

POLICIES, COMMITMENTS, AND IMPLEMENTATION SCHEDULES

Receiving Environment

Policies

P1. Designated Water Uses will be Protected

The District and member municipalities will manage wastewater and stormwater to protect receiving water uses which have been designated by the Ministry of Environment, Lands and Parks (MELP).

P2. Upgraded Service Levels will be Determined Based on Environmental Need, with Consideration to Cost and Benefit, Regional Priorities, and all Applicable Legislation.

Commitments included in this plan address infrastructure management needs and confirmed public health and environmental issues. Upgraded service levels will be provided in the future where an environmental need has been forecasted or demonstrated, with consideration to cost and benefit, regional priorities, and all applicable legislation. The following process and “triggering” mechanisms (Figure 3) will be used to determine environmental need.

Environmental monitoring conducted by the District and member municipalities will determine if, and where, wastewater or stormwater discharges are contributing to exceedances of water quality objectives. The Environmental Monitoring Committee (see Commitment C2 – Establishment of an Environmental Monitoring Committee) will assess the monitoring results and, where warranted, “trigger” an environmental risk assessment of the particular discharge(s). The assessment may involve more comprehensive receiving environment and laboratory analysis, modelling, and forecasting, to determine the degree of environmental risk. Options for managing the defined risks will be developed by the District and member municipalities and assessed according to cost and environmental benefit criteria. The Environmental Monitoring Committee will be responsible for guiding the assessment processes for both risk and the environmental benefits of options. When a “trigger” is identified the Environmental Monitoring Committee will suggest the time-line to complete the risk and options assessment processes.

When risks, options, costs and benefits have been adequately assessed the District Board, with consideration of costs and

benefits, regional priorities, and all applicable legislation, will select the appropriate response and actions. In their consideration the Board will consult with the Ministry of Environment, Lands and Parks and Environment Canada.

Environmental monitoring will be conducted following implementation of any option to determine the need for additional risk mitigation measures.

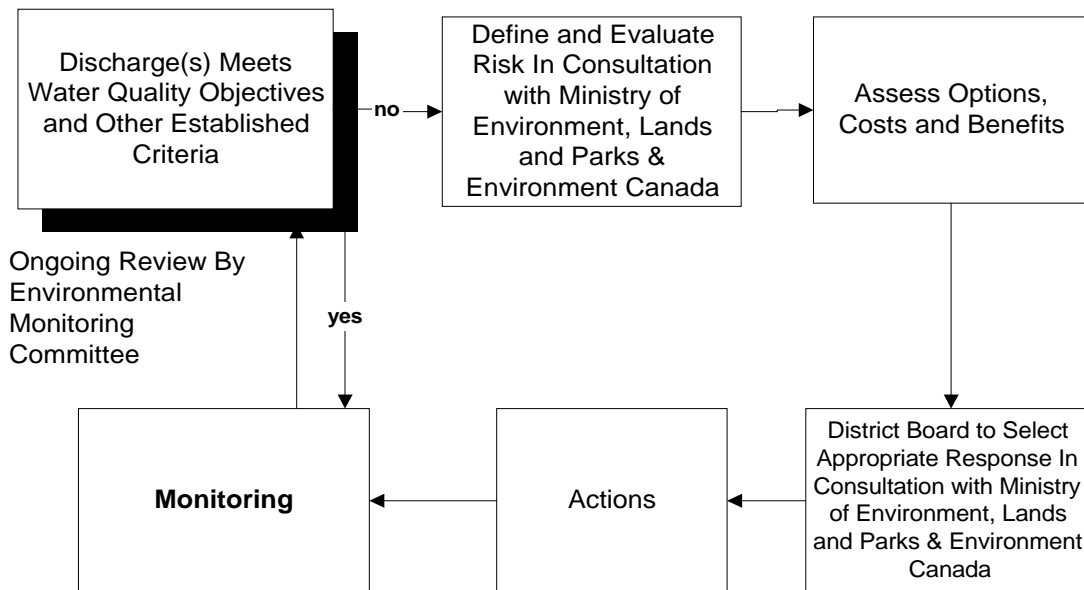


Figure 3 – Upgrading “trigger” mechanism

Commitments

C1. Official Designation for Water Uses

The District and municipalities will take an active role in providing information to the Ministry of Environment, Lands and Parks (MELP) so that appropriate water uses receive official designation from MELP through a consultative process for each of the major waterbodies within the region. A review of a designated water use may be initiated by the District or a member municipality. The consultative process will follow *Track 1 – Setting Guidelines from Principles* as documented in the Ministry of Environment, Lands and Parks *Guidelines and Standards Procedure*, dated October 7, 1997.

The process as outlined in Track 1 requires the preparation of a draft report by the Ministry.

The following process will apply to local government participation during the preparation of the draft report to be prepared by the Ministry under the *Guidelines and Standards Procedure*:

1. The Ministry will advise the District and its member municipalities, in writing, when a water use or water quality objective initiative is commenced.
2. The Ministry will develop the scope of work for their draft report in consultation with the Environmental Monitoring Committee. The Ministry will review the draft report work progress with the Environmental Monitoring Committee on a regular basis. The Environmental Monitoring Committee will play an active role in the development of the report and cost implications to the District and member municipalities will be provided for inclusion in the report.
3. The cost and benefit of designated water uses, or proposed changes to designated water uses, and their associated water quality objectives will be fully documented in the draft report and the GVRD Board and municipal councils will have the opportunity to review and comment on the draft report.

C2. Establishment of an Environmental Monitoring Committee

The District will establish an Environmental Monitoring Committee comprised of members from the District, municipalities, B.C. Ministry of Environment, Lands, and Parks, Environment Canada, Fisheries and Oceans Canada, research institutions, and public (dependent on interest). The committee will be responsible for reviewing the scope and design of monitoring programs, review of monitoring results, predictive modelling, and risk assessments of waste discharges. The committee's recommendations with respect to upgraded service levels will be considered by the District and member municipalities during an options assessment process.

C3. Development Of Discharge Indicators

The District will continue to develop and refine indicators of environmental effects related to wastewater discharges and stormwater runoff within the region. These indicators will be used to guide the collection and interpretation of environmental information by the District and municipalities. The District report, "Discharge Rating Measures for LWMP Discharges", included in Appendix C, will form an initial basis for this work.

C4. Monitoring Programs

The District and member municipalities will undertake monitoring,

assessment and forecasting to evaluate the effects of wastewater and stormwater discharges to receiving environments. Specific monitoring programs that will be undertaken include:

- Effluent quality monitoring at all treatment plants for selected physico-chemical and biological characteristics (e.g., BOD, TSS, ammonia, and trace metals as well as appropriate bioassays and fecal coliform). Detailed effluent characterization of trace organic contaminants will be conducted periodically at the recommendation of the Environmental Monitoring Committee.
- Routine monitoring of bacteriological water quality of beach areas within Burrard Inlet, Sturgeon Banks, Roberts Bank, and Boundary Bay. Sampling sites and frequency will be modified to provide a better understanding of point and non-point contaminant sources.
- Ambient receiving environment monitoring in areas where water quality (as indicated by water quality objective criteria) is potentially affected by wastewater and/or stormwater. The Iona Island deep-sea outfall receiving environment program will be maintained. The need for, and details associated with, additional programs will be determined in consultation with the Environmental Monitoring Committee.
- Occurrence and duration monitoring of CSO events at all District owned outfalls. Detailed effluent characterization of trace contaminants at a limited number of outfalls will be conducted periodically at the recommendation of the Environmental Monitoring Committee.
- Monitoring and assessment of sensitive receiving environments following the discharge of SSOs.

C5. Risk Assessment for Fraser River Irrigation Water Use

The District will undertake an analysis of risks associated with the use of Fraser River water for agricultural irrigation within the GVRD area. Options for managing the defined risks will be developed and assessed.

C6. Harmonization with Federal Legislation

The District will work with the Federal Government to harmonize approaches regarding municipal discharges. The District will assist in the development of a national municipal effluent strategy, which is being led by Environment Canada.

C7. Data Sharing and Communication

The District will share environmental information and knowledge with member municipalities, other agencies, and the public in an open and timely fashion. Moreover, the District will proactively seek out venues, technologies, and media through which to efficiently communicate environmental information to the public.

Implementation Schedule – Receiving Environment

Commitments / Initiatives	Budget	Year Completed
<p>C1 – Official Designation for Water Uses</p> <p>Active participation in Ministry initiatives to review or designate water uses.</p>	Included in annual budget	Ministry Initiative
<p>C2 – Environmental Monitoring Committee</p> <p>Establish Committee and provide administrative support.</p>	\$10,000 / year	Ongoing
<p>C3 – Development of Discharge Indicators</p> <p>Develop Discharge Indicators in consultation with the Environmental Monitoring Committee</p>	<p>\$100,000</p> <p>Included in annual budget</p>	2002 and Ongoing
<p>C4 – Monitoring Programs</p> <p>Annual monitoring program established in consultation with the Environmental Monitoring Committee</p>	\$1,148,000 (2001 budget)	Ongoing
<p>C5 – Risk Assessment for Fraser River Irrigation Water Use</p>	\$50,000	2002
<p>C6 – Harmonization with Federal Legislation</p> <p>Participation in development of national municipal effluent strategies.</p>	Included in annual budget	Environment Canada Initiative
<p>C7 – Data Sharing and Communication</p> <p>Environmental Program Summaries Provided on GVRD Web Site</p>	Included in annual budget	Ongoing