CAPITAL REGIONAL DISTRICT

Report # ESP 06-63

REPORT TO CORE AREA LIQUID WASTE MANAGEMENT COMMITTEE
MEETING OF WEDNESDAY, 26 JULY 2006

SUBJECT **STORMWATER QUALITY ANNUAL REPORT, CORE AREA – 2005**

PURPOSE

To present the results of the 2005 Core Area Stormwater Quality program.

BACKGROUND

As part of the Core Area Liquid Waste Management Plan (LWMP), the Capital Regional District (CRD) Stormwater, Harbours and Watersheds program (SHWP) coordinates the management of stormwater quality in cooperation with the seven core municipalities and First Nations. SHWP has been effective in drawing attention to and prioritizing problems associated with contaminated stormwater. This has allowed the municipalities, the Department of National Defence (DND) and First Nations to develop plans and carry out remedial actions to address these problems. This partnership between the SHWP and the jurisdictions involved has been successful in improving stormwater quality in the CRD core area.

The results of the 2005 SHWP work in the core area are detailed in the report entitled, *Stormwater Quality Annual Report, Core Area – 2005*. A copy of the executive summary is attached (Appendix A). Copies of the full report are available from the Environmental Services department. The 2005 report has been discussed with the jurisdictions involved.

The annual report covers six main activity areas: stormwater discharge surveys, stormwater source control, upstream investigations, monitoring of major watercourses, nearshore marine investigations and special projects.

1. Stormwater Discharge Surveys

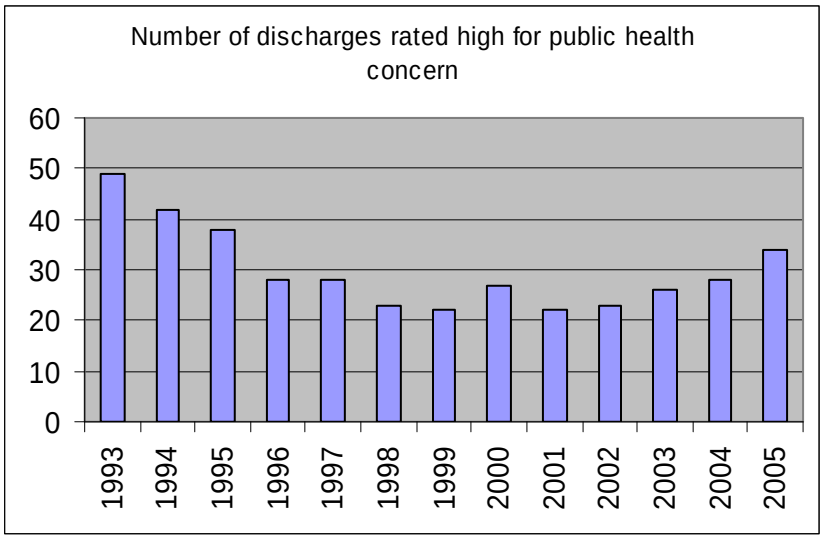
In 2005, stormwater discharges along the marine coastline of the core area (Colwood/Metchosin border in the west to the Saanich/Central Saanich border in the east) were surveyed. These stormwater discharges were sampled, evaluated and rated for public health and environmental concerns.

Public Health – Fecal Coliforms

From 1993 to 1999, the number of stormwater discharges assigned a high level of concern for public health dropped dramatically (from 49 to 22). Little change was seen from 1999 to 2001 and, since then, the number of high priority discharges has been increasing (refer to Graph 1). In 2005, 34 of 179 stormwater discharges were assigned a high level of concern for public health and recommended for action (figures A and B in the attached executive summary show the location of these discharges).

This 15-year pattern of numbers of high priority discharges indicates that the municipalities and other jurisdictions have worked hard to reduce problem discharges and have addressed most of the stormwater discharges with obvious contaminant sources. The majority of the remaining discharges are more difficult to address. The 2005 high priority stormwater discharges either have contaminant sources that are proving difficult to identify or a new contaminant source has developed in the discharge.

Graph 1



The recent increase in high ratings has occurred in three areas: Esquimalt, Oak Bay and Victoria (see Appendix A, Table A). To address this increase and reverse the trend, SHWP staff has worked with municipal staff from the three municipalities to develop action plans. These plans set targets for each municipality to reduce the number of high rated discharges to approximately half of current levels within three years. This will be accomplished by SHWP and municipal staff working in a cooperative manner to rapidly locate problems. This would be followed by municipal remedial action. Staff at the three municipalities have agreed in principle to the action plans.

Environment – Chemical Contaminants

In 2005, 49 stormwater discharges were sampled for chemical contaminants and then evaluated for environmental concerns. Eighteen discharges received a high contaminant rating. Eight of the 18 discharges rated high in 2005 and 13 discharges rated high in previous surveys (a total of 21) are recommended for action to determine the source(s) of contamination now that repeated sampling in three successive years has confirmed high contaminant levels at these locations (see figures A and B for locations).

Since 1993, this monitoring has been successful in defining problem areas and helping municipalities work with business owners to reduce or eliminate the discharge of contaminants. In general, chemical contaminant levels in stormwater flows have declined over the last 13 years. Monitoring and other source control initiatives have made commercial and private sectors more aware of products used on site and contaminants leaving their property. As well, the use and maintenance of stormwater rehabilitation units continues to increase. This emphasizes the importance of stormwater source control; that is, a program to reduce the chemical contaminants entering stormwater from residential and business sources before they are detected at the point of discharge into the marine environment.

2. Stormwater Source Control

In the Core Area LWMP, the CRD committed to conduct a stormwater source control program in cooperation with the municipalities. The goal of the program is to reduce environmental contamination by controlling it at the source (the discharger becomes responsible for keeping contaminants out of stormwater flows).

To meet this goal, SHWP has developed a Model Storm Sewer and Watercourse Protection Bylaw that has been made available for municipal adoption. A component of the model bylaw is the ability to add industry-specific codes of practice to specifically address certain business practices that have the ability to contaminate stormwater. In 2005, the Source Control program developed two codes of practice (COPs); Recycling Operations and Outdoor Storage Yard Operations. These codes were endorsed by the Core Area Liquid Waste Management Committee on 01 June 2005 and the municipalities were invited to adopt and enforce them. Two non-regulatory best management practices (Painting without Pollution and Power Washing without Pollution) were also developed and distributed to municipalities. In addition, SHWP staff continued to promote municipal adoption of the model bylaw and codes. As these source control measures are adopted by municipalities, SHWP staff are committed to the continued public outreach, education and promotion of these initiatives in cooperation with the municipalities.

3. Upstream Investigations

Upstream investigations were carried out to identify sources of bacterial and chemical contamination in stormwater discharges. In 2005, sources of contamination were eliminated in one catchment area, identified in two and narrowed down in 12. In 2006, municipalities, using the information provided by SHWP, plan to resolve the two identified contaminant sources, and SHWP staff will continue to work with the municipalities to further narrow down the remaining areas of stormwater contamination and monitor for new problems.

4. Monitoring of Major Watercourses

In 2005, the water quality in eight major core area watercourses (Colwood, Millstream, Craigflower, Goldstream, Hospital, Cecelia, Bowker and Noble creeks) was assessed in the winter and the summer. Assessments are used to determine the overall health of the watercourses and to monitor changes over time.

In general, areas with high levels of human settlement and impervious surfaces were found to have poorer water quality. In most cases, fecal coliform and temperature levels increased and dissolved oxygen levels decreased from the upper reaches to the point of discharge to the marine receiving environment. Although there has been some variability in data over the last five years, overall water quality in the eight watercourses has not changed significantly.

The lower portion of Cecelia Creek continues to have the greatest number of provincial or federal criteria exceedences, while Colwood Creek has the fewest. Data collected to date will be used as a baseline for future comparison.

5. Nearshore Marine Investigations

Surface water samples were collected from Esquimalt Lagoon and Victoria and Esquimalt harbours in the winter and summer. This monitoring is used to provide information about some of the overall effects of stormwater discharges on these partially enclosed waterbodies in the core area.

In 2005, fecal coliform levels in the three waterbodies were low, indicating that there was no significant effect from fecal coliform present in stormwater flows. There has been a slight improvement in water quality in the three waterbodies since monitoring began in 1993. However, some fluctuation in fecal coliform levels has occurred recently. These fluctuations are likely due to changes in precipitation levels and stormwater bacteria loading to the marine environment.

6. **Special Projects**

In 2005, SHWP and other CRD staff were involved in a number of special projects to improve stormwater quality in the region. These are outlined in the annual report.

ALTERNATIVES

1. SHWP and municipal staff work together to implement the action plans to reduce the number of discharges rated high for public health concern. In addition, SHWP staff continue to work with municipalities to encourage the adoption and enforcement of the Model Storm Sewer and Watercourse Protection Bylaw and COPs to reduce chemical contamination in stormwater discharges.

2. SHWP and municipal staff do not work together to implement the action plans to reduce the number of discharges rated high for public health concern. In addition, SHWP staff do not continue to work with municipalities to encourage the adoption and enforcement of the Model Storm Sewer and Watercourse Protection Bylaw and COPs to reduce chemical contamination in stormwater discharges.

   The result will probably be a continued increase in the number of discharges rated high for public health concerns and no change or an increase in the chemical contamination of stormwater. This will possibly lead to the damage of public shoreline recreation areas and marine ecosystems. Without municipal adoption of the Model Storm Sewer and Watercourse Protection Bylaw there will be inconsistent regulations across the core area for the protection of the environment from contaminants in stormwater, confusion among the affected businesses and residents, and potentially create an unlevel playing field for business.

FINANCIAL IMPLICATIONS

Program funding is provided in the annual budget.

SUMMARY/CONCLUSIONS

In 2005, fecal coliform monitoring continued to provide valuable information to municipalities allowing the identification and remediation of some stormwater quality issues. Due to recent increases in the number of discharges rated high for public health concern, action plans have been developed in cooperation with three municipalities to address this issue over the next three years. SHWP staff are working closely with municipal staff to identify and remediate sources of contamination. It is anticipated that the number of discharges rated high in 2006 will decrease as a result.

Chemical contaminant levels in stormwater discharges have decreased over time. This emphasizes the need for stormwater source control and municipal adoption of the Model Storm Sewer and Watercourse Protection Bylaw and codes of practice. SHWP staff are working with the municipalities to assist with the adoption of these tools and to educate the affected businesses and residents.

RECOMMENDATIONS

That the Core Area Liquid Waste Management committee recommend that:

1. the Capital Regional District *Stormwater Quality Annual Report, Core Area – 2005*, dated June 2006, be received for information;

2. the report be forwarded to the jurisdictions involved for their consideration;

3. copies of the report be forwarded to the Ministry of Environment;

4. SHWP staff work with the Township of Esquimalt, District of Oak Bay and City of Victoria to implement the action plans to reduce the number of stormwater discharges rated high for public health concern; and

5. SHWP staff continue to work with municipalities to encourage the adoption and enforcement of the Model Storm Sewer and Watercourse Protection Bylaw and codes of practice.

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

Dwayne Kalynchuk, PEng
General Manager, Environmental Services
Concurrence

COMMENTS

DG:bc
Attachment: 1

STORMWATER QUALITY ANNUAL REPORT
CORE AREA – 2005

EXECUTIVE SUMMARY

INTRODUCTION

The Capital Regional District (CRD) Stormwater, Harbours and Watersheds program (SHWP) plans, promotes and coordinates the management of stormwater quality in the core Liquid Waste Management Plan (LWMP) area, in consultation with the municipalities, Department of National Defence (DND) and First Nations. The CRD does not have the authority to directly implement any mitigative programs. This continues to be the responsibility of the municipalities, DND and First Nations.

This 2005 annual report covers six main areas of activity:

1. **Stormwater Discharge Surveys** – carried out along the entire coastline of the core area to investigate the public health and environmental concern of stormwater discharges.

2. **Upstream Investigations** – undertaken to identify the source(s) of contaminants in stormwater.

3. **Monitoring of Major Watercourses** – carried out on eight major watercourses within the core area to determine the health of these watercourses and whether water quality is getting better or worse over time.

4. **Nearshore Marine Investigations** – carried out in Esquimalt Lagoon and Esquimalt and Victoria harbours to determine water quality in these waterbodies and monitor for change over time.

5. **Stormwater Source Control** – promoted through the creation of a Model Storm Sewer and Watercourse Protection Bylaw, associated codes of practice (COPs) for business sectors that have the potential to impact stormwater quality, non-regulatory best management practices (BMPs), and outreach and education initiatives.

6. **Special Projects** – to improve stormwater quality in the region.

This annual report has been discussed with the seven core area municipalities, the two First Nations and the DND.

RESULTS AND DISCUSSION

1. Stormwater Discharge Survey

The stormwater discharge survey covers the coastline between the Colwood/Metchosin border in the west and the Saanich/Central Saanich border in the east, including Esquimalt Lagoon, Esquimalt Harbour, Victoria Harbour, Gorge and Selkirk waters, Portage Inlet and the City of Langford coastline along Saanich Inlet.

<u>Public Health – Fecal Coliforms</u>

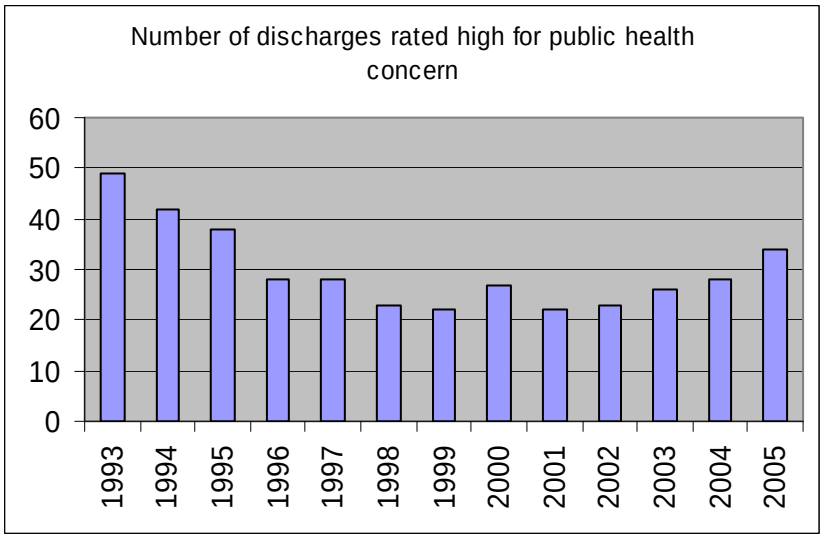
Stormwater discharges are evaluated for public health concerns. This is done by sampling each discharge for fecal coliform bacteria and assigning a rating of high, moderate or low using the CRD's rating system. This allows the jurisdictions involved to better manage limited funds and undertake remedial measures where necessary.

In 2005, 179 stormwater discharges were sampled for fecal coliform concentrations, and 34 of those discharges were assigned a high level of concern for public health and recommended for action (refer to Table A and figures A and B), 76 were rated moderate and 69 were rated low. Twenty-six discharges rated low in 2005 are recommended for resampling in 2006 because they are high flow watercourses or to confirm lower fecal coliform counts.

The state of municipal infrastructure varies widely throughout the study area and, therefore, the number of high-priority discharges in a jurisdiction should not be used to gauge the level of remedial effort. Some discharges also carry flows from more than one jurisdiction, and the source(s) of fecal coliform bacteria may not be from the jurisdiction at the point of discharge.

There has been a 31% reduction in the number of high-rated discharges (from 49 in 1993) over the past 12 years (refer to Graph 1). While the majority of these improvements took place within the first half of this time period, the total number of high-rated discharges in the core has increased over the period of 2001 to 2005. These data suggest that the municipalities have successfully resolved some of the identified problems but that the remaining sources of contamination are proving difficult to identify while, at the same time, new sources of contamination are being found.

Graph 1



The areas that have shown an increase in high ratings from 2004 to 2005 are Esquimalt, Oak Bay and Victoria (see Table A). An action plan to reduce the number of high-rated discharges has been agreed to with these municipalities. The plan sets targets for the municipalities to reduce the number of high-rated discharges (to approximately half of current levels within three years) by acting on data provided by SHWP, as well as establishing some new procedures for SHWP staff to quickly and cooperatively locate problems in order to support municipal efforts. Work will also continue in the other core area municipalities in order to maintain their low numbers of problem discharges.

Table A. Comparison of the Total Number of Discharges with a High Level of Public Health Concern

Jurisdiction	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
City of Colwood	0	1	2	2	1	0	0	0	0	1	1	0	0
Town of View Royal	1	2	0	0	0	0	0	0	0	0	1	0	1
Township of Esquimalt	12	10	10	9	9	9	6	6	5	5	5	5	7
DND	0	1	0	1	2	1	1	1	0	0	0	0	0
District of Saanich	6	3	2	1	2	1	0	2	2	1	0	4	1
City of Victoria	22	18	17	12	10	9	11	13	9	8	13	14	16
District of Oak Bay	8	7	7	3	4	3	4	5	6	8	6	5	9
City of Langford[1]	-	-	-	-	-	0	0	0	0	0	0	0	0
Total	**49**	**42**	**38**	**28**	**28**	**23**	**22**	**27**	**22**	**23**	**26**	**28**	**34**

Note: [1] City of Langford stormwater discharges were sampled for the first time by SHWP staff in 1998.

Environment – Chemical Contaminants

Stormwater discharges are evaluated for environmental concerns based on the level of metals and organic contaminants identified in each flow. Discharges with high chemical contaminants are then prioritized for action based on environmental factors, including habitat sensitivity, discharge flow rate and the flushing characteristics of marine receiving waters. This prioritization is undertaken in consultation with the appropriate jurisdiction(s) and involves a detailed investigation to locate the source(s) of contamination.

The 2005 report assessed environmental concerns using all chemical contaminant data collected from 122 stormwater discharges since 1993. All chemical contaminant data was considered because sampling is discontinued at discharges consistently rated high for three years until some form of remediation is implemented. This allows limited funds to be re-allocated for sampling other discharges, while continuing to report the need for action in each annual report.

In 2005, 49 stormwater discharges were sampled for polycyclic aromatic hydrocarbons and eight metals and were assessed for environmental concern. Eighteen of the 49 stormwater discharges received a high-contaminant rating. Sixteen discharges received a moderate-contaminant rating and 15 were rated low.

Eight of the 18 discharges rated high in 2005 and 13 discharges rated high in previous surveys (21 in total) are recommended for contaminant source investigation. This action is necessary now that repeated sampling has confirmed contaminants in the stormwater sediments to be at, or near, levels of concern to aquatic organisms. Figures A and B show the location of these 21 discharges, and Table B presents the jurisdictional distribution of discharges recommended for action.

Table B. Discharges Recommended for Action Due to Elevated Chemical Contaminant Levels

Jurisdiction	Discharges Requiring Action
City of Colwood	0
City of Langford	0
City of Victoria	11
DND	1
District of Oak Bay	3
District of Saanich	2
Parks Canada	1
Township of Esquimalt	2
Town of View Royal	1
Total	**21**

Since 1993, this monitoring has been successful in defining problem areas and helping municipalities work with business owners to reduce or eliminate the discharge of contaminants. In general, chemical contaminant levels in stormwater flows have declined over the last 13 years. Monitoring and other source control initiatives have made commercial and private sectors more aware of products used on site and contaminants leaving their property. As well, the use and maintenance of stormwater rehabilitation units continues to increase. This emphasizes the importance of stormwater source control; that is, a program to reduce the chemical contaminants entering stormwater from residential and business sources before they are detected at the point of discharge into the marine environment. The Stormwater Source Control program aims to reduce chemical contamination from residential and business sources. As a result, in 2006, the sampling program will be re-examined and, if required, re-designed to measure the effectiveness of the Stormwater Source Control program.

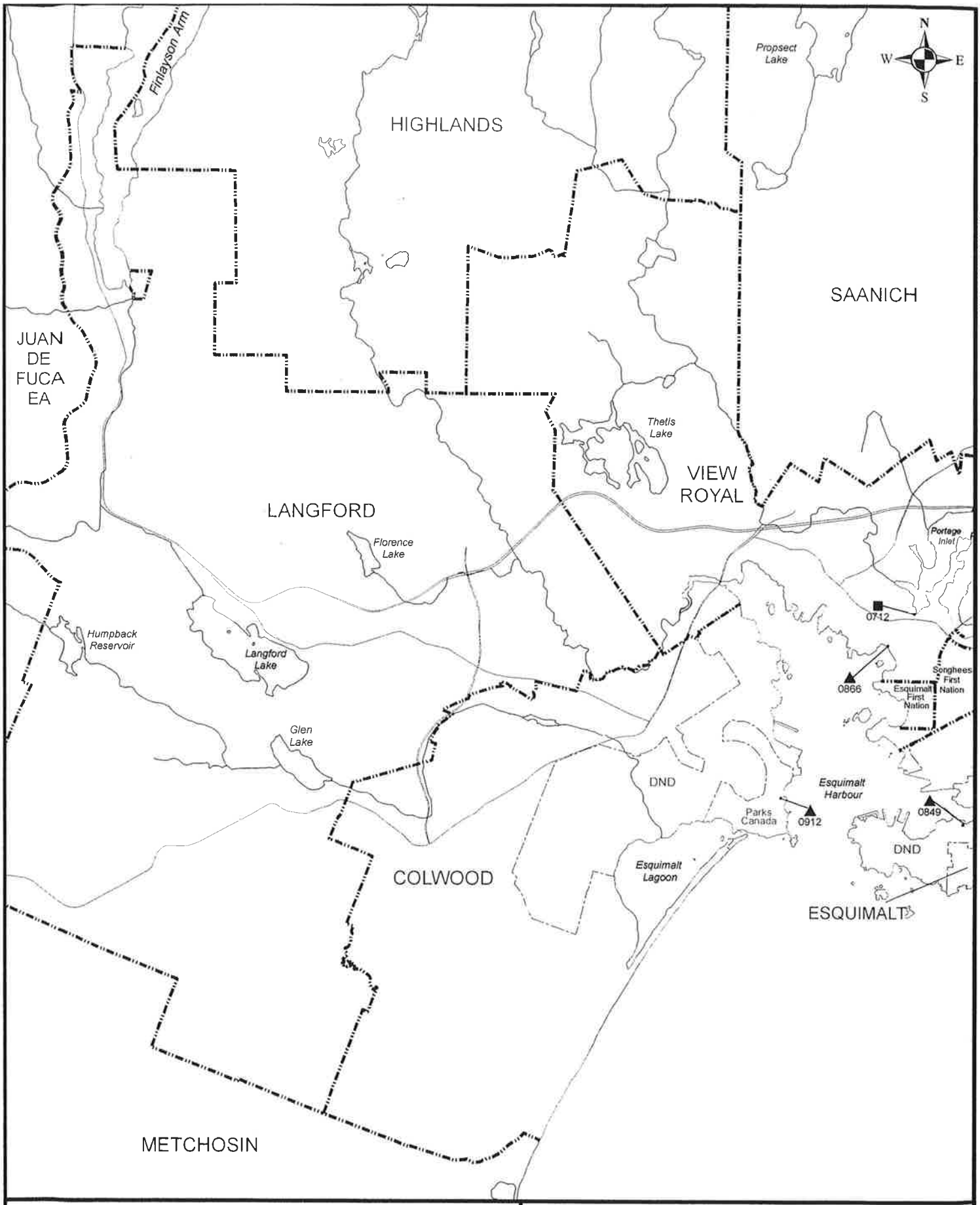


Figure A Stormwater Discharges Requiring Action for Public Health and Environmental Concerns (Metchosin to Esquimalt Border)

▲ Environmental Concern
■ Public Health Concern
Municipal Boundaries
DND Boundaries
Major Roads
Core Stormwater Monitoring Area
CRD

CAPITAL REGIONAL DISTRICT
Environmental Services

0 0.5 1 2
Kilometers

UTM Zone10N
NAD83

Technologist: KE - Jun 23/06 SW\Discharge_Action_Colwood.mxd

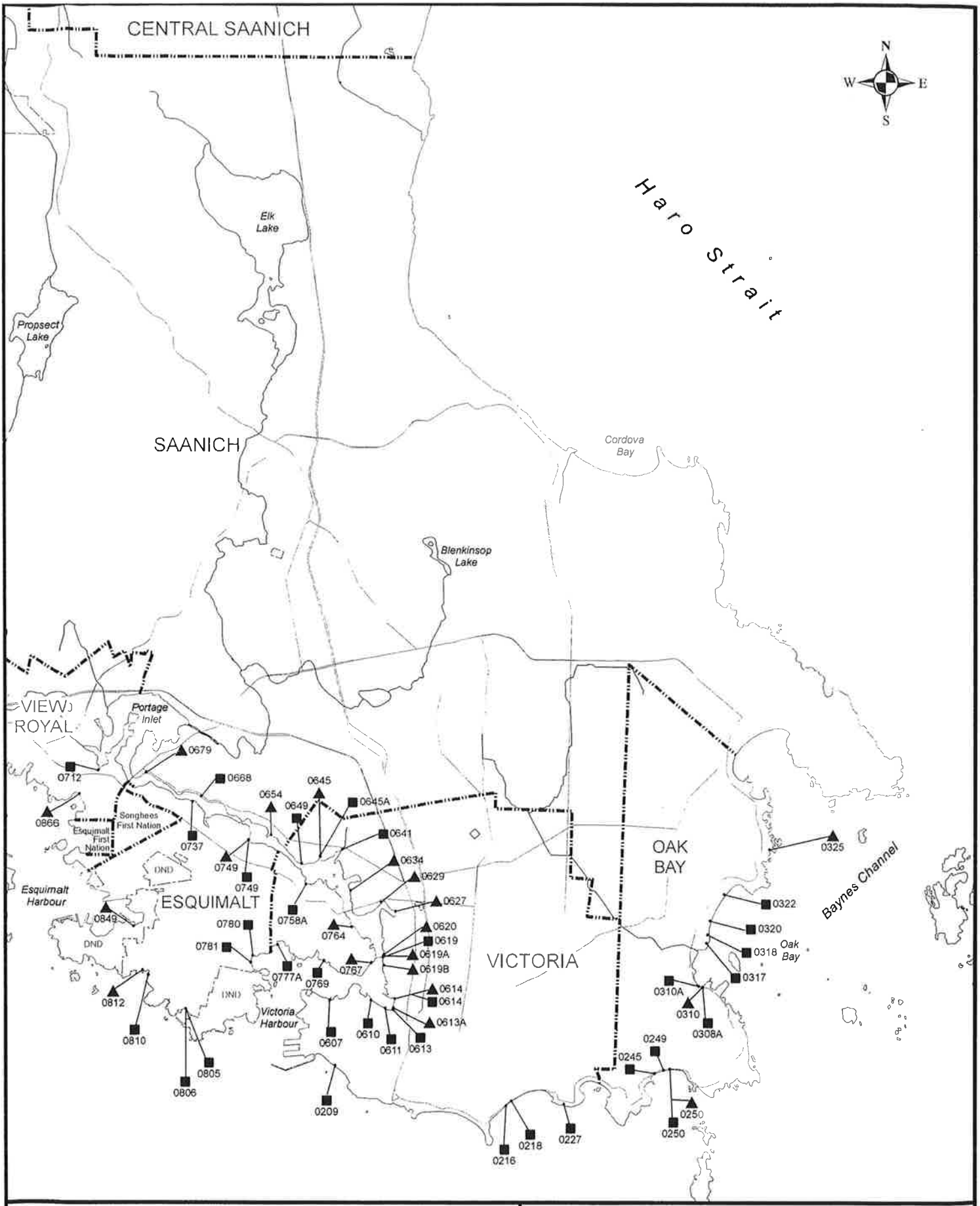


Figure B Stormwater Discharges Requiring Action for Public Health and Environmental Concerns (Esquimalt to Central Saanich Border)

▲ Environmental Concern
■ Public Health Concern
Municipal Boundaries
DND Boundaries
Major Roads
Core Stormwater Monitoring Area
CRD

CRD CAPITAL REGIONAL DISTRICT
Environmental Services

0 0.5 1 2
Kilometers

UTM Zone10N
NAD83

Technologist: KE - Jun 26/06 SWDischarge_Action_Victoria.mxd

2. Upstream Investigations

Upstream investigations by municipal, Vancouver Island Health Authority and SHWP staff were undertaken in the catchment areas of 22 stormwater discharges. These investigations included both biological and chemical contaminant sampling. Sixteen of these 22 discharges were rated high for public health and/or environmental concern in 2005. The other six watercourses were investigated due to associated elevated contaminant concentrations or to verify overall watershed contaminant levels.

Of the 22 investigations, the source of contamination was eliminated in one catchment, the areas of contamination were identified in two, narrowed down in 12 and inconclusive in seven others. In 2006, municipalities, using the information provided by SHWP, plan to resolve the two identified contaminant sources, and SHWP staff will continue to work with the municipalities to further narrow down the remaining areas of stormwater contamination and monitor for new problems.

3. Monitoring of Major Watercourses

Monitoring of eight major watercourses (Colwood, Millstream, Craigflower, Goldstream, Hospital, Cecelia, Bowker and Noble creeks) was carried out to determine whether the health of these watercourses is getting better or worse over time. This monitoring involves collecting measurements for fecal coliforms, temperature, pH, dissolved oxygen, specific conductance, turbidity, nitrogen-nitrate and phosphorus and comparing the data to provincial or federal criteria.

Although there has been some variability in data over the last five years, overall water quality in the eight watercourses has not changed significantly. Cecelia Creek continues to have the highest number of exceedences of the provincial or federal criteria, while Colwood Creek has the fewest. This is not surprising as Cecelia Creek has a large amount of impervious area and is located in a highly commercialized/industrialized area and Colwood Creek remains relatively undeveloped, retaining much of its natural features.

Impacts from ongoing and proposed land-based activities pose the biggest threat to the health of watercourses, and continued sampling is required to monitor for change over time. Data collected to date will be used as a baseline for future comparison.

4. Nearshore Marine Investigations

Surface water samples were collected from Esquimalt Lagoon and Victoria and Esquimalt harbours in the winter and summer. This monitoring is used to provide information about some of the overall effects of stormwater discharges on these partially enclosed waterbodies in the core area.

In 2005, fecal coliform levels in the three waterbodies were low, indicating that there was no significant effect from fecal coliform present in stormwater flows. There has been a slight improvement in water quality in the three waterbodies since monitoring began in 1993. However, some fluctuation in fecal coliform levels has occurred recently. These fluctuations are likely due to changes in precipitation levels and stormwater bacteria loading to the marine environment.

5. Stormwater Source Control

In the Core Area LWMP, the CRD committed to conduct a Stormwater Source Control program in cooperation with municipal partners. The goal of the program is to reduce environmental contamination by controlling it at the source (the discharger becomes responsible for keeping contaminants out of stormwater flows). SHWP has developed a Model Storm Sewer and Watercourse Protection Bylaw that has been made available for municipal adoption. A component of the model bylaw is the ability to add industry-specific COPs to specifically address certain business practices that have the ability to contaminate stormwater.

In 2005, the Source Control program developed two of these codes (Recycling Operations and Outdoor Storage Yard Operations), two BMPs (Painting without Pollution and Power Washing without Pollution) and promoted municipal adoption of the model bylaw. As source control measures are adopted by

municipalities, SHWP staff are committed to the continued public outreach, education and promotion of these initiatives in cooperation with the municipalities.

Model Storm Sewer and Watercourse Protection Bylaw

In 2001, using powers under the *Local Government Act* (LGA), the Model Storm Sewer and Watercourse Protection Bylaw was drafted. In 2004, the province enacted the *Community Charter*, which contained sections that replace almost all of the environmentally-related sections of the LGA. This resulted in a new draft of the model bylaw in the spring of 2004 to reflect the newer legislation and avoid language that requires concurrent authority (approval from the Ministry of Environment (MOE) when language in a municipal regulation overlaps provincial powers). Municipalities are now able to adopt the model bylaw (version 12A) and codes without seeking approval from the MOE.

Codes of Practice

The bylaw was designed to allow the incorporation of stormwater COPs that set out municipal regulatory requirements under which various business sectors will be required to operate to prevent the pollution of stormwater.

The six COPs which have been completed and are ready for adoption are as follows:

- Automotive and Parking Lot Operations
- Construction and Development Activities
- Streets and Roads
- Recreation Facilities
- Recycling Facilities
- Outdoor Storage Yards

Best Management Practices

A BMP is a voluntary strategy for preventing stormwater pollution and often uses the same methods and strategies as in a code of practice but without the regulatory mechanism for compliance.

Two sector-specific BMPs, which have been completed and are ready for region-wide use, are as follows:

- Painting without Pollution
- Power Washing without Pollution

It is hoped that municipalities will actively promote these BMPs by making these information sheets available to those involved in these two activities.

Outreach and Promotion Component

SHWP staff worked with representatives of the Bylaw Working group and municipal staff to educate and inform the business sectors affected by the bylaw and COPs. Guidebooks, information meetings and other activities were coordinated at the direction of stakeholders and municipalities. SHWP staff continue to provide assistance to the municipalities, as required, with the adoption and implementation of the model bylaw and COPs.

6. Special Projects

In 2005, SHWP staff were involved with a number of special projects to improve stormwater quality in the region. These included the continued development of the Natural Areas and Harbours atlases, watershed management planning, working cooperatively with the Regional Source Control program and education initiatives.

RECOMMENDATIONS:

Public Health Concerns

The following recommendations are based on the results of the fecal coliform sampling:

1. that SHWP staff work with the jurisdictions involved to investigate and eliminate the sources of high fecal coliform concentrations for 34 stormwater discharges rated high for public health concern;

2. SHWP staff work cooperatively with the Township of Esquimalt, District of Oak Bay and City of Victoria to reduce the number of stormwater discharges rated high for public health concern;

3. that SHWP staff continue sampling at all discharges with a high or moderate level of public health concern and at 26 discharges rated low to confirm contaminant levels;

4. that annual sampling be discontinued at 43 of the 69 discharges rated low, but that they be sampled at least once every five years as part of a long-term strategy to monitor for possible changes in the future;

5. that monitoring of creeks be continued to monitor for change over time; and

6. that SHWP staff continue to monitor surface fecal coliform levels in Esquimalt Lagoon and Esquimalt and Victoria harbours to track changes in these waterbodies over time.

Environmental Concerns

The following recommendations are based on the results of the chemical contaminants survey:

1. that SHWP staff work with the jurisdictions involved to determine the source(s) of contamination for the 21 discharges requiring action;

2. that sampling and analysis be discontinued at discharges where low contaminant levels have been confirmed;

3. that SHWP staff evaluate the effectiveness of the current sediment sampling program and make changes, as required, to protect watercourses and the nearshore marine environment; and

4. that SHWP staff continue monitoring the eight major core area watercourses to assess water quality.

Stormwater Source Control

1. that SHWP staff continue to develop (as required) the regulatory framework of bylaws, COPs and BMPs for the protection of stormwater quality;

2. that SHWP staff continue to actively promote the Model Storm Sewer and Watercourse Protection Bylaw, associated COPs and BMPs to the member municipalities; and

3. that all core area municipalities that have not yet adopted the Model Storm Sewer and Watercourse Protection Bylaw and associated COPs consider doing so.

General

1. that, where appropriate, municipalities, the DND and First Nations investigate spills and other incidents that may lead to the contamination.