

Topic: Environmental Conservation Master Plan (ECMP) Phase I findings and summary

**Introduction:**

This Administrative Report provides Council with key findings from Phase 1 of the Environmental Conservation Master Plan and Policy Project. The report will also outline a summary of the project to date, and the project next steps.

**Facts (Background Information):**

Administration retained O2 Planning + Design Inc. in August 2013 to complete the Environmental Conservation Master Plan and Policy Project. The project was undertaken for several reasons:

- the current County Environmental Plan (2004) does not align to the methodology used in the Government of Alberta Environmentally Significant Areas Report (2009);
- the current Environmental Plan does not acknowledge recent provincial acts and regulations. This includes the Alberta Land Stewardship Act, Land Use Framework, and Capital Region Growth Plan;
- Parkland County is preparing a new Community Sustainability & Development Plan (CSDP). The CSDP is a combination of the current Municipal Development Plan (MDP) and Integrated Community Sustainability Plan (ICSP). An updated Environmental Conservation Master Plan is needed to complete the CSDP.

**2004 Environmental Conservation Plan – Westworth Associates**

In 2004, Westworth Associates prepared the County's current Environmental Conservation Plan. Methodology used in the 2004 Conservation Plan classified environmentally significant areas (ESAs) based on distinct criteria. Criteria included, but were not limited to, the presence of unique geological features, the presence of rare or endangered species, the presence of a diverse range of plant or animal species, large and undisturbed habitats, and the ability of the proposed ESA to support a "linking" function to allow for the wildlife movement.

Proposed ESAs were confirmed by undertaking air (helicopter) and field (ground) reconnaissance. The current (2004) plan played a critical role in informing the development of the "environmental" section of the County's Municipal Development Plan (MDP) which was prepared in 2007.

**2014 Environmental Conservation Master Plan (ECMP) – O2 Planning + Design Inc.**

The 2014 Environmental Conservation Master Plan expanded upon the findings and methodology used in the 2004 Conservation Plan. O2 Planning + Design (the project consultants) used a robust and scientifically based methodology to identify ESAs in Parkland County using Geographic Information Systems (GIS) technology.

GIS data related to biodiversity, critical habitat, slopes, landforms, and surface and groundwater resources in Parkland County were acquired and used to determine the County's most environmentally significant areas. This process refined the boundaries of the 2004 ESAs, proposed 19 new ESAs amounting to over 63,000 ha, and

provided descriptions of their characteristics. O2 Planning + Design staff analyzed all gathered information and established rigorous criteria to classify ESAs by relative significance. These ranked classifications include:

|                                |   |
|--------------------------------|---|
| International Significant ESAs | - ESAs containing elements that are unique in the world, or are of a universal significance and value.  |
| National Significant ESAs      | - ESAs containing elements with limited distribution / presence at the national level, or, which are the best or only element represented in Canada.              |
| Provincial Significant ESAs    | - ESAs which are limited in distribution / presence at the provincial level that are best examples of a given element or feature in Alberta.                      |
| Regional Significant ESAs      | - ESAs containing elements of limited distribution / presence at the regional level that are the best examples of an element or feature in the surrounding region |
| Local Significant ESAs         | - ESAs which do not meet the criteria of the above mentioned categories, but are recognized as having a local (environmental) significance.                       |

O2 Planning + Design staff also identified the presence of “micro-site” ESAs. These areas, which include small wetlands, creeks, and other small but valuable features, play a key role in local ecological function. Due to the County-wide scale of 2014 Environmental Conservation Master Plan and the abundance of these features throughout the County, micro-site ESAs were not individually identified in mapping, or on individual ESA factsheets. However, highlighting the importance of microsite ESAs emphasizes the fact that all areas of the County contribute to the ecological function of the landscape to a certain degree.

The specific methodology used in the 2014 Environmental Conservation Master Plan is identified in Section 2 of the 2014 Plan. Criteria associated with all significance rankings are also identified in Section 2 of the 2014 Plan.

O2 Planning + Design Inc. staff, in conjunction with County Administration, also undertook extensive ground and air reconnaissance, and consultation with stakeholders and the public when preparing the 2014 Environmental Conservation Master Plan. Field reconnaissance, and engagement sessions assisted the project consultants and Administration in confirming the significance of each ESA, while providing detailed information used to inform ESA factsheets found in the 2014 Plan.

### **Project timelines**

Adoption of the revised ECMP by Council will bring Phase 1 of the Environmental Conservation Master Plan (ECMP) and Policy Project to completion.

#### **Phase 1**

In March 2014, Administration presented the draft ECMP to Council for their consideration. Since March, Administration has received additional feedback from the Mayatan Lake Management Association, and the Jackfish Lake Management Association. Administration has also received additional information pertaining to the Isle Lake and Gladu Lake Environmentally Significant Areas. Comments received by stakeholder groups were reviewed by the consultants, and significant improvements made to specific ESA factsheet. In addition, comments made by the both lake management associations were also incorporated in to ECMP best management practices section.

#### **Phase 2**

Administration and O2 Planning + Design hosted a series of public engagement sessions in early March to discuss new principles for the Community Sustainability & Development Plan (CSDP). The CSDP is the

combined Municipal Development Plan (MDP) and Integrated Community Sustainability Plan (ICSP).

### Phase 3

Completion of Phase 3 (new County-wide environmental policies, procedures and tools) will be completed by September 2014. Phase 3 will also include the development of a Riparian Setback Matrix Model which will help Administration to determine an appropriate setback distance from water bodies. This will also help Administration to scientifically and objectively determine future Environmental Reserve (ER) requirements. Phase 3 will complement all current work being undertaken by Development Services and the Environment and Community Sustainability Coordinator related to the environment.

All project deliverables for the Environmental Conservation Master Plan and Policy Project will be completed by September 2014.

## **Findings**

### **Phase 1 – Environmental Conservation Master Plan findings**

In comparison to the 2004 Conservation Plan, findings from 2014 Plan has resulted in an **overall increase in the total number** of environmentally significant areas identified in Parkland County. Current (2004) statistics compared to revised (2014) statistics include:

| <b>Current 2004 Conservation Plan</b>                                   | <b>2014 Environmental Conservation Master Plan</b>                      |
|---|---|
| <b>44</b> environmentally significant areas (ESAs)<br>(53,111 hectares) | <b>61</b> environmentally significant areas (ESAs)<br>(63,041 hectares) |

The 2014 Environmental Conservation Master Plan has identified **17 new environmentally significant areas, for an additional 9,826 hectares** (approximate) of land as environmentally significant. Other findings include:

#### Local ESAs

- 16 new local ESAs were identified in the 2014 Environmental Conservation Master Plan, with 15 existing (local) ESAs expanded in size.
- Approximately 4, 562 ha (new) were added to the local ESA category in Parkland County

#### Regional ESAs

- 2 new ESAs were identified in the 2014 Environmental Conservation Master Plan, with 12 existing (regional) ESAs expanded in size
- Local ESAs in the 2004 study were moved upward in status to regionally significant. Lakes moved upward to regionally significant include Jackfish Lake complex, Johnny's Lake, Mayatan Lake and Hubbles Lake.
- Approximately 13,253 ha (new) were added to the Regional ESA category

#### Provincial ESAs

- 1 new provincial ESA (Cottage Lake) was identified in the 2014 Plan, with 4 existing (provincial) ESAs expanded in size. Kilini Creek was moved upward from regional to provincial ESA status.
- Lake Wabamun and Isle Lake was moved downward from a provincially significant ESA to a regionally significant ESA. The shift downward was due to diminished water quality and occurrence of blue-green algae.

Both areas may regain provincial status once water quality issues have been addressed. *Note: downward move from provincial ESA to regional ESA does not mean overall sensitivity or importance of Lake Wabamun and Isle Lake is diminished.*

- The majority of the North Saskatchewan River, and the Wagner Natural Area retains its provincial ESA category status.
- Approximate 10,730 ha were removed from the Provincial ESA category.

#### National ESAs

- The 2004 Conservation Plan identified no national ESAs. The 2014 Environmental Conservation Master Plan identified 1 national ESA (North Saskatchewan River Sturgeon Hole Reach ESA) with a total size of 1,623 ha.
- Several important tributaries of the North Saskatchewan River were included in the national ESA category status.

#### International ESAs

- The 2004 Conservation Plan identified no international ESAs. The 2014 Environmental Conservation Master Plan identified 1 international ESA (Big Lake / Lois Hole ESA) due to its designation as a “Globally Significant Important Bird Area” (Bird Life International,2004)..

#### Best Management Practices

O2 Planning + Design also included a comprehensive section on Best Management Practices in the 2014 Plan to assist in conserving and protecting the County’s ESAs.

Best Management Practices (BMPs) have been identified by specific land use activities. Land use activities include Agriculture, Oil and Gas, Industrial Development, Coal and Aggregate mining, Peat Harvesting, County Residential (and lakeshore development), and Recreation land use activities. Best Management Practices are located in Section 4 of the 2014 Plan.

BMPs identified in the 2014 Environmental Conservation Master Plan will inform future Phase 2 work for the Environmental Conservation Master Plan and Policy Project. BMPs will also help inform the development of future environmental policies that will be incorporated into the new Community Sustainability and Development Plan being prepared by County Administration.

### **Analysis**

The new 2014 Environmental Conservation Master Plan has identified environmentally significant areas using a scientific and objective approach. The methodology used in developing the 2014 Environmental Conservation Master Plan will provide the County with a “scientifically defensible” and transparent document. The format of 2014 Environmental Conservation Master Plan (which includes a detailed description of methodology, County-wide mapping, individual ESA factsheets, and Best Management Practices) also provides a user-friendly document for staff, stakeholders and developers.

The 2014 Environmental Conservation Master Plan will guide the development of the new Community Sustainability & Development Plan. The 2014 Environmental Conservation Master Plan will also inform the County’s future update to its Land Use Bylaw, and act as a critical document for staff when developing and reviewing areas structure plans, outline plans and subdivision and development applications.

The 2014 Environmental Conservation Master Plan would replace the County’s 2004 Conservation Plan.

### Alternatives:

- I. Council to not receive the 2014 Environmental Conservation Master Plan as information

If Council chooses not to receive the 2014 Environmental Conservation Master Plan as information; Administration would seek direction on how to proceed with completing the Environmental Conservation Master Plan and Policy Project. Administration does not support this alternative since the 2014 Environmental Conservation Master Plan is needed to develop the new Community Sustainability & Development Plan. The 2014 Plan also aligns with Council's commitment to the environment in Parkland County.

### Conclusion/Summary:

*The 2014 Environmental Conservation Master Plan outlines key environmentally significant areas in Parkland County using a scientific and objective approach. The 2014 Plan also provides Best Management Practices to assist the County in conserving and protecting environmentally significant areas. The 2014 Plan will also assist County Administration when developing and reviewing County Plans which include the new Community Sustainability & Development Plan, future updates to the Land Use Bylaw, area structure plans, outline plans, and subdivision and development permit applications. If Council receives the 2014 Plan as information, County Administration will proceed with the completion of Phase 2 and Phase 3 of the Environmental Conservation Master Plan and Policy Project. Administration intends to have project deliverables for the Environmental Conservation Master Plan and Policy Project completed by September 2014.*

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