



Making a difference...together

SAANICH PENINSULA WASTEWATER COMMISSION

Notice of Meeting on **Thursday, June 19, 2014 at 9:15 am**

Saanich Peninsula Treatment Plant Meeting Room, 9055 Mainwaring Road, North Saanich, BC

A. Bryson	R. Barnhart	T. Daly	M. Doehnel
Z. King	M. Lougher-Goodey	M. Loveless	E. McMurphy
M. Williams	A. Rowland	Pauquachin First Nation	Tseycum First Nation

AGENDA

1. Approval of Agenda
2. Adoption of Minutes of April 17, 2014
3. Chair's Remarks
4. Saanich Peninsula Stormwater Quality - Resources for Investigative Work (Staff Report #EPR2014-13)
5. Saanich Peninsula Stormwater Quality 2013 Annual Report (Information Report #EPR2014-12)
6. District Energy System – Consulting Work (Verbal Update)
7. Proposed Budget Meeting Date: Thursday, September 25, 2014
8. New Business
9. Adjournment

Distribution:

Staff/Town Halls, etc.

R. Lapham	T. Robbins	P. Robins, Central Saanich
L. Hutcheson	T. Tanton	D. McAllister, Central Saanich
D. Lokken	P. Sparanese	R. Buchan, North Saanich
A. Orr	D. Robson	P. O'Reilly, North Saanich
J. Poncelet	M. Montague	R. Humble, Sidney
G. Harris	Commission file	Chief W. Morris, Tsartlip

To ensure a quorum, advise Margaret at 250.474-9606 if you or your alternate cannot attend.

1547401



Making a difference...together

**Minutes of a Meeting of the Saanich Peninsula Wastewater Commission
Held April 17, 2014 in the Saanich Peninsula Treatment Plant Meeting Room
9055 Mainwaring Road, North Saanich, BC**

PRESENT: **Commissioners:** M. Williams (C), M. Lougher-Goodey, T. Daly, M. Doehnel, M. Loveless, A. Bryson, Z. King, R. Barnhart, A. Rowland
Staff: T. Robbins, General Manager, Integrated Water Services; C. Gottfred, Manager, Regional Wastewater, Infrastructure Engineering; D. Green, Environmental Science Officer; M. Montague (recorder)
REGRETS: E. McMurphy
GUESTS: P. O'Reilly, District of North Saanich;

The meeting was called to order at 9:08 am.

1. APPROVAL OF AGENDA

One item was added to the agenda under New Business:

- Sludge to the Core Area System

MOVED by Commissioner M. Lougher-Goodey, **SECONDED** by Commissioner Loveless, that the Saanich Peninsula Wastewater Commission approve the agenda as amended.

CARRIED

2. ADOPTION OF MINUTES

Minor changes were made to the minutes of the meeting held February 20, 2014.

MOVED by Commissioner Loveless, **SECONDED** by Commissioner Lougher-Goodey, that the Saanich Peninsula Wastewater Commission adopt the minutes of the February 20, 2014 meeting as amended.

CARRIED

3. CHAIR'S REMARKS

The Chair remarked as follows:

- After the last meeting of the Saanich Peninsula Water and Wastewater Commissions, he attended a tour of the District Energy System. He noted that all of the issues experienced with the system have been corrected and it is now working well.

4. REVIEW OF TASK LIST OF FEBRUARY 20, 2014

T. Robbins noted that the items on the task list have been addressed in the staff reports included in the agenda package.

5. SAANICH PENINSULA WASTEWATER TREATMENT PLANT – SCOPE FOR FEASIBILITY REVIEW AND BUSINESS CASE ANALYSIS OF RECEIVING SEPTAGE

T. Robbins spoke to the report.

D. Green joined the meeting.

MOVED by Commissioner M. Lougher-Goodey, **SECONDED** by Commissioner Daly that the Saanich Peninsula Wastewater Commission receive the staff report for information.

Discussion on the motion included the following:

- Septage volumes
- Number of trucks from Salt Spring Island driving to Langford
- Numerous possible connection points

CARRIED
Commissioner Doehnel OPPOSED

6. SAANICH PENINSULA WASTEWATER STRATEGIC PLAN

T. Robbins spoke to the report.

MOVED by Commissioner Lougher-Goodey, **SECONDED** by Commissioner Loveless, that the Saanich Peninsula Wastewater Commission receive the staff report for information.

CARRIED

7. SAANICH PENINSULA STORMWATER SOURCE CONTROL BYLAW UPDATE

D. Green spoke to the report and provided an update on the process.

MOVED by Commissioner Loveless, **SECONDED** by Commission Lougher-Goodey, that the Saanich Peninsula Wastewater Commission receive the staff report for information.

CARRIED

8. SAANICH PENINSULA STORMWATER INVESTIGATIONS UPDATE

MOVED by Commissioner Loveless, **SECONDED** by Commission King, that the Saanich Peninsula Wastewater Commission receive the staff report for information.

CARRIED

Commissioners Daly left the meeting.

9. NEW BUSINESS

- T. Robbins provided an update on the status of the Core Area treatment plant and how the sludge from the new plant will be dealt with. A resource recovery centre is currently proposed for Hartland to deal with the residuals from the Core Area.
- A. Rowland noted that there is no signage on the treatment plant.
- A Peninsula tri-municipal meeting is scheduled for June 2014.

10. ADJOURNMENT

MOVED by Commissioner Loveless, **SECONDED** by Commissioner Lougher-Goodey, that the Saanich Peninsula Wastewater Commission meeting be adjourned at 10:20 am.

CARRIED

CHAIR

**REPORT TO SAANICH PENINSULA WASTEWATER COMMISSION
MEETING OF THURSDAY, JUNE 19, 2014**

**SUBJECT SAANICH PENINSULA STORMWATER QUALITY - RESOURCES FOR
INVESTIGATIVE WORK**

ISSUE

There are several high-rated stormwater discharges on the Saanich Peninsula. The Commission requested that staff provide additional information to address ongoing sources of stormwater contamination.

BACKGROUND

Local governments are responsible for maintaining and repairing their stormwater drainage infrastructure. Under the Saanich Peninsula Liquid Waste Management Plan, the Capital Regional District (CRD) provides a service to monitor discharges to the environment and investigate potential sources of contamination.

At its April 17, 2014 meeting, the Saanich Peninsula Wastewater Commission directed staff to report back on how to address ongoing sources of stormwater contamination.

The stormwater program is designed to monitor approximately one-third of the 290 stormwater discharges on the Saanich Peninsula each year. There are currently 12 discharges that are rated high for fecal coliform levels, based on bacteria counts and likelihood of public contact.

Some ratings are due to chronic issues that are easier to identify; others are transient so it is harder to characterize them and locate their sources. The chronic high-rate discharges receive the majority of the investigative effort and the program's goal is to support municipalities with identification and elimination of contaminant sources for these discharges.

ALTERNATIVES

That the Saanich Peninsula Wastewater Commission receive the report and direct that staff:

1. continue the current level of effort to identify and monitor sources of contamination; or
2. reduce the workload associated with producing annual stormwater reports and redirect those resources to increased investigative work; or
3. maintain the existing level of reporting and increase the program budget by \$13,000 per year for increased investigative work and laboratory analyses, and direct staff to include a continuous supplemental request for the Board's consideration.

ENVIRONMENTAL IMPLICATIONS

There are no provincial or federal criteria for fecal coliform levels in stormwater discharge. The CRD uses criteria based on the best available science to identify potential risks before significant environmental contamination occurs. The approach supports the regulatory goal to protect human health and the environment by identifying and eliminating point sources of contamination associated with stormwater discharges.

Fecal coliform bacteria are used as a primary indicator of sewage contamination in stormwater. This contamination often happens as a result of failing infrastructure, malfunctioning septic tanks or incorrect connections of sewer laterals to storm drains. Locating sources can be a challenging task for several reasons. There can be multiple sources of contamination within the stormwater sewer system, which can be of either human or animal origin. Contaminants may be released into the system intermittently. Levels of bacteria (including presence/absence) at the sampling locations are also determined by rainfall runoff, which mobilizes the contamination. Finally, the fate of coliform is also affected by environmental conditions, such as temperature, which can complicate interpretation of field results. These factors can all result in a poor linkage between the detection of contamination and determining where and when the contamination was released into the system.

FINANCIAL IMPLICATIONS

This work is funded through the Saanich Peninsula Stormwater Quality program budget. The 2014 budget is \$62,760.

Alternative 1:

This option maintains the current service levels and therefore requires no budgetary changes.

Alternative 2:

The development of the annual reporting requires significant resources, which are included in the existing budget. Staff, in consultation with municipal staff, will reduce the reporting effort to only the essential information required by local governments. This would release resources and allow for more investigative sampling when contamination is discovered. This action can be accomplished within the existing budget. There may be additional analysis costs that would put pressure on the existing budget but staff can report on any implications to the budget at the next annual reporting period.

Alternative 3:

This option maintains reporting at the current level and increases the 2015 program budget to cover costs for additional sampling and lab analysis. The CRD would contract an external sampler for an estimated 15 days of sampling on an as-needed basis. At approximately \$80/hour, labour costs are estimated at \$8,400. Laboratory costs for analysis of additional samples are estimated at \$4,600 (approximately 45 fecal coliform tests and 15 bacterial source tracking tests). The total increase for the 2015 Saanich Peninsula Stormwater Quality budget would be \$13,000.

Of note, and in response to Commission comments, staff previously considered the use of the CRD's Saanich Peninsula wastewater treatment plant laboratory facility for fecal coliform analyses. That option does not significantly reduce costs as the internal analysis costs are similar to the external laboratory contract rate.

CONCLUSIONS

High-rated stormwater discharges are an indication of potential risk to human health and the environment. The CRD monitors stormwater discharges across the Saanich Peninsula and works with local municipalities to locate and eliminate contaminant sources. However, locating these sources can be a challenging task because of multiple potential sources, as well as the fate and behaviour of the bacteria in the receiving environment.

The Commission asked staff to bring forward further information to assist with that goal. Additional investigative effort may assist in reducing the number of high-rated discharges. By reducing efforts associated with reporting, staff should be able to redirect resources towards investigations and assist in reducing the number of high-rated discharges on the Saanich Peninsula. Staff will continue to report out on the progress towards that goal on an annual basis.

RECOMMENDATIONS

That the Saanich Peninsula Wastewater Commission receive the report and direct that staff reduce the workload associated with producing annual stormwater reports and redirect those resources to increased investigative work.

Glenn Harris, Ph.D., R.P.Bio.
Senior Manager, Environmental Protection

Larisa Hutcheson, P.Eng.
General Manager
Parks & Environmental Services
Concurrence

Ted Robbins, B.Sc., C. Tech.
General Manager, Integrated Water Services
Concurrence

DG:cam

**REPORT TO SAANICH PENINSULA WASTEWATER COMMISSION
MEETING OF THURSDAY, JUNE 19, 2014**

SUBJECT SAANICH PENINSULA STORMWATER QUALITY 2013 ANNUAL REPORT

ISSUE

To present the Saanich Peninsula Stormwater Quality 2013 Annual Report.

BACKGROUND

The Capital Regional District (CRD) delivers the stormwater monitoring program as a commitment under the Saanich Peninsula Liquid Waste Management Plan (LWMP). The work is undertaken in cooperation and consultation with the participating municipalities of the District of Central Saanich, the District of North Saanich and the Town of Sidney, First Nations and other stakeholders. Staff annually report out on the previous year's findings to the Commission and then to municipal staff. The Province does not require submission of the report but requests a review of the overall Plan on a 5-year cycle through the Saanich Peninsula wastewater treatment plant's registration under the Municipal Wastewater Regulation.

The *Saanich Peninsula Stormwater Quality 2013 Annual Report*, prepared by staff in the Integrated Watershed Management program, provides details and findings of the 2013 monitoring program. The executive summary, which includes recommendations for the 2014 program, is attached as Appendix A. The full report is available on the CRD website.

ALTERNATIVES

That the Saanich Peninsula Wastewater Commission:

1. (a) receive the *Saanich Peninsula Stormwater Quality 2013 Annual Report* for information;
 (b) forward the report to the Board for approval; and
 (c) request that the Board direct staff to forward copies of the report to all participating stakeholders.
2. not receive the *Saanich Peninsula Stormwater Quality 2013 Annual Report* and refer it back to staff for further information.

ENVIRONMENTAL IMPLICATIONS

The objective of the program is to meet LWMP commitments for stormwater management and support the provincial goal to reduce the release of contaminants to the environment. The program monitors all stormwater discharges along the foreshore of the Saanich Peninsula, identifies high-rated discharges and conducts investigations to support municipalities in managing their stormwater sewer infrastructure.

FINANCIAL IMPLICATIONS

This program is funded from the Saanich Peninsula Stormwater Quality Program annual budget. The 2013 budget was \$61,540 and the reporting task is included within the existing budget.

CONCLUSIONS

In 2013, staff met its commitments to monitor stormwater quality across the Peninsula, and investigate upstream sources of contamination, working with municipal staff to address chronic point sources across the Peninsula. The executive summary of the annual report presents recommendations for the 2014 program.

RECOMMENDATIONS

That the Saanich Peninsula Wastewater Commission:

- (a) receive the *Saanich Peninsula Stormwater Quality 2013 Annual Report* for information;
- (b) forward the report to the Board for approval; and
- (c) request that the Board direct staff to forward copies of the report to all participating stakeholders.

Glenn Harris, Ph.D., R.P.Bio.
Senior Manager, Environmental Protection

Larisa Hutcheson, P.Eng.
General Manager
Concurrence
Parks & Environmental Services

Ted Robbins, B.Sc., C. Tech.
General Manager, Integrated Water Services
Concurrence

Robert Lapham, MCIP, RPP
Chief Administrative Officer
Concurrence

DG:cam
Attachment: 1

STORMWATER QUALITY ANNUAL REPORT 2013 SAANICH PENINSULA

EXECUTIVE SUMMARY

INTRODUCTION

The Capital Regional District (CRD) Integrated Watershed Management Program (IWMP) works to promote and coordinate stormwater management, and monitor and evaluate water quality of the creeks and shorelines of the Saanich Peninsula that receive stormwater discharges. This program is a component of the Saanich Peninsula Liquid Waste Management Plan (LWMP) and is undertaken in cooperation and consultation with the participants: District of Central Saanich, District of North Saanich, Town of Sidney, Tsawout First Nation, Pauquachin First Nation, Tsartlip First Nation and Tseycum First Nation.

The 2013 annual report covers four main areas of activity:

1. Stormwater Discharge Assessments
2. Source Investigations
3. Stream Monitoring
4. Special Projects

CRD staff assess stormwater discharges along the Saanich Peninsula coastline. This assessment prioritizes stormwater discharges based on public health and environmental concern and strives to protect freshwater and nearshore marine ecosystems and resources. When contamination is found in stormwater, staff undertake investigations to identify the causes. IWMP staff are also involved in a number of special projects to improve stormwater quality on the Peninsula.

RESULTS AND DISCUSSION

1. Stormwater Discharge Assessments

The study area covers the marine coastline from the Saanich-Central Saanich border on the east coast to the Central Saanich-Juan de Fuca electoral area border on the west coast of the Peninsula (Figure A).

Public Health: Fecal Coliforms

The program evaluated 77 stormwater discharges for public health concerns. Each discharge was sampled for fecal coliform bacteria during the winter and summer, and then rated based on the level of contamination in the stormwater and potential for human contact.

Discharge ratings allow jurisdictions to prioritize remedial measures where they will have the greatest benefit.

The program identified 12 high ratings for public health concern among the 77 discharges assessed in 2013. Table A provides the jurisdictional distribution of high-rated discharges in from 2000 to 2013. In 2013, North Saanich and Sidney had the most high-rated discharges (four and five, respectively), while remaining jurisdictions had one or none.



The number of high-rated discharges went down considerably between 1999 (21) and 2002 (7), and has fluctuated between 11 and 13 high-rated discharges for the past eight years. Many of the high-rated discharges have been of concern for a number of years; six of them have been assigned a high-rating at least four times in the last five years (see Table B). Contamination remains in these discharges because the source is difficult to find, more than one source exists or mitigation is costly. As a result, the IWMP redirected some resources in 2013 (as directed by the Saanich Peninsula Wastewater Commission) to increase investigative efforts in discharges of most concern to determine the sources of fecal coliform contamination.

Table A. Number of Discharges Rated High for Public Health Concern over Time

Jurisdiction	Number of Discharges Rated High													
	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Central Saanich	1	0	2	1	3	2	0	1	1	1	1	2	2	1
North Saanich	6	5	4	4	10	10	7	2	5	5	6	4	4	4
Sidney	7	3	1	4	1	3	4	6	5	5	4	5	4	5
Pauquachin First Nation	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Tsartlip First Nation	0	0	0	1	0	0	0	0	0	0	0	0	1	1
Tsawout First Nation	0	0	0	1	0	0	1	1	0	1	0	0	1	0
Tseycum First Nation	0	0	0	0	0	1	0	1	1	1	1	1	1	1
Total	14	8	7	11	14	16	12	11	12	13	12	12	13	12

Table B. Historical High Public Health Concern Ratings for Discharges Rated High in 2013

Discharge	Jurisdiction	Number of high ratings 2009-2013
416	Central Saanich	5
3077	North Saanich	4
3079	North Saanich	3
3118	North Saanich	4
441	North Saanich	1
447	Sidney	2
449	Sidney	4
450	Sidney	4
3007	Sidney	1
3015	Sidney	1
3095	Tseycum First Nation	5
3138	Tsartlip First Nation	2

Environment: Discharge Sampling for Chemical Contaminants

In 2013, the program evaluated 12 stormwater discharges along the Saanich Peninsula coastline for environmental concern according to the level of chemical contaminants identified in discharge sediment. In addition, six samples were collected upstream to narrow down sources of elevated contaminant concentrations. Contaminant ratings are determined by comparing the concentration of each contaminant [eight metals and polycyclic aromatic hydrocarbons (PAH)] with the CRD marine sediment quality guidelines (MSQG). The MSQG are concentrations above which adverse effects may occur to marine life. Ratios of concentration to MSQG for each contaminant are summed to account for potential effects caused by combining the contaminants.

In 2013, three discharges received a high contaminant rating [441 (Reay Creek, North Saanich), 3005 (Mermaid Canal, Sidney) and 3138, Brentwood Bay, Central Saanich)]. These three high-rated discharges, plus two others rated high in previous years (3016 and 3138) are recommended for corrective action based on consecutive high ratings. Locations of these discharges are shown in Figure A.

Table C. Historical High Chemical Contaminant Ratings for Discharges Rated High in 2013

Discharge	Location/Jurisdiction	Number of high ratings 2009-2013
441	Reay Creek – North Saanich	5
3005	Mermaid Canal – Sidney	5
3138	Brentwood Bay -- Central Saanich	2 (and in 2004)

IWMP staff conduct investigations of the source of the contamination in discharges recommended for corrective action. IWMP and municipal staff have been working towards finding and eliminating the source(s) of contamination in those five discharges recommended for action for a number of years.

CRD and VAA staff narrowed down the source(s) of contamination in two of these discharges (441: Reay Creek) and restoration activities are being completed. CRD staff have narrowed down the contaminant sources to within a few blocks for three of the discharges (449, 3016 and 3138), while investigations are inconclusive for one discharge (3005) partially due to the difficulty in collecting sediment.

Investigations in discharges 449 and 3138 have been suspended due to the challenges of finding a single point source of zinc, which enters storm drains from roadways due to particulate from vehicle brake pads, or from eroding storm drain pipes themselves.

In 2007, IWMP proposed creation of a CRD-led stormwater source control program. This is a method of reducing contaminant inputs to the stormwater system by working with businesses to reduce or eliminate their contaminant discharge to stormwater. It requires staff to work cooperatively with businesses through a balanced approach of education and enforcement.

In 2010, CRD staff began work on updating the model Stormwater Source Control Bylaw (including harmonizing with the newly adopted Central Saanich Surface Water Bylaw). In 2012, the Province of British Columbia granted the CRD the powers necessary to create a stormwater source control service. CRD staff prepared a service establishing bylaw for adoption in late 2013 and will be working throughout 2014 with municipalities and stakeholders to finalize the regulatory bylaw.

2. Contaminant Source Investigations

Fecal Coliform

In 2013, IWMP and municipal staff put more effort into identifying fecal coliform sources in discharges that have been high-rated for a number of years. Staff received direction at the Saanich Peninsula Wastewater Commission (SPWWC) February 21, 2013 meeting to redirect program resources: reduce ambient shoreline monitoring efforts in 2013 and increase investigation of potential contaminant sources associated with current high-rated discharges. In 2013, IWMP staff investigated the catchment areas of eight stormwater discharges during 17 sampling events to gather information about the sources of fecal coliform contamination.

Source investigations included assessments of the catchment area land use, upstream sampling and bacterial source tracking (BST; analysis of bacterial DNA to determine if humans or specific animals are the source). Once the origin of a source is narrowed down, staff contact the appropriate jurisdiction to further isolate it or undertake corrective actions.

The results of the BST analyses are as follows:

- bacteria of human origin were identified in samples from two stormwater discharges in North Saanich (3077 and 3118); and
- results from a sample from a third discharge in Central Saanich (3142) was inconclusive (the bacteria could not be identified).

The status of investigations is as follows:

- the source was found in one discharge (416; more detail follows);
- staff narrowed down the potential source of contamination in three catchments (discharges 449A, 3142, 3077), but more sampling is needed to identify the source or confirm results;
- Investigations are ongoing for the remaining four discharges (3118, 3142, 449, 450); Investigations have been inconclusive due to lower levels of fecal coliforms, multiple sources of contamination or dry conditions.

IWMP and Central Saanich staff worked together to identify the source of contamination in discharge 416; however, more investigation is needed by IWMP staff to confirm what part of the property the contamination is emerging from and if substances other than fecal coliforms are a concern. Central Saanich and CRD staff expect to work with the property owner to mitigate the stormwater contamination.

Chemical Contaminants

In 2013, IWMP staff collected six sediment samples from the catchment area of four discharges (441, 449, 3016 and 3138) to investigate sources of metal or PAH contamination. Staff have identified the source of contamination in one discharge (441; Reay Creek), but continue to investigate the source of elevated mercury identified in 2012 (mercury was low in 2013). Staff have narrowed down a source of contamination to within a few blocks in discharges 449, 3016 and 3138. However, investigations have been suspended in discharges 449 and 3138 due to the challenges of finding a single point source of zinc. Investigations have been inconclusive for discharge 3005 due to the difficulty of collecting sediment in this catchment. In 2014, IWMP staff will continue to monitor Reay Creek for changes due to corrective actions and creek restoration and will continue to investigate the source of arsenic in discharge 3016.

3. Major Watercourse Monitoring

IWMP staff continued to monitor water quality in eight creeks on the Saanich Peninsula (Hagan, Reay, Tetayut, Tatlow, Tén Tén, Tod, Tsawout and Tseycum) in 2013. These creeks are monitored to provide information about creek and watershed health. CRD data shows that water quality in the streams has been consistent over the past five years, and is good in one creek (Tod Creek), fair in two creeks (Tetayut and Reay), and poor in five creeks (Hagan, Tatlow, Tén Tén, Tsawout and Tseycum). The parameters of most concern were fecal coliform bacteria, turbidity and phosphorus. Elevated levels of these parameters are likely the result of failing onsite sewage systems and agricultural practices.

In 2013, IWMP staff will work with municipal staff to locate sources of fecal coliform contamination. As part of the overall stormwater education initiative on the Peninsula, IWMP will also educate property owners about methods to reduce the amount of sediment and phosphorus leaving their properties and ultimately ending up in the creeks.

4. Special Projects

The CRD IWMP has undertaken a number of special projects related to reducing and eliminating contaminants in watercourses and improving stormwater quality in the region. These are as follows:

Increase Communication between CRD and Municipal Staff

IWMP staff worked cooperatively with municipal staff to plan and implement a Peninsula-wide stormwater source control program. Municipal staff have been attending an Inter-municipal Integrated Watershed Management Working Group chaired by the CRD.

Review Chemical Contaminant Sampling

IWMP staff are evaluating the effectiveness of the current chemical sampling program and are investigating new methods of obtaining samples and interpreting the results. Upstream investigations for zinc are being suspended due to the difficulty of finding a single point source of this chemical. This will allow efforts to be focused on finding the source of other chemicals, such as mercury and lead. Other methods of evaluating the environmental risk of stormwater discharges, such as toxicology testing, are also being investigated.

Review Watercourse Sampling

IWMP staff evaluated the watercourse sampling program with the goal of revising sample design to complete more intensive sampling of creeks so that water quality parameters can more reliably be compared to provincial water quality guidelines. Streams will be sampled more intensively, but less frequently, beginning in 2014.

RECOMMENDATIONS

STORMWATER DISCHARGE SURVEYS

1. That sampling is continued by Integrated Watershed Management Program staff at all discharges with a high or moderate level of public health concern, and at selected low rated discharges, to confirm contaminant levels and monitor for change. In 2014, IWMP will continue to decrease the number of discharges sampled in order to redirect funds to increased upstream investigations for those discharges that have been rated high for a number of years.
2. That sediment sampling and analysis be continued at high-rated discharges to confirm chemical contaminant levels and sources of contamination, as required.
3. That sediment sampling and analysis be discontinued at discharges where low chemical contaminant levels have been confirmed, but that they are sampled at least once every five years as part of a long-term strategy to monitor for changes.

4. That Integrated Watershed Management Program staff continue to evaluate the effectiveness of the current sediment sampling program and make changes as required to protect watercourses and the nearshore marine environment.

WATERCOURSE SAMPLING

1. That the watercourse sampling program be revised to produce data that can be reliably compared with provincial water quality guidelines, which are based on average concentrations from five samples collected within a 30-day period.
2. That one creek per year on the Saanich Peninsula is selected for intensive sampling.

UPSTREAM INVESTIGATIONS

1. That Integrated Watershed Management Program staff increase efforts in 2014 to find and eliminate the sources of high fecal coliform concentrations in those discharges rated high for public health concern. This can be accomplished by decreasing efforts used for routine stormwater discharge surveys and redirecting these funds to investigations.
2. That Integrated Watershed Management Program staff work with the jurisdictions involved to determine the sources of contamination for the discharges with a confirmed rating of high environmental concern.

SPECIAL PROJECTS

1. That the Integrated Watershed Management Program continues to undertake special projects, as necessary, to improve stormwater quality on the Peninsula.

GENERAL

The following are also recommended:

1. That Integrated Watershed Management Program staff develop and promote education and best management practices for watershed and stormwater protection for the public through the Saanich Peninsula Stormwater Quality Program and for businesses through the Saanich Peninsula Stormwater Source Control service.
2. That, where appropriate, Integrated Watershed Management Program staff will support municipalities and First Nations to investigate spills and other incidents that may lead to the contamination of storm drains, watercourses and the marine environment.