

SECTION I - ITEMS FOR AUTHORITY ACTION

RES.#A149/09 - DON RIVER WATERSHED PLAN

Approval of the Don River Watershed Plan and immediate steps to facilitate its implementation

Moved by: Ron Moeser
Seconded by: Laurie Bruce

THAT the Don River Watershed Plan be approved;

THAT staff be directed to work with partners to implement the plan;

THAT staff be directed to use the Don River Watershed Current Conditions Reports, Upper Don River Watershed Sustainable Stormwater Management Study Final Report and Don River Watershed Plan Implementation Guide as reference documents to inform and guide ongoing work and long term work planning and budget preparation;

THAT copies of the Don River Watershed Plan be circulated to municipalities within the Don River watershed and their Councils be asked to adopt the plan and commit to work with Toronto and Region Conservation Authority (TRCA) to implement the recommendations appropriate to their municipality;

THAT copies of the Don River Watershed Plan be circulated to the provincial and federal governments as well as all other relevant organizations and interest groups, including former members of the Don Watershed Regeneration Council, and they be asked to provide ongoing support for the implementation of the principles, objectives and relevant recommendations of the plan;

THAT copies of the Don River Watershed Plan be circulated to local libraries and copies of the plan and all supporting documents be posted on the TRCA website;

THAT copies of the Don River Watershed Current Conditions Reports, Upper Don River Watershed Sustainable Stormwater Management Study Final Report and Don River Watershed Plan Implementation Guide be circulated to watershed municipalities and made available to other partner organizations and they be encouraged to use these reference documents to inform and guide their ongoing work;

THAT staff be directed to work with watershed municipalities and other partners to develop five year workplans and budgets for top priority projects identified in the Don River Watershed Plan Implementation Guide and incorporate them into the annual capital budget process;

THAT the revised Conformity Assessment for the Don River Watershed Plan in Attachment 3 and the watershed planning documents referenced in the conformity assessment be deemed to fulfill the watershed planning requirements of the Oak Ridges Moraine Conservation Plan (ORMCP; 2002) and be approved for use in the review of major development proposals on the Oak Ridges Moraine and that the regional and local municipalities, Province of Ontario and Conservation Authorities Moraine Coalition (CAMC) be so advised;

AND FURTHER THAT staff meet on an annual basis with municipal staff and other stakeholder representatives from the Don watershed, and in conjunction with other watershed groups where appropriate, to facilitate partnerships, share knowledge and best practice and track progress in implementation.

CARRIED

BACKGROUND

The Don River watershed planning study was initiated in partnership with watershed municipalities and the Don Watershed Regeneration Council in response to a number of policy developments, including the need to fulfill York Region’s watershed planning requirements under the *Oak Ridges Moraine Conservation Plan (ORMCP)*. The study was also designed to update the management strategy outlined in *Forty Steps to a New Don* (1994), augment the City of Toronto’s Wet Weather Flow Management Master Plan by providing direction in the ‘905’ region and apply TRCA’s vision for The Living City at a watershed scale.

The Watershed Plan is intended to inform and guide municipalities, provincial and federal governments and TRCA as they update their policies and programs for environmental protection, conservation and restoration within the contexts of land and water use and the planning of future urban growth and intensification. The plan also provides direction to local non-governmental organizations and private landowners with regard to best management practices and environmental stewardship. Watershed plans are well recognized in legislation and local plans and policies. However, it is only the ORMCP which requires municipalities to undertake watershed plans, incorporate their objectives and requirements into municipal official plans and ensure that major development on the Oak Ridges Moraine conforms with the watershed plan (see Table 1: Selected Policy Documents Promoting Watershed Planning).

Table 1: Selected Policy Documents Promoting Watershed Planning

<p><i>Oak Ridges Moraine Conservation Plan (2002)</i> Watershed plans 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 (3), for every watershed whose streams originate within the municipality’s area of jurisdiction. (2) The objectives and requirements of each watershed plan shall be incorporated into the municipality’s official plan.</p>
<p><i>Growth Plan for Greater Golden Horseshoe (2006)</i> 3.2.5 Water and Wastewater Systems 7. Municipalities, in conjunction with conservation authorities, are encouraged to prepare <i>watershed plans</i> and use such plans to guide development decisions and water and wastewater servicing decisions.</p>

Greenbelt Plan (2005)

3.2.3 Water Resource System Policies

The following Water Resource System policies apply throughout the Protected Countryside...

2. Watersheds are the most meaningful scale for hydrological planning, and municipalities together with conservation authorities should ensure that *watershed plans* are completed and used to guide planning and development decisions within the Protected Countryside.

Municipal Official Plans

City of Toronto, 2002

The Official Plan makes reference to watershed plans in the context of managing stormwater. Official Plan policy states that the City will work with neighbouring municipalities and the Province to develop a framework for dealing with growth across the GTA which will, among other things result in better water quality through water conservation and wastewater and stormwater management based on watershed principles. In addition, the Official Plan indicates that private city-building activities and changes to the built environment, including public works, will “reduce the adverse effects of stormwater and snow melt based on hierarchy of watershed-based wet weather flow practices...”.

York Region, 2004

2.3 Water

It is the policy of Council:

1. To cooperate with area municipalities, the conservation authorities and other agencies in the preparation of watershed planning initiatives to:
 - a) identify headwaters areas and better understand their function, linkages and sensitivities;
 - b) establish and achieve water quality objectives for the watershed;
 - c) address the long-term cumulative impact of development on the watershed;
 - d) create an inventory of existing geology, hydrology, hydrogeology, groundwater recharge areas, limnology, aquatic and terrestrial habitats and other environmental data;
 - e) recommend appropriate stormwater management techniques, including, but not limited to best management practices, the use of natural vegetative drainage corridors and the use of permeable surfaces; and
 - f) identify the form and constraints under which development may be permitted and provide guidelines for development, design and construction.

Restoration Plans

Toronto and Region Remedial Action Plan (1994)

Recommends a watershed-based approach to de-listing impaired beneficial uses of the Toronto waterfront and watersheds, and notes Action 41: Include Watershed Perspectives in Planning Process.

Wet Weather Flow Management Master Plan (WWFMMP; 2003)

The City of Toronto Wet Weather Flow Management Master Plan identified a specific need to undertake restoration to mitigate impacts of development in the 905 area and to complement actions being taken in the downstream portion of the watershed. A key guiding principle of the WWFMMP is wet weather flow will be managed on a watershed basis with a natural systems approach being applied to stormwater management as a priority.

Watershed Planning Process

At Authority Meeting #7/03, held on September 26, 2003, Resolution #A196/03 approved overall workplanning processes for the Rouge, Humber and Don rivers watershed planning studies being undertaken in support of the Oak Ridges Moraine Conservation Plan. The Don watershed planning study was scheduled to follow the major periods of work on the Rouge and Humber rivers, in recognition of the relatively limited area of remaining developable lands on the Oak Ridges Moraine (ORM) in this watershed. The Rouge and Humber watershed plans were brought forward for Authority approval in March and June 2008, respectively. The Don watershed studies took place primarily during 2006 to 2009.

The study focused mainly on filling information gaps, guiding land use planning and approval decisions (particularly re-development), and providing direction to advance implementation of regeneration priorities. The study also developed a new set of “concept site plans”, similar to the successful approach used in *Forty Steps to a New Don*, to illustrate how the Watershed Plan’s recommendations could be implemented at the local level and provide tools to facilitate the renewed engagement of community leaders in watershed regeneration.

Public and stakeholder consultation was recognized as an essential component of the Don watershed planning study work program. The multi-stakeholder Don Watershed Regeneration Council (DWRC) played a central role in guiding the Don watershed planning process. Further details of the consultation process are included later in this report.

Supporting Documents

The following principle documents support the Don River Watershed Plan:

Current Conditions Reports - A series of eleven Don River Watershed Current Conditions Reports (TRCA, 2009) document the current watershed conditions and issues in relation to the watershed objectives, according to the theme areas: Air Quality, Aquatic System, Baseflow and Water Use Assessment, Cultural Heritage, Fluvial Geomorphology, Geology and Groundwater Resources, Land and Resource Use, Nature-based Experiences, Surface Water Hydrology/Hydraulics and Stormwater Management, Surface Water Quality and Terrestrial Natural Heritage.

Upper Don River Watershed Sustainable Stormwater Management Study Final Report (XCG Consultants, 2008) – summarizes the modelled watershed response to future land use and management scenarios. This work identified the relative effectiveness of various stormwater management strategies and provided a basis for recommendations in the Watershed Plan and priority areas for stormwater retrofit projects. This study in the “905” portion of the watershed complements the City of Toronto’s Wet Weather Flow Management Master Plan.

Action Plan for Sustainable Practices – Implementation Strategies for the Residential and Business Sectors in the Greater Toronto Area (Freeman Associates, 2006) – a social marketing based study which recommended strategies for accelerating the uptake and adoption of sustainable practices, with a focus on lot level stormwater management and naturalization. These key strategies were included in the Watershed Plan.

Don River Watershed Plan Implementation Guide (TRCA, 2009) – organizes the Watershed Plan recommendations according to the relevant implementation tools and assembles additional information to inform initial action. The Guide summarizes a proposed workplan of implementation projects, within the context of existing programs and likely implementing partners.

Don River Fisheries Management Plan – This document is being developed in concert with the Watershed Plan, but is following an independent consultation and approval process.

Consultation Process

During development of the draft Don River Watershed Plan, TRCA consulted with a range of Don watershed stakeholders. The purpose of the consultation was to identify key issues and management objectives, review technical work, build consensus on management strategies, and identify any errors or omissions in the draft Plan. Input was solicited throughout the watershed planning study, as well as at milestones associated with the release of draft documents for review.

Consultation mechanisms included:

1. Meetings and workshops held with the DWRC from 2007 to 2009.
2. A Municipal Technical Advisory Committee (TAC) composed of planning, works and parks staff from partner municipalities (City of Toronto, York Region, Town of Markham, Town of Richmond Hill and City of Vaughan). The committee was formed for the purposes of this planning study and met 2-4 times per year from 2007 to 2009.
3. Formal and informal workshops and meetings on specific issues, involving relevant experts and stakeholder groups.
4. Individual meetings with municipal councilors and interested non-governmental organizations.
5. Circulation of draft reports for written comment by municipal staff, DWRC and others, as well as posting of draft reports on TRCA's website for public comment:
 - a draft management framework was released to the DWRC in September 2007;
 - a draft synthesis report on current watershed conditions was released to the DWRC in October 2007, and a revised draft was released to the public in May 2008;
 - eight draft technical background reports on current conditions were released for municipal, DWRC and public comment in August 2008;
 - drafts of the remaining three current conditions reports were released for municipal, DWRC and public comment in March 2009;
 - an early draft Don River Watershed Plan was released to the DWRC for review in September 2008;
 - a revised full draft Don River Watershed Plan was released for municipal, DWRC and public review in March 2009;
 - a draft Implementation Guide was released for municipal and DWRC review in June 2009 and was made publicly available in July 2009. Development and release of the draft Implementation Guide followed the public comment period on the draft Watershed Plan in order to integrate feedback received on the management recommendations. The guide re-organizes Watershed Plan recommendations according to relevant implementation tools, in a format conducive to practitioners.
6. Public open houses held in June 2008 and April 2009 (meeting minutes are available at www.trca.on.ca/donwatershedplan).

Feedback received through these mechanisms throughout the watershed planning process was integrated into the technical background reports, Watershed Plan and Implementation Guide. More detailed information on this feedback is available through meeting minutes (Public Open House reports, TAC, DWRC and TRCA staff technical team).

RATIONALE

At a high level, feedback from municipalities, DWRC and the public reflected:

- support for the goals, objectives and strategic directions of the Watershed Plan;
- suggestions for minor revisions to specific management strategies and associated recommended actions;
- requests for clarification of some technical issues, including a more detailed explanation of the target terrestrial natural heritage system and associated priority regeneration sites, the rationale for selection of certain target aquatic community indicator species, and planning triggers for master environmental servicing plans for redevelopment;
- suggestions for minor modifications to the draft concept site plans; and
- interest in implementation details, including next step projects, roles and responsibilities, and potential funding sources (many of which are addressed in the Implementation Guide or will be resolved through long-term work plan and budget planning by implementing partners).

Taylor Massey Project Input

The Taylor Massey Project (TMP), a non-governmental community organization, also provided comments throughout the planning study. A summary of the TRCA staff response to TMP's detailed comments on the draft Don River Watershed Plan was provided in a report to the Don Watershed Regeneration Council at their July 23, 2009 meeting. While the TMP has described the Watershed Plan as having "significant merit and commendable goals", a desire for subwatershed-scale monitoring and reporting, and additional implementation details (specific agency roles and responsibilities and budget commitments), were key concerns identified by TMP.

TRCA staff felt that a set of watershed-scale reports was the most cost effective and efficient means for summarizing watershed and subwatershed current conditions for a watershed plan required under the Oak Ridges Moraine Conservation Plan. The technical background reports prepared in support of the Watershed Plan present an understanding of system function and current conditions in a watershed context. Subwatershed specific data and information are highlighted within the overall watershed context, where conditions are unique to that subwatershed or where factors within or beyond the subwatershed boundaries are contributing to its conditions. Subwatershed goals and regeneration plans are key features of Chapter 6 of the Watershed Plan. More detailed subwatershed planning may be a valuable tool for future planning in Taylor/Massey Creek (and other subwatersheds); however, it was beyond the scope and budget of the current project.

Some of TMP's requested detail on implementation issues has been provided in the Implementation Guide, although the specific roles, responsibilities and budget commitments of implementing partners are expected to be resolved through long-term work plan and budget preparations throughout the coming years of implementation. TRCA staff continues to meet and work with TMP to address implementation of the Warden Woods concept site plan and assist with other regeneration priorities where appropriate, including a number of priorities identified in TMP's *Reach by Reach* plan. In July of 2008, in response to a presentation by TMP, TRCA passed a motion that the "Authority supports seeking reach by reach funding from senior levels of government to support watershed plan implementation".

Final Draft Don River Watershed Plan

The Don Watershed Regeneration Council, at their final meeting held on July 23, 2009, approved the following resolution regarding the draft Don River Watershed Plan:

THAT the staff report on the consultation process be received;

THAT the Don Watershed Regeneration Council approve the recommended revisions to the draft Don River Watershed Plan as presented in Table 1, such that their incorporation in the February 23, 2009 draft Watershed Plan will constitute the final draft Don River Watershed Plan;

THAT TRCA be requested to approve the Don River Watershed Plan;

THAT TRCA direct staff to work with partners to implement the Plan;

THAT TRCA direct staff to use the Reports on Current Conditions, Upper Don River Watershed Sustainable Stormwater Management Study, Action Plan for Sustainable Practices and Don River Watershed Plan Implementation Guide as reference documents to inform and guide ongoing work and long term work planning and budget preparation;

AND FURTHER THAT the Municipal partners, the Provincial and Federal governments as well as all residents, organizations and relevant interest groups be requested to provide their ongoing support for the implementation of the principles and goals of the Don River Watershed Plan.

Don River Watershed Plan – Key Findings and Recommendations

The *Don River Watershed Plan* concludes that we are beginning to "hold the line" on further degradation of the watershed (Attachment 1 - Watershed Plan Executive Summary). Going forward, our primary challenge will be to better manage wet weather flows and to restore a more balanced flow regime to the river and its tributaries. With the build-out of the watershed nearly complete, the Don River has been transformed into an almost fully urbanized river. The focus is now shifting from greenfield development toward redevelopment, intensification, infilling and infrastructure renewal to accommodate the anticipated growth of the Greater Toronto Area and neighbouring regions. This period of urban renewal affords TRCA an opportunity to implement a number of the measures required to improve watershed health. TRCA must take advantage of every opportunity to achieve an overall net gain in watershed conditions.

The Watershed Plan identifies three strategic themes for the regeneration of the watershed:

1. Build, re-build and retrofit our communities to restore water balance and improve sustainability.
2. Regenerate the aquatic and terrestrial landscapes.
3. Engage the people of the Don

The management strategy recommendations are as follows:

Caring for Water

1. Implement source, conveyance and end-of-pipe stormwater management facilities (retrofit and new) and maintain existing stormwater facilities across the watershed.
2. Manage flood risks.
3. Protect groundwater recharge and discharge areas.
4. Improve erosion and sediment control and site regeneration.
5. Improve stream form.
6. Prevent and remediate pollution.
7. Monitor, evaluate and adjust.

Caring for Nature – Aquatic System

1. Implement Redside Dace Recovery Team recommendations (in development) to investigate the existing redbside dace population status and habitat improvement and protection opportunities (in FMZ 1 where this species is currently known to occur and in FMZs 2 and 3 where a population may be recovered).
2. Protect and improve instream habitat for the Target Community Indicator Species (Figure 25), as per recommendations in Chapter 6 of this watershed plan and the fisheries management plan (FMP).
3. Create or enhance riparian wetlands, with focus on reaches that still support aquatic communities that rely on this habitat (e.g., known populations of brassy minnow), as per recommendations in Chapter 6 of this watershed plan and the FMP.
4. Complete an instream barrier assessment for the entire watershed and identify priority barrier mitigations that would achieve the most improvement to fish passage and habitat.
5. Improve the water balance (surface water and groundwater regimes) and stormwater management (quality and quantity), and identify aquatic standards and best management practices to guide the work (see management strategies under Caring for Water in Section 5.1).
6. Establish an implementation committee for the updated Don River Fisheries Management Plan.
7. Improve monitoring of fish communities and habitat, particularly for existing populations of redbside dace and walleye.
8. Develop education and stewardship programs to address invasive species awareness (round goby, common carp, rusty crayfish) and the potential for invasive species transfer between watersheds (e.g., bait fish transfer between Humber and Don rivers), the role of fish as indicators of riverine health, and best management practices to protect and regenerate the aquatic system (especially riparian plantings) targeted at landowners and land maintenance staff.

Caring for Nature – Terrestrial System

1. Improve ecological function of the entire urban landscape, from the natural areas to the built areas, by increasing vegetation cover through better urban design and land management.
2. Secure the Target Terrestrial Natural Heritage System (Figure 26) and look for additional opportunities for expansion (e.g., additional lands identified in City of Toronto’s Official Plan, Map 9).
3. Regenerate and enhance the quality of the natural system by increasing natural cover quantity, improving patch size and shape, and managing invasive species.
4. Mitigate the impact of human activities on natural areas by developing a broader understanding of ecosystem health and a commitment to stewardship among the public and businesses.

Caring for Community – Cultural Heritage

1. Identify, investigate and conserve cultural heritage prior to changes in land use or redevelopment.
2. Establish a comprehensive communication plan with Aboriginal (First Nations and Métis) groups and other more recent descendant populations.
3. Fill gaps in archaeological knowledge.
4. Develop and support existing active and participatory programs to increase awareness of cultural heritage and living culture.

Caring for Community – Nature-based Experiences

1. Protect and enhance the quality and extent of public greenspaces throughout the watershed, and in particular, in areas of increasing population density and redevelopment.
2. Expand the network of formal trails to connect key destinations and improve connectivity with neighbouring watersheds, the Oak Ridges Moraine and the waterfront.
3. Promote the natural and cultural heritage of the watershed and engage the community in their protection, regeneration and celebration.

Caring for Community – Land and Resource Use

1. As municipal Official Plans are updated across Don watershed municipalities, TRCA should work with municipalities to incorporate watershed plan strategies into these plans and to encourage strategic planning in advance of redevelopment, to enhance the sustainability of urban form and resource use.
2. Master Environmental Servicing Plans (MESPs) for Redevelopment areas and regeneration areas should be required to coordinate property redevelopment and regeneration in a comprehensive way.
3. Implement sustainable urban form and adopt green development standards for neighbourhoods, sites, and buildings.
4. Improve planning for and continue implementation of flood remediation.
5. Terrestrial natural cover on historical lots of record that extend into ravines should be protected from loss during redevelopment or intensification by designating it “open space” in municipal official plans.
6. Explore opportunities to secure financial resources for creating new greenspaces and supporting regeneration, operations and maintenance of existing greenspaces from development charges when areas are subject to growth through intensification.
7. Implement sustainable infrastructure planning, implementation and monitoring.

8. Increase water efficiency and conservation.
9. Reduce energy use and increase non-fossil fuel alternatives.
10. The amount of waste generated should be reduced and wherever possible, “waste” should be used as a resource.

Implementation Guide – Top Priority Implementation Projects

The Implementation Guide organizes the Watershed Plan recommendations according to relevant implementation tools (e.g. policy, regeneration, land securement, stewardship and education, operations and maintenance, enforcement and monitoring) and identifies top priority projects for initial implementation (Attachment 2 - Implementation Guide Executive Summary).

Like the Watershed Plan, the Implementation Guide is intended to inform and guide. The proposed projects contained in the guide are meant to serve as a basis for discussion among implementing partners and as a source for the further development of individual partners’ own long-term work plan and budget preparations. Upon approval of the Don River Watershed Plan, TRCA will initiate discussion with key implementing partners to develop five year workplans and budgets for the top priority projects, and incorporate them in capital budgets.

Revised ORMCP Conformity Assessment

At Authority Meeting #3/09, held on April 27, 2007, Resolution #A102/07 was approved as follows:

THAT the conformity assessment for the Don River Watershed Plan in Attachment 2 and the watershed planning documents referenced in the conformity assessment be deemed to fulfill the watershed planning requirements of the Oak Ridges Moraine Conservation Plan (ORMCP; 2002) and be approved for use on an interim basis in the review of major development proposals on the Oak Ridges Moraine until such time as a final Watershed Plan is brought back to the Authority for approval;

Staff has revised the conformity assessment, based on the final watershed planning document references (Attachment 3 – ORMCP Watershed Planning Requirements Conformity Assessment for Don River Watershed). Staff recommends that the revised conformity assessment and the final watershed planning documents referenced therein be approved for use in the review of major development proposals on the Oak Ridges Moraine portion of the Don River watershed.

DETAILS OF WORK TO BE DONE

TRCA staff will take the following steps to facilitate the transition from plan to action:

- design the desk-top-published version of the Don River Watershed Plan document and distribute it to watershed partners;
- meet with municipal staff and other key implementing partners to incorporate top priority projects in future years workplans and budgets;
- continue to work towards renaturalization of the Don River mouth;
- pursue implementation of the concept site plans for Warden Woods, Mud Creek and industrial land uses and work with municipalities to identify future locations for the preparation of neighbourhood retrofit plans;
- reconstitute the Don Watershed Regeneration Council with a role in guiding implementation of the Watershed Plan and reporting on progress;
- meet with municipal staff and other stakeholders to share knowledge, review implementation progress and identify updated priorities for action.

Many municipalities, other agencies and local groups, have already begun to use the watershed plan to inform their ongoing land use plans, projects and new initiatives.

FINANCIAL DETAILS

Funding for the Don River watershed planning study was provided by the Region of York and City of Toronto as part of the municipal capital budgets for TRCA. Additional funding was provided by Canada Mortgage and Housing Corporation and Environment Canada's Great Lakes Sustainability Fund in support of the watershed modelling and subwatershed regeneration plans, respectively.

Implementation of the Watershed Plan will be a multi-year exercise involving numerous public and private sector partners. TRCA and watershed municipalities should continue to identify capital workplans and budgets for implementation priorities, including stormwater management infrastructure retrofits and maintenance, monitoring and evaluation of innovative technologies, and community stewardship. Watershed partners should also seek special funding for the plan's implementation through innovative sources.

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Attachments: 3

Attachment 1

Don River Watershed Plan Executive Summary

The *Don River Watershed Plan* builds on the hard-won gains made to date in protecting, regenerating and taking collective responsibility for this abused but still beautiful feature of our natural heritage. It marks the next stage in the revitalization of the Don into a healthy urban river that will enhance and support The Living City of the future.

The plan relies on the working partnerships forged over the last 15 years and maintains momentum for many of the important initiatives launched under our first watershed strategy, *Forty Steps to a New Don*. However, our experience and the insight into the workings of the watershed, gleaned since *Forty Steps* was unveiled back in 1994, have made it clear that we must better focus and prioritize our regeneration efforts in the years ahead.

Our primary challenge will be to better manage wet weather flows and to restore a more balanced flow regime to the river and its tributaries. By managing stream flow, we will also address the root causes of many of the environmental problems that afflict the watershed: ongoing flooding and erosion, poor water quality, and deteriorating aquatic and terrestrial communities.

The Don River flows through the heart of central Canada's urban nexus (Figure 1). From its headwaters on the Oak Ridges Moraine and South Slope, its two principal tributaries flow south through the City of Vaughan and Towns of Markham and Richmond Hill, all in the Regional Municipality of York. The East Don and West Don Rivers cross Steeles Avenue into Toronto and join together on the Iroquois Sand Plain south of Eglinton Avenue.

German Mills Creek flows into the East Don River just south of Steeles. Taylor/Massey Creek joins with the East Don River just north of the confluence with the West Don River. And the Lower Don flows south to the outlet of the Keating Channel where it empties into Toronto Harbour and Lake Ontario.

For more than ten thousand years, this network of rivers, streams and valleys has provided an historic highway for the First Nations peoples and, later, the early European explorers, traders and settlers. Subsequent waves of colonization and urbanization have indelibly marked and transformed the aquatic and terrestrial landscape, bequeathing both a rich cultural heritage and some difficult environmental challenges.

Today, almost half of the watershed is devoted to housing, and a fifth to industrial, institutional or commercial development. There is little undeveloped land left. The natural areas and greenspaces of the watershed serve as wildlife refuges and a recreational magnet for the 1.2 million residents that live within its boundaries. Unfortunately, the river also serves as a stormwater conduit, carrying millions of litres of rainwater and snow melt, together with polluted runoff and sewage overflow, south to the lake. And the valley of the lower Don has become a conduit for thousands of cars and trucks heading into and out of the urban core every hour of the day and night.

The pressures on the watershed will continue to build as more and more residents settle in the watershed, either in the last areas of greenfield development in the northern reaches, or in the four urban growth centres designated for intensive redevelopment by the Ontario government.

Our review of current conditions in the watershed has helped us plot a path for future action.

The Don River watershed has suffered extensive degradation as natural cover was removed and the hydrologic system altered through the spread of agriculture and subsequent urbanization of the watershed. Lack of stormwater control has resulted in flooding, erosion, poor water quality and degraded terrestrial and aquatic ecosystems. Rising population density has led to expanded areas of impervious cover and heavy use of public greenspaces and natural areas. Concerns about ecological health, the sustainability of our communities, loss of cultural heritage, and the potential impacts of poor air quality and climate change are widespread.

Which brings us to the question, what is the role of this watershed plan?

Specifically, the watershed plan is intended to inform and guide municipalities, provincial and federal governments, TRCA, non-government organizations and private landowners as they update their policies and practices for environmental stewardship. Implementation of these strategies will be most effective if existing partners coordinate their efforts, making creative use of both new and existing tools, as laid out in chapters 5 and 6 of the plan.

This updated watershed plan is part of an adaptive management approach to address the challenges the watershed faces. Since the publication of our first watershed strategy, *Forty Steps to a New Don* in 1994, much has been learned about the watershed from monitoring, research and the experiences of watershed partners. This plan updates the watershed management strategies in *Forty Steps* in light of this new information, a stronger scientific foundation and better understanding of the effects of human actions on the ecosystem.

There is also a need to respond to a number of recent policy and planning initiatives, including the *Oak Ridges Moraine Conservation Plan*, *Growth Plan for the Greater Golden Horseshoe*, *Clean Water Act*, City of Toronto's *Wet Weather Flow Management Master Plan*, stormwater retrofit studies of other municipalities, and TRCA's vision for The Living City.

Our vision for the Don River watershed

The quality of life on Earth is being determined in the rapidly expanding city regions. We envision the future Don as a revitalized urban river, flowing with life-sustaining water through regenerated natural habitats and sustainable human communities, from its headwater tributaries to the mouth of the Don River and into the receiving waters of Lake Ontario. We envision the watershed as an integral contributor to The Living City, where human settlement can flourish forever as part of nature's beauty and diversity.

To help meet our vision for the Don, a set of three guiding principles and 26 objectives were developed.

This guiding framework builds on the principles and objectives presented in *Forty Steps to a New Don*. The three principles which form the basis for the plan are to: protect and sustain what is healthy; regenerate what is degraded; and take responsibility for the Don. We must take advantage of all opportunities to protect and sustain, regenerate and enhance the Don, from the valleys to the tablelands, and from the natural areas to the urban communities. We must also motivate and facilitate, organize and coordinate all the stakeholders, both public and private sector, throughout the watershed.

The next phase of development and urban intensification provides perhaps a final opportunity to take effective action.

With the build-out of the watershed nearly complete, the Don has been transformed into an almost fully urbanized river. The focus is now shifting from greenfield development towards redevelopment, intensification, infilling and infrastructure renewal to accommodate the anticipated growth of the GTA and neighbouring regions.

This period of urban renewal affords us an opportunity to implement a number of the measures required to restore a more natural water balance in the Don. Stormwater source, conveyance and end-of-pipe controls will contribute to reduced flooding, better water quality, stabilized baseflow levels, increased infiltration and improved groundwater recharge rates. The resulting benefits—reduced erosion and risk to infrastructure and terrestrial and aquatic habitat, and greater flexibility to adapt to climate change—will result in regeneration of a healthier river.

The pathway to a regenerated Don River builds on the following 3 strategic themes:

Strategic Theme # 1:

We must build, re-build and retrofit our communities to restore water balance and improve the sustainability of the urban model.

Redevelopment and intensification, and the remaining greenfield development in the Don River watershed, offer opportunities to improve stormwater management, protect and expand natural cover and the urban forest, regenerate greenspaces and cultural heritage structures, expand trail systems, and improve the sustainability of resource use and consumption within our communities. Many of these same opportunities exist through public and private stewardship and capital projects.

In short, we can achieve cumulative gains in watershed function and condition.

Strategic Theme #2:

We must regenerate the aquatic and terrestrial landscapes.

The concerted work of agencies, organizations and individuals have produced some improvements in watershed conditions. Some water quality parameters have improved, hundreds of thousands of trees, bushes and wetland flora have been planted, some in-stream barriers have been mitigated or removed, and trail systems expanded.

However, continued development and urban intensification will place additional pressures on the ecosystems of the watershed. Future gains will be contingent on maintaining the enthusiasm and support of the local community, businesses and government. In addition to 'sweat equity', support must include guaranteed funding to cover the significant capital and on-going maintenance costs of the requisite infrastructure.

Strategic Theme #3:

We must engage the attention, enthusiasm and support of the people of the Don.

The Don River watershed has a long history of grassroots and agency involvement in and advocacy for regeneration. Annual celebrations, such as Paddle the Don and the Richmond Hill Mill Pond Splash, as well as major naturalization and brownfield rehabilitation projects in the lower Don engage the community and provide a wider awareness of the Don.

The time is ripe to capitalize on that interest across the watershed, and reengage the people of the Don to achieve the vision of a revitalized urban river. The engagement and voluntary uptake of sustainable practices — backyard naturalization, lot level stormwater retrofits, etc. — by residents and businesses in the Don will be essential to achieving the vision. Outreach education to build understanding of the links between landowner actions and watershed health will be key.

We must build an even stronger sense of community and common purpose, from the mouth to the headwaters. If the public doesn't fight to bring back the Don, the other constituencies eventually will lose interest. The most powerful impetus for change occurs when the whole community comes together and demands action.

We have been afforded an opportunity to build on what has already been accomplished over the last 15 years.

We must allocate the resources, marshal stakeholder support and take the bold steps necessary to adopt effective stormwater controls and implement sustainable green technologies. Only by doing so can we hope to perpetuate and accelerate the process of cumulative gain and ongoing environmental improvement.

If pursued diligently and with the full support of all our partners, the regeneration of the Don River watershed within The Living City will continue to serve as a model for the salvation of other endangered urban rivers.

Attachment 2

Don River Watershed Plan Implementation Guide Executive Summary

Introduction

The *Don River Watershed Plan* was prepared by the Toronto and Region Conservation Authority (TRCA) in consultation with its municipal partners and the Don Watershed Regeneration Council to provide effective guidance for the regeneration of the watershed. The plan builds on the hard won gains made to date in protecting, regenerating and taking collective responsibility for this abused but still beautiful feature of our natural heritage. Many stakeholders believe that it may be possible to “hold the line” and possibly improve watershed conditions, but only if every opportunity for regeneration is considered seriously. While the major period of urbanization is nearing completion and the watershed systems are beginning to adjust to these new land uses, our goal is for improved conditions and we know we must prepare for climate change affects. The watershed plan is intended to inform and guide municipalities, provincial and federal governments and TRCA as they update their policies and programs for environmental protection, conservation, and regeneration within the contexts of land and water use, and the planning of future urban growth. The plan provides direction to local non-governmental organizations and private landowners with regard to best management practices and opportunities for environmental stewardship. To accomplish the management strategies set out in the plan, there will need to be coordinated efforts by a variety of implementing partners.

Purpose

The purpose of this *Implementation Guide* is to facilitate implementation of the recommendations contained in the *Don River Watershed Plan* (TRCA, 2009). The Guide organizes the watershed plan recommendations according to relevant implementation tools and assembles additional information to inform initial action. The Guide further summarizes a 10 year work plan of implementation projects, within the context of existing programs and likely implementing partners. Like the watershed plan the Implementation Guide is intended to inform and guide the ongoing implementation and development of programs and policies. **The proposed projects contained in this Guide are intended to serve as a basis for discussion among implementing partners and as a source for the further development of individual partners’ own long term work plan and budget preparations.**

Strategic Watershed Management Direction

The *Don River Watershed Plan* concludes that we are beginning to “hold the line” on further degradation of the watershed. Going forward, our primary challenge will be to better manage wet weather flows and to restore a more balanced flow regime to the river and its tributaries. This will be especially important for mitigating the impacts of climate change on this highly urbanized water system. The watershed plan identifies three strategic themes for the regeneration of the watershed:

1. Build, re-build and retrofit our communities to restore water balance and improve sustainability.

The *Don River Watershed Plan*, especially the wet weather flow control aspects of the Plan, must be implemented during redevelopment and infilling projects, retrofit of existing built areas, and development of the remaining greenfield areas. Balancing the flow regime of the Don and its tributaries through stormwater source controls will yield a number of associated benefits. The reduction of peak flows following storms and the maintenance of adequate baseflow between events will reduce the risk of flooding and erosion related damage, while supporting the protection and regeneration of healthy aquatic and terrestrial habitats. Redevelopment throughout the watershed will also provide additional opportunities to protect greenspaces and cultural heritage structures, expand the trail system and urban tree canopy, undertake energy and water conservation improvements, and, otherwise, achieve incremental, cumulative gains in watershed function and condition.

2. Regenerate the aquatic and terrestrial landscapes.

The concerted work of agencies, organizations and individuals has produced improvements in watershed conditions. Some water quality parameters have improved, tens of thousands of trees and aquatic flora have been planted, a number of in-stream barriers to fish have been removed, and trail systems have expanded. There is a continued desire to improve watershed conditions, contribute to de-listing the Toronto Area of Concern (RAP), and regenerate the Mouth of the Don into an internationally recognized example of a healthy urban river. However, continued development and urban intensification, coupled with the impacts of climate change will place additional pressures on the ecosystems of the watershed. Future gains will be contingent on maintaining the enthusiasm and support of the local community, businesses and government for regeneration actions. In addition to ‘sweat equity’, support must include guaranteed funding to cover the significant capital and on-going maintenance costs of the requisite infrastructure.

3. Engage the people of the Don.

The Don River watershed has a long history of grassroots and agency involvement in and advocacy for regeneration. Annual celebrations, such as Paddle the Don and the Richmond Hill Mill Pond Splash, as well as major naturalization and brownfield rehabilitation projects in the lower Don engage the community and provide a wider awareness of the Don. The time is ripe to capitalize on that interest across the watershed, and reengage the people of the Don to achieve the vision of a revitalized urban river. The engagement and voluntary uptake of sustainable practices — backyard naturalization, lot level stormwater retrofits, water and energy conservation and many others — by residents and businesses in the Don will be essential to achieving the vision. Stewardship and outreach education to build understanding of the links between landowner actions and watershed health will be key.

Top Priority Implementation Projects

This Implementation Guide identifies a 10 year work plan of proposed implementation projects addressing all recommendations of the watershed plan, and organized according to primary implementation mechanisms:

- Policy;
- Regeneration;
- Land securement;
- Stewardship and outreach education;
- Operations and maintenance;
- Enforcement; and
- Monitoring.

The following list of top priority implementation projects has been selected with consideration for their collective ability to address the three integral actions noted above, in an expeditious and mutually supportive way. They are not listed in any particular order. The reference numbers in brackets (i.e., 1-8) are the respective project numbers, as listed in the implementation work plan tables within the main body of the Guide.

Policy and Policy Related Special Studies

1. Municipalities - Work with TRCA to investigate ways to incorporate the following new policy directions into municipal planning documents (see Table 1.1 for details) (1-1):
 - a) All redevelopment should aim to manage for **improved water balance** on the development site and net gain in stormwater control across the larger redevelopment area; all greenfield development should aim to maintain pre-development volumes of infiltration, evapotranspiration and surface runoff, with particular emphasis on areas identified as having **significant groundwater recharge**.
 - b) Support **retrofits of source/lot level, conveyance and end of pipe stormwater management measures** in existing developments and redevelopment projects on a comprehensive basis.
 - c) Require **Master Environmental Servicing Plans (MESPs)** to be undertaken in conjunction with planning for **urban redevelopment**, including redevelopment in the four provincially designated Urban Growth Centres, municipally identified redevelopment areas, major infrastructure projects, and major regeneration projects.
 - d) Develop strategies and policies to promote **sustainable urban form**, including sustainable infrastructure, transportation and energy and resource conservation, at the neighbourhood, site and building/project scales.
 - e) Identify a **target Terrestrial Natural Heritage System** and adopt policies to protect and regenerate a minimum of 13% of the land base as natural cover in the Don watershed.
 - f) Protect and enhance the quality and extent of public greenspaces and trails, connecting and protecting the **natural and cultural heritage** of the Don watershed.

- g) Conduct **comprehensive flood risk assessment plans** where redevelopment or intensification is proposed in a flood vulnerable area and/or a Special Policy Area that would maintain or decrease the existing level of risk and detail flood remediation, flood proofing, flood warning, and emergency response measures.
 - h) Adopt the *Greater Golden Horseshoe Conservation Authorities' Erosion & Sediment Control Guideline for Urban Construction* and update municipal erosion and sediment control by-laws and fill by-laws as necessary.
 - i) Adopt policy to recognize and implement the Don River **Fisheries Management Plan**.
 - j) Support **updated and expanded monitoring programs**, including ambient monitoring, requirements for pre-development baseline monitoring, cumulative effects monitoring and the monitoring of new technologies to assess their contributions to watershed improvements.
2. MEI, MMAH, municipalities, TRCA, AMO, CO, BILD - Establish **development standards for sustainable community design** for application to new development proposals, urban expansions, redevelopment, and intensification. Consider incorporation of LEED for Neighbourhood and zerofootprint principles (1-3).
 3. TRCA, municipalities and other approval agencies - Develop strategies for **facilitating innovative design projects and approvals** (1-4).
 4. Municipalities, TRCA, BILD – Promote a **sustainable redeveloping neighbourhood demonstration project and a sustainable greenfield neighbourhood demonstration** (1-5).
 5. Municipalities, TRCA – Partner to **develop a generic Terms of Reference for redevelopment MESP**s (1-7).
 6. Each ORM municipality - Recognize the *Don River Watershed Plan* in its official plan, as required by the **Oak Ridges Moraine Conservation Plan**. (1-10)
 7. TRCA, municipalities - Undertake a scoped **economic assessment** of the implications of implementing the watershed plan's integral recommendations, including: valuation of ecosystem services; preparation of a methodology for applying the net gain approach; and development of recommendations for applying fairness and equity in implementation (1-23).

Regeneration

1. TRCA, municipalities and landowners – Develop **sustainable neighbourhood retrofit action plans** using an integrated approach including residential social marketing, naturalization, urban forest enhancement, stormwater management, infiltration, energy and effectiveness monitoring (2-1).
2. Municipalities – Undertake end-of-pipe **stormwater retrofit projects** as opportunities arise, as identified in municipal stormwater retrofit plans (2-2).
3. Municipalities, TRCA, developers, landowners – Implement **stormwater source controls** (infiltration, evapotranspiration, re-use) as opportunities arise in new and re-development, intensification and infrastructure projects, especially in priority sub-basins (2-5).
4. Watershed residents, businesses, landowners – **Adopt lot level sustainable practices** to improve support water balance, natural heritage and resource use objectives (e.g., rain gardens, rain barrels, downspout disconnections, back/front yard naturalization (partial or complete), household water and energy conservation, waste reduction) (2-9).

5. Waterfront Toronto, TRCA, City of Toronto – Continue to implement the **Lower Don River West Remedial Flood Protection Project** and the **Don Mouth Naturalization and Port Lands Flood Protection Project** to address flood and erosion risk, stream form, naturalization and aquatic habitat objectives (2-11, 2-12, 2-22, 2-28).
6. Toronto, TRCA – Complete a **fluvial geomorphology study of Taylor/Massey Creek**, including: a complete geomorphic systems analysis of the creek; a risk assessment for all valley land infrastructure and a long term concept to remediate identified concerns (2-15).
7. Richmond Hill, TRCA – Develop hydrologic and hydraulic **modelling for the Enford Road area** to confirm flood risk and potential mitigation alternatives (2-16).
8. Municipalities, TRCA – **Remediate erosion in ravines** and priority erosion control sites (as identified in municipal and TRCA databases) where human health, property, or infrastructure is at risk (2-17).
9. Municipalities, TRCA, NGOs – Develop and implement **restoration implementation plans** for natural cover in the whitebelt (2-18) and for targeted lands in priority areas on the ORM/Greenbelt (2-19) and in existing urban areas (2-20, 2-21).
10. DFO, MNR, TRCA, municipalities, NGOs - Improve **native aquatic species diversity**, abundance and distribution, and protect and enhance habitat for Target Community Indicator Species as outlined in the *Don River Fisheries Management Plan* (2-29).
11. TRCA, municipalities, NGOs - Undertake detailed planning and develop a long term funding strategy to implement the Don Watershed **Inter-regional Trails network** (2-32) and identify a conceptual route for a Don River Learning Trail (2-33).
12. Establish a facility (GTA-wide) for **archaeological artefact storage** and document collections that is accessible to researchers (2-39).
13. Municipalities, TRCA – Pursue additional scoping and study, and implement the Maple Nature Reserve (Quonset Hut), Mud Creek Neighbourhood, and Warden Woods Residential Area **concept site plans** (2-40).
14. Businesses, TRCA, Municipalities, NGOs – Adopt the Partners in Project Green **Eco-Business Zone model** and strategic elements of the Industrial Retrofit concept site plan to engage watershed business communities in adopting sustainable practices. Start with building relationships in the Leaside Business Area (2-41).

Land Securement

1. TRCA, municipalities, NGOs, golf courses, private landowners – **Secure lands to establish the missing links in municipal trails**. Work with private landowners (e.g. golf courses, hydro corridors) to acquire easements for trail access where acquisition is not a suitable alternative (3-2, 3-7).
2. TRCA, Toronto, Waterfront Toronto – Seek opportunities to **secure additional public greenspace** through the remediation of brownfield sites, re-establishment of a naturalized mouth of the Don, and redevelopment of lands adjacent to the naturalized river mouth (3-9).
3. Municipalities, MOE, TRCA – Ensure that publicly-owned lands appropriate for inclusion into the greenspace system (e.g., regenerated landfill sites) remain as **public lands** and any ownership or access issues are resolved (3-10).

Stewardship and Education

1. TRCA, municipalities, Green Building Council, BILD and other partners - Deliver **technology transfer workshops, seminars and materials** for sustainable technologies and urban form, site restoration best management practices, and LEED-type certifications (4-1, 4-6, 4-11, 4-12).
2. Green Building Councils, TRCA, municipalities, BILD, NGOs, media - Continue to provide opportunities for the **public and media** to see and learn about sustainable home products and services (4-13).
3. TRCA, municipalities, NGOs – Develop a strategy for **co-ordination of outreach programs and a lot level marketing campaign** (with residential, business and institutional lands focus), as part of the sustainable neighbourhood retrofit action plans (4-16, see 2-1).
4. Municipalities, TRCA – Develop and implement **pilot outreach education programs for encroachment on valley lands** (residential and industrial) (4-19).
5. Municipalities, TRCA - Implement **demonstration projects** for stormwater management retrofit, naturalization and other sustainable practices with the business and institutional landowners (4-25).
6. TRCA, Municipalities, school boards, utilities, BILD, NGOs - Develop an outreach program based on the results from the **Renewable Energy Road Map** to promote the uptake of renewable energy technologies (4-36).
7. TRCA, School boards - Promote the **EcoSchools** program to all schools in the watershed (4-37).
8. Municipalities, TRCA - Promote existing **park stewardship programs** in parks near Urban Growth Centres. Enhance current programs with support for volunteer naturalization projects, invasive species removal, habitat creation work, and monitoring where suitable (4-47).
9. Develop a **communications plan** in partnership with Aboriginal groups and descendent populations (4-58).
10. TRCA – Incorporate **experiential learning** about past people’s as a component to existing public events such as tree plantings, festivals and family nature events

Operations and Maintenance

1. Municipalities, TRCA – Develop guidelines for design and establishment of municipal **stormwater facility maintenance programs**, including monitoring, rehabilitation and financing mechanisms, and conduct assessments of sediment accumulation in stormwater ponds and develop prioritized lists of clean-out projects (5-1, 5-2, 5-3)
2. TRCA, municipalities – Undertake a **flood risk reduction study** to improve the hydraulic capacity of road and rail crossings in flood vulnerable areas (5-14).
3. Toronto, TRCA - Prepare a **flood emergency response plan** for SPAs and flood vulnerable areas, including an inventory of hazards, prioritization, and emergency response protocols (5-16).
4. TRCA - **Track advances in prediction of regional and local climate change** and re-assess local flood risks and management measures (5-17).

Enforcement

1. Various agencies, municipalities - Develop **inter-jurisdictional compliance protocols** for erosion & sediment control, tree cutting, topsoil and land disturbance, dumping, trespassing, and encroachment. Identify gaps in regulatory capability and capacity. Identify options for addressing gaps. Develop resources and an implementation plan (6-5).

Monitoring

1. TRCA and partners - Identify technologies that show promise and monitor their performance using the **Sustainable Technologies Evaluation Program (STEP)** - i.e., rainwater collection and re-use, permeable pavement, infiltration chambers, engineered media to remove phosphorus, groundwater and soil contamination risk with infiltration technologies, chloride removal techniques, long term performance and maintenance costs of any green technology, and green energy systems (7-1, 7-2).
2. TRCA, municipalities, MEI, BILD - Convene discussions with MEI and determine mechanisms for requiring developers to **monitor sustainable technologies** and other innovative design features in **Urban Growth Centres** to ensure performance targets are met (7-4).
3. TRCA, municipalities - Launch **cumulative effects monitoring programs** for innovative development design (7-6).
4. TRCA - Review recommendations for additional monitoring in the Don watershed as part of the next review and update of the **Regional Watershed Monitoring Network** (7-9, 7-11, 7-12, 7-15, 7-19).
5. TRCA, municipalities - Develop and implement a program to **monitor the success of ecological regeneration projects** and effectiveness of invasive species control sites (7-27).

Tracking progress

Progress towards the objectives set out in the watershed plan will be tracked by looking at watershed conditions compared with the target indicators identified in the plan. Changes and trends in the watershed conditions will be monitored under the Regional Watershed Monitoring Network and reported on a regular basis through publications such as the Don newsletter, TRCA website, Don Watershed Report Card and the TRCA Living City Report Card.

In keeping with the theme of taking advantage of every opportunity to make improvements, level of effort by watershed stakeholders will be another measure of success. The top priority projects in the implementation guide will be used as a guide to track progress on key actions. Regular input from municipal partners, the DWRC and other stakeholder groups will help to capture the full picture of on-going and emerging projects in the watershed that contribute to gains in environmental quality and community health.

Cooperation and sharing of resources and ideas will be essential to implementation of the watershed plan's recommendations. Recognizing that many issues raised in the Don Watershed Plan are applicable to all watersheds in the GTA and are of interest to multiple municipalities, TRCA proposes convening regular ad hoc meetings to build partnerships to address these common challenges.

Attachment 3

**ORMCP Watershed Planning Requirements -
Conformity Assessment for the Don River Watershed
September 2009**

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 **Don River Watershed** located in the Oak Ridges Moraine Area, based on direction provided by the provincial technical guidance documents (Ministry of the Environment, 2007)1.

Subsection	Requirement	Conformity Assessment	Document Reference
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>Watershed planning and ongoing watershed management have been activities the Toronto and Region Conservation Authority (TRCA) has carried out in partnership with its municipalities for a number of years. Therefore a watershed plan was deemed to have been initiated prior to April 22, 2003, although study components required update to varying degrees.</p> <p>A watershed study was initiated by the TRCA, in partnership with the City of Toronto, Region of York, and area municipalities for the Don River watershed in 2004.</p> <p>An interim report for the Don Watershed ORM subwatersheds, <i>Don River Watershed – Conformity to Sections 24 and 25 of the ORMCP</i>, was completed in March 2007. The final watershed plan has been developed with additional technical analysis and detailed consultation with municipal partners, stakeholders and Conservation Authority Board review.</p>	<p>A workplan to fulfill the watershed planning requirements of the ORMCP and direction to commence the Don River Watershed Plan in 2004 were approved at the Sept. 26, 2003 meeting of the TRCA (Authority Res. #A196/03).</p> <p><i>Don River Watershed – Conformity to Sections 24 and 25 of the ORMCP</i> (TRCA, March, 2007).</p> <p>Approval of the <i>Don River Watershed Plan</i> and its supporting documents is pending a TRCA Board decision on Sept. 25, 2009.</p>
24.(3)	A watershed plan shall include, as a minimum, (a) a water budget and conservation plan as set out in section 25;	See conformity assessments for sections 25.(1) and 25.(2).	See document references for sections 25.(1) and 25.(2).

<p>(b) land and water use and management strategies;</p>	<p>The <i>Don River Watershed Plan</i> describes recommended management strategies regarding existing and future land and water use that will help to protect the ecological and hydrological features and functions in the Oak Ridges Moraine Area. Key strategies include the need to protect and expand natural cover and build sustainable communities, particularly with an aim to maintain or restore pre-development water balance.</p>	<p>See Section 5, <i>Don River Watershed Plan</i></p>
<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>Implementation direction accompanies the recommended management strategies noted in section 24(3)(b).above.</p> <p>The <i>Don River Watershed Plan Implementation Guide</i> provides more detailed implementation direction for policy, regeneration projects, etc. including supportive maps and criteria.</p>	<p>See Section 5, <i>Don River Watershed Plan</i></p> <p>See <i>Don River Watershed Plan Implementation Guide</i></p>
<p>(d) an environmental monitoring plan;</p>	<p>The <i>Don River Watershed Plan</i> includes recommendations regarding changes or enhancements to existing environmental monitoring programs and other area, site-or issue-specific monitoring requirements.</p> <p>The <i>Don River Watershed Plan Implementation Guide</i> provides more detailed implementation direction for the plan's recommendations.</p>	<p>See Section 5, <i>Don River Watershed Plan</i></p> <p>See Section 7, <i>Don River Watershed Plan Implementation Guide</i></p>
<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>The <i>Don River Watershed Plan</i> contains recommendations regarding the use of environmental management practices and programs. The Implementation Guide further identifies practices and policies applicable to the land use planning and development process.</p>	<p>See Section 5, <i>Don River Watershed Plan</i></p> <p>See Sections 1 and 5, <i>Don River Watershed Plan Implementation Guide</i></p>

	(f) criteria for evaluating the protection of water quality and quantity, hydrological features and hydrological functions.	<p>The <i>Don River Watershed Plan</i> identifies watershed goals, objectives, indicators and targets to be used to track or evaluate long term watershed health. This framework is updated, but based on that in <i>Forty Steps to a New Don</i> (the previous watershed management strategy; TRCA, 1994).</p> <p>The accompanying Implementation Guide sets out recommended policies to provide guidance for the review of land use proposals to evaluate protection of groundwater and surface water quality and quantity, hydrological features and functions, as well as terrestrial features and functions, and aquatic communities and habitat.</p>	<p>See Sections 2 and 3, <i>Don River Watershed Plan</i> and supporting current conditions reports.</p> <p>Section 1, <i>Don River Watershed Plan Implementation Guide</i></p>
24.(4)	Major development is prohibited unless, (a) the watershed plan for the relevant watershed, prepared in accordance with subsection 24.(3), has been completed;	<p>The interim report, <i>Don River Watershed – Conformity to Sections 24 and 25 of the ORMCP</i>, was completed in March 2007 and approved by the TRCA Board as fulfillment of the ORMCP requirements. The final watershed plan has been developed with additional technical analysis and detailed consultation with municipal partners, stakeholders and the Conservation Authority Board. The <i>Don River Watershed Plan</i> and its background documents now provide the basis for satisfaction of the Oak Ridges Moraine Conservation Plan requirements and supercede the interim report. While the management strategies remain largely unchanged, the technical direction and science has been refined in the later work.</p>	<p><i>Don River Watershed – Conformity to Sections 24 and 25 of the ORMCP</i> (TRCA, March 2007).</p> <p>Approval of the <i>Don River Watershed Plan</i> and its supporting documents is pending a TRCA Board decision on Sept. 25, 2009.</p>
	(b) the major development conforms with the watershed plan; and	See conformity assessment for section 24.(3)	See document references for section 24.(3)

	(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.	See conformity assessments for sections 25.(1) and 25.(2).	See document references for sections 25.(1) and 25.(2)
24.(8)	An application for major development to which this subsection applies shall not be approved unless, (a) the relevant municipality has complied with clause (c) of subsection 24.(4); or	See conformity assessments for section 24.(4).	See document references for section 24.(4)
	(b) the applicant, (i) identifies any hydrologically sensitive features and related hydrological functions on the site and how they will be protected, (ii) demonstrates that an adequate water supply is available for the development without compromising the ecological integrity of the Plan Area, and (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, (A) characterizes groundwater and surface water flow systems by means of modelling, (B) identifies the availability, quantity and quality of water sources, and (C) identifies water conservation measures.	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.	

25.(1)	<p>Every upper-tier municipality and single-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>A water budget study was initiated by the Toronto and Region Conservation Authority, in partnership with the City of Toronto, Region of York, and area municipalities for the Don River Watershed as part of the overall Don River Watershed Plan.</p> <p>The Regional Municipality of York identified the need for a water conservation plan for the entire Region in 1997. The Region's Water for Tomorrow program included a 6 year capital program along with a 2 year maintenance program. This 8 year program came to completion in summer 2006, with a sustained savings of 20.33 million litres per average day.</p> <p>In 2007 the Region completed its Water Efficiency Master Plan Update. The Region has begun to implement programs recommended in the master plan including water efficient fixture rebates, subsidized rain barrel sales, free pre-rinse spray valve replacements for commercial kitchens, industrial/commercial/ institutional water audits and capacity buy-back. As new and updated programs begin the Region maintains its public and youth education programs along with a shower head and toilet flapper retrofit maintenance program.</p>	<p>Approval to initiate the Don River Watershed Planning Study according to an initial work program, including water budget study, was granted at the Sept 26, 2003 meeting of the Authority (Authority Res. #A196/03).</p> <p><i>York Region Water Efficiency Master Plan Update, 2007.</i></p>
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25.(2)	<p>A water budget and conservation plan shall, as a minimum,</p> <p>(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>The <i>Don River Watershed Plan</i> includes a quantitative description of the major components of the water balance equation on an average annual basis, over the watershed surface area. The water budget was developed based on land use characteristics, interception abstractions, vegetation, surficial soils, and spatial variations in long term average precipitation, temperature and evaporation across the watershed using Precipitation Runoff Modeling System (PRMS) software and the groundwater flow model (MODFLOW) to conform to the jurisdictional standard prepared for the source water protection program.</p>	<p>See Section 3, <i>Don River Watershed Plan</i></p> <p>See <i>Geology and Groundwater Resources – Report on Current Conditions (TRCA, 2009)</i>.</p>
	<p>(b) characterize groundwater and surface water flow systems by means of modelling;</p>	<p>The groundwater flow system of the Don River watershed has been characterized by development and calibration of a groundwater flow model that utilizes MODFLOW software.</p> <p>The surface water flow system of the Don River watershed has been characterized by development and calibration of a hydrologic model based on Visual OTTHYMO software.</p>	<p>See <i>Geology and Groundwater Resources – Report on Current Conditions (TRCA, 2009)</i>.</p> <p>See <i>Surface Water Hydrology/Hydraulics and Stormwater Management - Report on Current Conditions (TRCA, 2009)</i></p> <p><i>Don River Hydrology Update</i>. MMM Ltd., 2004</p>
	<p>(c) identify,</p> <p>(i) targets to meet the water needs of the affected ecosystems,</p> <p>(ii) the availability, quantity and quality of water sources, and</p> <p>(iii) goals for public education and for water conservation;</p>	<p>See 24(3)(f) above for targets and criteria.</p> <p>The Regional Municipality of York's Water for Tomorrow program outlined specific goals for both education and water conservation measures as outlined in the initial scope of work in 1997. The Water Efficiency Master Plan Update recommends new and/or updated programs for public education and water conservation measures. New goals for education and water conservation measures will be set as program implementation plans are completed.</p>	<p>See 24(3)(f) above for targets and criteria.</p> <p><i>York Region Water Efficiency Master Plan Update (2007)</i></p>

<p>(d) develop a water-use profile and forecast;</p>	<p>All upper-tier and single-tier municipalities in the Don River watershed have developed water use profiles and forecasts as part of preparing water use assessment reports and/or water efficiency plans and programs.</p> <p>York Region has developed water-use profiles and forecasts as part of the Water and Wastewater Master Plan Update, 2009. The forecasts incorporate the effect of planned water conservation measures on future demand. These profiles and forecasts are updated with the master plans.</p> <p>Drawing on the municipal data and additional information from the Permit to Take Water database, a watershed-based water use profile was prepared as part of the <i>Don River Watershed Plan</i>.</p>	<p>See section 3 of York Region's <i>Water and Wastewater Master Plan Update, 2009</i></p> <p>See Baseflow and Water Use Assessment – Report on Current Conditions (TRCA, 2009).</p> <p>See Geology and Groundwater Resources – Report on Current Conditions (TRCA, 2009).</p>
<p>(e) evaluate plans for water facilities such as pumping stations and reservoirs;</p>	<p>Plans for any such facilities are being evaluated by York Region as part of its updated water supply strategy and will be reviewed in the context of the updated watershed information.</p>	<p>York Region's <i>Water and Wastewater Master Plan Update, 2009</i></p>
<p>(f) identify and evaluate, (i) 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, (ii) water conservation incentives such as full cost pricing, and (iii) ways of promoting water conservation measures and water conservation incentives;</p>	<p>All upper-tier and single-tier municipalities in the Don River watershed have developed water efficiency plans and programs that identify and evaluate water conservation measures, incentives and ways of promoting water conservation measures and incentives. The <i>Don River Watershed Plan</i> supports the recommendations of the municipal water efficiency plans and programs and describes management strategies that would further contribute to achieving the objectives and targets of these plans/programs.</p> <p>York Region's water rates are currently based on full cost pricing.</p>	<p>See Section 5.0 in <i>Don River Watershed Plan (2009)</i></p> <p>See Sections 5.0 and 6.0 of York Region's <i>Water Efficiency Master Plan Update</i> for the identification, evaluation and recommendation of water conservation measures and education.</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 Don 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>See Section 5.2.3 of York Region's <i>Water Efficiency Master Plan Update</i> for the cost analysis of water conservation measures.</p>
<p>(h) require the use of specified water conservation measures and incentives;</p>	<p>York Region's Water for Tomorrow program used specific water conservation measures and incentives as part of the original capital plan. The Water Efficiency Master Plan Update also recommends the use of specific water conservation measures and incentives including water efficient fixture rebates, subsidized rain barrel sales, free pre-rinse spray valve replacements for commercial kitchens, industrial/commercial/institutional water audits and capacity buy-back.</p>	<p>See Section 6.0 of York Region's <i>Water Efficiency Master Plan Update</i> for the recommended program strategy.</p>
<p>(i) contain an implementation plan for those specified measures and incentives that reconciles the demand for water with the water supply;</p>	<p>York Region developed an implementation plan for the program as part of the scope of work in 1998. The Water Efficiency Master Plan Update has recommended an updated program strategy. The development of implementation plans/strategies for components of the updated program are currently being developed.</p>	<p>See Section 6.0 of York Region's <i>Water Efficiency Master Plan Update</i> for the recommended program strategy.</p>
<p>(j) provide for monitoring of the water budget and water conservation plan for effectiveness.</p>	<p>York Region's Water Use Efficiency Master Plan Update recommends a monitoring and Evaluation program which is implemented with each program component.</p> <p>The <i>Don River Watershed Plan</i> includes recommendations regarding changes or enhancements to existing environmental monitoring programs and other area, site-or issue-specific monitoring requirements that provide for, or improve capacity for monitoring of the water budget.</p>	<p>See Section 9.0 of York Region's <i>Water Efficiency Master Plan Update</i></p> <p>See Sections 5 and 6, <i>Don River Watershed Plan</i>.</p> <p>See Section 7, <i>Don River Watershed Plan Implementation Guide</i>.</p>

27.(1)	Except with respect to land in Settlement Areas, all development and site alteration with respect to land in a subwatershed are prohibited if they would cause the total percentage of the area of the subwatershed that has impervious surfaces to exceed, (a) 10 per cent; or	Current and projected future per cent impervious cover has been assessed for each Oak Ridges Moraine subwatershed (based on methods suggested in draft Technical Paper #13 which exclude Settlement Areas, utilizing subwatershed boundaries defined in draft Technical Paper #9). These estimates indicate that no Oak Ridges Moraine subwatersheds in the Don River Watershed exceed the 10% impervious cover criteria for current conditions (based on 2002 land use), nor will they exceed 10% upon build-out of municipal official plans approved as of February 2006.	See <i>Don River Watershed Impervious Cover Assessment Technical Briefing Note</i> (TRCA, 2007).
	(b) any lower percentage specified in the applicable watershed plan.	No lower percentage is specified.	

- 1. Ministry of the Environment (2007) Oak Ridges Moraine Conservation Plan – Watershed Plans, Technical Paper #9.
- Ministry of the Environment (2007) Oak Ridges Moraine Conservation Plan – Water Budgets, Technical Paper #10.
- Ministry of the Environment (2007) Oak Ridges Moraine Conservation Plan – Water Conservation Plans, Technical Paper #11.
- Ministry of the Environment (2007) Oak Ridges Moraine Conservation Plan – Subwatersheds (Impervious Surfaces), Technical Paper #13.