



## COUNCIL POLICY C-CS01

## Biophysical Assessment Policy

Prepared By:	Community Sustainability	Council Approval Date:	June 27, 2017
Effective Date:	June 27, 2017		
References:	Municipal Government Act Municipal Development Plan Environmental Conservation Master Plan Environmental Policy C-ES03	Previous Revision Date:	New
Function:	Community Sustainability	LLS Review Date:	June 15, 2017

**PURPOSE**

The purpose of this policy is to ensure balanced land use within Parkland County by preserving and enhancing the County's High Priority Landscapes, Environmentally Significant Areas, and other natural features that provide ecological goods and services in the form of natural ecological capital; through effective and appropriate conservation and management.

**POLICY STATEMENT**

Parkland County is committed to maintaining and promoting the retention of healthy ecosystems and their natural ecological capital, as these areas provide environmental, economic, social and cultural value. Parkland County considers the ecological goods and services produced by natural landscapes as an important asset to the community. As such, the County has invested in the development of landscape tools that can be used to prioritize environmental management within high value areas, support informed decision making and wise land use management practices, and build the foundation for an integrated land management framework. In order to effectively use these tools to further the County's strategic plan, Parkland County shall require that the Biophysical Assessment Process be followed for all qualifying activities. The results of the biophysical assessment will be used to evaluate the environmental impact associated with these activities, to inform decision making and ensure balanced land use management.

**DEFINITIONS**

The following definitions and interpretations apply in this policy:

1. "Biodiversity" is a short form for 'biological diversity' and refers to the variety and variability of life among and within species and ecosystems.
2. "Biophysical Assessment" means the assessment of the biological (plants, animals, fish) and physical (soils, terrain, hydrology) conditions of a site to evaluate potential environmental impacts that may arise from a proposed development or activity.
3. "Biophysical Assessment Process" refers to the process under which the environmental impact of a proposed development or activity is assessed and is outlined in the Biophysical Assessment Process.
4. "Buffer Zone" means a strip of land of variable width that is placed on the landscape between a development and native cover, and is managed in such a way so as to maintain desired biodiversity and ecological function of the native cover, while providing economic and societal benefits.

5. "Conservation Easement" refers to an agreement between a qualified private land conservation organization (ie: a land trust) or government to constrain the exercise of rights otherwise held by a landowner on a specified land area, so as to achieve a conservation goal in perpetuity.
6. "Natural Ecological Capital" means all components of living ecosystems (land, air, water and biota) and their associated interactions and functions.
7. "Ecological Goods and Services" refers to the benefits provided by natural ecological capital to all living things. Benefits can be in the form of goods (air, water, food, raw material), as well as human security (flood/drought mitigation, pest mitigation) and quality of life (supporting cultural, recreation, aesthetics that promote mental and physical well-being). Fundamental to ecosystem goods and services is biodiversity which underpins ecosystem resilience, integrity, and functioning.
8. "Environmental Management" means management of the environment and natural resource systems to ensure the sustainability of development efforts and the natural environment over a long-term basis.
9. "Environmental Reserve" means lands defined as Environmental Reserve in the Municipal Government Act.
10. "Environmental Reserve Easements" means an easement created for the purposes specified in the Municipal Government Act.
11. "Environmentally Sensitive Area" means any area designated as an Environmentally Significant Area in the Environmental Conservation Master Plan, as well as any lands that are susceptible to disturbance, or to disruption of their inherent resilience or ability to be restored back to functioning per-disturbance ecological condition. Environmentally sensitive areas are often associated with landform-soil- vegetation characteristics that are highly erodible, steep, permeable, or have unstable slopes. Wetlands, waterbodies, watercourses, riparian areas or unique geological/pedological formations (e.g., sand dune formations) are often considered environmentally sensitive areas.
12. "High Priority Landscape" means an area characterized by overlapping features of ecological importance including multiple Environmental Significant Areas (ESAs) of various significance, wetland complexes, biodiversity hotspots and landscape connectivity, sensitive surface and groundwater features, and sensitive landforms.
13. "Landscape Tools" refer to high level plans or studies, such as the Environmental Conservation Master Plan and the Wetland Inventory and Historical Loss Assessment that can be used to determine landscape sensitivity, cumulative impact and environmental management options.
14. "Major Development Activities" for the purposes of this policy refer to Area Structure Plans, Outline Plans, Multi-parcel Subdivisions and Resource Extraction.
15. "May" means permissive and/or discretionary term that denotes a choice in applying the policy.
16. "Qualifying Activities" include all planning, development, or capital projects proposed by both external developers and internal County departments.
17. "Shall" means that the actions outlined are mandatory and apply to all situations.
18. "Species at risk" means species that are either federally or provincially listed as Endangered, Threatened or Species of Concern, under Canada's Species at Risk Act (SARA), the Committee on the Status of Endangered Wildlife in Canada (COSEWIC), the Alberta Wildlife Act or Alberta Wild Species General Status-2015.

## SCOPE

This policy applies to all planning, development, subdivision, and capital projects carried out within the County, if the proposed activities are considered major development activities or take place within or adjacent to any Environmentally Sensitive Areas, High Priority Landscapes, watercourses, wetlands or water bodies.

## MANAGEMENT RESPONSIBILITIES

Community Sustainability Services is responsible for the development, implementation, and monitoring of this policy.

**STANDARDS****General**

1. The biophysical assessment process shall be applied to all County capital projects as well as planning, development, and subdivision projects requiring Municipal approvals if the proposed activities are considered major development activities or take place within or adjacent to any Environmentally Sensitive Areas, High Priority Landscapes, watercourses, wetlands or water bodies.
2. A comprehensive biophysical assessment shall be required during the preparation of Area Structure Plans, Outline Plans, Multi-parcel Subdivisions and Resource Extraction development applications.
3. A desktop biophysical assessment may be required for simple subdivision, as well as any stripping, filling, excavation, grading activities, tree clearing, or creation of a pond or dugout if the proposed activities take place within or adjacent to an Environmentally Significant Area, High Priority Landscape, watercourse, wetland or water body.
4. The desktop or comprehensive biophysical assessment shall follow the procedures outlined in the Biophysical Assessment Process, and shall at a minimum:
  - a. Identify and evaluate the environmental sensitivity of existing vegetation, wildlife habitat, listed plant or wildlife species, wetlands, surface water, groundwater, and other important geologic, terrain or soil features;
  - b. Recommend appropriate mitigation measures for managing sensitive environmental features and potential impacts to environmental resources;
  - c. Be undertaken by a qualified ecologist, biologist, or other environmental specialist recognized and identified by higher levels of government. Proof of qualifications shall be required by Parkland County prior to submission of the assessment;
  - d. Include any other assessment(s) or elements deemed relevant by Parkland County.
5. Development that has proceeded without a biophysical assessment where required by the Development Authority or that is not compliant with the results of a biophysical assessment for the site, may be issued a development stop order notification, and may be subject to additional enforcement actions taken by Parkland County.

**Environmental Management**

6. When reviewing and evaluating biophysical assessments Parkland County shall consider:
  - a. Cumulative effects at the watershed and broader landscape scale within the County.
  - b. Preservation of the overall ecological integrity and viability of High Priority Landscapes in order to retain the ecological goods and services that are provided by these landscapes in their natural state.
  - c. Species and ecosystem diversity in order to retain and maintain the long term viability and ecological connectivity of unique or highly diverse ecological communities and species at risk.
7. Parkland County may require avoidance of Environmentally Significant Areas, or high value wetlands located in High Priority Landscapes in order to conserve and protect critical areas of natural ecological capital that provide key ecological functions such as biodiversity hotspots, critical wildlife habitat or landscape connectivity, significant water quality and water retention/attenuation functions, or other ecological goods and services, from incompatible development.
8. Parkland County may require setbacks to be established around Environmentally Significant Areas or high value wetlands in order to protect these areas from incompatible development. Wetland avoidance will be prioritized over the minimization of wetland disturbance or wetland replacement options where the highest value wetlands may be impacted by qualifying activities.
9. Parkland County may require consideration and incorporation of undisturbed natural areas including wildlife habitat and corridors, forests, wetlands and watercourses into development and infrastructure designs to promote the retention of wildlife habitat and movement corridors.

10. Parkland County may require conditions for development application approvals which can include (but are not limited to) the following:
  - a. Modifications to development plan or design to avoid or minimize impacts to sensitive environmental features;
  - b. Use of setbacks or buffer zones including regulated setbacks (e.g. for listed wildlife species) and/or use of the Riparian Setback Matrix Model to determine setbacks to minimize/avoid sensitive environmental features and/or determine ER/MR;
  - c. Consideration of restricted activity periods for wildlife, including fish, that are federally regulated (e.g., *Migratory Birds Convention Act* timing window for breeding birds and the *Fisheries Act*) or provincially regulated (e.g., *Wildlife Act*);
  - d. Additional field surveys for vegetation, wildlife, soil and terrain, aquatic resources (including water quality and flow), if information is deemed insufficient;
  - e. Development and implementation of mitigation plans if provincially or federally listed plant or wildlife species at risk are to be impacted;
  - f. Provisions for a weed management plan or weed mitigation measures; and
  - g. Provisions for a soil management plan, including requirements for a soil erosion and sedimentation plan, prepared by a qualified professional.
11. Parkland County shall conserve and integrate critical ecological areas such as wetlands, floodplains, riparian corridors and sensitive groundwater recharge zones into development areas through the use of ER/MR or Conservation Easement dedication at the time of subdivision.
12. Parkland County shall encourage and collaborate with landowners through incentive-based programs, such as the Alternative Land Use Services (ALUS) or other programs, to restore or remediate disturbed private lands.