City of Edmonton, Canada
Planning for a functional ecological network

SUMMARY: The City of Edmonton, home to North America’s largest municipally-owned urban park, has used innovative approaches to protect and manage its urban biodiversity. The City’s ecological network approach is increasingly supported in new plans and policy, and has driven recent efforts to incorporate ecological design into new neighbourhoods. Edmonton is well-supported by an active conservation community, and much of the work done to date has been accomplished through partnerships with citizen groups, conservation organizations, the academic community and local developers.

Biodiversity & biodiversity management in Edmonton

The largest municipally owned park in North America

Edmonton’s ‘Ribbon of Green’, the North Saskatchewan River Valley and its network of tributary ravines, runs through the middle of the city, forming the largest linear urban park in North America (7,400 hectares). This “biodiversity corridor” is supported by a system of habitat patches outside the River Valley, including forest and wetlands. Conserving this “ecological network” and the biodiversity it supports is a growing priority for both the city government and the larger Edmonton community.

Edmonton’s Ecological Network

Edmonton’s ecological network approach aims to protect the city’s natural areas as a single, integrated natural system, recognising the importance of ecological connections between natural areas, and understanding how these areas exist in the context of surrounding lands. More specifically, an ecological network approach involves conserving plant and wildlife species and ecological functions by protecting a system of core natural areas that are connected by natural and semi-natural linkages and, to the extent possible, surrounded by compatible land uses. The network integrates publicly- and privately-owned natural areas.

This ecological network is overlapped by the city’s parks system, which contains both natural and semi-natural (manicured) areas. The overall planning and management for the parks system is governed by the North Saskatchewan River Valley Area Redevelopment Plan, the Ribbon of Green Concept Plan, and the Urban Parks Management Plan.

Environmental Policy and Natural Area Systems Policy

Edmonton’s approach to ecological conservation is formalized in several key policies and plans. The city’s Environmental Policy promotes the development of an environmentally sustainable community through planning and decision-making processes. A key policy direction in the Natural Areas Systems Policy is: the City of Edmonton will balance ecological and environmental considerations with economic and social considerations in its decision-making and demonstrate that it has done so. Another key guiding principle of the Policy is “Protection of the Natural Environment” which commits Edmonton to taking a leadership role in protecting its natural heritage and biodiversity within the municipality and also the region."
Setting direction: Natural Connections Strategic Plan

The city's recently completed Natural Area Systems Policy and companion Natural Connections Strategic Plan strengthen the city's commitment to biodiversity protection. Natural Connections sets the direction for conserving biodiversity and is based on an ecological network approach that involves identifying key natural elements at an early stage in the planning process and provides a strategic outcome based planning framework.

Incorporating Ecological Design into neighbourhoods

One of Edmonton's new planning tools is the Ecological Design Report, which aims to ensure that ecological design principles are integrated into development plans for new neighbourhoods, with a goal of protecting biodiversity by reducing the ecological impact of urban development.

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The three interconnected goals of this plan are:
- To secure a functioning ecological network;
- To effectively manage Edmonton's ecological network;
- To engage the public to support conservation goals, and to form partnerships with conservation leaders in the community.

Involvement in international initiatives

Edmonton is an ICLEI member and is actively participating in ICLEI's Local Action for Biodiversity (LAB) Project. Edmonton has also been selected as the host city of the upcoming ICLEI World Congress in 2009 including an "Urban Nature" Symposium.

City contacts & profile

Situated in Alberta, Canada, the city of Edmonton is the hub of Canada’s sixth largest metropolitan area with a population of over one million. The city covers about 700 km² of which only approximately 60% has been developed to date; the majority of the remainder is agricultural land. 10% of Edmonton remains natural (dominated by native vegetation) and protected status has been secured for 33% of all natural areas in the city.

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LOCAL ACTION FOR BIODIVERSITY is a global urban biodiversity initiative of ICLEI – Local Governments for Sustainability in cooperation with IUCN. This pilot project of 21 cities around the globe focuses on the key roles that local governments play in conserving the world’s biodiversity and retaining the relationship between people and nature. See: www.iclei.org/lab; lab@iclei.org

COUNTDOWN 2010 is a powerful network of more than 600 partners working together towards the 2010 biodiversity target. Each partner commits additional efforts to tackle the causes of biodiversity loss. The secretariat – hosted by the International Union for Conservation of Nature (IUCN) – facilitates and encourages action, promotes the importance of the 2010 biodiversity target and assesses progress towards 2010. See: www.countdown2010.org

CITIES & BIODIVERSITY is an initiative of local governments and UN agencies to increase awareness on the relevant role of cities and towns for conserving and managing biodiversity. See: www.iclei.org/biodiversity

THE “CITIES & BIODIVERSITY CASE SERIES” is started in 2008 on the occasion of the UNCBD Conference of the Parties (COP) 9 in Bonn/Germany in May 2008. Funding is provided by UNEP, with co-funding from ICLEI, IUCN and the City of Bonn. The case descriptions are compiled by the “Local Action for Biodiversity (LAB)” project team in the ICLEI Africa Secretariat and ICLEI’s International Training Centre.

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