recycling Hotline.....1.800.667.4321
  - ~ Island Health
    Health Protection and Environmental Services.....250.519.3401
  - ~ Municipal Plumbing Inspectors..... contact your local municipality
  - ~ Island Processing (fats, oil and grease collection;
    does **not** include grease interceptor waste).....250.722.4770
  - ~ B.C. Restaurant and Food Services Association.....1.877.669.2239
  - ~ Provincial Emergency Program (PEP)
    (to report hazardous waste/chemical spills).....1.800.663.3456
  - ~ CRD Trucked Liquid Waste Service Providers Directory
    http://www.crd.bc.ca/tlwdirectory
  - ~ CRD Water Services 250.474.9684

Glossary Of Terms

Biochemical Oxygen Demand (BOD) means the quantity of oxygen utilized in the biochemical oxidation of organic substances under standard laboratory procedures in five days at 20 degrees Celsius expressed in milligrams per litre, as determined by the appropriate procedure in standard methods.

Chemical Oxygen Demand (COD) means a measure of the oxygen equivalent of the organic matter content of a sample that is susceptible to oxidation by a strong chemical oxidant, as determined by the appropriate procedure in standard methods.

Code of Practice (CoP) means a regulatory document developed by the CRD that contains mandatory sanitary sewer discharge standards for specific industrial, institutional or commercial sectors.

Fats, Oil and Grease (FOG) means an organic substance recoverable by procedures set out in Standard Methods or in procedures authorized by the manager and includes but is not limited to hydrocarbons, esters, fats, oils, waxes and high-molecular weight carboxylic acids. Oil and grease generated by the food sector is contributed to wastewater in butter, lard, margarine, vegetable fats and oils, meats, germinal areas of cereals, seeds, nuts, and in certain fruits. Those compounds that are liquid at room temperature are often called oils. Those compounds that are solid at room temperature are often called fats or grease.

Fixture means a receptacle, appliance, apparatus or other device that discharges wastewater and includes floor drains.

Garburator means a mechanical device connected to a sanitary sewer used to reduce the particle size of food waste disposed to the sanitary sewer.

Garbage Compactor means a mechanical device used to compress garbage to reduce volume.

Grab Sample means a sample collected at one particular time and place.

Grease Interceptor (GI) means an interceptor designed and installed to separate and retain oil and grease from wastewater, while permitting wastewater to discharge to sewer. Grease interceptors are sometimes called grease traps, although the term grease interceptor is preferred.

Manager means the sewage control manager and includes any deputy sewage control manager.

Mandatory Requirement means the minimum requirements that must be met and that will be subject to enforcement under the authority of CRD Sewer Use Bylaw – a bylaw to regulate the discharge of waste into sewers connected to a sewage facility operated by the CRD. Periodic inspections to verify that mandatory requirements are met will be carried out by appointed officers. Mandatory requirements cover items which, if not observed or carried out, would present unacceptable risks to the sewer system, sewer workers, the wastewater treatment plants, residuals produced at the wastewater treatment plants or the environment.

Once-Through Cooling means the use of cold potable water in a single pass through device or system to remove heat, before discharging to a sewer without recirculation.

Officer means any person appointed by the CRD Board under the bylaw to be an officer and includes a municipal sewage control officer as defined in the bylaw.

pH means the expression of the acidity or basicity of a solution as defined and determined by the appropriate procedure described in standard methods.

Sewer Use Bylaw means the Capital Regional District Bylaw Sewer Use Bylaw No. 5, 2001 (Bylaw 2922) – A Bylaw to Regulate the Discharge of Waste into Sewers Connected to a Sewage Facility Operated by the Capital Regional District or its amendments.

Solids Separator means a device used to remove suspended solids from the waste stream.

Suspended Solids means the insoluble matter that is separable by the appropriate procedure described in Standard Methods.

Standard Methods means the latest edition of Standard Methods for the Examination of Water and Wastewater jointly prepared and published from time to time by the American Public Health Association, American Water Works Association and the Water Environment Federation.

Trucked Liquid Waste means any waste that is collected and transported offsite by means other than discharge to sewer, including but not limited to septic tank waste, oil and grease from grease interceptors, and other sludges of organic origin.

Waste means any substance whether gaseous, liquid or solid, that is or is intended to be discharged or discarded, directly, or indirectly to a sewer or sewage facility.

References

* BC Plumbing Code
* Standard PDI-G 101, Testing and Rating Procedure for Hydro Mechanical Grease Interceptors with Appendix of Installation and Maintenance. 2010. Plumbing and Drainage Institute.
* Guide to Resource Conservation and Cost Savings Opportunities in the Food Service Sector. 1997. Ontario Ministry of the Environment.
* Best Management Practices for Sewer Discharges. 1996. Canadian Restaurant and Foodservices Association. 316 Bloor Street West, Toronto, Ontario
* Going Green Without Seeing Red. 1992. Canadian Restaurant and Foodservices Association. 316 Bloor Street West, Toronto, Ontario
* Green Meeting Guide. Lesson Learned for the 1995 Hamilton G-7 Environment Ministers' Meeting and the 1995 Halifax Economic Summit.
* "How to look after a Grease Interceptor/Grease Trap at Restaurants, Cafeterias and Other Food Service Operations in the Greater Vancouver Area," brochure available from Metro Vancouver
* "Keeping Oil and Grease Out of Drains and Sewers at Restaurants, Cafeterias and Other Food Service Operations in the Greater Vancouver Area," Code of Practice and Best Management Practices information available from Metro Vancouver

Grease Interceptor Maintenance Log

Download additional copies at www.crd.bc.ca/food

Date (day-month-year) e.g., 03-March-2010	Inspection Conducted (yes/no)	Cleaning Conducted (yes/no)	Approximate Depth of Grease and Solids in inches	Quantity of material removed (lbs/kgs)	Disposal Location e.g., SPL	Cleaning/ Inspection conducted by
			inches grease inches solids			
			inches grease inches solids			
			inches grease inches solids			
			inches grease inches solids			
			inches grease inches solids			
			inches grease inches solids			
			inches grease inches solids			
			inches grease inches solids			
			inches grease inches solids			
			inches grease inches solids			
			inches grease inches solids			
			inches grease inches solids			
			inches grease inches solids			
			inches grease inches solids			
			inches grease inches solids			
			inches grease inches solids			
			inches grease inches solids			

Making a difference...together

Capital Regional District
625 Fisgard Street, P.O. Box 1000
Victoria, BC Canada V8W 1R7