



CHAPTER 5.0
CONCLUSIONS &
RECOMMENDATIONS FOR
CONSIDERATION IN THE
STRATEGIC PLAN



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Natural Areas are an essential part of the quality of life Edmontonians currently enjoy. Clean and abundant water, clean air, and the aesthetic values of vibrant, healthy green space are all provided by natural ecological processes supported and reinforced by biodiverse plant and animal communities. In effect, our quality of life is dependant on a well-functioning ecological network of Natural Areas within the City and the surrounding region.

The City of Edmonton is fortunate in that it has a large inventory of Natural Areas representing many different ecosystems. The North Saskatchewan River Valley (NSRV) and ravine system is an impressive, central natural feature that extends through the City. The tablelands support a diverse array of Natural Areas varying in habitat type, size and protection status. Consideration and management of the two systems as one integrated system, is an essential step toward more effective Natural Area conservation. The City now wishes to develop a science-based Integrated Natural Areas Conservation Plan. Modern conservation science tells us that a conservation plan that focuses simply on retention of Natural Areas will not succeed in sustaining functional ecosystems, and their associated benefits. To be effective, such a plan must manage Natural Areas in the context of the surrounding landscape. Such a plan must be based on the existing ecological network, which identifies the Natural Areas and the level of connection provided by surrounding landscape. This study has done that.

With respect to the recognized essential components of a well-functioning ecological network (Forman 1995), Edmonton is, again, fortunate. The NSRV provides both a major river valley and several large Core Areas of natural habitat within it and on the adjacent tablelands. Additional network connectivity is provided by the other green spaces and smaller Natural Areas that are scattered across the undeveloped and developed parts of the City. Those sites function as Corridors or Stepping Stones that provide linkage between the larger Core Areas and each other. Looking beyond the City's boundaries, other Regional Core Areas (e.g., Lois Hole Provincial Park, Enoch Natural Areas) provide further support to the network.

With the identification of the existing Ecological Network, and confirmation of its current functionality, City of Edmonton is now in a position to develop a science-based conservation plan that will maintain the function and value of that system. Considering the rapid growth of the City and the competing demands for land, the sustainability of the network and the biodiversity that it supports, will depend on careful and comprehensive management of the Ecological Network. Among the most important management elements will be the maintenance of two integral components of the network: connections and Core Areas.

The Ecological Network will not continue to function as it does today without the maintenance of connections. It currently exists as an intricate and complex network of



habitat patches, both small and large, connected by linkages and permeable land uses; it must continue to do so if we wish to maintain our present quality of life. Maintaining connections between the larger Core Areas within the City, and between those within the City and the surrounding Regional Core Areas, will ensure that source populations remain available to the smaller, more isolated Natural Areas. At a finer scale, connections between individual, smaller Natural Areas will help to sustain the movement of species throughout the network. In maintaining such connections, natural ecological processes will persist across the landscape, helping to ensure the sustainability of a high level of biodiversity within the City of Edmonton. In enhancing those connections, we can ensure that critical ecological processes are ‘backed-up’ in multiple locations. Critical to this will be effective planning and management of the already modified (agricultural) lands that surround the Tablelands Natural Areas. Consideration must be given to managing those spaces so that these connections remain negotiable for occasional movements, at the very least, and support movement of a variety of wildlife species.

Also critical to the long-term function of the network is the maintenance of Edmonton’s Core Areas. Currently, some of these Core Areas remain unprotected (mainly on the tablelands). To ensure that these components and all their associated ecological benefits (e.g., provision of source populations, habitat for area-sensitive species) are maintained within the network, one of the highest priorities should be establishing some form of protection for all Core Areas *and* the Linkages that currently connect them.

The City must also ensure that its information and decision-making processes are sufficient to effectively monitor the management of the Ecological Network. The City must be capable of identifying threats to the network, identifying priorities for protection, enhancement and restoration and assessing the impacts of earlier decisions, so they can adaptively and proactively manage Edmonton’s Natural Areas and, more generally, the Ecological Network.

In the past, the City of Edmonton has experienced some success, as well as a few setbacks, in its effort to protect Natural Areas and the biodiversity they represent. As the City proceeds with the development of a strategic conservation plan, it must acknowledge the strengths and sensitivities of the network. The conservation plan should encourage the protection of Natural Areas, not only to protect their essential ecological processes and their intrinsic, natural value, but also to maintain a strong natural heritage that can be the pride of Edmonton.