



THE WAY WE GREEN

Wetland Protection Planning & Process

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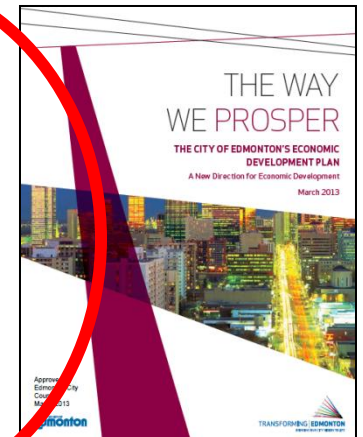
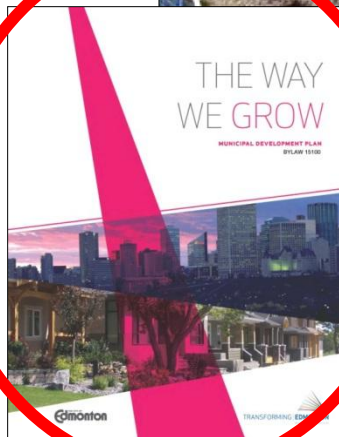
BRINGING OUR CITY VISION TO LIFE



THE CITY OF
Edmonton

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The Way We Finance

Objective 3.3

The City of Edmonton protects, preserves and enhances a system of conserved natural areas within a functioning and interconnected ecological network. (*The Way We Grow, Strategic Objective 7.1.1*)

Objective 3.4

The City restores ecologically degraded/ or damaged ecological systems and linkages to protect, expand and enhance biodiversity (*The Way We Grow, Strategic Objective 7.1.2*)

THE WAY WE GREEN

THE CITY OF EDMONTON'S ENVIRONMENTAL STRATEGIC PLAN



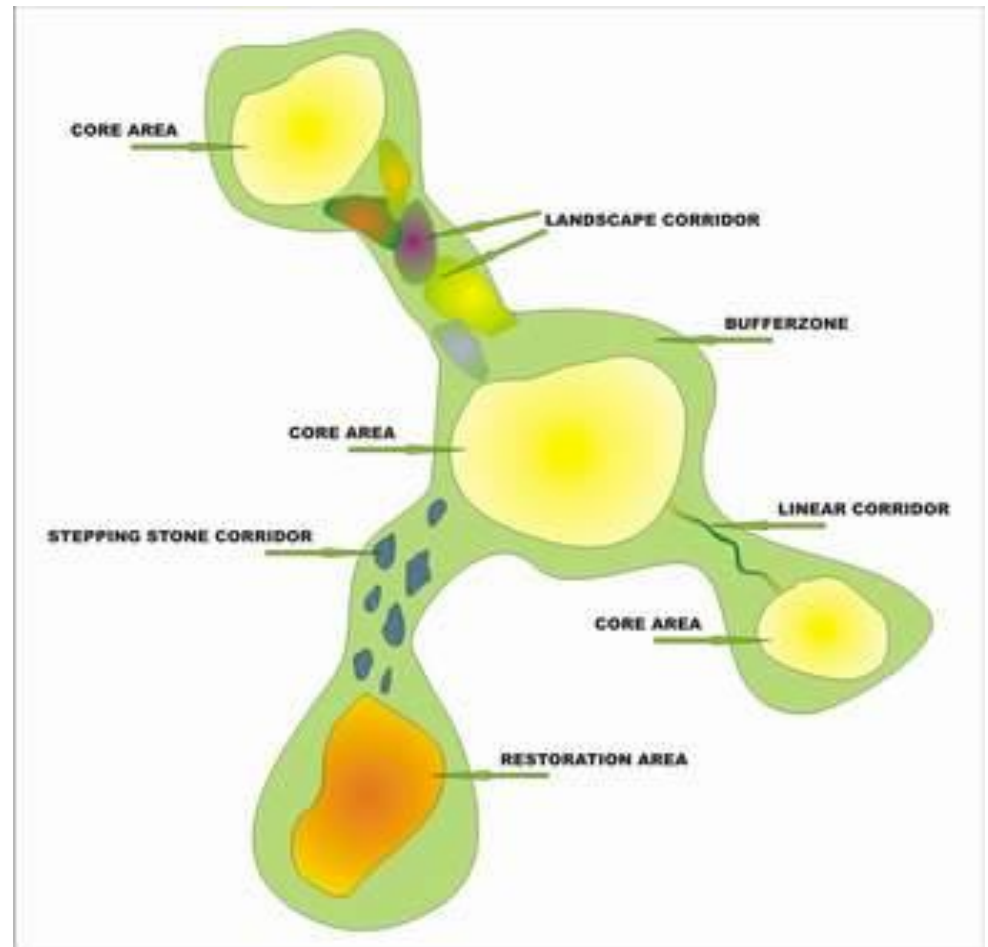
Approved by
Edmonton City Council
July 2011



Ecological Network Approach

Elements of an Ecological Network:

- Regional Core Biodiversity Areas
- Core Biodiversity Areas
- Stepping Stones and linkages (natural & semi-natural)
- Matrix



Source: Croatian State Institute for National Ecological Network

Matrix

- NOTES:

-
- The map displays the City of Kamloops and its surrounding areas. Key features include:
- City Boundary:** Indicated by a red line.
 - City of Kamloops Boundary:** Indicated by a blue line.
 - Proposed City Boundary:** Indicated by a purple line.
 - Landmarks:**
 - Lois Hole Centennial Provincial Park:** Located in the northwest.
 - Enoch Cree Nation Indian Reserve:** Located in the southwest.
 - CFB Nameo:** Located in the northeast.
 - Roads:** Major roads shown include Jasper Ave, Broadway, and various residential streets.
 - Water Bodies:** Kamloops Lake and Big Lake are visible.
 - Scale:** A scale bar at the top indicates distances from 0 to 4 Kilometers.

Edmonton's
wetlands
range from
ephemeral to
permanent



Ephemeral



Permanent

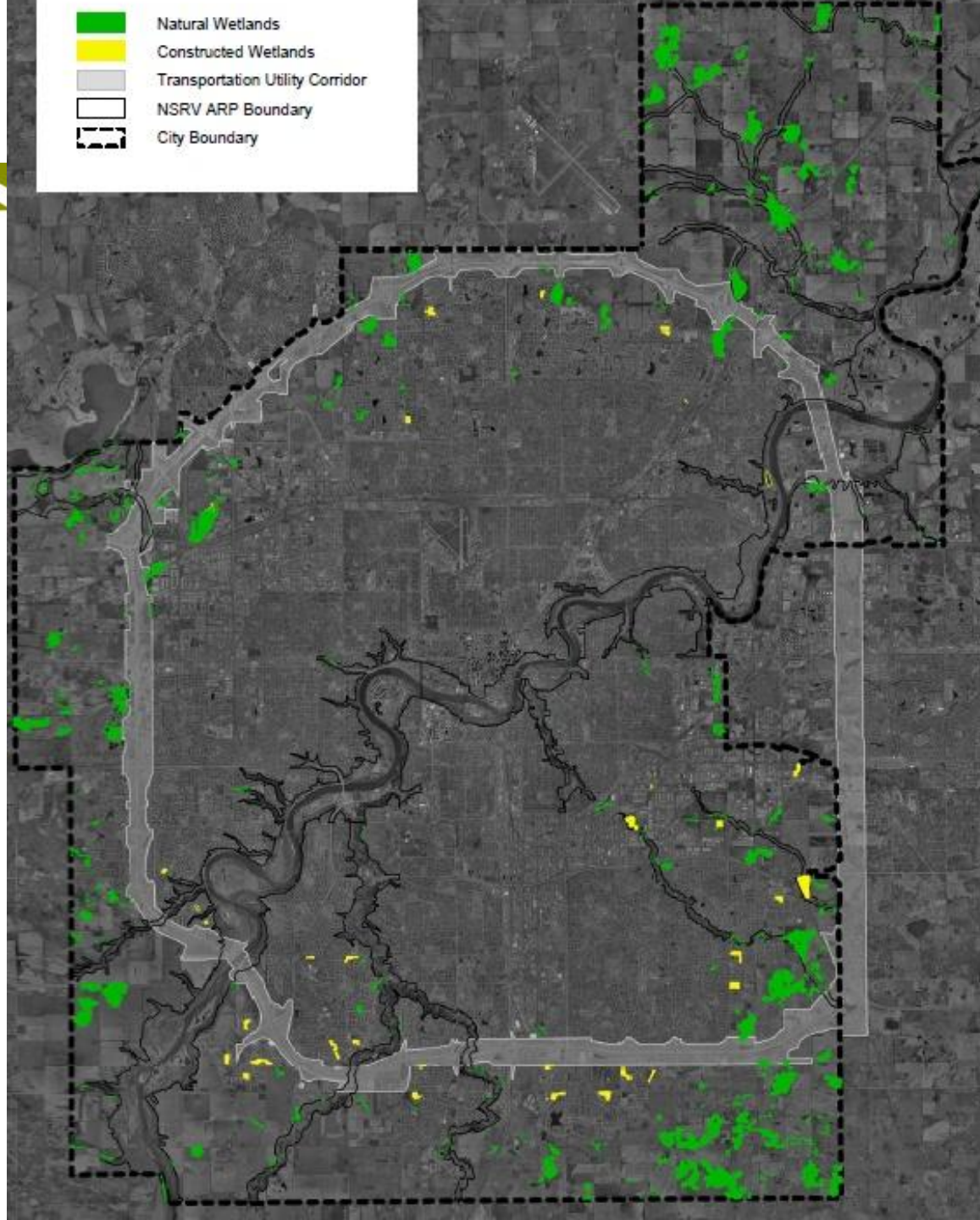


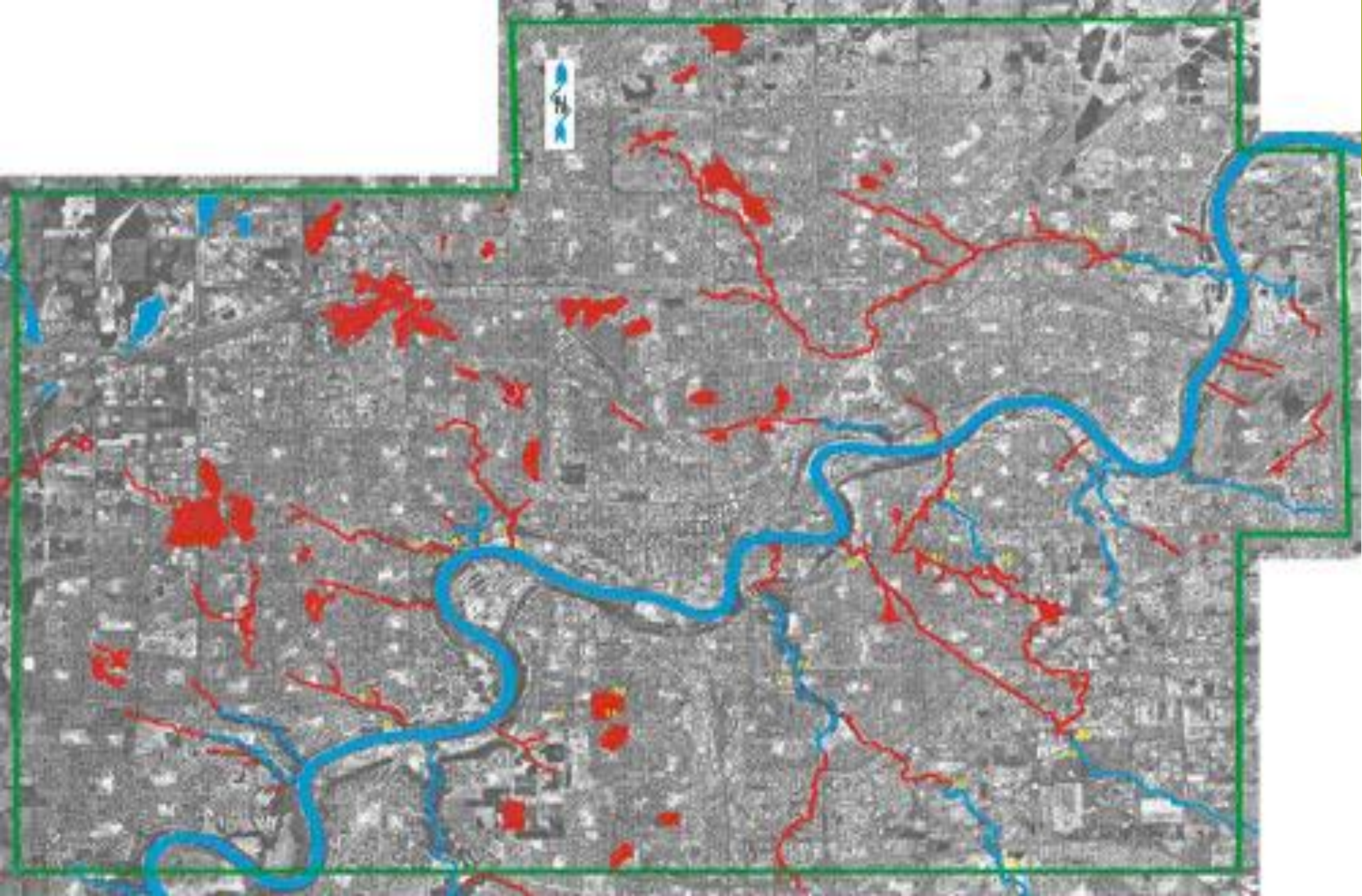
Constructed



**Stormwater-
influenced**

- Natural Wetlands
- Constructed Wetlands
- Transportation Utility Corridor
- NSRV ARP Boundary
- City Boundary





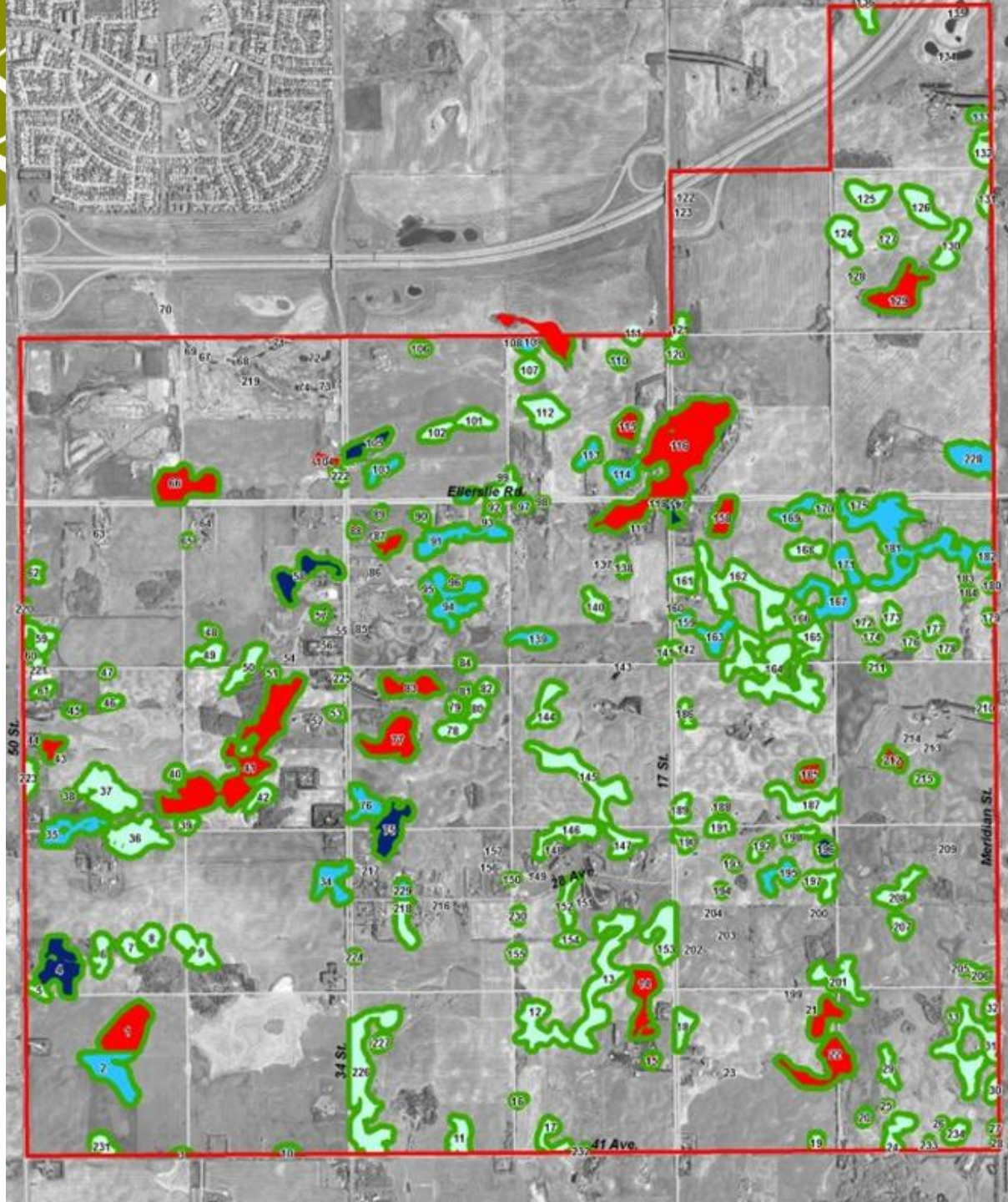
Central Edmonton circa 1924

Martell and Dammeyer, 2001



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Ecosystem Services of Urban Wetlands



REGULATING SERVICES

- Storage of water
- Climate regulation
- Groundwater recharge
- Erosion control
- Flood protection
- Water treatment
- Pollination
- Biological control



SUPPORTING SERVICES

- Soil formation
- Nutrient cycling
- Habitat for species



CULTURAL SERVICES

- Recreation and mental and physical health
- Tourism
- Aesthetic value
- Research and education
- Spiritual experience and sense of place

Way We Grow/Green Policy

Objective 3.5 The City protects, **manages and integrates natural wetlands into new and existing developments as key assets in Edmonton's ecological** network (*The Way We Grow, Strategic Objective 7.2.11*).

3.5.1 Cooperates with the Government of Alberta to actively support and complement its Wetland Policy through the following actions (*The Way We Grow, Policy 7.2.1.1*):

- In partnership with the Province, the Capital Region Board, and adjacent municipalities, develop a comprehensive **plan for wetland conservation and the integration of wetlands into the urban environment.**

- Where appropriate, acquire wetlands, riparian areas, and buffers according to the **Municipal Government Act definition of environmental reserve.**
- Where privately held wetlands cannot be protected through other means, encourage their dedication through **conservation easements.**
- Work with land owners to see that **compensation required by the Province as a result of the alteration or destruction of wetlands is carried out within city boundaries.**

Way We Grow/Green Policy

3.5.2 Will dedicate permanent, semi-permanent, and seasonal wetlands (i.e., Class III, IV, and V Wetlands in the Stewart and Kantrud system) and all peatlands as Environmental Reserve upon subdivision of land.

3.5.3 Requires compensation within the borders of the city for wetland drainage or alteration (in full or part) for all non-ephemeral wetlands (i.e., Class II, III, IV, and V wetlands in the Stewart and Kantrud system) and all peatlands in the form restoration or construction of a similarly functioning wetland.

Environmental Reserve

- 664(1)** Subject to section 663, a subdivision authority may require the owner of a parcel of land that is the subject of a proposed subdivision to provide part of that parcel of land as environmental reserve if it consists of
- (a) a swamp, gully, ravine, coulee or natural drainage course,
 - (b) land that is subject to flooding or is, in the opinion of the subdivision authority, unstable, or
 - (c) a strip of land, not less than 6 metres in width, abutting the bed and shore of any lake, river, stream or other body of water for the purpose of
 - (i) preventing pollution, or
 - (ii) providing public access to and beside the bed and shore.

Planning Process

Area Structure Plan (ASP)/



- Phase I Ecological Network Report
- Ecological Network and wetlands to be retained are identified
- AMP addresses wetland retention
- Crown Claims identified

Neighbourhood Structure
Plan (NSP)



- Phase II Ecological Network Report
- Ecological Network and wetlands to be retained confirmed
- NDR addresses retention & sustainability
- Crown Claims delineated

Zoning



- Natural Area Management Plan
- Crown Claims zoned AJ
- Wetlands and buffers zoned NA

Subdivision



- Crown Claimed and Wetlands taken as ER

Improving the Process

- Consistent messaging
- Rural South East wetland mapping
- Coordination with AESRD early in the planning process
- Quarterly meetings with AESRD and Drainage Services staff
- Phase II Ecological Network TOR
- Initiated an Ecosite Mapping Project

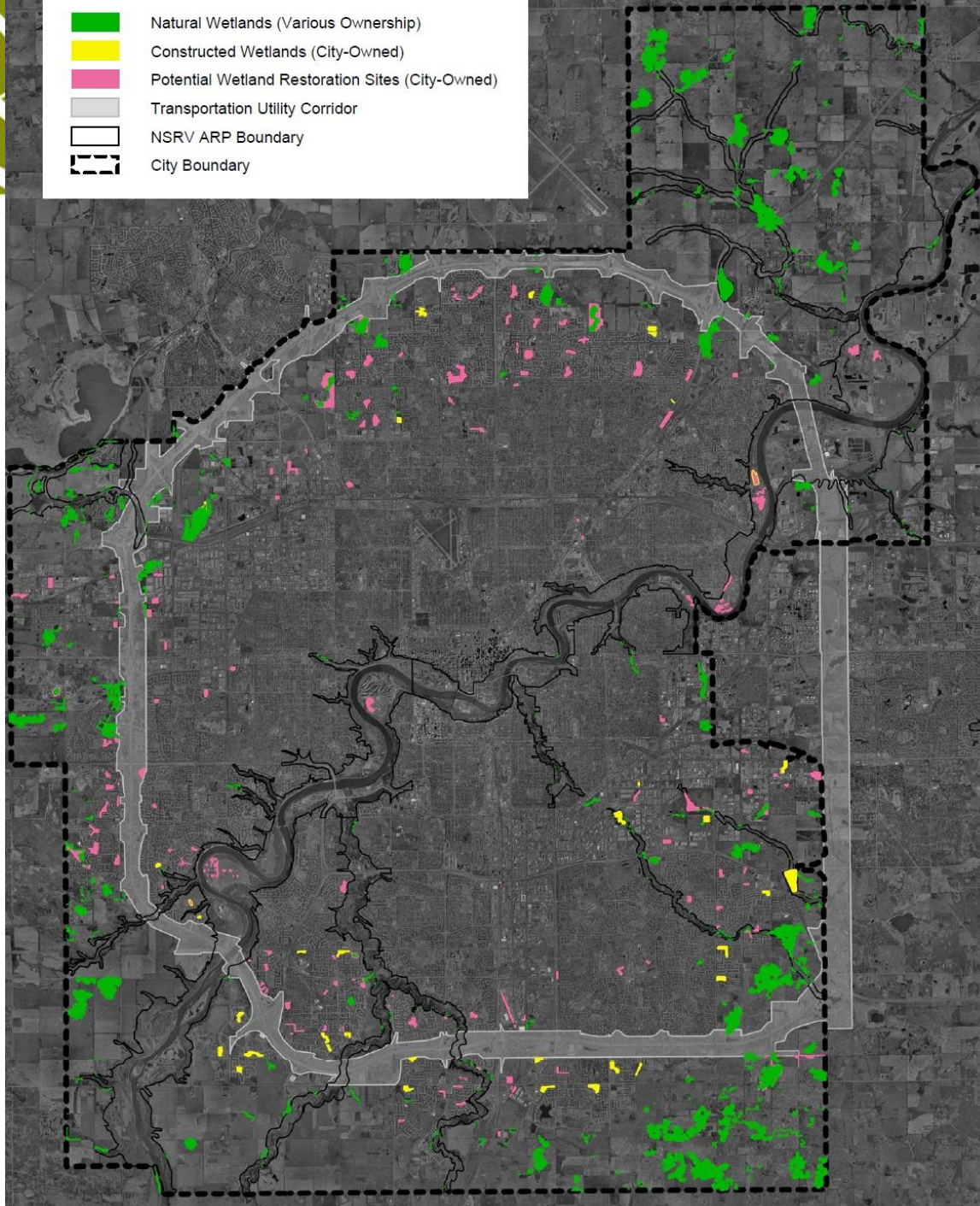
Next Steps

- Follow through on workshop outcomes
- Early dialogue with proponents and AESRD
- Continued coordination with Drainage Services
 - Ensure Area Master Plans (AMP) and Neighbourhood Design Reports (NDR) address sustainability of wetlands
- Complete Ecosite Mapping (2015)
- Wetland Restoration Agency (2014-2015)

- Natural Wetlands (Various Ownership)
- Constructed Wetlands (City-Owned)
- Potential Wetland Restoration Sites (City-Owned)
- Transportation Utility Corridor
- NSRV ARP Boundary
- City Boundary

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Conceptual images: Perkins + Will

**The City intends to restore wetlands as part of the
Centre Airport redevelopment project**