



Waste Management Committee Meeting Date: June 8, 2011

To: Waste Management Committee

From: Fred Nenninger, Project Manager, Wastewater Secondary Treatment Upgrades
Albert van Roodselaar, Division Manager, Utility Planning and Environmental
Management

Date: June 6, 2011

Subject: **Minister's Approval of the Integrated Liquid Waste and Resource
Management Plan**

Recommendation:

That the Board:

- 1) Receive the Staff Summary of Implications of the BC Minister of Environment's conditional approval of the Integrated Liquid Waste and Resource Management Plan.
 - 2) Direct staff to forward the Staff Summary of Implications and the Minister's letter of approval dated May 30, 2011 for the Integrated Liquid Waste and Resource Management Plan to the Councils of GVS&DD member municipalities for their information and action as appropriate.
-

1. PURPOSE

To update the Board on the Minister's letter of approval of the *Integrated Liquid Waste and Resource Management Plan* (the Plan), inform the Board on the implications of the conditions imposed by the Minister and distribute the letter of approval to the Councils of GVS&DD member municipalities.

2. CONTEXT

The Board adopted the Plan at its meeting of May 21, 2010, and submitted the Plan for approval to the Minister of Environment on June 25, 2010. A summary of the endorsements from each GVS&DD member municipality was submitted to the Minister on December 21, 2010.

In his approval letter dated May 30, 2011 (Attachment 1), the Minister notes that he supports the technical aspects of the Plan, and is satisfied that there has been adequate public review and consultation. The Minister approves the Plan subject to ten conditions specified in the letter. Overall, the Minister's approval is positive and supportive with his conditions adding clarifying policy and content to certain Plan actions. Staff's assessment of the Minister's conditions is detailed in Attachment 2.

Compliance with most conditions requires a modest increase or reprioritizing of existing programs for Metro Vancouver and member municipalities. However, in Condition 1 the Minister requires the secondary treatment upgrades of the Lions Gate and Iona Island Wastewater Treatment Plants to proceed irrespective of whether any senior government

cost sharing is obtained. The Minister confirms that the priority for upgrading should be the Lions Gate plant by 2020 and the Iona Plant as soon as possible but no later than 2030. Although the Ministry of Environment supports Metro Vancouver's pursuit of senior government cost sharing, this condition is not consistent with the Board-adopted and municipally-endorsed Plan that was subject to, and assumed significant senior government cost sharing for the wastewater treatment plant upgrades. The Ministry will support Metro Vancouver in pursuing senior government cost sharing and it will be important to continue to advocate for funding in time for the construction period when the most significant expenditures will occur.

Conditions 6, 7 and 9 expand the member municipalities' stormwater management actions by requiring an ongoing coordinated monitoring and assessment program evaluating the effectiveness of municipal stormwater management and the benefits and impacts to watershed and stream health. This work is linked to the Integrated Stormwater Management Plans (ISMPs) being undertaken by municipalities under the Plan. The existing Stormwater Interagency Liaison Group has allowed municipalities to coordinate some of this work across the region and the Minister has indicated that the Regional Manager for the Ministry of Environment may extend the deadline for completion of a municipal ISMP from 2014 to 2016 if satisfied that the assessment program could result in improvements of ISMP and protect stream health.

3. ALTERNATIVES

None presented.

4. CONCLUSION

The Minister's approval of the Plan is positive and supports the course of action developed by Metro Vancouver and its GVS&DD members for the next eight years. While the conditions imposed by the Minister provide clarity with respect to expectations, there remains uncertainty regarding senior government funding for the Iona Island and Lions Gate wastewater treatment plant upgrades. The Minister has placed some further emphasis on the municipal Integrated Stormwater Management Plans (ISMP), including requiring a coordinated program to monitor and assess the implementation and effectiveness of municipal ISMPs, but is also willing to consider the extension date for completion of a municipal ISMP from 2014 to 2016.

Attachments:

1. Letter dated May 30, 2011 from Minister of Environment Terry Lake to Chair Lois Jackson (Doc. 5198373)
2. Staff Summary of Implications of Ministerial Conditions (Doc. 5201543)



**5.5 ATTACHMENT 1
Additional Item
WMC June 8, 2011**

Reference: 127948

MAY 30 2011

Lois E. Jackson, Chair
Metro Vancouver Board
Metro Vancouver
4330 Kingsway
Burnaby BC V5H 4H9

Dear Chair Jackson:

Thank you for your letter of June 25, 2010, with the attached Liquid Waste Management Plan (LWMP), the Board resolutions for adopting the plan and a summary of the Metro Vancouver's consultation process. A summary of endorsements confirming each member municipality commitments was received on December 21, 2010.

Ministry staff have reviewed your submission and accompanying documents. The technical aspects of the proposed LWMP are supported, and I am satisfied there has been adequate public review and consultation. However, the LWMP as submitted does not fully meet my requirements. Therefore, I hereby impose the following changes to the submitted LWMP titled *Integrated Liquid Waste and Resource Management: A Liquid Waste Management Plan for the Greater Vancouver Sewerage & Drainage District and Member Municipalities (ILWRMP)* dated May 2010:

1. The Ministry supports upgrading to secondary level treatment the Lions Gate wastewater treatment plant by 2020 and Iona Island wastewater treatment plant as soon as possible, but no later than 2030 and not contingent on the availability of senior government funding. The Ministry of Environment is not a funding agency. While I understand the cost of the upgrades is significant, they are necessary to meet current environmental standards. The Ministry will support Metro Vancouver pursuing senior government and alternative funding options, but cannot guarantee any provincial commitment in that regard, nor compromise the Ministry's mandate to protect the environment.
2. Member municipalities are strongly encouraged to business case and/or implement residential water metering programs and to consider municipal rebate programs for water efficient fixtures and appliances to reduce potable water use.

...2

3. Metro Vancouver, in partnership with member municipalities, is encouraged to pursue a region-wide water conservation program targeting the industrial, commercial, institutional and agricultural sectors as part of its new Drinking Water Management Plan. Remaining municipalities in the region that have not implemented metering for these sectors are encouraged to do so.
4. Metro Vancouver must use receiving environment and effluent monitoring data from combined sewer overflow (CSO) and sanitary sewer overflow (SSO) in the regional system to interpret the overall status of CSOs and SSOs. Metro Vancouver will continue the fate and effects studies on CSOs with the Clarke Drive location and other significant sites as determined by the Environmental Management Committee. Metro Vancouver will establish similar studies representative of significant SSO locations, in particular the Cloverdale, Katsie and Lynn locations. The interpretation and assessment should demonstrate whether there has been any improvement or degradation along with any measures taken to address such discharges. Metro Vancouver will report out in the Quality Control Annual Report.
5. Metro Vancouver is encouraged to continue to build upon previous studies associated with studying endocrine-disrupting chemicals, persistent organic pollutants and other micro-contaminants found in wastewater by developing source control initiatives through education (for example, target outreach), regulation and inspection programs.
6. Metro Vancouver will continue the receiving and ambient monitoring programs specified in the approved 2002 LWMP, including, but not limited to, recreational water quality (beach monitoring); monitoring near the outfalls for all five wastewater treatment plants, including the extensive deep sea monitoring near the Iona Island plant; and CSO effluent quality and monitoring of small urban streams relating to impacts from urbanization and stormwater.
7. Member municipalities will, with MV planning and coordination, and to the satisfaction of the Regional Manager, develop a coordinated program to monitor stormwater and assess and report the implementation and effectiveness of Integrated Storm Water Management Plans (ISMP). The program will use a weight-of-evidence performance measurement approach and will report out in the Biennial Report. The Regional Manager may extend the deadline for completion of ISMP by municipalities from 2014 to 2016 if satisfied that the assessment program could result in improvement of ISMP and protect stream health.
8. Bypass conditions that occur at wastewater treatment plants will be reported out in the annual quality control report. The report on each activity will include a description of the event, cause, environmental effect and monitoring that occurred and any mitigation measures undertaken to prevent reoccurrence and remediate detrimental environment effect.

9. The ILWRMP has a goal of protecting public health and the environment. In keeping with this goal and to ensure alignment with other national, provincial and regional initiatives, Metro Vancouver and member municipalities are encouraged to:
 - a. Have local land use planning consider the direction provided by the ISMPs;
 - b. Consider how the degree, type and location of land development within a drainage can affect the long-term health of the watershed;
 - c. Consider how to protect the stream, including the riparian areas that exert an influence on the stream, from long-term cumulative impacts; and
 - d. Use scenarios and forecasting to systematically consider environmental consequences/benefits of different land use approaches prior to build-out (for example, Alternative Future type approaches).

10. Metro Vancouver will continue to consult with First Nations during the implementation of the Plan—in particular, engaging, as appropriate, with First Nations likely to be impacted by the secondary upgrades.

Pursuant to Section 24(5) of the *Environmental Management Act*, I hereby approve Metro Vancouver's LWMP titled *Integrated Liquid Waste and Resource Management: A Liquid Waste Management Plan for the Greater Vancouver Sewerage & Drainage District and Member Municipalities* dated May 2010, subject to the conditions noted above.

I commend Metro Vancouver Board and staff on their success in developing a comprehensive master plan to manage the Greater Vancouver Sewerage & Drainage District's liquid waste for years to come.

Sincerely,



Terry Lake
Minister of Environment

cc: Jim Standen, Assistant Deputy Minister, Environmental Protection Division
Jonh Braman, Regional Manager South Coast, Environmental Protection Division

Approval Condition from the Minister of Environment	Assessment of Implications to the Plan
<p><i>Treatment Plant Upgrades</i></p> <p>1. The Ministry supports upgrading to secondary level treatment the Lions Gate wastewater treatment plant by 2020 and Iona Island wastewater treatment plant as soon as possible, but no later than 2030 and not contingent on the availability of senior government funding. The Ministry of Environment is not a funding agency. While I understand the cost of the upgrades is significant, they are necessary to meet current environmental standards. The Ministry will support Metro Vancouver pursuing senior government and alternative funding options, but cannot guarantee any provincial commitment in that regard, nor compromise the Ministry’s mandate to protect the environment.</p>	<p>The Iona Island and Lions Gate wastewater treatment plant upgrades must proceed according to the Plan’s timelines irrespective of any senior government cost sharing being in place.</p> <p>It will be necessary to continue to advocate for senior government funding in time for the construction phase of the projects when the most significant expenditures will be made.</p>
<p><i>Residential Water Conservation</i></p> <p>2. Member municipalities are strongly encouraged to business case and/or implement residential water metering programs and to consider municipal rebate programs for water efficient fixtures and appliances to reduce potable water use.</p>	<p>The 2011 updating of the Drinking Water Management Plan is proposed to contain actions which align with this condition and will encourage the re-evaluation of business cases that expand water metering.</p>
<p><i>Region-wide Water Conservation</i></p> <p>3. Metro Vancouver, in partnership with member municipalities, is encouraged to pursue a region-wide water conservation program targeting the industrial, commercial, institutional and agricultural sectors as part of its new Drinking Water Management Plan. Remaining municipalities in the region that have not implemented</p>	<p>Currently, most GVWD members have water metering requirements for certain classes of non-residential users but they will need to review the specific requirements based on this condition. The 2011 updating of the Drinking Water Management Plan is proposed to contain actions which align with</p>

Staff Summary of Implications of Ministerial Conditions

Approval Condition from the Minister of Environment	Assessment of Implications to the Plan
<p>metering for these sectors are encouraged to do so.</p>	<p>this condition.</p>
<p><i>CSO and SSO Monitoring and Reporting</i></p> <p>4. Metro Vancouver must use receiving environment and effluent monitoring data from combined sewer overflow (CSO) and sanitary sewer overflow (SSO) in the regional system to interpret the overall status of CSOs and SSOs. Metro Vancouver will continue the fate and effects studies on CSOs with the Clarke Drive location and other significant sites as determined by the Environmental [sic] Management [Monitoring] Committee. Metro Vancouver will establish similar studies representative of significant SSO locations, in particular the Cloverdale, Katzie and Lynn locations. The interpretation and assessment should demonstrate whether there has been any improvement or degradation along with any measures taken to address such discharges. Metro Vancouver will report out in the Quality Control Annual Report.</p>	<p>This condition requires the continuation of existing CSO and SSO monitoring work and the reassessing of some past monitoring sites. This Condition will require further monitoring and risk assessment specific to the Cloverdale, Katzie and Lynn SSO locations and the type of intermittent overflows that are occurring. The Plan actions include further capital works to mitigate the overflows at these locations.</p>
<p><i>Source Control Initiatives</i></p> <p>5. Metro Vancouver is encouraged to continue to build upon previous studies associated with studying endocrine-disrupting chemicals, persistent organic pollutants and other micro-contaminants found in wastewater by developing source control initiatives through education (for example, target outreach), regulation and inspection programs.</p>	<p>This condition is addressed in part through the continuation of collaborative research work with senior government and universities initiated under the 2002 Liquid Waste Management Plan. This condition encourages new source control initiatives that may be needed based on the findings from monitoring and research.</p>
<p><i>Receiving and Ambient Monitoring Programs</i></p> <p>6. Metro Vancouver will continue the receiving and ambient monitoring programs specified in the approved 2002 LWMP, including, but not limited to, recreational water quality (beach monitoring); monitoring near the outfalls for all five wastewater treatment plants, including the extensive deep sea monitoring near the Iona Island plant; and CSO</p>	<p>This condition adds details to Actions 3.3.1 and 3.3.2 of the Plan by listing existing Metro Vancouver environmental monitoring programs identified in the previous liquid waste management plan.</p>

Staff Summary of Implications of Ministerial Conditions

Approval Condition from the Minister of Environment	Assessment of Implications to the Plan
<p>effluent quality and monitoring of small urban streams relating to impacts from urbanization and stormwater.</p>	<p>It requires revised and possibly expanded receiving and ambient monitoring programs regarding the outfalls for the Lulu Island and Northwest Langley WWTPs.</p> <p>In addition, the monitoring of small urban streams related to municipal stormwater management will need to continue.</p>
<p><i>Integrated Stormwater Management Plans (ISMPs) Performance</i></p> <p>7. Member municipalities will, with MV planning and coordination, and to the satisfaction of the Regional Manager, develop a coordinated program to monitor stormwater and assess and report the implementation and effectiveness of Integrated Storm Water Management Plans (ISMP). The program will use a weight-of-evidence performance measurement approach and will report out in the Biennial Report. The Regional Manager may extend the deadline for completion of ISMP by municipalities from 2014 to 2016 if satisfied that the assessment program could result in improvement of ISMP and protect stream health.</p>	<p>Working with MoE's Regional Manager, Metro Vancouver and its members will build upon previous related work developed through the Stormwater Interagency Liaison Group. This condition requires a coordinated program to monitor and assess the effectiveness of municipal Integrated Stormwater Management Plans but the Ministry is also prepared to consider an extension of the municipal ISMP deadline from 2014 to 2016.</p>
<p><i>WWTP Flow bypass Monitoring and Reporting</i></p> <p>8. Bypass conditions that occur at wastewater treatment plants will be reported out in the annual quality control report. The report on each activity will include a description of the event, cause, environmental effect and monitoring that occurred and any mitigation measures undertaken to prevent reoccurrence and remediate detrimental environment effect.</p>	<p>This condition is new but can be addressed under existing programs to establish monitoring and assessment associated with treatment plant bypasses.</p>
<p><i>Integrated Land Use Planning and Stormwater Management</i></p> <p>9. The ILWRMP has a goal of protecting public health and the environment. In keeping with this goal and to ensure alignment with other national, provincial and regional initiatives, Metro Vancouver</p>	<p>This requirement is most pertinent to member municipalities. The Stormwater Interagency Liaison Group is the forum which is best suited to address stormwater issues; however, coordination</p>

Staff Summary of Implications of Ministerial Conditions

Approval Condition from the Minister of Environment	Assessment of Implications to the Plan
<p>and member municipalities are encouraged to:</p> <ul style="list-style-type: none"> • Have local land use planning consider the direction provided by the ISMPs; • Consider how the degree, type and location of land development within a drainage can affect the long-term health of the watershed; • Consider how to protect the stream, including the riparian areas that exert an influence on the stream, from long-term cumulative impacts; and • Use scenarios and forecasting to systematically consider environmental consequences/benefits of different land use approaches prior to build-out (for example, Alternative Future type approaches). 	<p>with municipal planners through forums such as Metro Vancouver’s Technical Advisory Committee will be important to successful integration.</p>
<p><i>Consultation with First Nations</i></p> <p>10. Metro Vancouver will continue to consult with First Nations during the implementation of the Plan – in particular, engaging, as appropriate, with First Nations likely to be impacted by the secondary upgrades.</p>	<p>Consultation with First Nations will continue as it relates to Plan implementation and the secondary treatment plant upgrades.</p>