

Topic: NSW's Headwaters Alliance Natural Infrastructure Economic Analysis

**Introduction:**

The purpose of this presentation is to ask for a Council Resolution on a motion to approve an application for funding to the Green Municipal Fund. If successful, these funds will support Phase 3 of the Modesté Watershed Pilot Project, led by the *Headwaters Alliance*. Phases 1 & 2 of the project are funded and currently underway.

**Facts (Background Information):**

Phase 1 of the project involves the collection of data on riparian health of all creeks (over 1000 km) in the Modesté sub-watershed, intersecting five county jurisdictions. This data will be displayed in heatmap of high, medium and low impact on the ecosystem and its ability to produce ecological goods and services. Phase 2 of the Project, to commence April 2017, will involve the development of an inter-municipal collaboration plan for restoration and conservation activities on riparian areas using existing municipal programs such as ALUS and Green Acreages. Through inter-municipal collaboration, we can increase the synergistic effect of resource-sharing, build capacity more quickly, and measure a cumulative change, which is more consequential to downstream stakeholders.

Phase 3 of the Project will be the development of a watershed model (upland and wetland areas) intended to predict areas of significance for conservation and restoration. More specifically, this model will provide an economic analysis of the infrastructure value provided by natural areas in the watershed. Infrastructure value such as flood mitigation and water purification are just some of the many ecosystem services provided by our natural areas. This phase will summarize the economic infrastructure-related value that our natural areas provide to both rural municipalities within the watershed, as well as downstream water users. In addition, the Phase 3 study will provide recommendations for funding natural infrastructure in the current marketplace.

The Phase 3 goal of framing ecosystem services as green infrastructure will provide the data necessary to make cost-effective infrastructure decisions relating to water quality improvement and flood and drought mitigation. While many of the restoration/conservation activities have additional monetary benefits those will not be part of this project.

Support for this project will be sought from the Federation of Canadian Municipalities Green Municipal Fund. In addition to the Green Municipal Fund, there are two new funds relating to natural capital assets and climate resiliency. Eco-west, a not-for-profit, specializes in writing proposals for the FCM funds, and has agreed to craft the proposal for this project at no cost to Parkland County or the Headwaters Alliance. Other potential funders include disaster planning funds from federal Public Safety, and the Government of Alberta.

While Infrastructure Canada is not able to fund this phase of the project, they are aware and interested in its scoping, design and results. They are particularly interested in the cost-benefit of investing in natural infrastructure compared to traditional built infrastructure. Infrastructure Canada is defining eligibility criteria for upcoming Green Infrastructure funding, and ALUS Canada has petitioned for the inclusion into the criteria, restoration/conservation of natural assets with infrastructure-related benefits.

ALUS Canada will continue with its position on funding for green infrastructure on agricultural lands, and will utilize the results from Project phases 1, 2 and 3 once they are complete. This project is one of several pilot projects proposed across Canada, assessing various ecosystem types. Collectively, these projects will make the case for investment potential in green infrastructure. They will also set the stage for development of new funding models with clear economic and environmental benefits, which also support infrastructure goals. Furthermore, this direction will lead to the disbursement of infrastructure funding into rural communities and recognise private and public landowners that are providing infrastructure-related services.

### **Analysis:**

#### **Timelines**

**March, 2017** - Parkland County resolution passed

**March-April, 2017** – RFI issued by Parkland County to inform project budget and scoping

**April-May, 2017** – FCM proposal written by Eco-West, other partners identified and contacted

**Summer 2017** – Funding confirmed

**Summer 2017** – RFP issued by Parkland County

**Fall 2017** – Contracts signed with consultant and research timelines finalized

**Winter 2017-2018** – Project Implementation

#### **Members Involved**

NSWA's Headwaters Alliance (includes counties of Parkland, Wetaskiwin, Leduc, Clearwater and Brazeau the towns of Drayton Valley, Rocky Mountain House, Devon and Thorsby), ALUS Canada, EcoWest Foundation

Recommended Steering Committee Members: Parkland County, NSWA, ALUS Canada

Recommended Advisory Group Members: EPCOR, City of Edmonton, FCM, Government of Alberta, University of Alberta, Infrastructure Canada, Public Safety Canada,

#### **Roles and Responsibilities**

**Writing of FCM Green Municipal Fund(s) proposal-** Eco-West Additional proposals - Eco-West, NSWA, ALUS Canada

**Proposal/Application Reviews-** Steering Committee

**Overseeing project financial management** (for FCM and potentially other grants/contributions): Parkland County

**Grant Reporting-** Steering Committee

**High level project advising and information dissemination:** Headwaters Alliance

### **Conclusion/Summary:**

Parkland County is seen as a leader among our municipal peers, which is why we are being approached by the Headwaters Alliance and ALUS Canada to take the applicant role in pursuit of FCM funding to complete Phase 3. Completion of the Modesté Watershed Pilot Project will support and contribute to a number of the high level planning documents that the County is currently preparing; include the Wetland Inventory and Historical Loss Assessment, the Municipal Development Plan and the Integrated Community Sustainability Plan. It will also assist the County's stewardship programs in accessing new funding related to green infrastructure for project implementation.

### **AUTHORS:**

Krista Quesnel  
Mary-Ellen Shain, NSWA  
Lara Ellis, ALUS Canada

Department: Community Sustainability

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