

Biophysical Assessment Policy Overview

Council

July 14, 2026



What is a Biophysical Assessment?

The tool used to ensure environmental policies and regulations are being considered and adhered to in planning and development decisions.



Why Conserve Nature?

- Community's top priority for land use planning
 - Valued at over \$4 billion
 - Significant loss since settlement
- Major impacts- flood, drought, habitat loss
 - Public criticism and appeals
- Interjurisdictional policy alignment
 - Reduce risk, increase efficiencies



Multi-pronged Approach

Policy & Regulations

- MDP
- LUB
- Council Policy

Stewardship & Incentives

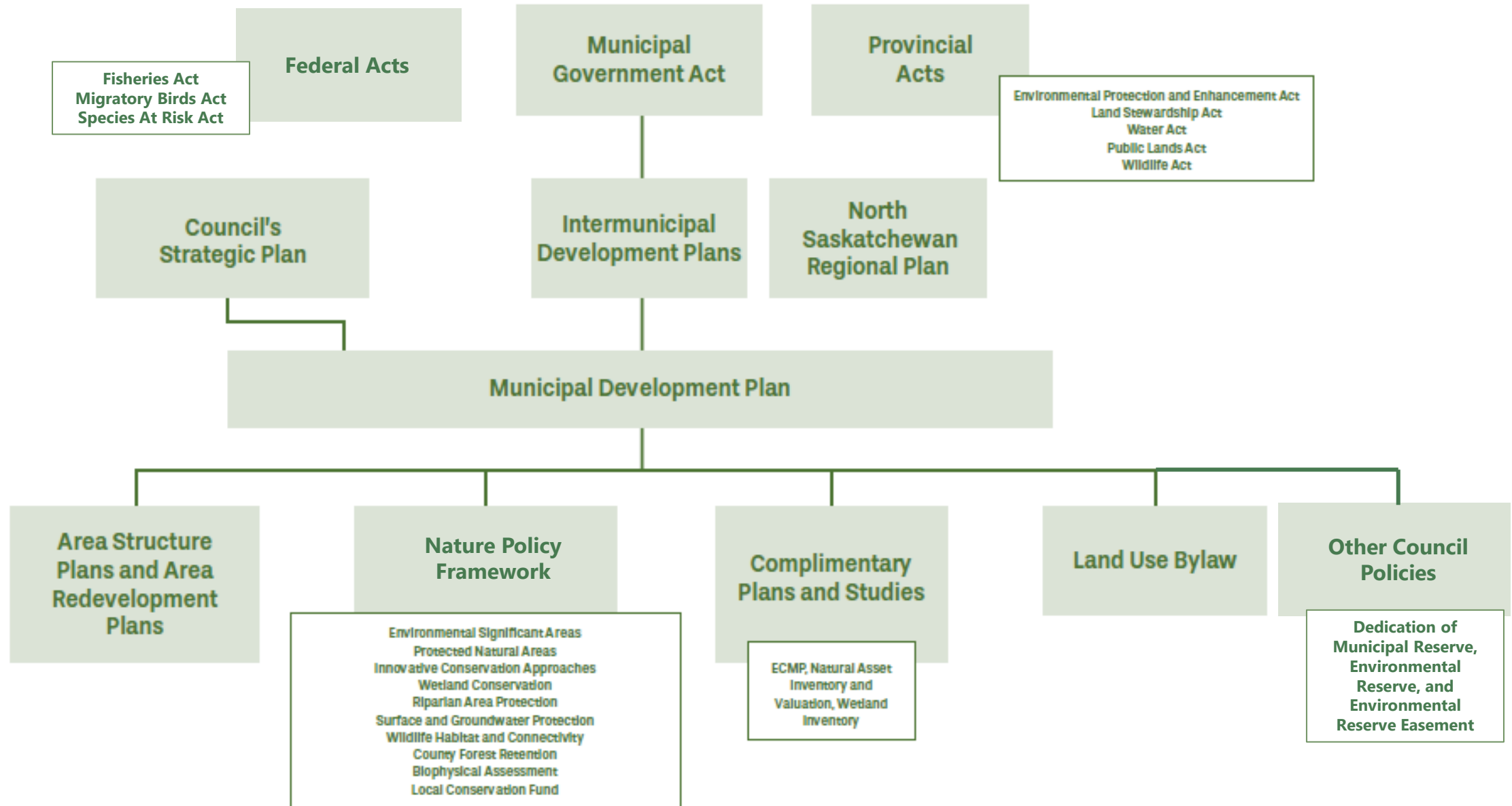
- ALUS
- Green Acreages
- Shoreline Naturalization
- Bioengineering
- Wetland Replacement

Education & Outreach

- Interactive Videos
- Inspections
- Skills Development
- Information Sharing
- Student Fieldtrips

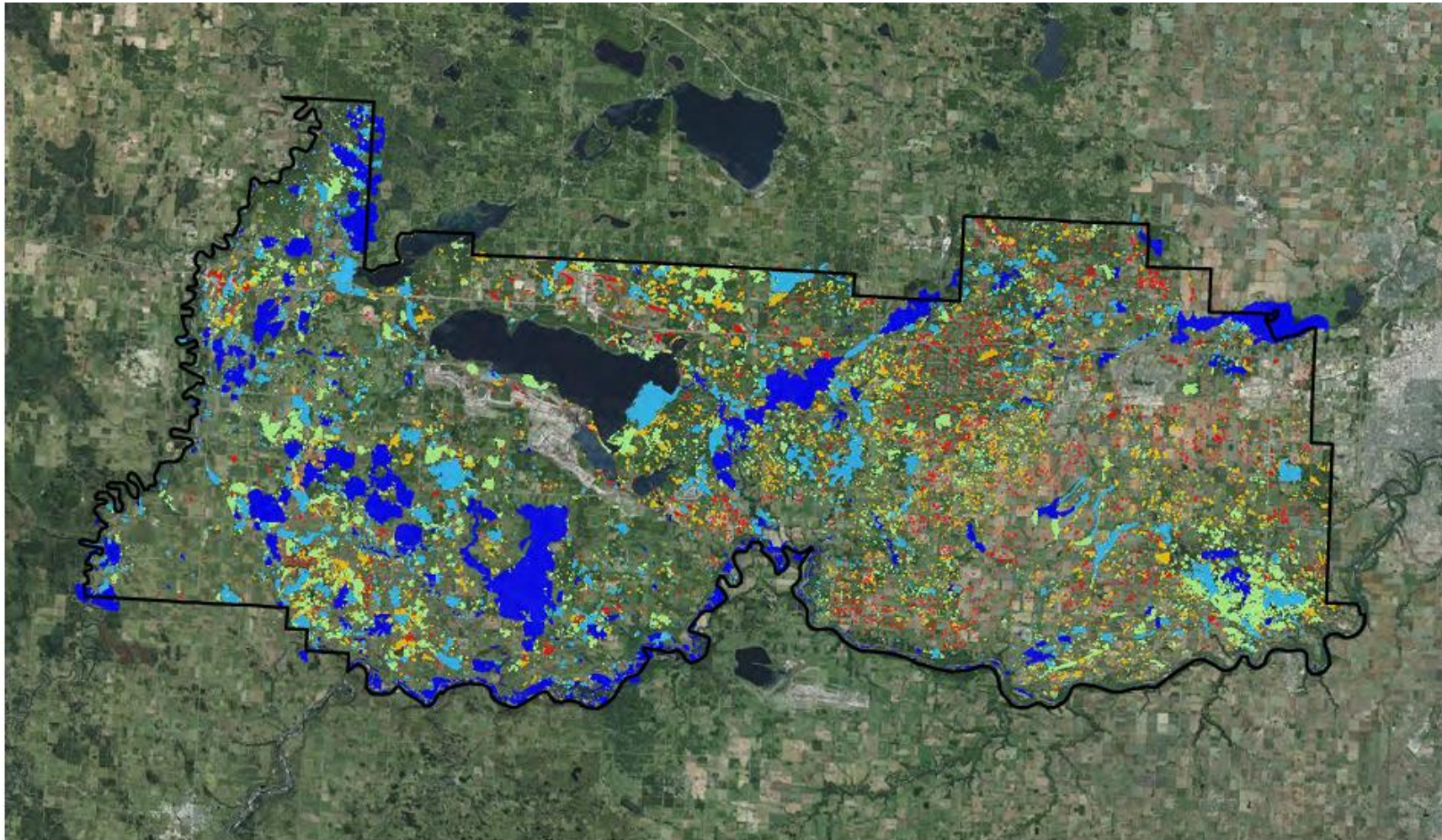


Regulatory Framework



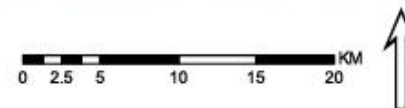
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Wetland Loss



**Parkland County: Wetland Ecological Value
FINAL AGGREGATED SCORE**

Excellent Very Good Good Moderate Poor



56% loss of
wetland area in
Parkland County
since 1950s

What Directs the Requirement for Biophysical Assessments?

Statutory Plans & Council Policy:

- **Municipal Development Plan (MDP)** - Prioritizes ESAs
- **Land Use Bylaw (LUB)**- Required for variances to setbacks
- **Environmentally Significant Areas Policy (ESA)** - Prioritizes ESAs but allows for discretion
- **Biophysical Assessment Policy**- Defines comprehensive vs desktop requirements



Biophysical Assessment Policy

- Established in 2017
- Streamline decisions & apply environmental policy
- Two levels of assessment- desktop and comprehensive
- Applies to planning, development, subdivision and capital projects that are:
 - Major developments
 - Within/adjacent to HPLs, ESAs, or waterbodies.
- Requirements based on:
 - Development intensity
 - Environmental sensitivity
 - Risk from hazard land
- Evaluates impacts/risks and recommends mitigation/offset
- Support decisions in appeal hearings



Biophysical Assessments 2025 Statistics

	Total Applications	Environment Reviews	Biophysical Assessments		Percent of Total
Subdivision	37	14	9		24%
			Comprehensive 0	Desktop 9	
Development	426	51	18		4%
			Comprehensive 8	Desktop 10	



Fees and Charges

- Review fees:
 - \$100 - desktop/minor development
 - \$2,500 - comprehensive/major development
- Goal: Cost recovery



Biophysical Assessment Outcomes

Environmental Impact

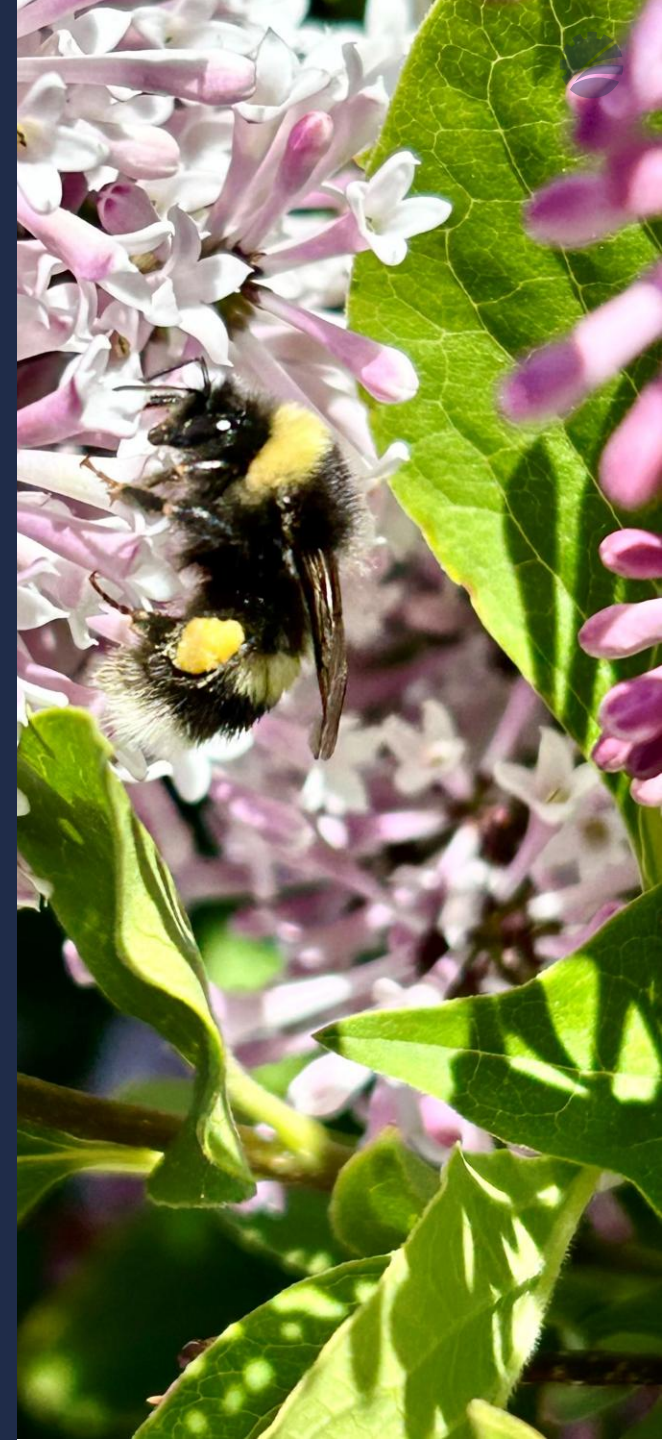
- Loss of function/services
- Connectivity/cumulative impacts
- Ecosystem health
- Offsite impacts

Hazard Lands

- Steep slopes
- Flooding
- Shallow water table

Conditions & Advisements

- Reserve & easements
- Monitoring
- Setbacks & buffers
- Other approvals
- ECO Plans, offsets & mitigation measures



Reserves, Easements & Setbacks

- Reserve and easement dedication guided by MGA, MDP & Council Policy C-PD15
 - Required for floodways, drainage courses, high value wetlands, slopes, waterbodies
 - Large agricultural parcels generally exempt
- Standardized setbacks in LUB

Removing the requirement for a biophysical assessment does not remove the requirement for reserve dedication which is dictated by policy and informed by an assessment.



Regional Scan

Sturgeon County

- Require environmental assessments
- Strong policy to protect ESAs
- Application in development and subdivision
- Dedication restricted to easements for simple subdivision
- Strict adherence to provincial policy

Strathcona County

- Require biophysical assessments
- Strong policy to protect environmental value
- Policy focuses on subdivision
- In-house service to complete assessments
- Require offsetting

Leduc County

- Require biophysical assessments
- Strong policy to protect ESAs & waterbodies
- Application in development and subdivision
- Assessments for reserve delineation
- Reserves required for access to waterbodies & natural feature protection

Recommendations

- Review of Policy C-PD15 and the MDP
 - Policy strength
 - Reserve vs easements
- Remove review fees
- Process improvements
 - Internal assessments
 - Reduced circulation
- User-friendly resources
- Explore setback flexibility



Risks and Potential Impacts

- ↑ Increased resident complaints and appeals
- ↓ Loss of wetlands and environmental features
- ↓ Loss of natural drainage/recharge areas
- ↑ Increased drainage issues and infrastructure damage
- ↓ Loss of climate adaptation readiness
- ↑ Increased tree clearing
- ↑ Cumulative effects





Questions?