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LEGISLATIVE SERVICES	
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Peel Living	

December 8, 2009

Sent via email

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At Authority Meeting #9/09, of Toronto and Region Conservation Authority (TRCA), held on November 27, 2009 Resolution #A201/09, in regard to Linking Watershed Plans to Growth Planning was approved as follows:

THAT the Authority endorse the report on Linking Watershed Plans to Growth Planning, dated November 17, 2009, as providing general direction to staff when formulating Toronto and Region Conservation Authority's (TRCA) Living City policy document and when commenting on municipal official plan policy updates and site specific development applications;

AND FURTHER THAT this report be circulated by the CAO's Office for information to all TRCA partner municipalities, Conservation Ontario and the provincial ministries of Municipal Affairs and Housing, Energy and Infrastructure, Natural Resources, Agriculture and Food, and Environment.

Enclosed for the information of Council and for circulation to your Commissioners of Planning and Engineering is the report as amended by the Authority. If you have any questions or require additional information, please contact the undersigned at 416-661-6600 extension 5264 (kstranks@trca.on.ca) or David Burnett at extension 5361.

Sincerely

Kathy Stranks
Manager, Chair and CAO's Office

cc. David Burnett, Manager, Provincial and Regional Policy, TRCA

/Encl.

REFERRAL TO CORPORATE SERVICES
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RES.#A201/09 - LINKING WATERSHED PLANS TO GROWTH PLANNING

Outlining the general policy issues and comments, as informed by recent watershed plans and provincial directions, that TRCA staff make when commenting on municipal official plan updates and amendments.

Moved by: Lois Griffin
Seconded by: Laurie Bruce

THAT the Authority endorse the report on Linking Watershed Plans to Growth Planning, dated November 17, 2009, as providing general direction to staff when formulating Toronto and Region Conservation Authority's (TRCA) Living City policy document and when commenting on municipal official plan policy updates and site specific development applications;

AND FURTHER THAT this report be circulated by the CAO's Office for information to all TRCA partner municipalities, Conservation Ontario and the provincial ministries of Municipal Affairs and Housing, Energy and Infrastructure, Natural Resources, Agriculture and Food, and Environment.

CARRIED

BACKGROUND

Municipalities are required by the Planning Act to review their official plans every five years to determine the need for an update to the policies based on new information and new provincial or societal directions. Similarly, the Provincial Policy Statement (PPS) undergoes a five-year review to determine the need to address any new or emerging issues on a province-wide basis. With the recent completion of updates to the Rouge, Don and Humber River watershed plans, TRCA has much new information on environmental conditions and issues that is able to inform new municipal policy directions. Similarly, numerous new policy initiatives have been advanced by the province in recent years, to which municipal official plans must be brought into conformity by official plan amendment. These provincial initiatives include: PPS 2005 (which itself is in the early stages of a review required by 2010); the Greenbelt Plan, 2005; the Planning and Conservation Land Statute Law Amendment Act, 2006; the Places to Grow Act and the Growth Plan for the Greater Golden Horseshoe (2006); and the Clean Water Act (2006) and requirements for source protection plans. Additionally, the Development, Interference and Alteration Regulations for Conservation Authorities, specifically Ontario Regulation 166/06 for TRCA, were updated in 2006.

Over the past two years, the regional municipalities of Durham, Peel and York have been engaged in official plan background studies and policy updates. TRCA staff has formulated a number of consistent policy themes for commenting on official plan updates, based on the science and policy work developed through the watershed plans. Therefore, staff felt it was important to inform the Authority members of these directions in advance of the many upcoming official plan updates soon to be undertaken at the local municipal level. Additionally, this report will also serve to inform the board as to the directions TRCA will take in transforming its 1994 Valley and Stream Corridor Management Program (VSCMP) policy document into a new suite of policies for The Living City.

TRCA Policy Comments and Directions

TRCA will continue to work with municipalities as both a partner and a commenting agency in the updating of municipal official plans, using the science and results of watershed plans to inform our comments. Staff recognizes that existing municipal official plans contain many good environmental policies. TRCA policy recommendations, based on new state-of-the-art science, are meant to strengthen these existing municipal policies or provide environmental policy direction related to new or emerging topic areas, including growth planning issues such as intensification or mitigating and adapting to potential climate change impacts. The intent is to provide broad environmental policy direction that municipal planners can use as the basis for crafting similar policies, tailored to the local circumstances and formats of their own municipal official plans, while maintaining the substantive intent of the recommended policy directions. TRCA staff will continue to work with our municipal partners to assist in the implementation of these general policy directions in order to address the specific challenges unique to each municipality.

There are four major environmental policy theme areas for which TRCA staff has formulated comments for official plan policy updates to address the diversity of issues and landscapes within the TRCA jurisdiction, as follows:

1. Comprehensive Flood Risk Assessment Plans;
2. Integrated "Systems" Planning for Natural Heritage, Open Space and Green Infrastructure;
3. Sustainable Urban Form and a Culture of Conservation; and
4. Master Environmental Servicing Plans (MESPs) for Greenfields and Areas of Redevelopment or Intensification.

1. Comprehensive Flood Risk Assessment Plans

Comprehensive Flood Risk Assessment Plans need to be undertaken at the appropriate scale (watershed, subwatershed and reach) to help reduce the potential long term economic costs to municipalities of flood mitigation and remediation. This is particularly associated with aging municipal infrastructure at risk from severe or frequent flooding events which may increase under climate change conditions. Comprehensive flood risk assessment plans are recommended for two main areas of future development:

- (1) where redevelopment or intensification is proposed in a Flood Vulnerable Area (FVA) or Special Policy Area (SPA) in order to maintain or decrease the level of risk and to formulate specific actions and strategies for flood remediation, flood proofing, flood warning and emergency response measures; and
- (2) for urban boundary expansions in order to determine appropriate stormwater management criteria for new development and to address and prevent cumulative downstream impacts to people, property and infrastructure.

Municipal official plan updates should include policies or policy directions to:

- be consistent with section 3.1 Natural Hazards of the Provincial Policy Statement (PPS 2005, as updated or amended);
- identify in the official plan (OP) in text and mapping all Special Policy Areas, Flood Vulnerable Areas and Flood Damage Sites (as updated or amended from time to time);
- contain explicit policies for each SPA and FVA (to address # 1 and 2 above);
- require an updated hydrologic study, prepared on a watershed/subwatershed/reach-based scale (as appropriate), to evaluate the effects of flooding on downstream SPA and FVA from proposed new developments and to confirm the level of stormwater control needed before expanding urban settlement area boundaries at the local level;

- put greater emphasis on shoreline (lake and riverine) natural systems protection, aquatic restoration, and appropriate forms of development and technical criteria (i.e. use of realistic buffers and setbacks) for protection from natural hazards.

2. Integrated “Systems” Planning for Natural Heritage, Open Space and Green

Infrastructure:

Natural Heritage Systems in TRCA watersheds continue to decline in area of extent, largely due to development pressures. What remains continues to be degraded in quality due to over-use (recreational pressures), inappropriate use (illegal dumping, tree cutting), invasive species crowding out native species, as well as a general benign neglect and lack of knowledge and appreciation for the ecological goods and services (EGS) that natural heritage systems provide. These EGS include multiple environmental, social and economic benefits such as: reducing storm runoff volumes while protecting property and infrastructure by stabilizing shorelines and hazard lands; mitigating climate change and reducing urban heat island effects by providing shade and windbreaks leading to reduced fossil fuel use for heating and cooling; providing oxygen and improving air quality; increasing biodiversity and resilience of ecosystems; enhancing urban aesthetics and increasing property values; plus contributing to enhanced recreational, cultural and spiritual opportunities. Natural heritage systems, in combination with the urban tree canopy and grassy open space areas for recreation, hydro corridors, backyard swales, cemeteries, stormwater ponds, etc. need to be viewed as the “Green Infrastructure of The Living City”. Similar to the hard infrastructure like roads, sewers and public buildings, society needs to make planned and ongoing investment in the maintenance, renewal and improvement of its green infrastructure. By adopting a “systems” planning approach for green infrastructure to integrate natural heritage systems, open space lands and urban design technologies such as greenroofs, rainwater harvesting, permeable pavement and other techniques, we have a much better chance to achieve all of the multiple benefits described above, reduce the negative impacts, and do so in a cost-effective manner.

Municipal official plan updates should include policies or policy directions to:

- identify and achieve over time a target terrestrial natural heritage system based on the applicable watershed plan(s);
- recognize the multiple benefits and value of the ecological goods and services provided by green infrastructure, communicate these benefits to the general public and provide incentives for their continuation and enhancement through the development approvals process;
- identify, plan and budget for the ongoing maintenance, renewal and improvement of the municipality’s green infrastructure as part of an integrated systems approach to managing natural heritage, stormwater, open space, hazard lands and the urban tree canopy;
- recognize that natural systems extend beyond municipal boundaries and plan for connections to large scale systems such as the Oak Ridges Moraine, Niagara Escarpment, major river valleys and the Lake Ontario shoreline;
- recognize that the partial loss of any natural heritage feature, which may be recommended by a site-specific Environmental Impact Study (EIS), diminishes the entire system and should be considered only in the context of enhancement, restoration and/or compensation to the broader natural heritage system;
- increase protection of ravine systems through policy links to ravine or tree protection and site alteration by-laws;

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- manage the interface of the natural heritage system with development, redevelopment and infrastructure projects through completion of Environmental Impact Studies that contain recommendations for appropriate buffers, naturalization, restoration and/or edge management plans;
- secure environmental and hazard lands gratuitously into public ownership through the development approvals process;
- consider integrating appropriate locations of significant groundwater recharge areas into the natural heritage system as one means to address Clean Water Act and possible source protection plan requirements;
- formulate urban forest management plans;
- recognize the role of open space areas to integrate and accommodate multiple uses as urban areas are intensified, such as designing sports fields for managing urban stormwater in addition to providing recreational uses, to prevent over-use and degradation of natural heritage systems;
- encourage and support education and backyard stewardship programs that protect habitat for migratory birds by promoting the use of native tree and plant species, the creation of butterfly and water gardens and the on-site management and use of stormwater;
- preserve agricultural lands for their environmental contributions to the landscape habitat matrix, provision of ecological goods and services and as permeable surfaces for water infiltration;
- increase protection of woodlands as a key component of natural heritage systems, for their role as green infrastructure in providing social and economic, as well as environmental benefits.

3. Sustainable Urban Form and a Culture of Conservation

Collectively, all partners in the community planning and approvals process need to adopt a strategic approach to the development of new communities by integrating urban design and current scientific knowledge. This means building compact, walkable and transit-supportive communities that reduce per capita energy use over all, while increasing alternative renewable energy sources. It means promoting green building design elements such as greenroofs, solar panels, rainwater harvesting and permeable pavement. It requires not just a one-track approach to climate change adaptation and mitigation, but a comprehensive, integrated approach that is woven through all sections of an official plan and all departments in an organization.

Additionally, re-development in existing urban areas such as brownfields, greyfields and intensification in urban growth centres, needs to achieve an integration of the built form with the green infrastructure. This could mean retrofitting existing urban areas with district energy or renewable energy systems. It will require a strong commitment to sustainable urban design, including public spaces, so that existing parks, open space and ravine lands will not become degraded through over-use.

Municipal official plan updates should include policies or policy directions to:

- formulate a “green living and development” policy framework to support sustainable urban form and infrastructure tied to accessible, multi-modal transit systems;
- require best management practices (BMPs) and sustainable management practices such as Low Impact Development (LID) including at-source lot level stormwater controls;

- adopt a “No Regrets” approach to climate change mitigation and adaptation that is threaded throughout all sections of an official plan including the promotion of public transit, intensification and greenhouse gas reduction strategies;
- encourage and promote energy conservation, district energy projects and the use of alternative renewable energy sources such as solar, wind and geothermal;
- encourage “neighbourhood” retrofit projects incorporating green technologies for industrial areas (ie. Eco-Industrial parks) and supporting the Sustainable Neighbourhood Retrofit Action Plan (SNAP) program to incorporate sustainable environmental changes into existing stable neighbourhoods;
- increase protection of natural systems and water quality through policy links to erosion and sediment control and site alteration by-laws;
- adopt Sustainable Neighbourhood Development Guidelines and require certification standards such as LEED (leadership in energy and environmental design), Energy Star or EnerGuide ratings;
- undertake strategic transportation corridor and network studies at the master environmental services plan (MESP) stage to minimize the number of infrastructure crossings of stream corridors and the natural heritage system;
- explore opportunities to remove infrastructure from natural heritage systems and hazardous lands as re-development occurs;
- Promote green building design elements such as greenroofs, solar panels and building orientation to maximize passive solar gain, dual plumbing for grey water reuse plus harvest and use of rainwater, low flow water-conserving plumbing fixtures, permeable pavement;
- retrofit to the extent possible, existing developments with outdated or absent stormwater controls, to incorporate a treatment train hierarchy with source, conveyance and end-of-pipe measures to provide water quality treatment, erosion control, flood control and address water balance objectives.
- promote community gardens and the consumption of locally grown foods for their environmental contributions to reducing the carbon footprint through greenhouse gas reductions of reduced transportation distances.

4. Master Environmental Servicing Plans (MESPs) for Greenfields and Areas of Redevelopment or Intensification

Sustainable community planning requires that the environmental systems framework and the functional relationship and inter-dependencies of the water resources system and the natural heritage system be scientifically understood and commitments made before development proceeds to regenerate or enhance the systems. MESPs are the key tool in determining development form in relation to the natural systems and environmental servicing infrastructure. MESP studies identify environmental features, functions and linkages in detail at the block plan or secondary plan stage and define protection and mitigation measures necessary to address issues and opportunities identified in watershed plans. To date, MESPs (or their municipally-named equivalent) have generally been used in greenfield development situations. However, they should also be used for intensification and re-development situations in existing urban areas to avoid piecemeal planning by coordinating and integrating opportunities for stormwater control, flood risk management, green infrastructure, urban design, transit, infrastructure and recreation.

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Municipal official plan updates should include policies or policy directions to:

- require MESP (or equivalent) studies for greenfields and urban re-development areas such as urban growth centres, to seek opportunities for stormwater retrofits, natural systems restoration and other sustainable community initiatives;
- define criteria and planning triggers for when MESP should be undertaken in existing urban areas and for the definition of study area boundaries;
- define the content of MESP studies to include, at a minimum:
 - water resources system studies, including water balance, geomorphic analysis of stream meander belts (to identify least risk areas for locating infrastructure) and conceptual stormwater management systems;
 - terrestrial natural heritage system studies to implement a target terrestrial natural heritage system and understand its functional relationship and interdependencies with the water resources system;
 - flood and erosion risks, controls and mitigation opportunities;
 - integration with other municipal studies for transportation strategies and systems, pre- and post-development monitoring programs, regional open space and recreational trails systems;
 - cultural heritage and archaeological investigations and consultation;
 - cumulative impacts to downstream human and environmental communities;
 - implementation of water and energy conservation strategies; and
 - establish detailed design criteria, performance measures and mitigation measures for development.

Summary

There have been many new policy initiatives advanced by the province in recent years. Similarly, TRCA has completed updates to several of its watershed plans, using leading edge science. These plans have concluded that watershed environmental resources will continue to degrade if planning and development carries on in a business as usual fashion. Through the development of Watershed Plan Implementation Guides and commenting on regional official plan conformity amendments, TRCA staff has formulated a number of recommended policy directions that should also be advanced through local official plan updates.

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