

2007 Status Report on the Implementation of the Oak Ridges Moraine Conservation Plan: A Look at New Infrastructure Projects

Brought to you by Save the Oak Ridges Moraine Coalition and Citizens' Environment Watch

Focus on Infrastructure Projects

The 2007 Status Report is the second in an annual series of report cards intended to highlight the successes and challenges of implementation of the Oak Ridges Moraine Conservation Plan (ORMCP). It is designed and maintained by the Monitoring the Moraine (MTM) project, a partnership between Citizens' Environment Watch, the Save the Oak Ridges Moraine (STORM) Coalition and the Centre for Community Mapping. The project partners anticipate that the lessons learned and reported in these annual reports will be applied to other areas of the Greenbelt and beyond.

The ORMCP was established on April 22, 2002 as a regulation under the *Oak Ridges Moraine Conservation Act* (the Act) to provide a clear policy framework for protecting the moraine's ecological and hydrological integrity. The Act established the municipalities as the primary implementers through the adoption and approval of official plans and zoning by-laws amended to conform to ORMCP policies. The 2006 Status Report focused on this conformity phase.

This year's focus is an inventory of new infrastructure projects¹ (roads, water, sewage and utilities) that have triggered formal environmental assessments (EAs) per section 41 of the ORMCP. Such projects are of interest because of their potential cumulative impact to ground and surface water regimes (quantity and quality), as well as incremental losses to the natural heritage system of the moraine.

The overall vision of the ORMCP is to protect "the ecological and hydrological features and functions that support the health and well-being of the region's residents and ecosystems." Achieving ecological and hydrological integrity requires a comprehensive and integrated approach to land use and infrastructure planning and approval. It follows that the 'meta' tests prescribed in section 41 (i.e., projects will not be approved unless need has been established and no reasonable alternatives to the project exist) be further refined through strategic and project planning and design to meet the tests of ecological and hydrological integrity. The next status report will focus on an in-depth analysis of the planning and EA processes of new projects in meeting these objectives.

¹Projects commenced after November 17, 2001.

Key Observations

EA Data Collection: Gaps and Lessons Learned

The EA process is proponent-driven insofar as most EAs are designed, carried out and

documented by the project proponent. One exception lies with Ministry of the Environment oversight on municipal class EAs that are 'bumped-up' to full or individual EAs (i.e., a Part II order). Proponents of EAs can include municipalities, federal and provincial ministries, crown and private corporations. Tracking even the basic coordinates of EAs (location, status, type, etc.) for a geographic landform such as the moraine is made difficult due to the number of different proponents and the complex nature of the EA process.

As described on page two, there are a number of gaps in the reporting of EAs on the moraine. With no central agency currently responsible for archiving information about moraine-specific EA-related projects, the process of reviewing the effectiveness of ORMCP policies, including section 41, to achieve its objectives will either be overly cumbersome or fatally flawed.

Recommendation: That the province establish a process to track all information related to ORMCP policy implementation, including municipal, provincial, federal, crown and private corporate infrastructure projects, in preparation for the formal 2015 ORMCP Review.

Recommendation: That the Inter-ministerial Performance Measures Working Group broaden its mandate to include all infrastructure projects as discrete components in its monitoring framework.

Recommendation: That municipalities track all EAs commenced on the Oak Ridges Moraine after November 17, 2001 and make this information easily accessible to the public.

Update on 2006 Status Report Recommendations

Recap from 2006 Status Report: All eight upper-tier and 24 lower-tier municipal official plan amendments (amending official plans to conform to the ORMCP) had been adopted by the time of publication of this report. All but Whitchurch-Stouffville had adopted moraine-specific zoning-by-laws. Nineteen (of 24) lower-tier municipal official plans and only four of the 24 adopted zoning by-laws were approved by the province.

2006 Recommendation: The province should increase staff resources to immediately complete the planning approvals.

2007 Update on Progress Made: All official plans except that of Uxbridge have now been approved by the province. Seven zoning by-law amendments remain unapproved, including King, Richmond Hill, Uxbridge, New Tecumseh, Pickering, Clarington and Oshawa. Whitchurch-Stouffville still has not submitted an adopted moraine-specific amendment and Caledon is in the process of adopting a revision; both municipalities have been granted a June 20, 2008 extension.

Recap from 2006 Status Report: Municipal conformity was hindered by the lack of approved technical paper series and mapping.

2006 Recommendation: The province should make finalization of the technical paper series a priority and develop sample tree-cutting and site alteration by-laws.

2007 Update on Progress Made: The technical paper series was finalized and released to the public in July 2007. No progress has been made on the release of sample by-laws.

Recap from 2006 Status Report: No real progress had been made by the Inter-ministerial Performance Measures Working Group in drafting a monitoring framework (outside of its participation in the Monitoring the Moraine project's Monitoring Advisory Committee).

2006 Recommendation: The province should collaborate on a multi-party monitoring framework as well as fulfill its obligations to establish a monitoring network.

2007 Update on Progress Made: Provincial staff have released a draft monitoring framework to monitor the effectiveness of Greenbelt policies and continue to participate in the Monitoring Advisory Committee.

Recap from 2006 Status Report: Municipalities cited problems with the “arms-length” position taken by province in ensuring conformity with the ORMCP.

2006 Recommendation: Provincial third party oversight is required for municipal implementation.

2007 Update on Progress Made: No progress has been made. Note: The Oak Ridges Moraine For Life Symposium Stakeholders Report (www.ormf.com/symposium) includes a specific call for the establishment of a multi-stakeholder and coordinating oversight body.

Recap from 2006 Status Report: The Oak Ridges Moraine has untapped potential to inform planning innovation across Ontario.

2006 Recommendation: The province should communicate more effectively about the status of ORMCP implementation while promoting planning innovation and research through conferences and public fora.

2007 Update on Progress Made: No progress has been made on this recommendation. Note: The Greenbelt Council (www.mah.gov.on.ca/Page196.aspx) has recommended funding be sought to initiate a lecture series to sustain public awareness around issues facing Ontario's Greenbelt.

Status of Environmental Assessments for Transportation, Infrastructure and Utility Projects on the Oak Ridges Moraine since 2001

Background

Under the Oak Ridges Moraine Conservation Plan (ORMCP), infrastructure projects are required to conform to section 41. This section covers utilities, infrastructure and transportation and includes highways, transit and rail lines, gas and oil pipelines, sewage

systems, water supply systems, stormwater management facilities, power transmission lines and telecommunication lines. Given the broad application of this section, there are multiple sectors to which it applies; these include, but are not limited to:

1. highway and associated infrastructure projects undertaken by the federal government,
2. construction or expansion of provincial highways,
3. roads, water and wastewater projects by upper- or lower-tier municipalities,
4. roads, water, wastewater and stormwater projects by developers,
5. major power transmission projects by companies such as Hydro One, and
6. major gas pipeline projects by companies such as Union Gas or Enbridge.

Federal projects such as those listed in #1 above are subject to an environmental assessment (EA) as outlined by the *Canadian Environmental Assessment Act*. All other projects (#2-6) are subject to an EA as outlined in *Ontario's Environmental Assessment Act*. The EA process is designed to be “a decision-making process used to promote good environmental planning by assessing the potential effects of certain activities on the natural and human environment.”² The process gives individuals and organizations the opportunity to comment on the projects at multiple stages.

The EA for a specific project could take the form of an individual EA, which is carried out under supervision of the Ministry of the Environment, or it could fall under a Class EA, in which the EA process is tailored for certain project types. The Class EA process is pre-approved by the Ministry and is for projects that are “carried out routinely and have predictable and mitigable environmental effects, and therefore, do not warrant an individual environmental assessment.”³ Many of the projects examined in this report fall under the municipal class EA process. Within municipal class EAs, schedules A, B, and C represent increasing potential environmental impact and require increasingly rigorous evaluation.

(For a summary of the Municipal Class EA process, please visit <http://www.cityofkingston.ca/business/development/EAProcess.asp>)

²Ministry of the Environment, Environmental Assessment and Approvals Branch. 2005. Green Facts: Environmental Assessments in Ontario. <http://www.ene.gov.on.ca/cons/4983e.pdf> (Accessed December 4, 2007).

³Ministry of the Environment, Environmental Assessment and Approvals Branch. 2002. http://www.ene.gov.on.ca/envision/env_reg/ea/english/General_info/What_are_Class_EAs.htm (Accessed December 4, 2007).

Data Collection

1. Federal Projects

Information about EAs for federal projects was obtained from the Canadian Environmental Assessment Registry website (www.ceaa.gc.ca/050/index_e.cfm). The registry was searched

by municipality; further refinements documented those projects that lie within the moraine plan area. Federal EA project managers were helpful in clarifying the location of several of these projects.

2. Provincial Highways

Collecting information about EAs for the construction or expansion of provincial highways required a Freedom of Information request to the Ministry of Transportation. Within just over a month of the request (and for a small fee), the Ministry provided basic information about each provincial highway-related EA that has taken place on the moraine since November 2001.

3. Municipal Infrastructure Projects

A list of EAs for roads, water and wastewater projects by upper- and lower-tier municipalities was generated through consultation with a number of sources, primarily the proponents themselves. Each of the eight upper- and 24 lower-tier municipalities on the ORM was contacted to provide information about the location of specific municipal EA projects, the type of undertaking they represent, and their current status. In most cases, municipal staff willingly provided the information, however several municipalities chose not to participate (Cavin-Monaghan, Hamilton, Markham, Whitchurch-Stouffville). As a method of verifying information provided by staff, each municipal website was checked for references to EAs taking place on the ORM. Also, the nine conservation authorities of the Conservation Authorities Moraine Coalition were contacted to verify municipal EAs and provide information on any additional projects. The Ministry of the Environment website proved to be a good source for data on specific projects that triggered provincial attention.

4. Projects by Developers

The MTM partners were unable to collect data relating to any developer-initiated infrastructure or transportation projects on the moraine. Without a central body tracking data about private projects and given the limited number of developer-initiated projects that require an EA (i.e., a Schedule C level), it wasn't possible to obtain any information.

5. Power Transmission Projects

Data on current power transmission EAs were obtained from the Hydro One website. However, the MTM partners were unable, within the time available, to obtain information regarding past projects.

6. Gas Pipeline Projects

The MTM partners were unable, within the time available, to gather any information on EAs for natural gas infrastructure. Both Enbridge and Consumers Gas requested that STORM make requests through the respective Human Resources departments. Given the unlikely success of this approach in the time available, a decision was made not to pursue this avenue.

Despite the extensive data collection methods described above, the inventory of projects presented in this report likely does not represent a complete list of all EAs that have taken place on the Oak Ridges Moraine since November 2001.

Observations: Plugging the Hole in Moraine Monitoring

As previously mentioned, there is no central agency that tracks or archives information on moraine-specific EAs. Data on Municipal Class EAs not subject to a Part II order are not centrally located with the Ministry of the Environment and are not required to be published on the Environmental Registry webpage. This made the search for information on EAs challenging. Several of these difficulties include the following:

- Obtaining even the most basic of information (location, type of undertaking and status of the project) through a Freedom of Information request was a lengthy process that involved a monetary cost. Obtaining more detailed information may well be beyond the resources of most third party organizations.
- Identifying EAs from some municipal websites, which contained only references to such projects in council meeting minutes, was challenging. However, some municipal websites were more helpful, with full lists of projects (e.g., the Regions of Durham, Peel and York).
- Obtaining lists of EAs from municipal staff often involved two to three months of repeated communications. In many cases, the request was passed from staff member to staff member, and several mentioned the large amount of time necessary to gather the requested information.

In some of the surveyed municipalities, public works and engineering staff have had little or no exposure to the ORMCP. This could be because the ORMCP is a land use plan and the primary focus is placed on implementation through municipal official plans and zoning by-laws. Section 41, however, is applicable primarily to municipal public works and engineering projects and unlike the planning conformity exercises, there is no mechanism within the ORMCP to ensure compliance with section 41. The combination of departmental silos and a lack of more prescriptive policies in section 41 means that municipalities may have significant challenges with understanding and implementing the design, planning and construction of infrastructure projects as required by the ORMCP.

Conclusions

Unlike land use planning (where the ORMCP is implemented directly through municipal decision-making), infrastructure, transportation and utility projects are subject to a separate piece of legislation - the Environmental Assessment Act (EAA). The ORMCP is not an undertaking of the EAA, and therefore EAs proceed on their own track. Given that the review and approval of specific projects are undertaken and housed with the proponents, relevant agencies or ministries, tracking even the most basic coordinates of EAs becomes difficult.

This is of concern for a number of reasons. The overriding nature of the EA process is out of step with the land use planning process and, unless this discrepancy is internally rationalized between the various provincial ministries in preparation for the 2015 Review, impacts associated with infrastructure projects may not be accounted for when assessing the ecological state of the moraine. This could be significant given that the construction and operation of highways, water and sewer systems and other infrastructure facilities have the potential for large scale cumulative impacts on the ecological and hydrological features and functions of the moraine. In addition to problems in assessing on-the-ground impacts, determining the effectiveness of section 41 of the ORMCP could well be beyond the ability of the province to deliver.

The difficulty in obtaining information on the whole range of infrastructure projects on the ORM could represent a challenge during the review of the ORMCP in 2015. Unless there is a centralized depot for such information about EAs on the moraine, it will be very difficult to evaluate section 41 and to determine how effective it has been in meeting the objectives of maintaining, restoring or enhancing the ecological and hydrological integrity of the Oak Ridges Moraine.

Disclaimer

The views and results expressed herein are those of the map author and do not necessarily represent the views of the providers of the source data.

Sources of Information

Base map information has been provided by Ministry of Municipal Affairs and Housing, Ministry of Natural Resources, Ontario Base Map 1983, and ESRI Canada's Ontario Road Network.

Infrastructure map information was provided by the Township of Adjala-Tosorontio, Town of Aurora, Canadian Transport Agency, Municipality of Clarington, Durham Region, Ministry of the Environment, Hydro One, Industry Canada, Town of New Tecumseth, Region of Peel, Town of Richmond Hill, County of Simcoe, Ministry of Transportation, City of Vaughan, Town of Whitchurch-Stouffville, and York Region.

Map Projection

North American Datum 1983

Universal Transverse Mercator

Zone 17

#	Proponent	Project	StudyArea	Project Type	EA Type	Status	*
1	Township of Adjala-Tosorontio	Sub Project 2 - Bridge #15 Replacement	Lot 6, Concession Road 3	Road		Started in January 2007	y
2	County of Simcoe	Bailey Creek Bridge	10th Sideroad and Concession 5, Adjala-Tosorontio (Southwest of Loretto)	Road	Municipal Class EA - Schedule B	Completed in January 2007	y
3	County of Simcoe	Hwy 50 Improvements	Country Rd 50 from Highway 9 to Highway 89, Adjala-Tosorontio	Road	Municipal Class EA - Schedule C	Completed in April 2007	y
10	Region of Peel	Gore Road - (King Street to Patterson Sideroad) Upgrade	Gore Road - King Street to Patterson Sideroad	Road	Municipal Class EA - Schedule B	Completed in December 2006	y
14	York Region	Keele Street & 15th Sideroad Intersection Improvement	Keele Street & 15th Sideroad	Road	Municipal Class EA - Schedule B	Public consultation ended July 2007	y
17	York Region	North Yonge Street Corridor Public Transit and Associated Road Improvements	Yonge Street (between 19th Avenue and Green Lane)	Road	Individual EA	Final public consultation Sept 2007	y
20	York Region	Bloomington Road (Bathurst to Yonge Streets) Upgrade	Bloomington Road (Bathurst Street to Yonge Street)	Road		EA completed under another project in March 2004	
21	York Region	Bloomington Road (Bayview Avenue to Highway 404) Upgrade	Bloomington Road (Bayview Avenue to Highway 404)	Road		EA In Progress	
22	York Region	Bloomington Road (Yonge Street to Bayview Avenue) Upgrade	Bloomington Road (Yonge Street to Bayview Avenue)	Road		EA Completed under another project in March 2004	
23	York Region	Leslie Street (Bethesda Sideroad to Bloomington Road) Upgrade	Leslie Street (Bethesda Sideroad to Bloomington Road)	Road		Environmental Study Report filed in September 2006	
24	Town of Richmond Hill	East Lake Wilcox Road Needs Study, Master Plan	Study Area bounded by North Lake Road, Bayview Avenue, Yonge Street and Old Colony Road	Road	Municipal Class EA - Schedule B	Completed in May 2005 (with 2 schedule B projects recommended from this)	y
27a	York Region	Bayview Avenue (19th Avenue to Stouffville Road) Upgrade	Bayview Avenue (19th Avenue to Stouffville Road)	Road		EA In Progress	
27b	York Region	Bayview Avenue (Elgin Mills Road to Stouffville Road) Upgrade	Bayview Avenue (Elgin Mills Road to Stouffville Road)	Road		Completed in March 2004	
29	York Region	South Yonge Street Corridor Public Transit Improvements	Yonge Street (between Steeles and 19th Avenues)	Road	Individual EA	Completed in April 2006	y
30	York Region	Teston Road (Dufferin Street to Bathurst Street) Upgrade	Teston Road (Dufferin Street to Bathurst Street)	Road		Completed in February 2003	
31	York Region	Bathurst Street (Teston Road to Highway 7) Upgrade	Bathurst Street (Teston Road to Highway 7)	Road		To be completed in January 2008	y
32	City of Vaughn	Forest Run Boulevard, Ten Oaks Boulevard and Dufferin Hill Drive Upgrade	just at Rutherford Road and Dufferin Street Intersection	Road		Started in May 2007	ym
33	York Region	Stouffville Road (Woodbine Avenue to Highway 48) Upgrade	Stouffville Road (Woodbine Avenue to Highway 48)	Road		Environmental Study Report filed in March 2006	

* y indicates that more information can be obtained online at: www.monitoringthemoraine.ca/Status_report/SR2008_EAs.htm.

* m indicates that a more detailed map can be accessed at the same link.

#	Proponent	Project	StudyArea	Project Type	EA Type	Status	*
35	York Region	Vivian Road (Highway 48 to York-Durham Line) Upgrade	Vivian Road (Highway 48 to York Durham Line)	Road		Environmental Study Report filed in mid-May 2005	
37	York Region	Ninth Line (North of Major Mackenzie to north of Main Street) Upgrade	Ninth Line (North of Major Mackenzie to North of Main Street)	Road	Environmental Study Report, the review of which could trigger a Municipal Class	Notice of Environmental Study Report review in June 2007	y
38	CN/GO/Canadian Transport	Construction of Two Road/Railway Level Crossings	Hoover Park Drive and Park Drive, Whitchurch-Stouffville	Road		Completed in May 2007	y
41	Town of Whitchurch-Stouffville	Main Street & 10th Line Intersection Improvements	Main Street and 10th Line, Whitchurch Stouffville	Road	Municipal Class EA	Seems to have finished around December 2003	y
42	City of Pickering/Industry Canada	Rehabilitation of the Reesor Creek Bridge	Uxbridge/Pickering Townline Road crossing Reesor Creek	Road		Completed in March 2007	y
43	Durham Region	Toronto Street (Regional Highway 47) Upgrade	Sixth Concession to Campbell Drive, Uxbridge	Road	Municipal Class EA - Schedule B	Construction to be completed in Fall of 2007	y
44	Durham Region	Myrtle Road/Raglan Road (Regional Road 5) Reconstruction	Highway 7/12 to West of Simcoe Street (Regional Road 2)	Road		Construction completed in 2006	
45	Ministry of Transportation	407 East Extension	On the Moraine following Hwy 115	Road	Individual EA	Report in progress, public meetings still being held	y
47	Clarington	Concession Road VIII Clarke Bridge Repair	Southeast of Concession 8 and Cooney	Road			
48	Ministry of Transportation/Industry Canada	Reconstruction of Bridge No. 98097 (05-01-12779)	Lot 21, Concession 7&8, Clarington	Road		Completed in April 2007	y
49	Ministry of Transportation	Scugog River Bridge Rehabilitation Project	Lots 15 & 16, Concession 5, City of Kawartha Lakes (former Township of Ops, County of Victoria), where Highway #7	Road	Municipal Class EA - Schedule B	Started in January 2007	y
50	Ministry of Transportation	Highway 115 Eastbound Reconstruction (WP 4353-04-01)	Highway 115 (Highway 35 to Porter Road)	Road	Municipal Class EA - Schedule C		
51	Ministry of Transportation	Shoulder Improvements to Highway 115 (WP 4353-04-04)	Highway 115 (Highway 7 (N-S) to Boundary Road)	Road	Municipal Class EA - Schedule C		
52	Ministry of Transportation	Highway 115 Eastbound Restoration (WP 4353-04-02; 4353-04-03)	Highway 115 (Highway 7A (N-S) to Quarter Line)	Road	Municipal Class EA - Schedule C		

* y indicates that more information can be obtained online at: www.monitoringthemoraine.ca/Status_report/SR2008_EAs.htm.

* m indicates that a more detailed map can be accessed at the same link.

#	Proponent	Project	StudyArea	Project Type	EA Type	Status	*
4	Township of Adjala-Tosorontio	Colgan Water Supply (ground source)	Lot 6, Con. 8.3, 1 km North of Highway 9	Water Supply	Municipal Class EA - Schedule B	Completed in September 2005	y
6	Region of Peel	North Peel Water Treatment Facility Upgrades (ground source)	Around Mount Hope Road and Hunsden	Water Supply	Municipal Class EA - Schedule B	Completed in May 2005	y
7	Region of Peel	Construction of Watermain across Humber River at Highway 50	Hwy 50 at Humber (North of Pine)	Water Supply	Municipal Class EA - Schedule B	Completed in April 2007	y
8	Region of Peel	Caledon East Water Supply (ground source)		Water Supply	Municipal Class EA - Schedule B	Completed in October 2007	ym
9	Region of Peel	North Peel Water Treatment Facility Upgrades (ground source)	Around Airport Road and Old Church Road	Water Supply	Municipal Class EA - Schedule B	Completed in May 2005	y
12	York Region	King City Feedermain (lake source)	About 1km NE of Keele Street and King Road (past end of Manitou Drive)	Water Supply	Municipal Class EA - Schedule B	Completed in March 2004	
13	York Region	King City Watermain and Elevated Tanks (lake source)	Most of King City	Water Supply	Seems to have started as Municipal Class Assessment - Schedule B, then became Schedule	Completed in October 2007	y
15	York Region	Bathurst Street Watermain (Clearmeadow to Woodsprings)	Bathurst Street Watermain (Clearmeadow to Woodsprings)	Water Supply		Construction to commence in Sept 2007	
16	York Region	Bathurst Street Watermain (Orchard Heights)	Orchard Heights pumping station to West Newmarket Reservoir	Water Supply		Public consultation held in 2004	
19	York Region	Aurora Newmarket Feeder and Watermains	Pump station at Keele Street and Teston Road (Vaughan); Watermains along Keele Street, King Side Road, and Bathurst Street (from King Side Road to Wellington); and an inground reservoir in the vicinity of Bloomington Road and Bathurst	Water Supply		Currently under construction	
25	York Region	Pressue District Nine Water Storage Needs	See map in the link	Water Supply	Municipal Class EA - Schedule B	Started in September 2007	ym
26	York Region	North Richmond Hill Elevated Tank	Study area from Bathurst Street to Bayview Avenue, and Gamble Road to Bloomington Road	Water Supply	Municipal Class EA - Schedule B	Completed in January 2007	y
34	York Region	Stouffville Watermain and Pumping Station	Stouffville Road (Ringwood Drive to McCowan Road)	Water Supply	Municipal Class EA - Schedule B	Completed in 2006	y
36	York Region	Ballantree-Mussleman Lake and Bloomington Water Supply (ground source)	Area bordered by Vivian Road to Bloomington Road, and Warden Avenue to the York -Durham Line	Water Supply	Municipal Class EA - Shedule B	Started in August 2006	y
40	York Region	Stouffville Elevated Tank Wastewater Projects	Tenth Line (Main Street to Bethesda Sideroad)	Water Supply		Construction Complete	

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* m indicates that a more detailed map can be accessed at the same link.

It's All About Water

Watershed Plans: Statutory Requirement

The Oak Ridges Moraine Conservation Plan (ORMCP) requires all upper- and single-tier municipalities to prepare a watershed plan for every watershed whose streams originate on the moraine within their jurisdictions. Without a completed watershed plan, no major development commencing after April 23, 2007 can be approved. The ORMCP defines major development as the creation of four or more lots, major recreational use, or a building/ buildings with a 'footprint' of 500 m² (~ 5,445 ft²).

Requests for extension were submitted to the province in early 2007 by the Regions of Peel, York and Durham and the County of Simcoe. No requests were made by the City of Kawartha Lakes, Peterborough County or the five lower-tier municipalities in Northumberland County.

Watershed Planning Progress

The 2007 Status Report updates the 2006 watershed plan information using the same categories:

Phase 1 - characterization of the watershed including initiation of water budgets

Phase 2 - impact assessment stage

Phases 3 and 4 - implementation and monitoring

These categories are by necessity broadly defined to provide an overview and thus do not reflect specific variations.



Western Moraine (York, Peel, Simcoe)

Good progress has been made over the past year with a majority of plans now at phases 3 and 4. Several of these, including the draft watershed plans for the East Credit, Don and Rouge Rivers and Duffins Creek, have completed an ORMCP conformity assessment and are now used in the review of major development proposals. The one exception is the very small portion of the upper reaches of the Nottawasaga River, for which no plan has been initiated.

Central Moraine (Durham, Kawartha Lakes)

There has been progress made over the past year in the central region of the moraine, with most of the south flowing watersheds at phase 2. The Oshawa Creek plan, completed in 2002, will be reviewed in 2008 to assess its conformity. No progress has been made in north-flowing watersheds since 2006.

Eastern Moraine (Peterborough, Northumberland)

No change from 2006 Status Report; all watersheds in either phase 1 or not yet started.

Planning Implications

No provincial responses to municipal requests for extension have been received, and as such planning implications are unknown. Because Peterborough County, City of Kawartha Lakes and the lower-tier municipalities within Northumberland County have not requested an extension for developing watershed plans, it can be inferred they have no plans for major development in the near future, and thus believe watershed plans to be unnecessary. It should be noted that this precludes approval for construction of a building or buildings with ground floor areas of greater than 500 m².

Watershed Planning Process

In most cases, municipalities have contracted conservation authorities to provide the technical expertise for watershed plan development. Technical guidelines, developed by the Ministry of the Environment, provide a common framework for plan preparation. However, there appear to be degrees of variability between regional approaches to meeting the conformity requirements of the ORMCP. More research is required to fully understand the implications on land use approvals.

Many municipalities across the moraine have legitimate complaints about the lack of provincial funding to help with the technical and logistical aspects of conformity, including preparation of watershed plans. This is particularly true in the eastern moraine, whereby necessity, watershed-based technical work may have to be funded through the provincial Source Protection Program (SPP). While this could be considered an innovative way to deal with budget shortfalls, there are a number of problems which include: SPP funding is tightly tied to identified source protection areas associated with drinking water supplies and not the entire watershed, and; serious delays in meeting ORMCP requirements for watershed plan completion will further limit municipal activities.

Recommendation: That the province, through the Ministries of the Environment and/or Natural Resources, ensure that appropriate funding be provided to municipalities to undertake the necessary technical work to complete watershed plans as required under the ORMCP.

Recommendation: That the Ministry of Municipal Affairs and Housing and the Ministry of the Environment ensure congruency between technical requirements for developing watershed plans under the ORMCP and the development of Source Protection Plans.

Wellhead Protection Policies

According to section 42 of the ORMCP, all official plans were required to contain wellhead protection policies by April 23, 2007. The intent of these policies is to restrict certain activities in municipal wellhead areas and identify zones of contribution corresponding to 0-2, 2-10 and 10-25 years of time travel.

Information from the 2006 Status Report has been updated for the current report. Despite provincial sign-off on all upper-tier official plans, a number still have only partial or interim wellhead protection policies in place.

Eastern Moraine (Peterborough, Northumberland)

Peterborough devolved responsibility to Cavan-Millbrook-North Monaghan, which has no policies for the municipal well serving Millbrook. According to Municipal Affairs and Housing, none of the municipalities that lie within Northumberland County have moraine wellheads.

Central Moraine (Durham, Kawartha Lakes)

The City of Kawartha Lakes has a municipal wellhead within moraine lands and draft policies identifying zones of protection are included in the City's proposed new official plan. Durham Region has completed the necessary technical work and supporting policies, however Official Plan Amendment 114 is currently under appeal. Within Durham, data show that Uxbridge is the only moraine municipality with wellheads.

Western Moraine (York, Peel, Simcoe)

Within the Region of York, it appears that all municipalities with wellheads (King, Whitchurch-Stouffville, Newmarket, East Gwillimbury and Aurora) have identified wellhead protection areas; Vaughan, Richmond Hill and Markham report no municipal wellheads on the moraine. Peel and Simcoe have wellhead protection policies, as do the municipalities of Caledon, New Tecumseth and Adjala-Tosorontio. Mono Township (Dufferin County) has no moraine wellheads.

Update on Ecological Monitoring

Check Your Watershed Day

Check Your Watershed Day (CYWD) is a one-day monitoring event during “summer low flow.” Historically, “summer low flow” takes place during the last two to three weeks of July. Because water levels are naturally low at this time, the water flowing in streams (i.e., baseflow) can be directly attributed to groundwater discharge. This new community-led monitoring initiative generates low flow data that over time can contribute to watershed plans, water budgets and water conservation plans required by the ORMCP.

CYWD was piloted on Saturday, July 22, 2006 in the Wilmot Creek watershed. Twenty-two volunteers evaluated the water condition of small streams (<3m) at 78 stream crossings using easy techniques from the Ontario Stream Assessment Protocol. In addition to the MTM project partners, other partners for this event included the Community Stream Steward Program, Ganaraska Region Conservation Authority, Durham Land Stewardship Council, and the Ontario Ministry of Natural Resources.

Overall, sampling revealed a high degree of variability in the flow conditions of Wilmot Creek. Thirty-three sites were dry and 45 sites had flowing water. Three subwatersheds were identified as major contributors of stream discharge, two of which are on the Oak Ridges Moraine. In contrast, many sites in the mid-eastern zones of Wilmot Creek were dry, including Stalker Creek and the eastern tributaries of Orono Creek. These findings are

consistent with those of an earlier study by the Geological Survey of Canada (GSC), providing additional support that this approach can reliably identify major sources and sinks of groundwater in a watershed.

The next step is to identify the causes of the variability in flow conditions to determine if they are natural or not. Also, because the CYWD data is comparable to the GSC data, it can be used to obtain baseline data on water flow within watersheds. This will be useful information to more fully understand the moraine's hydrogeology – a necessary step to protect the hydrological integrity of the Oak Ridges Moraine.

On Saturday, July 21, 2007, CYWD was expanded to the Duffins Creek, Oshawa Creek, and Ganaraska River watersheds. In total, 184 people monitored these watersheds, covering 529 sites. Results from 2007 will be presented in the 2008 Status Report.

The Ontario Stream Assessment Protocol

The Ontario Stream Assessment Protocol (OSAP) is a module-based series of standardized methods for evaluating physical and biological properties of wadeable streams.⁴ Modules are available for various types of indicators that vary according to the effort and equipment required. In this way, users can select an appropriate module to match their study needs. A growing list of stakeholders, including conservation authorities, provincial and federal agencies, universities and colleges, consultants and citizen scientists trained by non-government organizations (NGOs) are using this method.

The Check Your Watershed Day (CYWD) protocol is based on a number of existing techniques found in OSAP and includes advice on both the study design and interpretation of the results. It was improved considerably following the pilot project in 2006. The OSAP database has been updated to enable the CYWD data to be managed from within this platform. In brief, the protocol describes how to document site locations, measure stream channel dimensions (when wet and dry), quantify the amount of water flowing at each site (discharge) if applicable, and measure the height of any perched culverts (important measure of barriers in a watershed). This protocol was developed to provide a means for conducting a point-in-time inventory of flow conditions within a watershed for the purpose of developing a water budget and, as such, is ideally suited for a citizen scientist survey.

⁴Stanfield, L. 2005. Ontario Stream Assessment Protocol, Version 7. Ontario Ministry of Natural Resources.

About the Monitoring the Moraine Project

Monitoring the Moraine (MTM) is a collaborative project between Citizens' Environment Watch (CEW), STORM Coalition (Save the Oak Ridges Moraine), and Centre for Community Mapping (COMAP). It is designed to engage and sustain community volunteers in science, stewardship, monitoring and decision-making on the Oak Ridges Moraine.

Through ecological and policy monitoring, MTM participants will help determine the effectiveness of the ORMCP and measure changes to the moraine landscape as a result.

The MTM project benefits communities across the moraine in numerous ways. It provides the necessary education, training and support to carry out monitoring projects and helps to ensure that the data generated by participating volunteers is valuable and scientifically defensible. This enables community members to raise and act upon environmental concerns in a timely fashion. Community empowerment will lead to wider community involvement and ensure that those who live, work and play on the moraine will be informed, engaged and well positioned to protect this unique landscape for years to come.

For more information, visit www.monitoringthemoraine.ca

Project Partners

Citizens' Environment Watch empowers people in Ontario to pay attention to their local environment. CEW provides education, equipment and support to monitor local ecosystem health, and opportunities to participate in informed community decision-making and active stewardship. CEW has experience working with volunteers who are keen to undertake community based environmental monitoring as part of their efforts to protect and restore the environmental integrity of the Oak Ridges Moraine.

For more information, visit www.citizensenvironmentwatch.org

Save The Oak Ridges Moraine Coalition (STORM) is focused on protecting the ecological integrity of the Oak Ridges Moraine. Since 1989, STORM has been working at the local and regional levels to ensure that municipalities make good planning decisions that respect the environmental significance of the moraine and that take into account its ecological and hydrological functions. STORM's years of experience in policy and planning advocacy on the Oak Ridges Moraine and its well-developed network of local and regional contacts were critical to the campaign that saved (legislatively) the Oak Ridges Moraine.

For more information, visit www.stormcoalition.org

Technical Support

The Centre for Community Mapping is an assembly of designers and researchers, whose goal is to provide accessible and affordable informatics tools and support to community-based organizations. COMAP's main focus is to enable communities to communicate information through a sustainable, shared infrastructure, a common map platform for visual exploration and contribution of community information. The common map will have natural and cultural heritage applications, as well as land use management policy monitoring applications, serving communities that care for the Oak Ridges Moraine.

For more information, visit www.comap.ca

For more information, or find out how to get involved, email
info@monitoringthemoraine.ca, call 647-258-3280 or visit
www.monitoringthemoraine.ca