

**APPENDIX E**

**JURISDICTIONAL RESPONSIBILITIES FOR  
PROTECTION OF STORMWATER QUALITY**

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## APPENDIX E

### RESPONSIBILITIES FOR PROTECTION OF STORMWATER QUALITY AND OTHER STORMWATER RELATED ACTIVITIES

#### 1.0 INTRODUCTION

This appendix provides a summary of roles and responsibilities for protection of stormwater quality by different levels of government in the study area.

#### 2.0 RESPONSIBILITIES FOR PROTECTION OF STORMWATER QUALITY

The jurisdictions involved in protection of stormwater quality, either directly or indirectly, in the survey area include the District of Sooke, Juan de Fuca Electoral Area, Capital Regional District (CRD), the Vancouver Island Health Authority (VIHA), the Ministry of Transportation (MOT), the Ministry of Environment (MOE), the Ministry of Forests (MOF), and the Department of Fisheries and Oceans Canada (DFO). The following sections discuss some of the responsibilities of these jurisdictions.

##### 2.1 Municipalities

Municipalities are responsible for stormwater runoff (i.e., storm drains) and have powers to protect water quality through official community plans (OCP) and bylaws. OCP contain community goals and objectives and can state policies regarding protection of stormwater quality. The OCP can also designate areas requiring special management and guidelines to protect water quality. Bylaws can protect stormwater quality by prohibiting discharge of contaminants, protecting riparian areas, preventing an increase in stormwater flows and requiring treatment of stormwater under certain circumstances.

In 1988, the Sooke Electoral Area (EA) adopted the *Sooke Official Community Plan*. This OCP covers the area that includes the District of Sooke and part of the Juan de Fuca EA. Four local area plans (Sooke Local Area plan, Sooke Harbour, Basin and Inlet Management plan, Otter-Shirley Local Area plan and East Sooke Local Area plan) were adopted as part of the Sooke OCP. The relevant sections in the Sooke OCP and the Sooke Local Area plan will be used by the District of Sooke. The following are some of the objectives listed in the OCP and local area plans related to stormwater quality and their status.

The *Sooke Harbour, Basin and Inlet Local Area plan* includes the following stormwater quality related objectives and their status:

- *Maintain established water quality objectives for the plan area in order to prevent incompatible development that may contribute to a decline in water quality* - ongoing consideration.
- *Protect fish and wildlife habitats in the Sooke Harbour, Basin and Inlet* - ongoing consideration.
- *Preserve vegetation cover on upland and foreshore areas around the Sooke Harbour, Basin and Inlet as much as possible* - ongoing consideration.
- *Protect Anderson, Roche, Hutchinson and Cooper coves, rehabilitate Whiffin Spit only as structurally necessary and encourage the restoration of its natural vegetation* - ongoing consideration, Whiffin Spit rehabilitation occurs as repairs are made.
- *Preserve the natural character of the marine environment in the Sooke Harbour, Basin and Inlet as much as possible* - ongoing consideration.
- *Encourage the prevention of excessive noise and air pollution in the plan area* - ongoing consideration.

The following provides some of the policies in the *Sooke Harbour, Basin and Inlet Management plan* to prevent the deterioration of water quality in the harbour, basin and inlet. The CRD shall:

- (a) *Adopt Proposed Water Quality Objectives ... until the Ministry of Environment, Lands and Parks conducts a formal review of the proposed water quality objectives - adopted.*
- (b) *Request that the Water Management Branch, Ministry of Environment conduct a formal review of the proposed water quality objectives - in process.*
- (c) *Request the provincial and/or federal governments to conduct a water quality objectives monitoring program or provide funds to conduct such a program - sampling program conducted for 2008; report pending.*
- (d) *Conduct a water quality monitoring program and shellfish contamination survey as funds allow – program planned, however, date not set.*
- *The future development of marine commercial or marine industrial uses that would substantially contribute to loadings of heavy metals and hydrocarbons should not be permitted in or around Sooke Harbour, Basin and Inlet - ongoing consideration.*
- *No permit shall be issued by the District of Sooke for upland uses or uses within the plan area which would be likely to lead to direct or indirect discharge of deleterious substances into Sooke Harbour, Basin or Inlet. Other governments and agencies having jurisdiction are encouraged to restrict the issuance of permits in similar situations - ongoing consideration.*
- *The future impact on water quality should be examined as part of the consideration of proposals for upland development - ongoing consideration.*
- *Water quality assessment and monitoring programs for Sooke Harbour, Basin and Inlet and its drainage areas should be initiated and/or continued jointly by the federal, provincial and regional governments as soon as possible, as recommended in “A Water Quality Assessment and Provisional Water Quality Study for Sooke Harbour, Basin and Inlet” (Aquamatrix Research Ltd., 1989). Any such programs should be coordinated to prevent duplication - done, in part, by the CRD Stormwater, Harbours and Watersheds program (SHWP) however; further monitoring is required to meet this objective.*
- *The CRD shall take steps to encourage boat owners to install holding tanks in boats with a head, to encourage marinas to install pump-out facilities – District of Sooke is in the process of providing pump-out facilities.*
- *The Capital Regional Board, through the Health department, Environmental Protection division, should investigate the feasibility of setting regulations requiring that septic disposal fields and tanks be set back a minimum distance for the mean high water mark, and located, where feasible, on the upland side of any structures on a lot - not done.*
- *The Capital Regional District should initiate a public education program to inform the public and those selling pesticides, herbicides and chemical fertilizers that these substances should not be used along the waterfront and all waterways draining into the Harbour and Basin - ongoing by CRD SHWP and local environmental organizations.*

The plan also states that certain developments on commercial and industrial lands within 100 metres of the mean high water mark in the Sooke Harbour and Basin be carried out in a manner sensitive to the environment including retention of vegetation and minimizing soil erosion. This policy is a consideration.

The *East Sooke Local Area Plan* was adopted in 1996 and is termed the *Official Community Plan (Sooke) Bylaw, Amendment Bylaw No. 29, 1996*. The following are some of the objectives of the plan relevant to stormwater quality and their status:

- *To ensure the protection of the marine shoreland environment through policies that are responsive to natural physical processes - ongoing consideration.*
- *To maintain water quality standards, as affected by land use in the Sooke Harbour, Basin and Inlet areas and Becher Bay area - ongoing consideration.*
- *To protect and enhance ponds, creeks, streams and wetland environments in their natural states by (ongoing considerations):*
  - *protecting and or preserving natural drainage features*
  - *ensuring the protection of their natural amenities*
  - *protecting and enhancing the fisheries in the area's ponds, creeks and wetlands*
  - *protecting the water quality streams and ponds*
- *To preserve the quality of air, land and water - ongoing consideration.*

The following are policy statements made in the plan relevant to stormwater quality issues:

- *Prohibit the construction of a septic tank within 15 metres from a watercourse or their source - ongoing.*
- *Prohibit the location of an absorption field within 30 metres from the source of streams - ongoing.*
- *Encourage the retention of vegetation cover on stream banks, including wetlands - ongoing consideration.*
- *Wherever possible, maintain streams and wetland areas as wildlife habitats or in as natural state as possible and encourage recreation uses only when such uses are compatible with the habitat wetlands - ongoing consideration.*
- *Development and logging of steep hillsides with poor soil stability or steep slopes susceptible to erosion and landslip should be discouraged near wetlands - ongoing consideration.*
- *To ensure that there is no modification of stream channels and banks, the Capital Regional District [for the electoral area] will support the Ministry of Environment to prevent the removal or addition of gravel, sand, soil and vegetation to or from stream beds and adjacent uplands wetlands - partially included in the CRD soil removal bylaw.*
- *Prohibit development which requires the placement of fill or alteration or ponds or wetlands or activities which contribute to the discharge of deleterious material into the same - ongoing, part of zoning regulation.*

The *Sooke Local Area Plan* provides land use policies and development guidelines on lands that contribute flows from the northern part of Sooke Harbour and Basin within the plan boundaries. The following are stormwater related objectives and policies from the plan and their status.

- *The Capital Regional District [District of Sooke] and the plan shall assist the Ministry of Environment, and Fisheries and Oceans Canada in protecting all creeks in the planning area - ongoing consideration.*
- *Encourage good forest practices consistent with the Forest Practices Code along all drainage systems to ensure that fish habitats are maintained and that erosion is minimized - ongoing consideration.*

- *Prohibit the construction of buildings within 30 metres (100 feet) horizontal distance from the top of bank/break of land of Ayum Creek, DeMamiel Creek and Sooke River or from the area below the 200 year flood level adjacent to these watercourses, when it can be determined - ongoing, enforced through zoning regulation.*
- *Prohibit the construction of habitable buildings within 15 metres (50 feet) horizontal distance from the top of bank/break of land of any watercourse or stream not mentioned in policy 3 (this section), or from the area below the 200 year flood level adjacent to these watercourses or water bodies, when it can be determined - ongoing, enforced through zoning regulation.*
- *Prohibit the construction of a septic tank within 15 meters (50 feet), from the source of domestic water (e.g., rivers, streams, lakes, watersheds, wells, shoreline) - ongoing.*
- *Prohibit the location of an absorption field within 30 metres (100 feet) from the source of domestic water (e.g., rivers, streams, lakes, watersheds, wells, shoreline) - ongoing.*
- *Dredging, filling, channelling or culverting of lakes, creeks, wetlands and streams, and any other activities that would adversely alter stream hydrology, or the shape of the channel, shall not be permitted - ongoing consideration.*

A Sooke downtown strategy has also been developed to reflect the desires of the business community and was commissioned by the Sooke Chamber of Commerce in 1996. The plan emphasizes that environmental pollution be prevented and existing natural systems not be adversely affected by growth. It also implies a desire to see a stormwater management plan developed and new development be required to adhere to the plan (Stanley Consulting Group, draft).

## **2.2 Regional Government**

The regional level of government includes the CRD and the VIHA. The CRD Environmental Services department, Environmental Protection, is responsible for managing a stormwater quality program which involves coordinating stormwater quality activities. The VIHA is responsible for investigating septic tanks and fields. The following sections discuss each of these responsibilities.

### **CRD Environmental Services Department, Scientific Programs**

In 1997, the CRD Board adopted a bylaw titled *Sooke Stormwater Quality Management Extended Service Establishment Bylaw No., 1996*. The bylaw allowed the CRD to control pollution in *stormwater runoff from land by investigating, monitoring and reporting on stormwater quality, sediment quality nearshore marine waters and discharges to stormwater; prioritization of areas for investigation; public education; coordination of stormwater quality management programs; liaison with other government agencies and other related activities.*

In 2004/2005, the District of Sooke retained the services of the CRD SHWP to monitor for pollution in stormwater runoff from land. The CRD does not have the authority to directly implement any mitigative programs. This remains the responsibility of the municipalities under the *Local Government Act* and of First Nations.

Also in 2000, the CRD developed an enhanced model storm sewer and watercourse bylaw. The previous stormwater bylaw was updated to reflect recent regulative and legislative changes.

### **Vancouver Island Health Authority**

The VIHA determines whether a lot is appropriate for onsite treatment and sets out requirements as per the *British Columbia Health Act, Sewage Disposal Regulation*. VIHA is also responsible for investigating complaints if septic tanks and fields with flows less than 5,000 gallons per day are not functioning

properly. CRD and VIHA staff will work together to determine sources of high fecal coliform counts in areas with septic tanks and fields.

### 2.3 Provincial Government

In the District of Sooke, the MOT, under the *Highway Act*, has authority over stormwater drainage from road rights-of-way only. The MOE is responsible for surface water allocation for use by the community and wastewater discharges into surface waters. The MOE is responsible for the allocation and management of Crown lands and Crown provincial foreshore. The Ministry of the Attorney General is responsible for the Provincial Emergency Program (PEP) which responds to reports of environmental and public health emergencies.

The following are the most pertinent pieces of provincial legislation related to stormwater quality. This information was taken from *Tackling Non-Point Source Water Pollution in British Columbia* (Ministry of Environment, Lands and Parks, 1998):

- The *Community Charter* provides local municipalities with authority to adopt zoning, subdivision and other bylaws, permit construction, develop solid and liquid waste management plans, provide water and sewer services and address environment concerns. The municipalities can enact bylaws to control surface runoff, prohibit pollution and obstruction of flows in watercourses and allow the development of environmental policies regarding protection and enhancement of the environment in official community plans.
- The *Water Act* provides for approval of all water use, storage and diversion of water and works in and about streams. This is important for preventing activities that may negatively impact a stream.
- The *Water Protection Act* confirms Crown ownership of surface and ground water and prohibits large scale diversion or removal of water. This allows for the protection of the amount of flows being diverted from a creek or stream, which is vital for survival of aquatic life.
- The *Environmental Management Act* requires permits, approvals or operational certificates under a liquid and solid waste management plan for discharges to land, air and water, and handling of solid and toxic wastes; prohibits dumping/discarding litter and sewage. The MOE regulates sewage treatment facilities with sewage flows greater than 5,000 gallons/day. The *Act* can also require the development of measures to prevent a spill of a potentially polluting substance by the person in possession of the substance. The PEP was initiated to protect people and property during disaster situations and is also the contact for reporting spills that can cause harm to public health and the environment such as oil spills. When an incident is reported to PEP they will contact the agency responsible for investigating the problem. The phone number for PEP is 1-800-663-3465.
- The *Environmental Assessment Act* requires environmental impact assessment for specific development projects and activities. This will allow MOE to request proposed development projects to consider stormwater quality issues.
- The *Fish Protection Act* protects fish by ensuring healthy fish-bearing streams and plentiful stocks. Stormwater pollution can impact the health of streams and aquatic species.
- The *Pesticide Control Act* regulates the use and application of pesticides. Pesticides have the potential to contribute pollution to stormwater runoff if not applied properly.
- The *British Columbia Health Act* regulates approval of construction camps, public water supplies, sewage disposal, sanitation and food supply operations. This *Act* can be used to prevent pollution of stormwater from the mentioned operations.

- The *Fire Services Act* provides approval of onsite fuel storage and dispensing. Through this *Act* proper installation of fuel storage and dispensing facilities can be ensured to protect stormwater quality.
- The *Soil Conservation Act* established permitting requirements for soil removal from an agricultural land reserve, and regulates use of land in agricultural land reserves. Some agricultural activities have the potential to contribute stormwater pollution, especially if soil erosion occurs causing sedimentation in streams.
- The *Farm Practices Protection (Right to Farm) Act* ensures that farmers can farm in agricultural land reserves; adds specific powers to local governments; may regulate farm conduct and prohibit specific farm operations.

The *Riparian Areas Regulation (RAR)*, enabled by the *Fish Protection Act*, provides local government with the necessary tools to protect fish and fish habitat from the negative impacts of development. The RAR became effective March 31, 2005 and applies to streams, rivers, ditches, ponds, lakes, springs and wetlands. It sets out provisions to protect the stream side vegetation and soils during new residential, commercial and industrial development on land under local government jurisdiction. The following key components of the regulation were taken from the *Riparian Areas Regulation Implementation Guidebook* (MOE, 2006):

- Local government may permit development within 30 m of the high water mark of a stream or top of bank of a ravine provided the prescribed riparian assessment methods have been followed.
- A qualified environmental professional (QEP), using the riparian assessment method, shall provide an opinion -in an assessment report- that the development will not result in a harmful alteration of fish habitat and will provide required measures to protect the riparian area during development.
- The assessment methodology in the Schedule of the Regulation ensures that the assessment has been conducted to a standard level and that the standard reporting format is followed.
- The Regulation is based on current science regarding fish habitat, while recognizing the challenges in achieving science-based standards in an urban environment.

Recently, the provincial government developed *Stormwater Planning: A Guidebook for British Columbia*. This guidebook is intended to provide a framework for effective stormwater management that is usable in all areas of the province. The guidebook explains how stormwater systems have traditionally been developed and promotes an integrated approach to stormwater management which includes:

- identifying at-risk drainage catchments
- setting preliminary performance targets
- selecting appropriate stormwater management site design solutions

## 2.4 Federal Government

DFO is responsible for reviewing all foreshore development proposals which may affect fish habitat.

The following are the most pertinent pieces of federal legislation related to stormwater quality and most were taken from *Tackling Non-Point Source Water Pollution in British Columbia* (MELP, 1998):

- The *Fisheries Act prohibits harmful alteration of fish habitat and the deposit of deleterious substances*. This *Act* applies to creeks, streams and storm drains that flow into watercourses and the marine shoreline where fish are present. Polluters can be charged under this *Act*.

- The *Canadian Environmental Protection Act* requires certain facilities such as manufacturing or processing business to report when a toxic substance has spilled into a watercourse or storm sewer.
- The *Canadian Environmental Assessment Act* requires environmental impact assessment of all projects funded or authorized by the federal government, or which take place on federal lands. An environmental impact assessment usually includes impacts to water quality which will allow the awareness of a potential impact to stormwater quality and therefore, allow requirements to prevent the impact from occurring in advance.
- The *Canadian Wildlife Act and the Migratory Bird Conventions Act* protects wildlife; migratory birds and associated habitats. Associated habitats include wetlands and the marine shoreline which can be sensitive to stormwater pollution.
- *Canada Shipping Act* regulates shipping, including ship-sourced pollution, and the designation of water bodies under the *Pleasure Craft Sewage Pollution Regulations and Non-Pleasure Craft Sewage Pollution Regulations*.
- *Transportation of Dangerous Goods Act* defines safety requirements for transport of dangerous goods. This can prevent accidental spills of toxic substances from occurring in watercourses and the marine shoreline while being transported.

## **2.5 First Nations**

First Nations are responsible for stormwater on their lands. The First Nations Band and Health Canada usually address stormwater pollution issues that arise on First Nation's land. Health Canada will carry out sampling investigations if requested by the Band.

There are opportunities for First Nations to adopt a bylaw that will allow for protection of stormwater quality similar to the CRD enhanced model storm sewer and watercourse bylaw (Humphrey, pers. comm.).

#### **4.0 REFERENCES**

CRD Municipal Services department, 1991. Langford Official Community Plan.

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#### **5.0 PERSONAL COMMUNICATIONS**

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