



Natural Connections
Edmonton's Integrated Natural
Areas Conservation Plan

Public Engagement Process Report 5

Public and ENGO Workshop Final Report

City of Edmonton, Office of Natural Areas
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Highlights

When asked to identify current strengths, the two highest ranking issues on which workshop participants agreed the City was doing a good job were: 1) preservation of the North Saskatchewan River Valley; and 2) the Office's focus on connectivity. This latter is especially important because, prior to the presentation that preceded the exercise, "connectivity" may not have been viewed as a significant issue. In other words, there was widespread approval among workshop participants for the proposed management approach to Edmonton's natural areas. Other issues are detailed in the section "Municipal strengths" (page 4).

When asked to identify areas in which the City could do better, public education and acquisition of natural areas in the tablelands generated the most discussion.

Participants were strongly in favour of enhancing public education to ensure that Edmontonians are both aware of the City's unique functional environmental network and that they value its preservation. Participants felt that population growth and rapid development were dominating the public agenda without sufficient consideration for the impacts of that growth on natural areas.

Participants were also keenly aware of the development threat to natural areas in the tablelands, which could be said to embrace a number of other issues raised, such as Council's creating the capacity to secure the natural area network, prioritizing areas for acquisition and refining the inventory. The trend is to the loss of natural areas in the tablelands, a trend that has accelerated since the 1993 inventory was taken.

There was a general consensus that the conservation of natural areas is approaching a crisis point because explosive growth is putting tremendous development pressure on those tablelands regions of the City that include a large number of unprotected natural areas. Some limited discussion of the southern and northern portions of the North Saskatchewan River Valley also indicated that protection of natural areas, particularly on privately owned lands, remains an issue. Participants felt that they could not overemphasize the importance of acting now to secure the functionality of Edmonton's ecological network.

Participants felt it was important that protection measures, whether using municipal or environmental reserves or a new designation yet to be determined, must recognize and preserve a natural area's ecological function – not merely distinguish it as a landscape feature. If protection measures do not explicitly acknowledge the value of natural areas, then their value as protection measures is suspect.

The community mapping exercise (see page 10) generated much useful information that could be incorporated into management plans and public education.

The highest priority for workshop participants was to acquire as many natural areas as possible to secure the functioning ecological network. Participants largely did not distinguish between public awareness, education and involvement, instead seeing these as points on a spectrum of public engagement appropriate for the ongoing protection and management of natural areas. All participants agreed that the City must do a better job of making conservation part of its planning processes from the very beginning, rather than an item on a checklist that is considered late in the approval process. It was their opinion that conservation and planning cannot be approached as two separate activities but that one was integral to the other.

Background and methodology

The Office of Natural Areas launched a significant media campaign to raise awareness of the opportunity to be involved in its public engagement campaign (see Report 1: State of Natural Areas Report *Release*). Follow-up recruitment efforts included sending a letter, e-mail invitation and e-mail follow-up to identified stakeholder groups. See Appendix 1 for a sample letter and Appendix 2 for a list of stakeholder groups.

The Office's initial intent had been to host two workshops, one each on the City's north and south sides, on November 23 and 29, respectively. However, north side registration was not strong and potential north side registrants were asked to attend the south side workshop.

Participants were asked to pre-register for the workshop. Pre-registrants were encouraged to download the *State of Natural Areas* report from the pages of the Office of Natural Areas on the City website. A map was also posted to help registrants find the venue.

The event was hosted at the Woodvale Community League Facility on the evening of November 29, beginning at 6:00. A significant winter storm had occurred in the days prior and its after effects discouraged some registrants from attending. Still others said that they were unable to find the venue. In total, of the 44 pre-registrants, 28 participated in the workshop. Out of respect for personal privacy and *Freedom of Information and Protection of Privacy* regulations, workshop participants have not been identified in this report.

At the workshop's conclusion, participants were advised they would have an opportunity to confirm their input and also that they would be invited to another session in late spring that would enable them to make further contributions to the development of *Natural Connections*, the City's integrated natural areas conservation plan.

Workshop participants were greeted on arrival, asked to collect dinner from the buffet, and told the workshop proper would start at 6:20 p.m. Participants gathered at tables of no more than six.

The workshop facilitator, Mike Evans, began with a presentation outlining the mandate of the Office of Natural Areas and the *State of Natural Areas* report while participants were eating. The presentation is attached as Appendix 3.

Participants were asked to designate one among their number to record contributions and given a number of activities to complete at their tables. Results were collected by the facilitator and, when appropriate, presented back to the entire group for comment. The community mapping contributions were collected for analysis by the Office of Natural Areas.

Existing strengths and weaknesses

Municipal strengths

As with the workshops the Office hosted with its interdepartmental colleagues and non-City of Edmonton plan implementers, public and ENGO participants were asked to begin by identifying the existing strengths of the City's conservation policies. A wide range of comments was recorded by each table's scribe, all of which were entered into a matrix as below, and then the group, as a whole, was invited to make additional comments.

Figure 1: Existing strengths of municipal conservation policy

Preservation of North Saskatchewan River Valley 5	Focused on connectivity/ network approach 4	Public engagement 3	Inventory of natural areas/Research 3
Leadership 2	Integrated approach to conservation 2	Creating Office of Natural Areas/moving Office out of Waste Branch 2	Taking regional perspective/ watershed management 2
Constructed wetlands 1	Working with development community 1	Elevating issue to political realm 1	Sense of urgency 1
Engaging City Council 1	Building trust 1	Encouraging SMART choices/Transit-oriented-development 1	

Because there were only five tables, any mention of a single issue by three or more could be considered to represent a majority opinion. The two highest ranking issues on which participants agreed the City was doing a good job were: 1) preservation of the North Saskatchewan River Valley; and 2) the Office’s focus on connectivity. This latter is especially important because, prior to the presentation that preceded the exercise, “connectivity” may not have been viewed as a significant issue. In other words, there was widespread approval among workshop participants for the proposed management approach to Edmonton’s natural areas. That idea was reinforced by the fact that “integration” – a corollary concept – was mentioned by two tables.

Although not mentioned by a majority, other areas in which existing strengths were acknowledged by a reasonable number of workshop participants included:

- commitment to public engagement;
- the inventory of natural areas included in the State of Natural Areas Report;
- the provision of leadership to the conservation community;
- integrating management of river valley and tablelands natural areas;
- establishing the Office of Natural Areas and locating it appropriately within the civic administration;
and
- taking a regional perspective to conservation that acknowledged watershed basins.

Municipal weaknesses

Following the exploration of current strengths, workshop participants were asked to identify areas in which they felt that the City could, or should, do better. Again, the initial discussion occurred at each table, where the designated scribe recorded participant input. The facilitator then collected that input and placed it within a matrix of identified issues, and presented that information back to the entire group for further comment.

Not surprisingly, many of the issues raised as strengths were also repeated as areas in which participants felt the City could do better. And, also not surprisingly, participants identified considerably more areas for improved attention.

Figure 2: Existing weaknesses of current municipal policy

Public education ¹ 5	Acquisition of natural areas in the tablelands 5	Addressing regional issues 4	Budgeting to acquire and manage natural areas 3
Management plan/ accountability/ protection/monitoring 3	Prioritize natural areas for acquisition 2	Refine the inventory/ ‘ground-truthing’ 2	Public involvement 2
Wetland preservation 2	Stormwater management/ habitat creation 2	Restoration 2	Controlling air and water pollution 2
Managing political motives 1	Engaging City Council 1	RV encroachment 1	Restrict access during sensitive periods 1
Access 1	Operations/management 1	Buffer zones 1	Connectivity 1
Partnerships with developers 1	Development density/intensification 1	Adopt the Earth Charter 1	

Public education and acquisition of natural areas in the tablelands generated the most follow-up discussion.

Participants were strongly in favour of enhancing public education to ensure that Edmontonians are both aware of the City’s unique functional environmental network and that they value its preservation. Participants felt that population growth and rapid development were dominating the public agenda without sufficient consideration for the impacts of that growth on natural areas. Among the specific suggestions regarding public education was to embrace the Urban Forest Effects Model (<http://www.ufore.org/>) as one means to quantify the value of natural areas within the context of climate change, which is currently the top environmental issue in the public realm.² Others spoke to the value of the idea of “natural capital” as a means to make conservation part of the cost-benefit economic analysis of the City’s future.

The development threat to natural areas in the tablelands generated much discussion and could be said to embrace a number of other issues raised, such as Council’s willingness to budget for the protection – including acquisition and management – of natural areas, prioritizing areas for acquisition and refining the inventory. The *State of Natural Areas Report* clearly demonstrates that the trend is to the loss of natural areas in the tablelands. The report indicates that 23 percent of the catalogued tableland natural areas in the 1993 inventory had been lost to development. The City’s rapid growth began only in the later

¹ This was actually mentioned several times in different ways by all groups and so represents a key area for improvement.

² Though some of the on-line data is out-of-date, Calgary (1998) and Toronto (2000) are the only Canadian cities listed as having completed the UFORE analysis.

years of that 12-year period and the loss, or projected loss, of natural areas has accelerated. More than one participant noted that some natural areas identified in the report in 1995 had been lost or substantially diminished by development activity in the past year alone.

Although encouraging regional cooperation was cited as an existing strength, participants also cited regional cooperation as an existing weakness. Participants expressed anxiety about regional economic development, such as the number of upgraders planned for the 'Industrial Heartland' and the recently leaked provincial proposal to develop a regional ring road, which, as currently planned, would cut through the middle of the Horse Hills, one of the remaining undisturbed regions in the City's northeast. Their anxiety was no doubt heightened by ongoing tension between regional municipalities as a result of Edmonton withdrawing from the Alberta Capital Region Authority (ACRA) and subsequent press. Participants clearly understood the challenges and some mused aloud about the now disbanded regional planning commission.

As suggested above, participants are hopeful that City Council will take action commensurate with its apparent commitment to conservation by, for example, making budget commitments that will enable the Office of Natural Areas to acquire high-priority natural areas in the tablelands and effectively manage the entire network.

Participants were also concerned that the Office does not have the capacity to manage natural areas but that management is distributed to other departments. While participants understood this arrangement, they also argued that more needs to be done with respect to developing an overall plan that could be used to keep the City accountable, as a whole, for natural areas management, as well as individual management plans tailored for specific natural areas. Participants also wanted the City to review the means by which it puts natural areas under protection to ensure that protection is meaningful and not subject to change if a future Council reconsiders the value of a given natural area protected within the network. Finally, participants advocated management plans that included methods to monitor natural areas to ensure that conservation objectives were being met.

Participants made two related observations that demonstrate both their strong feeling about the importance of securing natural areas in the tablelands within the network but also the budgetary challenge the City faces. First, participants argued for the prioritization of natural areas for acquisition such that resources be dedicated to those most crucial to maintaining the functionality and connectivity of the ecological network. Second, participants suggested 'ground-truthing' to help refine the inventory and identify priority natural areas, as well as using ground-truthing as an ongoing management strategy.

Participants recognized that the public had a role to play with respect to management of natural areas, too. They advocated working with stakeholder groups and the public-at-large to support management objectives, including ground-truthing and monitoring of natural areas to support conservation objectives. In this aspect, it was also noted that it is not merely vegetation that makes a natural area important. Participants want the Office to identify other features, such as salt springs, sand dunes or unusual geologic formations that make a natural area significant.

Some participants emphasized the specific need for wetland conservation and cited the City of Calgary's policy. A related concern was the creation of stormwater management ponds, or constructed wetlands, that could also serve as habitat enhancement for specific bird species, especially.

Restoration was raised as a complementary issue: if the City could construct wetlands, it could also take the opportunity, for example, to remove culverts when upgrading road surfaces to help restore the ecological functionality of a given area.

The reduction of air and water pollution might be considered within the idea of natural capital value, in that natural areas make a quantifiable contribution to pollution control through natural ecological processes.

Other issues mentioned by participants in which improvements were expected included the following.

- Managing political motives and engaging City Council – City Council must balance a variety of competing interests. Participants felt the Office needed to understand those interests and engage Council at a strategic level that advanced natural areas conservation.
- RV encroachment – participants were concerned about the use of recreational vehicles, especially dirt bikes and ATVs in natural areas ‘on the fringes’ where enforcement of municipal bylaws was weak. RV use in these areas was believed to be degrading habitat, hastening erosion, disturbing wildlife, *etc.*
- Access – access was cited in two opposed senses. First, there was concern that residential development that backed on to ravines encouraged homeowners to imagine that their backyards extended into natural areas, which they then altered to incorporate into landscaping or access to which they discouraged. As a ‘public good,’ participants felt it was inappropriate for homeowners to restrict access to natural areas. Conversely, participants also felt it was important to restrict access to specific natural areas at certain times of the year that they might be more sensitive to disturbance, such as critical mating/nesting periods or other considerations.
- Operations/management and buffer zones – In practice, natural areas management could be said to be, at least partly, in the hands of the casual employee with a lawnmower. Participants encouraged the development of clearly articulated practices that would be widely adopted by all departments to support conservation objectives. Related to management practices was the idea that the City must establish adequate buffer zones around natural areas to prevent them from being compromised by landscaping or recreational activities.
- Connectivity – Related to the immediate above was the idea that connectivity had to be enhanced by sound management of the “stepping stones” and other connectivity features that were not natural areas but that were essential to the functionality of the ecological network.
- Partnerships with developers – Once raised, participants strongly favoured developing partnerships with developers that would advance conservation objectives.
- Development density/intensification – Indirectly, residential intensification, such as that proposed through Smart Choices, would support conservation because it could reduce pressure on undeveloped areas. Participants agreed that the City should preference development that does not threaten virgin areas. For example, further expansion of the LRT should be on existing transportation corridors, which would also encourage transit-oriented-development and residential intensification along those routes rather than developing existing farmland and/or imperiling natural areas.
- Earth Charter – One table cited the Earth Charter (<http://www.earthcharter.org/>) as a comprehensive declaration of principles to support conservation and related objectives.

Additional comments

There was a general consensus that the conservation of natural areas is approaching a crisis point because explosive growth is putting tremendous development pressure on those tablelands regions of the City that include a large number of unprotected natural areas. Some limited discussion of the southern and northern portions of the North Saskatchewan River Valley also indicated that protection of natural areas, particularly on privately owned lands, remains an issue. Participants felt that they could not overemphasize the importance of acting now to secure the functionality of Edmonton's ecological network.

Participants also felt it was important that protection measures, whether using municipal or environmental reserves or a new designation yet to be determined, must recognize and preserve a natural area's ecological function – not merely distinguish it as a landscape feature. For this reason, neither the existing municipal or environmental reserve designation was deemed sufficient without alteration. Participants also wanted the City to clarify the development restrictions that applied to different zoning bylaws currently in use to protect publicly owned natural areas in the river valley and ravine system and in the tablelands. The general consensus was that if protection measures do not explicitly acknowledge the value of natural areas, then their value as protection measures is suspect.

Community mapping

Recognizing its limitations, the Office of Natural Areas wished to make use of the available expertise reposed in workshop participants as part of a proposed ongoing management practice. Workshop participants were asked to document on a natural areas inventory map (developed by Spencer Environmental) notable features of which they were aware that applied to the network of natural areas. Community mapping contributions made during the four open houses have been included in this analysis.

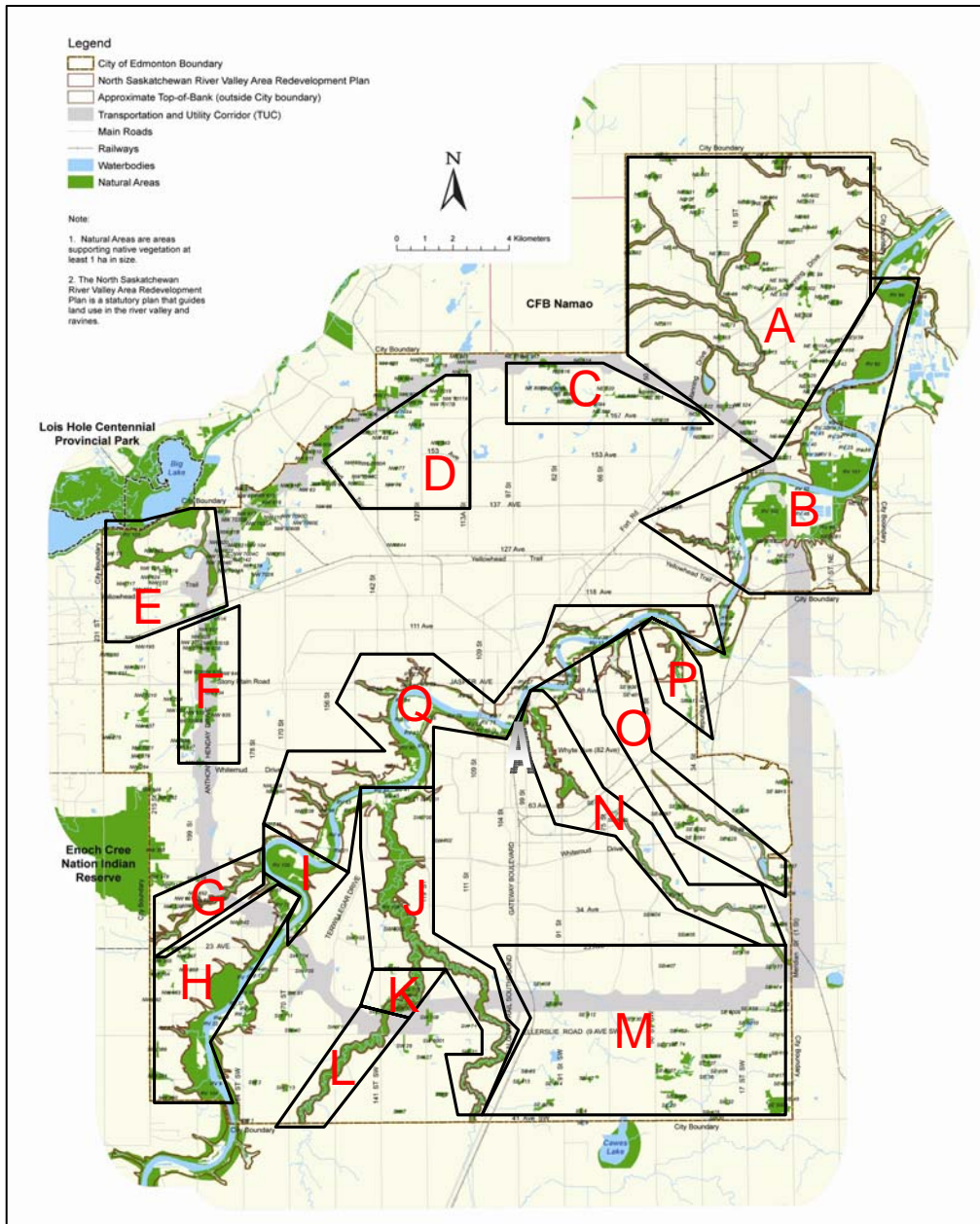
Those contributions were collected for analysis by the Office of Natural Areas, a summary of which is provided in the charts and map below and on the following pages. The list describes the designated groups of natural areas and green space locations commonly identified by participants in the community mapping exercise. Please see the map on the next page for further detail.

Figure 3: Designated zones for community mapping exercise

Designation	Description
A = Horse Hills Complex	Includes natural areas within the rural NE of Edmonton, N of transportation utility corridor (TUC), W of river valley.
B = NE River Valley	Extends from Kinnaird Ravine (RV 85) NE to city limits. Includes RV 94, RV 92, RV 101, RV 102, NE 235 <i>etc.</i>
C = Poplar Lake to Brintnell	E of 97 Street along 167 Avenue to Fort Road, S of TUC. Includes: NE 8099, NE 8094, NE 8088, NE 8091 <i>etc.</i>
D = Palisades Area	From Henry Singer (NW 7060A) northeast to Rapperswill (NW 7016). N of 137 Avenue, S of TUC, W of St. Albert Trail, E of Castledowns Road.
E = Big Lake Area	S of Big Lake, W of TUC, N of rail line, E of 231 Street. Includes Kirk Lake area, RV 103, NW 645 <i>etc.</i>
F = West AHD	Natural areas within TUC and adjacent S of Yellowhead Trail and N of Whitemud Drive. Includes NW 7051, NW 627, NW 628, NW 7012, NW 7009A, <i>etc.</i>
G = Wedgewood Ravine	Includes natural areas abutting Wedgewood Ravine.
H = Southern NW	Includes natural areas S of Wedgewood Ravine, such as Big Island, NW 384, RV 33 <i>etc.</i>
I = Terwilligar Park Area	Includes Terwilligar Park (RV 100) and adjacent natural areas.
J = Downstream Whitemud Creek and Blackmud Creek	Includes Whitemud Creek from the river upstream to the divide of Blackmud and Whitemud Creeks and includes all of Blackmud Creek.
K = McTaggart Sanctuary Area	McTaggart Sanctuary, Whitemud Creek and surrounding natural areas such as SW 712, SW 706 and SW 707.
L = Whitemud Creek South of AHD	Whitemud Creek south of AHD to 41 Avenue SW (city limits).
M = Developing SE Edmonton	Includes all natural areas E of Blackmud Creek, S of 23 Avenue, N and W of city limits.
N = Mill Creek	From river to city limits. Includes Roper Pond.
O = Fulton Creek	From river to city limits. Includes Fulton Marsh and Pylypow area.
P = Goldbar Creek	
Q = Central River Valley	Includes natural areas on south side of river valley from Hawrelak Park to Kinsmen and natural areas on north side of river valley from McKinnon Ravine to Yellowhead Bridge.
SW = Portions of SW not included within specifically designated areas	

NW = Portions of NW not included within specifically designated areas	
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Figure 4: Map of designated zones for community mapping exercise



NOTE: Natural areas in the City's northwest between those areas identified as "D" and "E" in the community mapping exercise that are within the transportation and utility corridor are not within municipal jurisdiction and so were not included in this analysis.

The chart beginning on the next page describes specific habitat features, vegetation and wildlife sightings specific to each of the designated regions contributed by workshop participants, with some observations related to recent loss of habitat or restoration opportunities.

Figure 5: Community mapping observations by location

Area	Observations
A Horse Hills Complex	<ul style="list-style-type: none"> Critical corridors for wildlife Retention of agriculture matrix lands as stepping stones Connectivity to ravines, river and region Corridor connecting Horse Hills watershed to Sturgeon River Important market gardens Rich lands Need to keep farmland for food production Profile of this area should be raised Birdwatching
B NE River Valley	<ul style="list-style-type: none"> New subdivision built too close to valley edge (Fraser) Rich agricultural land (RV 92) Excellent potatoes (RV 92) Archaeological significance (RV 92) Aspen woodland and grassland species (RV 102) White pelicans (Hermitage Park) RV 94 and RV 92 should be easier to protect since there are fewer landowners Fantastic farmland Good market garden area – Riverbend, Kuhlman's City Farm Lots of deer (RV 102) Old Strathcona sewage lagoons Canadian toads along river Kinnaird Ravine Wood frogs (RV101) Tiger salamanders (RV101) Need to extend river valley park system all the way to NE edge of city (RV101) Quarry Ridge/Ravencrest Natural Area – deer, owls, view (RV101) Need to extend river valley park system all the way to NE edge of city Great natural areas
C Poplar Lake to Brintnell	<ul style="list-style-type: none"> Loss of critical habitat (Brintnell) Saline wetlands Connectivity to river potential Species that were lost from Brintnell Major frog site (NE 528) Three-spine stickleback (NE 8089) Lots of birds: waterfowl, shorebirds, songbirds Much more than just nuisance geese Hooded merganser Black-crowned night heron Grebes Cormorants Chukar Owls
D Palisades Area	<ul style="list-style-type: none"> Last green space in sea of development Phalaropes (NW 7016) Wood frogs (NW 46 and NW 7060A) Coots (NW 7060A) Black terns (NW 7060A) Damselflies (NW 7060A) Invasive crayfish (SWMF in Cumberland)
E Big Lake Area	<ul style="list-style-type: none"> Critical amphibian habitat Frogs and salamanders Priority link to Big Lake Old growth Ravine Wood frogs Wetlands Waterfowl Rodents Riparian area especially for pasturing birds Continue to support as proposed protected area
F West AHD	<ul style="list-style-type: none"> Need to preserve white spruce and tamarack Natural Black spruce forests Larch Wetland/bog Marl pond springs Almost destroyed already Ditches along 199 St. between Stony Plain Road and Whitemud Drive are excellent bird habitat
G Wedgewood Ravine	<ul style="list-style-type: none"> Houses built too close to ravine Outstanding ecologically Amazing example of ecological integrity/health Needs to be protected Best example of healthy riparian ecosystem Owls Important for connectivity Ostrich fern
H Southern NW	<ul style="list-style-type: none"> Critical multi-species corridor (Big Island) Sand dunes (NW 384) Unique area (NW 384) Needs management plan (NW 384) Wood frogs (RV 33) Snake valley (RV 33) Good wetland habitat (RV 33) Probable garter snake hibernacula (RV 33)

Area	Observations
I Terwillegar Park Area	<ul style="list-style-type: none"> • Lowlands • Bird and ungulates • Currently development free • Old gravel pit • Invasive species <ul style="list-style-type: none"> • Several interesting native species • Wild clematis • Yellow lady-slippers • Osprey nest (AHD and 23 Avenue)
J Downstream Whitemud Creek and Blackmud Creek	<p><u>Blackmud Creek</u></p> <ul style="list-style-type: none"> • Observed in residential front yard: porcupines, coyotes, kestrels, many songbirds (Blackmud Creek @ 23 Avenue and 119 Street) <p><u>Whitemud Creek @ river</u></p> <ul style="list-style-type: none"> • Recommend Whitemud Integrated Concept Plan to naturalize lower Whitemud Creek • Tufa springs • Caragana Hill • Tubifex worms • Stoneflies • Rainbow Valley • South facing slope – bentonite • Skeleton weed • Several rare prairie species • Rare Artemisia <p><u>All of J</u></p> <ul style="list-style-type: none"> • Mulenbergia rasanosa (sp?) • Confluence • Kingfishers • Lake Chub • Wildlife • Black-crowned night heron • Saw-whet owl • Popular walking trails • Nature enjoyment • Should provide information/education for maintaining healthy ecosystem • Scenic area • Hiking • Rabbits, birds, <i>etc.</i>, in nearby residential area
K McTaggart Sanctuary Area	<ul style="list-style-type: none"> • Not as accessible now because of so much development • Nice place for being alone in nature • Geology • Old coal mine <ul style="list-style-type: none"> • Edmontonsaurus bed • Series of beaverlodges (historical/long term) • Other wildlife (deer, coyotes, moose) • Wildlife corridor under AHD
L Whitemud Creek South of AHD	<ul style="list-style-type: none"> • Tiger salamanders • Native sunflowers? • Fireflies • Excellent dragonfly nymph development • Bank swallows • Fossil outcroppings along shores • Wood frogs <ul style="list-style-type: none"> • Coyotes' paradise • Many woodpeckers • Deer • Rabbits • Ostrich fern • Tablelands along edges at least 10 m
M Developing SE Edmonton	<ul style="list-style-type: none"> • Wetland and grassland • Habitat for shorebirds, waterbirds and songbirds • Drainage near Prairie Meadows Golf Course has potential for drainage from natural wetlands for irrigation of golf course • Wood frogs • Tiger salamanders <ul style="list-style-type: none"> • SWMF E of Blackmud, N of AHD: One of first SWMF in Edmonton; geese, ducks, shorebirds breeding; drainage to increase capacity by increasing wetland portion; impressed with this approach; pipelines have potential to act as wildlife corridors from pond to Blackmud Creek and other fragmented areas.

Area	Observations
N Mill Creek	<ul style="list-style-type: none"> • Bobcat just S. of Whitemud Drive • Fox @ 34 Avenue • Restoration • Flower species between 63 and 82 Avenues • Pheasant between 63 and 82 Avenues • Concern regarding contamination of water with industrial leachate and dumping rendering it toxic to wildlife • Need to create wildlife corridor through industrial area where Mill Creek goes underground; perhaps industry could be persuaded to help in this initiative • Riparian habitat potential is good N of Whyte Avenue • Recreational pressure removing understory – off trail use N of Whyte Avenue • Beautiful walking trails • Biking • Native vegetation needed to maintain ecological function N of Whyte Avenue • Important to consider tolerance to “wear and tear” – Mill Creek is reaching limit N of Whyte Avenue • Great paved and dirt trails fro mountain biking • Feeling of being out of city, away from urban sprawl • Easy to commute to downtown and Whyte Avenue • Social atmosphere along walking trails • Only natural area in Silverberry • Roper Pond: well developed; each year seems to be used by new bird species
O Fulton Creek	<ul style="list-style-type: none"> • Restoration • Fulton Marsh is an important waterfowl site • Marsh species (SE 5093) • Good connectivity (SE 5093) • Chemical damage on plants widespread from pollutants and emissions • Old growth forest near river
P Goldbar Creek	<ul style="list-style-type: none"> • Bald eagle nest • Red fox den • Important wildlife corridor • Overwintering ducks at waste water treatment plant • Artesian well (RV 76)
Q Central River Valley	<ul style="list-style-type: none"> • Tiger salamanders @ Hawrelak Lake • Garter snakes (RV69) • Flying squirrels @ University lands • Birding • Great Horned owls @ University lands • Saw-whet owls @ University lands • Duck prints in winter @ University lands • Albino magpies @ University and Kinsmen lands • Mushrooms @ Kinsmen • Cliff swallow colony across from Goldbar Creek • Picnics • Walking • Break from hectic life • Personal enjoyment • Research • Special place not well appreciated for its quality • MacKinnon Ravine: beautiful picnic spot; lovely view of city; walking
SW	<ul style="list-style-type: none"> • Nesting pair of hawks for at least 3 years @ U of A Farm – Belgravia • Moose, deer, rabbits, coyotes @ U of A Farm – Belgravia • Geese, sandpipers, ducks, crows, many types of songbirds @ U of A Farm – Belgravia • Songbird habitat (SW 704 and SW 705) • Corridor connecting Whitemud Creek to North Saskatchewan River • Geology – Kame (SW 86 – Magrath) • Birding: 17 species @ Hodgson Wetland • Restore access to wildlife corridor between Magrath Hill and Whitemud (developer recently removed it)
NW	<ul style="list-style-type: none"> • Kinokamau Lake is a problem area since there is no recharge to lake due to adjacent industrial use
Beyond City Limits	<ul style="list-style-type: none"> • Bretona Pond: headwater for Mill Creek particularly important (within Strathcona County) • Enoch Nation: City has no jurisdiction; giant fence along east side; perhaps negotiate with Enoch Nation • NE river valley towards Fort Saskatchewan: sturgeon habitat; frogs, toads; shorebirds; link to Regional Beaverhills Initiative

Much of the information provided through the community mapping exercise could be used to help prioritize natural areas for acquisition, specify conservation objectives in the management plans for specific areas, and to support public education. The diversity of species to be found in an otherwise urban

environment, for example, would likely surprise a great many residents, and could enhance public support for conservation measures.

Participant recommendations

Workshop participants were then asked to identify areas in which they felt the City should focus its efforts, based around three themes: protection; public outreach and involvement; and planning.

Workshop participants were virtually unanimous in making the following recommendations to the Office of Natural Areas.

Protection

The highest priority for workshop participants was to acquire as many natural areas as possible to secure the functioning ecological network. This priority is aligned with their earlier observations of strengths and weaknesses in the City's current conservation practices.

As noted above, participants were very concerned that the current means of protecting natural areas be improved, not only to bring more lands into protection status but also to ensure that, once protected, a natural area would not be vulnerable to development or other uses not consistent with conservation in the future.

Participants were also clear that they wanted the City's conservation efforts to be focused on the maintenance of the City's functioning ecological network. Even if it is true that some of the natural areas within the network have been maintained by accident as much as by design, the value of these features – and the need to ensure that they are adequately protected for the future – cannot be underestimated. Participants clearly understood and endorsed the idea of four essential network 'elements':

- core habitat areas;
- riparian corridors;
- ecological corridors; and
- stepping stones.

With respect to management, participants emphasized the opportunity to develop partnerships with stakeholder groups to assist in the management of the network to ensure that specific natural areas are maintained with a view to their ecological function.

Agricultural lands were singled out for special attention. Participants said these lands in the City's northeast and southeast are valuable for multiple reasons, including their ability to produce food for the Capital region and all the concomitant ecological benefits (reduced reliance on transported goods, *etc.*) and their value as wildlife corridors between natural areas.

Recommendations under this theme concluded with a note that the City should not forget about the value of restoration in two senses. First, it might not be possible to acquire all natural areas identified in the 2005 inventory but it might also be possible to purchase lands in near proximity that could either be swapped with developers or restored to 'natural' status over time to replace natural areas lost to development.

Public outreach and involvement

Participants largely did not distinguish between public awareness, education and involvement, instead seeing these as points on a spectrum of public engagement appropriate for the ongoing protection and management of natural areas.

The stewardship role of the Office of Natural Areas was understood and participants emphasized the need for communication about natural areas to be coordinated among the various City departments and branches. Participants did not feel that the City delivered a consistent message with respect to conservation and also that some departments clearly did not understand the intrinsic value of natural areas or why they should be distinguished from recreational parklands or other manicured green spaces. Participants strongly supported the Office's stewardship role and its ongoing efforts to involve its colleagues more deliberately in the development of planning and management guidelines.

The development community was also identified as deserving special attention. Many participants felt that developers do not have an adequate appreciation for the value of natural areas but that they would act more directly to support conservation if they did. The Office of Natural Areas was advised to make a special effort with developers and to find some means of rewarding ecologically sensitive design and conservation practices so that developers that are cooperating would receive appropriate public recognition.

All agreed that the end goal of public outreach was to get as many citizens as possible involved in the appropriate enjoyment, protection and management of Edmonton's functional ecological network.

Planning

All participants agreed that the City must do a better job of making conservation part of its planning processes from the very beginning, rather than an item on a checklist that is considered late in the approval process. It was their opinion that conservation and planning cannot be approached as two separate activities but that one was integral to the other.

Some participants recommended using the four guiding principles of the Earth Charter as a means to identify planning priorities; respect for nature; respect for human rights; economic justice; and peace.

Participants also agreed with ongoing work of the Office to integrate its own conservation efforts with complementary plans within the regions – that is, those of the province, neighbouring municipalities, Ducks Unlimited, *etc.*

Finally, participants strongly advocated planning for the future so that the City does not find itself in the same position in 25 years that is in today. Rapid population growth and urban development has put under threat natural areas that seemed unthreatened ten years ago. If the City truly wants to protect its functional ecological network, then participants feel it needs to extend its planning horizon to prepare for future contingencies.

The Office of Natural Areas agreed that it would re-engage citizens and stakeholder groups at a later date as it refines *Natural Connections* prior to submission of the final plan and affiliated bylaw to City Council in 2007. All workshop participants provided contact information to ensure that they received updates as required.

Appendix One: Stakeholder invitation

November 6, 2006

Dear Mr. Pike
Sample
Alberta Conservation Association
#111, 4999 - 98 Avenue
Edmonton, AB T6B 2X3
By e-mail to info@ab-conservation.com

Dear Mr. Pike:

The City of Edmonton's Office of Natural Areas wishes to invite your organization to participate in the creation of a new Integrated Natural Areas Conservation Plan. Phase I of the plan is complete: the 2006 *State of Natural Areas* report will be released to the public on Friday, November 10, and will be posted on our website. Phase II is to engage the public in the creation of a vision and guiding principles for the new plan. Phase III, scheduled to begin in 2007, will be to develop an Implementation Plan.

There are three methods through which your members may provide input. Individuals may, within limitations described below, participate in any one or all three of the opportunities listed.

On-line survey

On Friday, November 10, your members will be able to link to an on-line survey by visiting www.edmonton.ca/naturalareas and then clicking "News and Events" from the left-hand menu. The survey can be completed between November 10 and December 8 by residents of the City of Edmonton only.

Public open houses

Your membership may learn about the state of Edmonton's natural areas and proposed Integrated Natural Areas Conservation Plan by attending one of four public open houses being held in each of the four quadrants of Edmonton. The open houses will give Edmontonians an opportunity to view maps produced to support the *State of Natural Areas Project* report and to provide their input to City staff in an informal setting. The open houses will be held from 6:00 p.m. to 9:00 p.m. and are open for drop-in visits of any length.

Northwest Edmonton

6:00 p.m. to 9:00 p.m.
Monday, November 20
Lago Lindo Community Hall
17221 95 Street

Southwest Edmonton

6:00 p.m. to 9:00 p.m.
Tuesday, November 21
Riverbend Community Hall
258 Rhatigan Road East

Northeast Edmonton

6:00 p.m. to 9:00 p.m.
Thursday, November 23
Delwood Community Hall
7515 Delwood Road

Southeast Edmonton

6:00 p.m. to 9:00 p.m.
Wednesday, November 29
Woodvale Community Hall
4540 50 Street

Maps to help participants find each of the four venues can be found by visiting our website at www.edmonton.ca/naturalareas and then clicking "News and Events."

Public workshops

The City will also host two facilitated public workshops, one each on the City's north and south sides, that will enable interested citizens to participate in a structured exploration of conservation issues. Each stakeholder organization has been assigned two places in the workshops; you may choose to have both members attend one workshop, or send one each to the north and south workshops. Pre-registration is required: please send your registration requests to naturalareas@teleologic.ca.

It is recommended that participants be familiar with the *State of Natural Areas Project* report, available for download by visiting our website at www.edmonton.ca/naturalareas and then clicking "News and Events" from the left-hand menu.

North Edmonton

6:00 p.m. to 10:00 p.m.
Thursday, November 23
Delwood Community Hall
7515 Delwood Road

South Edmonton

6:00 p.m. to 10:00 p.m.
Wednesday, November 29
Woodvale Community Hall
4540 50 Street

The City is also hosting two facilitated landowner workshops, one each on the north and south sides, that will enable landowners in the City's undeveloped agricultural areas to participate in a structured exploration of conservation issues related to those regions.

Please promote these public engagement opportunities with your membership. In particular, we encourage you to share information about the on-line survey and public open houses. The greater the number of Edmontonians who participate in the public engagement process, the greater the assurance we can provide to City Council that citizen input has been comprehensive and represents the wishes of a large number of Edmontonians. You may, for example, forward this letter via e-mail to all your members with the additional notice of whom you have assigned to participate in the public workshops.

If you have any questions about the public engagement process, please e-mail our consultant at naturalareas@teleologic.ca or phone (780) 425-4484 and ask to speak to Mike Evans.

We are confident that your participation in the public engagement process will prove an inspiring exercise in cooperation toward the critical goal of natural areas protection in the Edmonton area.

Sincerely,



Grant Pearsell
Natural Areas Coordinator
Office of Natural Areas, City of Edmonton

Appendix Two: Stakeholder list

Stakeholder name	Organization
Academics	
Dr. John Wood	King's University College
Dr. Guy Swinnerton (<i>emeritus</i>)	U of A, Physical Education and Recreation
Dr. Colleen Cassady St. Clair	U of A, Science, Biological Sciences
Dr. Lee Foote	U of A, Agriculture, Forestry and Home Economics, Renewable Resources
Dr. Cindy Paszkowski	U of A, Science, Biological Sciences
Dr. James Cahill	U of A, Science, Biological Sciences
City of Edmonton committees	
Natural Areas Advisory Committee	Members will be notified by ONA
Natural Areas Policy Implementation Committee	Members will be notified by ONA
Community/cultural organizations	
not specified	Edmonton Aboriginal Urban Affairs Committee
Brian Kropf	Edmonton Federation of Community Leagues
Development community	
Liz Tweddle, Executive Director	Urban Development Institute, Greater Edmonton Chapter
none specified	Alberta Green Building Council
Marty Bruin, President	Canadian Home Builders' Association, Central Alberta
Cindy Chiasson	Environmental Law Centre
ENGOS	
Adele Mandryk, President	Legacy Lands Conservation Society
Albert Finnamore, Asst. Director	Curatorial and Collections Preservation, Royal Alberta Museum
Mark Steinhilber, Head	Natural History, Royal Alberta Museum
Rick Shewchuk	Ducks Unlimited
Bruce Wilson	River Valley Alliance
Lindsay Telfer	Sierra Club of Canada - Prairie Chapter
none specified	Edmonton Nature Club
Russ Dahms	Edmonton Federation of Community Leagues
Cindy Chiasson	Environmental Law Centre
Don Pike	Alberta Conservation Association
Dale Wilkie	Canadian Federation of University Women
Ken Woitt	Alberta Capital Region Alliance
Larry Simpson, Alberta Regional VP	Nature Conservancy of Canada (Edmonton rep?)
Orest Korbutt, Chairman	Alberta Sport, Recreation, Parks and Wildlife Foundation
Doug Hutton	Living World Nature Trust
Ernie Ewaschuk	Land Stewardship Resource Centre of Canada
Randy Collins, President	Alberta Fish and Game Association
Kerri O'Shaughnessy	Alberta Riparian Habitat Management Society
none specified	Canadian Parks and Wilderness Society - Edmonton Chapter
none specified	Federation of Alberta Naturalists

Appendix Three: Workshop Powerpoint presentation

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Integrated Natural Areas Conservation Plan

Public-at-large and ENGO workshop



November 29, 2006




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Agenda



1. Office of Natural Areas mandate 6:20-6:30
 - i. Coordinating, stewardship function *v.* operations
2. 2005 *State of Natural Areas* report 6:30-7:30
- BREAK
3. Edmonton successes (designate scribe) 7:45-8:30
 - i. What is the City doing well?
 - ii. What can it do better?
4. Community mapping 8:30-9:00

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Agenda



5. Where should the Office of Natural Areas focus its efforts? 9:00-9:30
- BREAK
6. Summary and wrap-up 9:45-10:00

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Office of Natural Areas

- Created in 2002, the role of the Office of Natural Areas is to ensure that natural areas – from forest and grassland to wetlands, lakes and riparian areas – are conserved and restored, and integrated into new development in a way that enables them to remain healthy and sustainable.
- Two committees are in place : the Natural Areas Policy Implementation Committee (NAPIC) and the Natural Areas Advisory Committee (NAAC).






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What *is* a “natural area”?

- The Natural Areas Advisory Committee has defined natural areas as follows.

“An area of land and/or water especially dedicated to the protection and maintenance of biological diversity, and of natural and associated cultural resources, and managed through legal or other effective means.”
- Areas such as groomed parks and recreation areas are not included within the definition.

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Related plans and initiatives

1. *Natural Connections*: the Integrated Natural Areas Conservation Plan (in development).
2. Edmonton Land Trust (approved yesterday).
3. Ecological Conservation Assistance Program.
4. Plan Edmonton, Environmental Strategic Plan, Policy C-467, Environmental Review in NSRVRS, new structure plans.



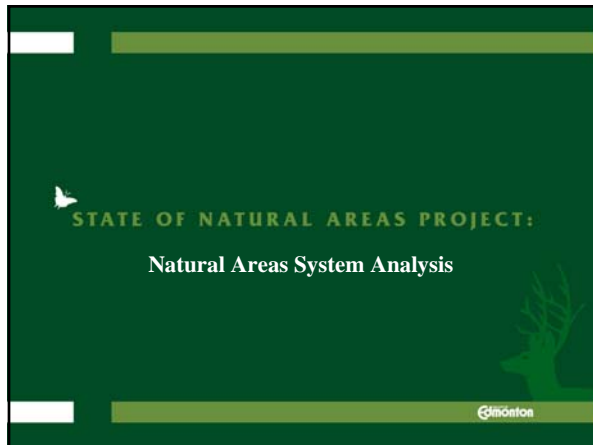
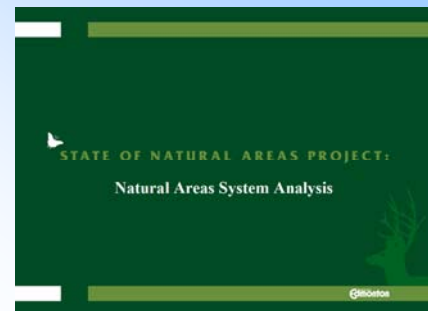

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Natural Connections

- a **State of Natural Areas report**, that updates the natural area inventory map and identifies a natural area network for Edmonton;
- a **Conservation Vision**, developed through public consultation; and
- an **Implementation Plan**, which will outline roles, responsibilities and strategies for moving forward on the protection of Edmonton's natural areas.



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Overview

- History of Natural Areas Management in Edmonton.
- Why conserve Natural Areas?
- What do we need for effective conservation?
- What can we learn from other plans?
- Conservation efforts to date.
- Findings of current study.

River Valley Natural Areas Management

- Natural Area conservation began in 1900s with protection of Victoria Park.
- For many years, focus was largely on the River Valley.
- First official policies:
 - NSRV ARP (1985);
 - Ribbon of Green (1992).

Tableland Natural Areas Management

- Value of Natural Areas in the upland areas (tablelands) recognized in the mid 1980s.
- Inventories identified sites:
 - City of Edmonton (1986);
 - Geowest (1993).
- 1995: Policy C-467, *Conservation of Natural Sites in Edmonton's Tablelands*.

Integrated Management Approach

- 1998 - Plan Edmonton (Edmonton's Municipal Development Plan).
- 2006 - revision of City's *Environmental Strategic Plan*.
 - > **Integrated management of river valley (NSRVRS) and tableland Natural Areas.**

Current Process

- Develop and implement a new Integrated Natural Areas Conservation Plan (INACP).
- Integrated management of the NSRVRS and tableland Natural Areas- treat as one system.

Why Conserve Natural Areas?- Global Perspective

- Globally, populations have increased six-fold since the 1800s.
- Extensive conversion of natural lands to support growth.
- Currently, **83%** of world modified by human land use and resource extraction.

Fragmentation – Global Perspective

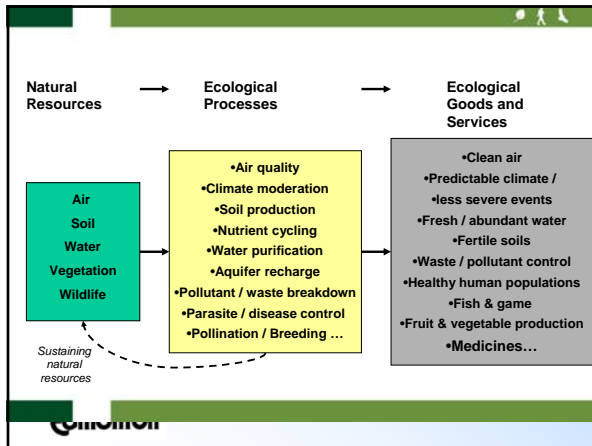
- Result = remnant habitat patches.
- Only **16%** of world's land base comprises wilderness areas > 4000 km²
- Many of those sites are isolated.
- Biodiversity contained within them also isolated.

Local Perspective

- 1904 population of 8,350.
- 20 minute walk in any direction: wilderness.
- Horseback, honeywagon.
- 21st century population of +700,000 in Edmonton, 1 million regionally.

Local Perspective

- Same fragmentation happening at local scale
 - Result = remnant natural areas
- Local conservation efforts produce **local benefits**
- Such efforts also contribute to **global solutions**

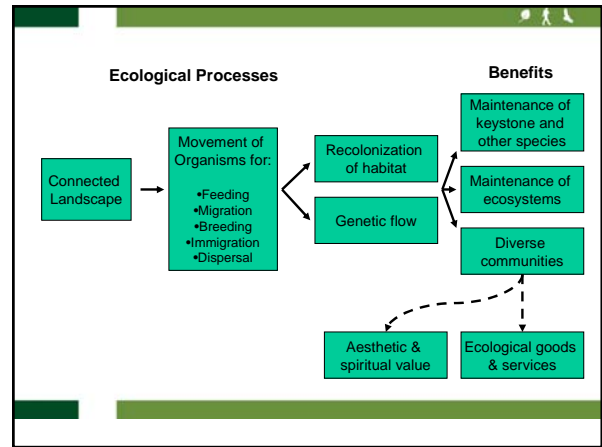


Effective Natural Areas Conservation

- Is based on conservation science.
- Focuses on maintaining healthy, functional ecosystems.
- Recognizes that management must focus on Natural Areas *and their relationships with their surroundings*.

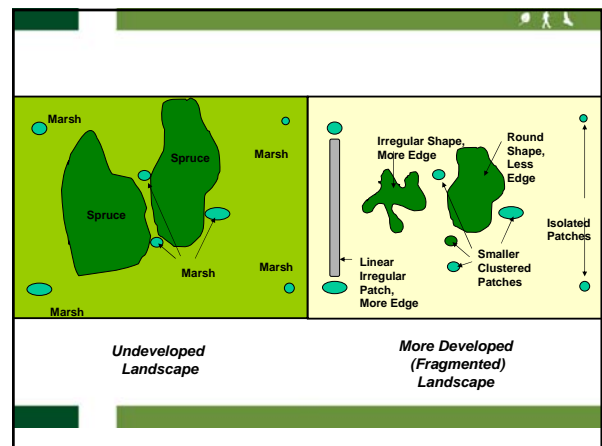
Effective Conservation

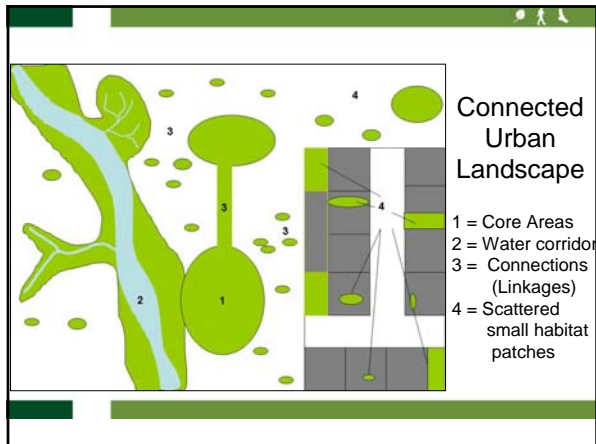
- Conservation science tells us that a healthy, functioning landscape depends on:
 - genetic exchange;
 - landscape connectivity.
- And ecological processes operating under principles of:
 - ecological resilience;
 - ecological redundancy;
 - temporal and spatial scales.



Integrated Management - Basic Premise

- A conservation plan that focuses simply on retention of NAs will not succeed in sustaining functional ecosystems, and their associated benefits.
- To be effective, such a plan must manage NAs in the context of the surrounding landscape.





Existing Conservation Plans

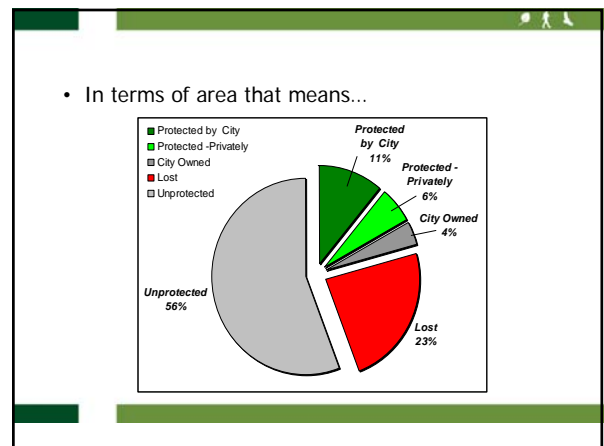
- Wide range of conservation-oriented plans, policies and strategies.
- Exist at various levels of government and cover a diversity of focal resources.

- Survey of 23 plans identified three common themes:
 - the importance of engaging the public;
 - the desire to form cooperative partnerships;
 - the need to focus on habitat protection.
- Protection of urban NAs is compatible with and contributes to the mandates of these higher-order initiatives.

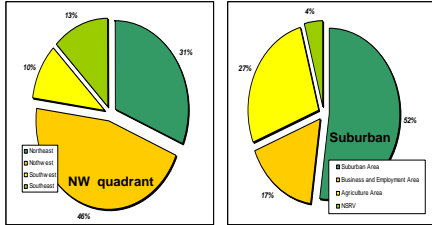
Analysis of Edmonton's Natural Areas

1993 to 2005

- The 1993 Inventory:
 - 85 Environmentally Sensitive Areas (ESAs) and Significant Natural Areas (SNAs);
 - combined area approx. 1300 ha.
- Between 1993 and 2005:
 - 8 sites completely lost (80 ha);
 - 40 sites partially lost (228 ha);
 - 22 sites at least partially protected (250 ha).



- Majority of losses occurred to sites located in...
 - the northwest quadrant of the City, and
 - suburban areas.



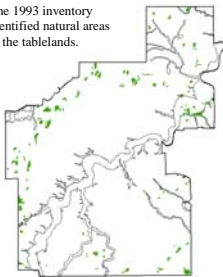
Note: based on # of sites

Results of Current Study

- The State of the Natural Areas Project :
 - included comprehensive mapping of *all* Natural Areas > 1 ha in Edmonton;
 - comprised an *integrated* approach, mapping Natural Areas in the Tablelands and the NSRV.
- The result? A new and expanded inventory of Natural Areas...

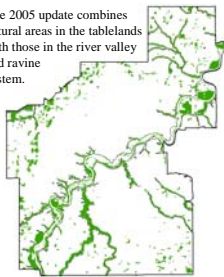
1993

The 1993 inventory identified natural areas in the tablelands.



2005

The 2005 update combines natural areas in the tablelands with those in the river valley and ravine system.

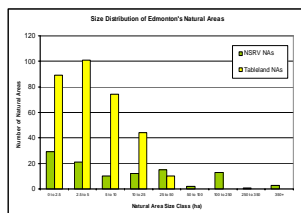


Natural Areas in Edmonton (2005)

- 424 Natural Areas = ~7225 ha.
 - 318 Tableland Natural Areas (~2050 ha).
 - 106 NSRV Natural Areas (~5175 ha).
- Combined, Natural Areas comprise 9% of Edmonton's landscape.
 - 63% of the NSRV.
 - 3% of the Tablelands.

Size and Distribution

- Natural Areas range in size from 1.0 ha to 865.8 ha.
 - NSRV Natural Areas average ~49 ha.
 - Tableland Natural Areas average ~6 ha.



Ecological Networks

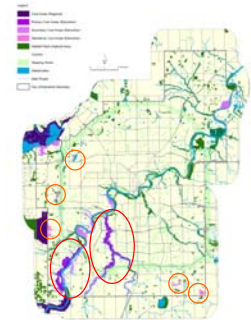
- In *Land Mosaics*, Harvard ecologist Richard Forman identified four essential elements to any ecological network.
 - A few large patches of natural vegetation, *i.e.*, core areas.
 - Wide vegetation corridors along major water courses.
 - Connectivity with corridors and stepping stones.
 - Heterogeneous nature within human developed areas.

Edmonton's Ecological Network

- Identified these elements from Natural Areas and other supportive habitats:
 - parks, golf courses, pipeline right-of-ways, and roadway verges.
- This led to...

Edmonton's Ecological Network

- Two primary Core Areas: 554 ha and 416 ha in size, both part of the NSRV.
- Other Core Areas include smaller Tableland Core Areas.



Challenges

- Core Areas in tablelands under development pressure – losses since 1993 almost exclusively in tablelands.
- Trend toward loss of connectivity and, perhaps, secondary core areas.

Recommendations

- Cannot rely on retention of Natural Areas alone, must manage Natural Areas in the context of the surrounding landscape.
- Edmonton has an existing, functional Ecological Network that requires careful and comprehensive management.
- Most important of all...

Recommendations

- ...the maintenance of:
 - **Connections and Core Areas**
- Connections = dispersal of source populations, movement of wildlife, ecological processes.
- Core Areas = area-sensitive species, biodiversity, resilience.

Conclusions

- Some successes, some set-backs.
- Edmonton's Ecological Network has strengths and sensitivities.
- Conservation plan should encourage:
 - sustainability; and
 - protection of essential ecological processes and intrinsic, natural value.

Overall goal

A vibrant, sustainable natural heritage of which Edmontonians can be proud today and in future generations.



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Public engagement process

1. On-line survey > +1,100 responses
2. Public open houses > +100
3. **Public workshops > ~40**
 - i. Includes ENGOS
 - ii. Additional consultation with UDI and development community upcoming
4. Plan implementer workshops
5. Landowner workshops






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Conservation successes

(Designate scribe)



1. What, from your perspective, does the City do well with respect to natural areas?
2. What should the City be doing that it doesn't do now, or what could it be doing better?

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Community mapping



- What do natural areas contribute to your quality of life?
- What natural areas are deserving of special consideration?
- Errors and omissions.

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Focused efforts



- Where should the Office of Natural Areas focus its efforts?
 - Protection
 - Public outreach and involvement
 - Planning

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Summary

- We will be following up with you on your input.
- Expect to be invited to complete an opinion survey in mid-December.

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More information

- For more information, or to follow-up on today's session, contact Mike Evans at mevans@teleologic.ca or 496-6080.
- Don't forget the on-line survey: visit www.edmonton.ca/naturalareas and click on "News and Events" in the left hand menu.

