
**REPORT TO CORE AREA LIQUID WASTE MANAGEMENT COMMITTEE
MEETING OF WEDNESDAY, 24 MAY 2006**

SUBJECT REGIONAL SOURCE CONTROL PROGRAM – 2005 ANNUAL REPORT

PURPOSE

This staff report presents a summary of the activities and accomplishments of the Regional Source Control program (RSCP) in 2005. The report is not a review or assessment of the effectiveness of the program. The Core Area Liquid Waste Management Plan (LWMP) commits to reviewing the effectiveness of the program every five years. The last program review, addressing the period 1999 to 2003, was presented to this committee in May 2005.

BACKGROUND

The purpose of the RSCP is to reduce the amounts of contaminants that industries, businesses, institutions and households discharge into the district's sanitary sewer systems in order to protect the receiving environment, public health and safety, and sewage collection and treatment facilities.

The Core Area and Saanich Peninsula LWMPs contain commitments to prepare an annual report on the RSCP for submission to the Board and the Ministry of Environment. This staff report presents *Capital Regional District Regional Source Control Program Annual Report 2005*, dated April 2006. A summary of program activities and accomplishments in 2005 is provided in the report's executive summary (Appendix A). A full copy of the report is available on request from the Environmental Services department.

The findings of the 2005 annual report indicate that the program continues to make progress toward achieving program objectives. Significant milestones passed in 2005 include completion of the first independent program review, full implementation of all the codes of practice (COPs) and meeting the 20% inspection targets for COP for the first time. In addition, the use of proper waste treatment in COP sectors continued to increase in 2005, and compliance levels at permitted industrial facilities have also increased in comparison to 2004. The program continues to meet the commitments and schedules set out in the Core Area and Saanich Peninsula LWMPs.

Preliminary results from recent analysis of sewage effluent data collected in the core area suggest that previously reported decreasing trends for key contaminants have continued over the last three years. Levels of contaminants in sewage treatment plant biosolids and sludge have shown strong decreasing trends in recent years. These contaminant reductions are thought to be due to the consistent district-wide application of source control regulations, including permits, COPs and promotion of best management practices through business education by the RSCP since 1994.

Summary of Main Accomplishments

- Completion of the first independent five-year review of the program, covering the period 1999 to 2003.
- Development of a new five-year plan to guide program activities over the period 2006 to 2010 based on recommendations from the program review.

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- COPs for vehicle washing, recreation facilities and printing operations were fully implemented in 2005, completing the implementation of all 11 codes as scheduled.
- The primary inspection level for each COP sector averaged 23% in 2005, meeting and exceeding the target of 20% inspections per year for the first time. Use of proper waste treatment progressed in all code sectors. The highest increase over 2004 data was recorded in the food services sector (10% increase in use of proper waste treatment).
- Five-year contaminant reduction targets have been achieved for the photo imaging and dental code sectors; all other code sectors are on track toward meeting their targets.
- The level of waste discharge permit inspection in 2005 met the target of two inspections per permit per year and showed an increase over 2004.
- Waste discharge permit compliance levels increased from 86% in 2004 to 90% in 2005.
- Biosolids and sludge quality at the Saanich Peninsula and Ganges treatment plants continued to meet Class A criteria. Mercury concentrations showed further reductions at both plants to historically low levels in 2005, likely as a result of the implementation of the dental code of practice in 2001.
- An EcoStar award for pollution prevention was presented to the District of Saanich public works yard for its efforts in meeting, and exceeding, the requirements of the CRD Sewer Use Bylaw and protecting nearby surface water resources.

Next Steps – 2006

The main areas of development of the program in 2006 will involve implementation of the key items in the new five-year plan. These include:

- Development and implementation of a contaminants management component to identify priority and emerging contaminants, prepare reduction strategies and targets, and monitor trends
- Completion and implementation of an outreach plan that includes continuing outreach to industries and businesses and an increased emphasis on residential outreach activities

ALTERNATIVES

There are no alternatives.

FINANCIAL IMPLICATIONS

Included in annual RSCP budget.

SUMMARY/CONCLUSIONS

The annual report indicates that the RSCP has made significant progress toward achieving program objectives, and the program is continuing to meet the commitments and schedules set out in the Core Area and Saanich Peninsula LWMPs. Reducing trends for contaminants in core area effluent and in sewage treatment plant biosolids and sludge have been maintained as a result of consistent district-wide application of source control regulations and outreach over the past 11 years.

Development and implementation of a new contaminants management component of the program and increased emphasis on residential outreach in 2006 under the new five-year plan will help to ensure further reductions in priority contaminants are achieved in future.

RECOMMENDATIONS

That the Core Area Liquid Waste Management committee recommend that:

1. the report, entitled *Capital Regional District Regional Source Control Program Annual Report 2005*, dated April 2006, be received for information;
2. a copy of this report be forwarded to the Environment committee, the Saanich Peninsula Wastewater committee, the Ganges Sewer Local Service committee, the Highland Water and Sewer Local Services committee, the Magic Lake Estates Water and Sewer Local Services committee and the Port Renfrew Local Services committee for information and comment; and
3. a copy of the report be sent to the Ministry of Environment to comply with Liquid Waste Management Plan reporting requirements.

Laura A. Taylor, M.Sc.
Manager, Scientific Programs

Dwayne Kalynchuk, PEng
General Manager, Environmental Services
Concurrence

COMMENTS

TS:bc
Attachment: 1

**CAPITAL REGIONAL DISTRICT
REGIONAL SOURCE CONTROL PROGRAM ANNUAL REPORT 2005**

EXECUTIVE SUMMARY

The purpose of the Capital Regional District's (CRD) Regional Source Control program (RSCP) is to reduce the amounts of contaminants that industries, businesses, institutions and households discharge into the district's sanitary sewer systems in order to protect the receiving environment, public health and safety, and sewage collection and treatment facilities.

The CRD Sewer Use Bylaw, adopted in 1994, serves as the main regulatory instrument for the RSCP. The program works to ensure that the bylaw and its associated policies and procedures are applied consistently within the separate collection areas for all CRD sewage facilities. Implementation of a region-wide program began in 1995 with regulation of larger industries under a permit system, followed by adoption of the first regulatory codes of practice (COPs) for certain commercial sectors in 1999.

Some significant milestones for the RSCP were passed in 2005. This included completion of the first independent five-year program review (1999 to 2003), completion of the 2000 to 2005 RSCP implementation plan and preparation of a new five-year plan for the period 2006 to 2010. The independent review concluded that the RSCP was a very effective program, having met many of its objectives and commitments, achieved significant reductions in loads of a wide range of contaminants and contributed to improved biosolids and sludge quality.

The findings of this year's annual report indicate that further progress has been made toward achievement of the program's objectives. The program continues to meet the commitments and schedules set out in the Core Area and Saanich Peninsula Liquid Waste Management plans (LWMPs). One of the main commitments in these plans, the development and implementation of 11 codes of practice to control contaminant discharges from a range of business sectors, was completed in 2005 with the full implementation of the final three codes. The use of proper waste treatment measures in sectors operating under well-established COPs has continued to increase. Compliance levels at permitted industrial facilities have also increased in comparison to 2004.

Preliminary results from recent analysis of sewage effluent data collected in the core area suggest that previously reported decreasing trends for key contaminants have continued over the last three years. Levels of contaminants in sewage treatment plant biosolids and sludge have also shown decreasing trends in recent years. These contaminant reductions are thought to be due to the consistent district-wide application of source control regulations, including permits, COPs and promotion of best management practices through business education by the RSCP since 1994.

The 2005 annual report presents background information, a summary of program activities and accomplishments over the period January to December 2005, and a brief account of initiatives planned for 2006. The main activities and accomplishments of the program in 2005 are outlined below.

Industrial, Commercial and Institutional Liquid Waste Regulation

- COPs for vehicle washing, recreation facilities and printing operations were fully implemented in 2005, completing the implementation of all 11 codes as scheduled.
- The primary inspection level for each COP sector averaged 23% in 2005, meeting and exceeding the target of 20% inspections per year for the first time. A high number of repeat inspections were also required, particularly within the food service and automotive repair sectors.
- Use of proper waste treatment was progressing in the following code sectors: 97% of photographic imaging, 95% of dental, 72% of food services, 83% of carpet cleaning, 100% of fermentation, 100% of dry cleaning, 93% of printing, 100% of recreation facilities and 87% of automotive repair operations

inspected up to the end of 2005 had proper treatment works installed or were using off-site waste management. The highest increase over 2004 data was recorded in the food services sector (10% increase in use of proper waste treatment).

- The level of waste discharge permit inspection in 2005 met the target of two inspections per permit per year and showed an increase over 2004.
- Waste discharge permit compliance levels increased from 86% in 2004 to 90% in 2005.
- Use of the waste discharge assessment reporting system by municipalities increased significantly in 2005.
- Investigations into methods of controlling wastes from kitchen equipment cleaning operations were completed and a draft regulation was prepared for adoption in 2006.

Monitoring

- A review of COP monitoring was undertaken and monitoring targets were re-established.
- The total number of COP samples collected increased over that in 2004, and there was an increase in the number of code sectors sampled.

Enforcement

- Sixty-two tickets were issued under the CRD Ticket Information Authorization Bylaw as a result of 70 COP sector investigations by Bylaw Enforcement staff – mostly within the food services sector.
- Twenty-two dischargers were subject to additional enforcement action in 2005; no charges were laid under the Sewer Use Bylaw.

Contaminant Reductions

- Biosolids and sludge quality at the Saanich Peninsula and Ganges treatment plants continued to meet Class A criteria. Significant downward trends in mercury, chromium, barium and manganese concentrations were reported at the Saanich Peninsula plant over the period 2000 to 2004. Mercury concentrations showed further reductions at both plants to historically low levels in 2005, likely as a result of the implementation of the dental COP in 2001.
- Preliminary results from recent analysis of sewage effluent data collected in the core area suggest that previously reported decreasing trends for key contaminants have continued over the last three years. Tetrachloroethene and total cyanide are now showing significant load reduction trends over the last three years. These trends were not evident over the period 1996 to 2003.
- Five-year contaminant reduction targets have been achieved for the photo imaging and dental code sectors, based on inspections to date and progress on proper waste treatment within these sectors. All other sectors are on track toward meeting their targets; however, their five-year inspection cycles have yet to be completed.
- Most waste discharge permit holders have achieved, or are progressing toward achieving, their contaminant reduction targets.

Outreach

- The 2005 EcoStar award for pollution prevention was presented to the District of Saanich public works yard for its efforts in meeting, and exceeding, the requirements of the CRD Sewer Use Bylaw and protecting nearby surface water resources.
- Guidebooks for the dry cleaning, automotive repair, vehicle wash and laboratory COPs were updated and revised for distribution in 2006.
- Information sheets and posters for several code sectors were developed, printed and distributed.
- RSCP staff participated in three local Home Show events to increase residential awareness of common household sources of contaminants and the role of the RSCP in protecting sewer systems

and the environment. In 2005, these events focused on pharmaceutical disposal practices and raising awareness of the Medication Return program.

- Municipal outreach meetings were initiated to increase source control communications and incident management reporting to the RSCP.

Program Planning and Development

- A five-year review of the program, covering the period 1999 to 2003, was completed in April 2005.
- A new five-year plan was developed to guide program activities over the period 2006 to 2010 based on recommendations from the program review.
- The program continued to meet the commitments and schedules outlined in the Core Area and Saanich Peninsula LWMPs.

Next Steps – 2006

The main areas of development of the program in 2006 will involve implementation of the key items in the new five-year plan. These include:

- Development and implementation of a contaminants management component to identify priority and emerging contaminants, prepare reduction strategies and targets, and monitor trends
- Completion and implementation of an outreach plan that includes continuing outreach to industries and businesses and an increased emphasis on residential outreach activities