



REGIONAL DISTRICT OF BULKLEY-NECHAKO

Supplementary AGENDA Thursday, July 18, 2024

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	<u>ADJOURNMENT</u>	



Regional District of Bulkley-Nechako Board of Directors Supplementary

To: Chair and Board
From: Megan D'Arcy, Regional Agriculture Coordinator
Date: July 18, 2024
Subject: **Agriculture Water Infrastructure Program Application**

RECOMMENDATION: **(all/directors/majority)**

- 1) That the Board approve submission of an application to Investment Agriculture's Agriculture Water Infrastructure Program for a project in Area F (Vanderhoof Rural), and;
- 2) That the Board approve allocating \$40,000 in Northern Capital and Planning Grant funds from the Agriculture Budget as the required 50% matching funds for the application.

BACKGROUND

As per direction at the June 20, 2024 meeting, staff have identified a potential project area and drafted an application to Stream Three of Investment Agriculture's Agriculture Water Infrastructure Program.

Committed leveraging funds at 50% are required to submit the application.

ATTACHMENTS

Draft Project Summary

Project Overview

Describe the background of your project, including details on the water problems or issues to be solved, the level of impact to the economic viability of agriculture, and information gaps (if any).

The Regional District of Bulkley-Nechako is interested in piloting a water assessment and community irrigation feasibility project in the Vanderhoof area. Improved irrigation access would decrease risk of crop failures in drought years, and potentially improve the economic return for forage producers. Vanderhoof forage producers supply hay to livestock producers throughout central and northwest BC.

There is existing information for both surface water and some groundwater resources (primarily aquifers). This information needs to be compiled and analyzed in the context of establishing community irrigation infrastructure.

In addition to reviewing current water and soil information, it is also necessary to evaluate the feasibility of community irrigation systems for the agricultural areas surrounding Vanderhoof. Variables such as topography, size of system, and financial sustainability would all be considered.

Community-level irrigation systems could benefit forage production throughout the region. The main deliverable of this project is an established process for data collection and analysis that could be replicated in other agriculture areas in the Regional District of Bulkley-Nechako.

How will the problems or issues identified be solved in the project?

A consultant will be hired to conduct an information review on all the important variables in this project, starting with potential water volumes required and water resources. There are several sources of information for both surface water and groundwater available from the Province of BC.

There may be potential gaps in the information, particularly for groundwater but that is difficult to determine without doing an extensive data review. These gaps will be identified, and a process outlined for gathering these data.

In addition to gathering water resource data, a detailed process will be developed for evaluating the feasibility of one or more community irrigation systems within the project area.

Describe any project constraints or risks, e.g., technical design, scientific processes, as applicable, and how the project will attempt to mitigate them

The only anticipated constraint for this project is finding a qualified professional who is familiar with the project area and large irrigation systems. The Regional District of Bulkley-Nechako has established procedures for hiring contractors – the importance of local knowledge and experience with irrigation systems will be emphasized throughout the process.

Identify any individuals or groups who may be adversely affected by the proposed project and describe how these issues will be addressed.

As this project is focused on data collection and establishing methodologies, it will be part of the process to identify when collaboration is necessary, and the individuals or groups that would potentially be impacted (negatively or otherwise) by a community irrigation project.

Establishing the steps for gathering water resource data and potentially expanding this knowledge base is only anticipated to be helpful individuals and groups, including non-agricultural industries, throughout the region.

Provide a brief summary of the agricultural benefits your project will bring. Benefits refer to short/medium/long-term benefits and scale of improvement in water security/management and food production.

Benefits to agriculture include:

- Information that can be replicated to empower individuals and groups to establish irrigation systems that reduce their overall business risk and potentially help them to expand.
- Increased understanding of the status of our water resources, how to improve this information, and how to share it throughout the agricultural community.
- Increased knowledge of the requirements and infrastructure required for community irrigation systems, and the importance of scaling the project appropriately.

Project Activities

Activity Selection

Agricultural water supply assessment or feasibility study.

Goals & Objectives:

- The goal is to gather existing water resource knowledge, identify gaps, and then use this information to develop a process for determining the feasibility of establishing community irrigation system(s) in agriculture areas around Vanderhoof.
- The objective is to create methodologies that can be replicated throughout the region.

Activity Description & Outcome:

- Gather currently available information on surface water, groundwater (with focus on aquifers) using digital resources (BC Water Tool, BC iMap, etc.), provincial experts, and local knowledge and document process.
- Identify hydrological knowledge base gaps specifically relevant to agriculture within the project area and develop a methodology intended to collect these data in a manner consistent with methodologies used by other agencies.
- Use these water resource data and other variables to identify potential sites within the study area for community irrigation infrastructure.
- Consult with irrigation experts and use other resources (BC Agriculture Water Calculator, etc.) to determine potential water volumes required for community irrigation project(s).
 - Examine potential options for ensuring sufficient water volumes (e.g., water storage, accessing surface water, etc.).
- Develop process that can be replicated in other agricultural areas throughout the region (e.g., explore collaboration/communication process, determine specific variables for site considerations, develop ideas on how to scale system, water licensing, etc.).

Total Cost

The total cost is estimated to be \$80,000. The RDBN can contribute \$40,000 and is requesting matching funds in the amount of \$40,000.