

APPENDIX K
Oak Ridges Moraine Conservation Plan
Watershed Plan Requirements Conformity
Assessment Report

East Credit Subwatershed Study
Phase I – Characterization Report

Prepared for:

Region of Peel
Town of Caledon

Prepared by:

Credit Valley Conservation

July 2007
Printed August 2007

Oak Ridges Moraine Conservation Plan Watershed Plan Requirements Conformity Assessment Report, July 13, 2007

This report documents how requirements of sections 24 and 25 of the Oak Ridges Moraine Conservation Plan (MMAH, 2002) have been satisfied for the portions of the Credit River watershed, East Credit subwatershed, located in the Oak Ridges Moraine Area, based on direction provided by the following draft technical guidance documents:

- Ministry of the Environment (2005) Oak Ridges Moraine Conservation Plan – Watershed Plans, Technical Paper #9, June 2005.
- Ministry of the Environment (2005) Oak Ridges Moraine Conservation Plan – Water Budgets, Technical Paper #10, June 2005.
- Ministry of the Environment (2005) Oak Ridges Moraine Conservation Plan – Water Conservation Plans, Technical Paper #11, June 2005.
- Ministry of the Environment (2005) Oak Ridges Moraine Conservation Plan – Subwatersheds (Impervious Surfaces), Technical Paper #13, June 2005.

Oak Ridges Moraine Conservation Plan (ORMCP) Watershed Plan Requirements Conformity Assessment

| Section | Requirement | Conformity Assessment | Document Reference |
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| 24.(1) | Every upper-tier municipality and single-tier municipality shall, on or before April 22, 2003, begin preparing a watershed plan, in accordance with subsection 24.(3), for every watershed whose streams originate within the municipality's area of jurisdiction. | <p>Credit Valley Conservation (CVC) and partner municipalities developed the Credit River Water Management Strategy in 1990 (Phase 1) and 1992 (Phase 2). In 2003, CVC in partnership with the Region of Peel, Region of Halton, County of Dufferin, County of Wellington and all member municipalities for the Credit River watershed began to update the Credit River Water Management Strategy to reflect improved understanding of watershed functions and the current policy and legislative context.</p> <p>In 2002, Credit Valley Conservation Authority initiated Phase 1 of the East Credit Subwatershed Study (Subwatershed 13) in order to characterize ecosystem functions at a subwatershed level of detail.</p> <p>The Credit River Water Management Strategy Update together with the draft Phase 1 of the East Credit Subwatershed Study satisfy requirements for the preparation of a watershed plan for the Oak Ridges Moraine within Credit Valley Conservation Authority's jurisdiction.</p> <p>The final draft version of the Credit River Water Management Strategy Update was approved by the CVC Board in October 2006 as a working document. The final version of the Phase 1 of the East Credit Subwatershed Study will be completed August 2007.</p> | <p>Credit Valley Conservation Authority, Aquafor Beech Ltd, Kidd Consulting, J.Kinkead Consulting, and Aqua Resources Inc. 2007. Credit River Watershed Management Strategy Update.</p> <p>Credit Valley Conservation Authority. 2007 Draft. Phase 1 Characterization Report, East Credit Subwatershed Study, Subwatershed 13.</p> |
| 24.(3) | A watershed plan shall include, as a minimum, (a) a water budget and conservation plan as set out in section 25; | <p>See conformity assessments for sections 25.(1) and 25.(2).</p> | <p>See document references for sections 25.(1) and 25.(2).</p> |

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| | (b) land and water use management strategies; | <p>The Credit River Water Management Strategy Update describes recommended management strategies for existing urban and rural areas and for areas where development will take place to maintain and enhance the ecological and hydrological features and functions of the watershed, including those portions within the Oak Ridges Moraine Area.</p> <p>While land and water use management strategies have been completed at a watershed scale, further management strategies or recommendations specific to the ORM in the East Credit subwatershed will be addressed in Phase 3 of the East Credit Subwatershed Study.</p> <p>Through the use of an integrated surface water model (HSPF) and groundwater model (FEFLOW) the CRWMS Update looked at various land use scenarios (15% urbanization, 25% urbanization, 55% urbanization) and recommended best management practices for rural areas that would be applicable within the East Credit subwatershed.</p> <p>The CRWMS Update concluded that to achieve the watershed goal and objectives, an immediate strategic shift in current land use practices is needed. The recommended approach in the CRWMS Update is two-pronged, and involves:</p> <ol style="list-style-type: none"> 1) taking a more aggressive approach to stormwater management and stream restoration in developing areas; and 2) placing more emphasis on stormwater management throughout the watershed (i.e., in areas where land use is <u>not</u> changing). | <p>Credit Valley Conservation Authority, Aquafor Beech Ltd, Kidd Consulting, J.Kinkead Consulting, and Aqua Resources Inc. 2007. Credit River Watershed Management Strategy Update. Chapter 7 and 8.</p> |

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| | <p>(c) a framework for implementation, which may include more detailed implementation plans for smaller geographic areas, such as subwatershed plans, or for specific subject matter, such as environmental management plans;</p> | <p>The CRWMS Update provides a framework for implementation that includes:</p> <ul style="list-style-type: none"> • the approach to be taken to implement source controls, conveyance controls, end-of-pipe controls and restoration measures; • a proposed administrative structure; • municipal and CVC roles; and • policy recommendations to be considered by Working Groups. <p>Specific policies within the framework for implementation may be subject to revision based on detailed consultation with municipal partners and stakeholders and Conservation Authority Board review.</p> <p>The CRWMS Update sets out a framework for management actions in areas of new development and in existing urban and rural areas. It also proposes an administrative structure for implementation. This includes the creation of an Implementation Committee (a Management Steering Committee) that includes representation from municipalities, agencies and councilors. Under this Committee, a number of Working Groups will carry out the implementation of the CRWMS Update. This work will include evaluation of existing programs, policies and standards, recommending changes to achieve the goals of the Updated Water Management Strategy, and establishing designing pilot projects where needed.</p> <p>Phase 3 of the East Credit Subwatershed Study will take into account the recommendations of the CRWMS Update and determine management options for the subwatershed based on site-specific information.</p> | <p>Credit Valley Conservation Authority, Aquafor Beech Ltd, Kidd Consulting, J.Kinkead Consulting, and Aqua Resources Inc. 2007. Credit River Watershed Management Strategy Update. Chapter 7 and 8.</p> |

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| | <p>(d) an environmental monitoring plan;</p> | <p>CVC's Integrated Watershed Monitoring Program was initiated in 1999 and involves watershed wide monitoring on a regular basis at 150 sites. The Program measures hydrogeology, hydrology, fluvial geomorphology, water quality, terrestrial systems, fisheries and meteorology. Annual reports are completed, along with a five-year review, the Watershed Report Card, which was first issued in 2005. The Integrated Watershed Monitoring Plan is not specific to the ORM but includes monitoring sites within the ORM, in Subwatershed 13. A Provincial Water Quality Monitoring Network (PWQMN) site was also established in Subwatershed 13 in 2002. The data collected from this site is incorporated into CVC's Integrated Watershed Monitoring Annual Reports. The next Watershed Report Card is due in 2009.</p> <p>The CRWMS Update does not include recommendations for changes or enhancements to existing environmental monitoring programs and other area, site-or issue-specific monitoring requirements. However, in the implementation phase of the CRWMS Update there will be a Working Group developed in 2008 to review the current monitoring program and to determine if any changes to it are needed. Also, Phase 3 of the East Credit Subwatershed Study may recommend site-specific monitoring and investigations as part of the Implementation Plan.</p> <p>Any future revisions to monitor watershed health conditions within the Oak Ridges Moraine will take into account the Province's framework and indicators (being developed) for monitoring the performance of the Oak Ridges Moraine Conservation Plan when these become available.</p> | <p>Credit Valley Conservation. 2005. Credit Valley Conservation Watershed Report Card: A Detailed Summary on the Ecosystem Health of the Credit River Watershed.</p> <p>Credit Valley Conservation. 2002. Integrated Watershed Monitoring Program 2001 Report.</p> <p>Credit Valley Conservation. Credit Valley Conservation Integrated Watershed Monitoring Program: 5 Year Review Technical Document (in progress).</p> |

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| | <p>(e) provisions requiring the use of environmental management practices and programs, such as programs to prevent pollution, reduce the use of pesticides and manage the use of road salt; and,</p> | <p>CVC provides funding for programs to encourage BMP adoption throughout the Credit River Watershed including the portions contained within the Oak Ridges Moraine Conservation Plan Area. CVC is also a participant in the 'Caring for the Moraine' Project, which is funded primarily through the Oak Ridges Moraine Foundation with support from partner organizations, such as Credit Valley Conservation. The purpose of this project is to provide organized and comprehensive environmental services for landowners on the ORM. This project will help landowners to improve property value while protecting natural features, provide free technical assistance to landowners, improve the protection of drinking water sources, and obtain financial assistance for eligible environmental stewardship projects on the ORM.</p> <p>Another program that CVC is involved with is the Peel Rural Water Quality Program. CVC delivers this program in partnership with the Region of Peel and the Toronto Regional Conservation Authority. The main focus of the program is to improve and protect the quality of surface and groundwater through providing financial incentives to farmers who initiate projects that improve and protect surface and groundwater. The program is voluntary, and it is up to the applicant to decide which projects to undertake.</p> <p>CVC is in the process of developing a Water Quality Strategy for the Credit River. This is a watershed-wide approach on water quality that is intended to deal with larger scale issues, such as cumulative impacts, and to identify and develop protection strategies. The strategy will also evaluate the need and the potential methodologies to look at specific reaches of the Credit River and its tributaries. The Water Quality Strategy Phase 1 is complete. It investigates existing water quality conditions, analyses the factors influencing water quality, summarizes issues and parameters of concern, considers assessment tools and modeling needs, and selects an analysis/modeling approach. The Water Quality Strategy Phase 2 is currently in draft. Phase 2 models land use and growth, and assesses current water quality conditions on a watershed wide scale. The Water Quality Strategy is not specific to the ORM, but does include monitoring stations within the ORM.</p> <p>The Town of Caledon enacted a "Healthy Horticultural Landscapes" by-law in 2003. This by-law is based on the principles of Integrated Pest Management and its primary objective is to regulate and reduce the cosmetic use of pesticides throughout the municipality. To supplement the by-law, the Town has implemented a pesticides awareness and education program. In addition, the Town has implemented best management practices that have virtually eliminated the use of pesticides in Town-owned parks and for road side weed control.</p> | <p>Caring of the Moraine. Accessed: April 30, 2007. Website: http://www.ormf.com/downloads/18129%20ORM%20General%20broch.pdf</p> <p>Region of Peel, TRCA, CVC, and Conservation Ontario. 2005. Peel Rural Water Quality Program for Private Land brochure.</p> <p>Credit Valley Conservation, Totten Sims Hubicki Associates, Donald G. Weatherbe Associates Inc, EBNFLO Environmental, D.W. Draper and Associates, and Schroeter and Associates. August 2003. Credit Valley Conservation Water Quality Strategy Phase 1 Report: Condition Assessment Analysis Approach.</p> <p>Town of Caledon Healthy Horticultural Landscapes By-law, By-law 2003-81, as amended by By-law 2005-82</p> <p>Town of Caledon Salt Management Plan, 2005.</p> <p>Region of Peel, Delcan. 2003. Road Salt Management Plan.</p> <p>Region of Peel, Ecoplans Limited. 2006. Salt Management Plan Update Summary.</p> <p>Region of Peel, Ecoplans Limited. 2006. Environmental Facility Review and Salt Management Plan Update Final Report.</p> |
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| | | <p>In addition to pesticides regulation by the Town of Caledon, Peel Public Health has introduced the 'Be Pesticides Aware' public education campaign to raise awareness of pesticide issues and encourage Peel residents to reduce their pesticide use on lawns and gardens. The materials for the campaign include a tear-off sheet, a CDROM and a website (www.reducepesticidespeel.ca) which were developed in partnership with staff from the area municipalities. The campaign operates Region-wide.</p> <p>Both the Town of Caledon and the Region of Peel have established Salt Management Plans. The Town of Caledon established a Salt Management Plan (SMP) in 2005 consistent with Environment Canada's "Code of Practice for the Environmental Management of Road Salts". The SMP strives to minimize adverse environmental impacts through a variety of strategies, including: monitoring, reviewing and upgrading the SMP on an annual basis to incorporate new technologies and/or new developments to ensure the effectiveness of the Plan; committing to ongoing winter maintenance staff training and education; and allocation of sufficient financial resources for implementation of the SMP.</p> <p>The Region of Peel is also committed to reducing the environmental impacts of its winter maintenance operations by improving its management of road salt. Road salt reduction is achieved in accordance with a Salt Management Plan that was prepared in 2003 by the Region and then updated in 2004 to ensure that it is consistent with Environment Canada's "Code of Practice for the Environmental Management of Road Salts". The Region's Road Salt Management Plan considers surface and ground water sensitivity to contamination and classifies areas into high, medium and low vulnerability. The Plan recommends that areas with high groundwater vulnerability should have highest priority for implementing best management practices. The ORM Plan Area is identified within areas of high and moderate vulnerability.</p> | |
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| | (f) criteria for evaluating the protection of water quality and quantity, hydrological features and hydrological functions. | <p>The CRWMS Update includes criteria in the form of targets (both quantitative and qualitative) for the protection of groundwater and surface water quality and quantity, hydrological features and functions, as well as terrestrial features and functions, aquatic communities and habitat.</p> <p>To reflect the recommendations of the CRWMS Update, CVC's stormwater guidelines will be updated including subwatershed ecological targets for new development.</p> | <p>Credit Valley Conservation Authority, Aquafor Beech Ltd, Kidd Consulting, J.Kinkead Consulting, and Aqua Resources Inc. 2007. Credit River Watershed Management Strategy Update. Table 4.1.</p> |
| 24.(4) | <p>Major development is prohibited unless,</p> <p>(a) the watershed plan for the relevant watershed, prepared in accordance with subsection 24.(3), has been completed;</p> <p>(b) the major development conforms with the watershed plan; and</p> <p>(c) a water budget and conservation plan, prepared in accordance with section 25 and demonstrating that the water supply required for the major development is sustainable, has been completed.</p> | <p>A watershed plan for the Credit River Watershed together with a detailed subwatershed characterization for the East Credit River have been completed in accordance with subsection 24.(3) of the ORMCP.</p> | <p>Credit Valley Conservation Authority, Aquafor Beech Ltd, Kidd Consulting, J.Kinkead Consulting, and Aqua Resources Inc. 2007. Credit River Watershed Management Strategy Update.</p> <p>Credit Valley Conservation Authority. 2007 Draft. Phase 1 Characterization Report, East Credit Subwatershed Study, Subwatershed 13.</p> |
| | | See conformity assessment for section 24.(3). | See document references for section 24.(3) |
| | | <p>A water budget has been prepared and can be found in Section 5.1 of the draft Phase 1 Subwatershed 13 Study. Applications for major development would be required to demonstrate that the water supply required for the development is sustainable and may be required to prepare a more detailed water budget and conservation plan if this has not been demonstrated through the subwatershed water budget and conservation plan.</p> <p>See conformity assessments for sections 25.(1) and 25.(2).</p> | <p>See document references for sections 25.(1) and 25.(2)</p> <p>Credit Valley Conservation, Donald G. Weatherbe Associates Inc., et al. 2007 Draft. Phase 1 Characterization Report, East Credit Subwatershed Study, Subwatershed 13. Section 5.1 Hydrogeology.</p> |
| 24.(8) | <p>An application for major development to which this subsection applies shall not be approved unless,</p> <p>(a) the relevant municipality has complied with clause (c) of subsection 24.(4); or</p> <p>(b) the applicant,</p> <p>(i) identifies any hydrologically sensitive features and related</p> | <p>See conformity assessment for section 24.(4).</p> | <p>See document references for section 24.(4)</p> |
| | | <p>For any applications received prior to completion of watershed plans, in accordance with the ORMCP, conformity will have been reviewed and confirmed through applicant submitted studies. In addition, hydrologically sensitive features and related hydrological functions are outlined in the draft Phase 1 of the East Credit</p> | <p>Credit Valley Conservation Authority. 2007 Draft. Phase 1 Characterization Report, East Credit Subwatershed Study, Subwatershed 13.</p> |

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| | <p>hydrological functions on the site and how they will be protected,</p> <p>(ii) demonstrates that an adequate water supply is available for the development without compromising the ecological integrity of the Plan Area, and</p> <p>(iii) provides, with respect to the site and such other land as the approval authority considers necessary, a water budget and water conservation plan that,</p> <p>(A) characterizes groundwater and surface water flow systems by means of modelling,</p> <p>(B) identifies the availability, quantity and quality of water sources, and</p> <p>(C) identifies water conservation measures.</p> | <p>Subwatershed Study, however those outlined may not be conclusive.</p> | |
| <p>25.(1)</p> | <p>Every upper-tier municipality shall, on or before April 22, 2003, begin preparing a water budget and conservation plan, in accordance with subsection 25.(2), for every watershed whose streams originate within the municipality's area of jurisdiction.</p> | <p>CVC began preparing the watershed-wide Water Budget in 1999-2000. This Water Budget is revised every few years, and this is currently taking place. In addition, development of the East Credit Subwatershed Water Budget was initiated in 2002 and completed in 2003. This is incorporated in the draft Phase 1 of the East Credit Subwatershed Study.</p> <p>The Region of Peel's Water Efficiency Plan was initiated in 2002 and completed in May 2004. The objectives of the plan are to reduce average annual day demand by 10 per cent, peak day demand by 10 per cent, and wastewater flows by 7 per cent, by the year 2015. Key components of the Region's water efficiency efforts include public education through 'Water Smart Peel', rebate programs and other incentives. The program is targeted to residents throughout the Region.</p> | <p>Region of Peel, Eritec Consulting Inc. May 2004. Region of Peel Water Efficiency Plan, Final Report.</p> <p>AquaResource Inc. May 2006. Credit Valley Conservation Groundwater Model Water Budget Update Draft Modelling Report.</p> <p>The CVC Board Report that documents the date when approval to proceed with the Water Budget was received: August 11, 2000. Water Budget Study for the Credit River Watershed. Resolution No.75/00.</p> |

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| <p>25.(2)</p> | <p>A water budget and conservation plan shall, as a minimum, (a) quantify the components of the water balance equation, including precipitation, evapotranspiration, groundwater inflow and outflow, surface water outflow, change in storage, water withdrawals and water returns;</p> | <p>A detailed water budget, consistent with the Province's technical guidance for preparation of water budgets, was prepared for the East Credit subwatershed. The water budget quantifies the components of the water balance equation including precipitation, evapotranspiration, groundwater recharge, water withdrawals and water returns. Sections 5.1.4 and 5.2.3 of the draft Phase 1 Credit Subwatershed Study and Figure 5.1.13 provide a description of the water budget.</p> | <p>AquaResource Inc. May 2006. Credit Valley Conservation Groundwater Model Water Budget Update Draft Modelling Report. Credit Valley Conservation, Donald G. Weatherbe Associates Inc., et al. 2007 Draft. Phase 1 Characterization Report, East Credit Subwatershed Study, Subwatershed 13. Section 5.1 Hydrogeology.</p> |
| <p>(b) characterize groundwater and surface water flow systems by means of modelling;</p> | <p>The groundwater flow system of the Credit River watershed and East Credit subwatershed has been characterized by development and calibration of a groundwater flow model that utilizes FEFLOW software. The model was developed using the MOE water well record database, surficial and bedrock geology maps, consultant reports, and the regional groundwater flow model developed for the entire Credit River Watershed. The surface water flow system of the Credit River watershed has been characterized by development and calibration of a hydrologic model based on the Guelph All-weather Sequential-Events Runoff (GAWSER) software. The GAWSER model was used for the East Credit Subwatershed Study, Phase 1 Report. The main objective was to determine the low flow values within East Credit subwatershed after applying a 3-year record of precipitation and meteorological data. The model was also used to check the peak flow rates for a range of design storm events at various points of interest along the watershed, and to determine the hydrologic cycle values.</p> | <p>WASY Institute for Water Resources Planning and Systems Research Ltd. 2005. <i>FEFLOW_5.2. Finite Element Subsurface Flow and Transport Simulation System</i>. Credit Valley Conservation, Donald G. Weatherbe Associates Inc., et al. 2007 Draft. Phase 1 Characterization Report, East Credit Subwatershed Study, Subwatershed 13. Section 5.1 Hydrogeology. AquaResource Inc. May 2006. Credit Valley Conservation Groundwater Model Water Budget Update Draft Modelling Report.</p> | |
| <p>(c) identify, (i) targets to meet the water needs of the affected ecosystems, (ii) the availability, quantity and quality of water sources, and (iii) goals for public education and for water conservation;</p> | <p>The final version of the CRWMS Update includes criteria in the form of maps and targets (both quantitative and qualitative) for the protection of groundwater and surface water quality and quantity, hydrological features and functions, as well as terrestrial features and functions, aquatic communities and habitat. This is included in Appendix A. See section 24.(3)(b) above. The Water Budget and the draft Phase 1 of the East Credit Subwatershed Study describe the availability, quantity and quality of water sources. Recent work from the tier 2 water budget will also be included in the Final Report of the Phase 1 East Credit Subwatershed Study. The Region of Peel's goal for water conservation is to clearly identify cost-effective water-efficiency measures and to define an approach to reduce water use and wastewater flows. The appendices of the Region of Peel Water Efficiency Plan</p> | <p>Region of Peel, Veritec Consulting Inc. May 2004. Region of Peel Water Efficiency Plan, Final Report. Credit Valley Conservation, Donald G. Weatherbe Associates Inc., et al. 2007 Draft. Phase 1 Characterization Report, East Credit Subwatershed Study, Subwatershed 13. Section 5.15 Water Supply and Section 5.5 Water Quality.</p> | |

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| | | include Outreach Programs that will help the Region of Peel reach their goals. The Region of Peel's program will include public education for the promotion of water conservation. | | Region of Peel, Veritec Consulting Inc. May 2004. Region of Peel Water Efficiency Plan, Final Report. Region of Peel, Beatty and Associates. 2003. Water Use Assessment Study. Region of Peel, KMK Consultants Limited. Draft 2007. Water and Wastewater Master Plan. |
| (d) develop a water-use profile and forecast; | | A water use profile and forecast (defining water demands) has been quantified Region-wide through the Region of Peel Water Use Assessment Study (2003), Water Efficiency Plan (2004) and Water and Wastewater Master Plan (Draft 2007). | | |
| (e) evaluate plans for water facilities such as pumping stations and reservoirs; | | At the time of the completion of the draft Phase 1 East Credit Subwatershed Study there were no plans to develop additional wells within the subwatershed. The Region of Peel Water and Wastewater Servicing Master Plan study has identified a proposed water storage reservoir in Pressure Zone 7 adjacent to the Grange Sideroad within the East Credit subwatershed. This reservoir site would supply water to new growth serviced by the South Peel Servicing System. The water reservoir is an in-ground facility that will require connection to transmission mains from Mayfield Road. Further plans for the reservoir site will require approval through an environmental assessment study process. The CRWMS Update predicts groundwater levels from hydrologic impacts based on land use changes (e.g., increased urbanization) and climate change. Water management strategies specific to the ORM area will take place in Phase 3 of the East Credit Subwatershed Study. Water use management strategies included in this report are outlined in subsection 25.(2)(f) below. | | Credit Valley Conservation Authority, Aquafor Beech Ltd, Kidd Consulting, J.Kinkead Consulting, and Aqua Resources Inc. 2007. Credit River Watershed Management Strategy Update. |
| (f) identify and evaluate, | | All upper-tier and single-tier municipalities in the Credit River watershed have | | Region of Peel, Eritec Consulting Inc. May 2004. Region of |

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| | <p>(f) water conservation measures such as public education, improved management practices, the use of flow restricting devices and other hardware, water reuse and recycling, and practices and technologies associated with water reuse and recycling, water conservation incentives such as full cost pricing, and ways of promoting water conservation measures and water conservation incentives;</p> | <p>developed water efficiency plans and programs that identify and evaluate water conservation measures, incentives and ways of promoting water conservation measures and incentives.</p> <p>Water conservation programs are referred to in Appendix B of the Region of Peel's Water Efficiency Report. These include measures such as a low flow toilet replacement program, a clothes washer replacement program, and outdoor and indoor water audit programs. These measures are not specific to the ORM. The Region of Peel recommends that a phased implementation of water efficiency measures be undertaken. Implementation of the recommended water efficiency measures are scheduled from 2004 to 2015, and will be phased in over time. Implementation details can be found in Section 9 of the report. Incentives and securing participation of residents and other stakeholders is detailed in Section 9.3 and 9.5.</p> <p>The CRWMS Update did not incorporate the recommendations of the municipal water efficiency plans and programs, however it does support those plans and programs. The Implementation Working Groups that will be developed in 2008 will look at sustainable practices that may incorporate the plans and programs listed in the Region of Peel's Water Efficiency Plan.</p> | <p>Peel Water Efficiency Plan, Final Report. Appendix B.</p> <p>Credit Valley Conservation Authority, Aquafor Beech Ltd, Kidd Consulting, J.Kinkead Consulting, and Aqua Resources Inc. 2007. Credit River Watershed Management Strategy Update. Chapter 7, 8. This describes the Recommended Management Strategy that will help to protect the ecological and hydrological features and functions of the watershed, including the portions in the Oak Ridges Moraine Area.</p> |
| | <p>(g) analyse the costs and benefits of the matters described in clause (f);</p> | <p>All upper-tier and single-tier municipalities in the Credit River watershed have developed water efficiency plans and programs that analyse the costs and benefits of their recommended water conservation measures, incentives and promotion strategies.</p> | <p>Region of Peel, Eritec Consulting Inc. May 2004. Region of Peel Water Efficiency Plan, Final Report. Section 8.0.</p> |
| | <p>(h) require the use of specified water conservation measures and incentives;</p> | <p>Specific water conservation measures can be found in Appendix B of the Region of Peel Water Efficiency Plan. Incentives and securing the participation of residents and other stakeholders is detailed in Section 9.3 and 9.5. This is explained in detail in subsection 25.(2)(f)(i).</p> | <p>Region of Peel, Eritec Consulting Inc. May 2004. Region of Peel Water Efficiency Plan, Final Report. Appendix B.</p> |
| | <p>(i) contain an implementation plan for those specified measures and incentives that reconcile the demand for water with the water supply;</p> | <p>The Implementation Schedule is found within Section 9.1 of the Region of Peel Water Efficiency Plan. Figure 8 indicates that the implementation of all Programs will begin by 2007.</p> | <p>Region of Peel, Eritec Consulting Inc. May 2004. Region of Peel Water Efficiency Plan, Final Report. Section 9.1, and Figure 8.</p> |
| | <p>(j) provide for monitoring of the water budget and water conservation plan for effectiveness.</p> | <p>The CRWMS Update does not include recommendations on changes or enhancements to existing environmental monitoring programs. See subsection 24.(3)(d) above with respect to a review of the monitoring program during the implementation phase of the CRWMSU.</p> | |

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| | <p>Phase 3 of the East Credit Subwatershed Study will include environmental monitoring recommendations and enhancements, which may include site or issue-specific monitoring requirements that provide for, or improve capacity for monitoring of the water budget [e.g., additional climate stations, stream gauges, groundwater monitoring wells etc.].</p> <p>Currently, CVC monitors baseflows and well water levels regularly and the data is incorporated into the watershed-wide Water Budgets. This includes one site within the ORM. Additionally, more sites were established in the East Credit subwatershed (and as a result on the ORM) during the East Credit Subwatershed Study water budget analysis.</p> <p>Section 9.6 of the Region of Peel Water Efficiency Plan refers to monitoring the water conservation plan for effectiveness. The Region of Peel plans to prepare a comprehensive monitoring strategy that is dynamic, iterative, and able to identify any reduction in water use and wastewater flows. The intent of monitoring is to compare the expected costs and savings to actual costs and savings associated with the implementation of each water efficiency program. The monitoring method of individual water efficiency measures will vary, however potential monitoring programs include billing data analysis, site data logging/sub-metering, customer surveys, interviewing wholesale/retail outlets, water production values, and international water association water balance.</p> | |
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