

Date: July 22, 2024

To: **Mayor and Council**

Name and title: Deanna Wasnik, Director of Planning and Development

Subject: Local Government Climate Action Program (LGCAP) funding allocation for the Sentinel Upgrades and Expansion Project.

Attachment(s): None

Recommendation(s):

That Council APPROVES the “Sentinel Irrigation System Upgrades Project” as described in the report dated July 22, 2024 from the Director of Planning and Development titled "Local Government Climate Action Program (LGCAP) Funding Allocation for the Sentinel Upgrades and Expansion Project" be added to the Financial Plan with a budget of \$110,000 to be funded from the City’s Climate Action Reserve Fund account.

Purpose:

The purpose of this report is to request City Council’s approval to allocate funds from the Climate Action Reserve Fund for upgrades and expansion of the Sentinel Irrigation System (Sentinel). Upgrades to Sentinel will help conserve water in City parks and increase resilience to potential drought conditions.

Background:

Climate Action

The City of Prince George has a history of working to proactively adapt to climate change. In 2009 Prince George was one of the first municipalities in Canada to complete a climate change adaptation plan. A new climate change adaptation plan was also completed in 2020 to guide climate adaptation initiatives over the long term. A second report called the Climate Forward Implementation Strategy was then drafted to provide actionable tasks that could be completed in the short term. Water conservation is a key component of climate adaption, as both of these plans highlight. Hotter, drier summers are expected for the Prince George area, putting increased stress on our water system.

Water Conservation

To conserve water during irrigation activities the City uses a software system called Sentinel. This software system uses weather data from two City weather stations to optimize water use during irrigation. A centralized software hub communicates location specific irrigation plans to a separate controller positioned in each irrigation area. Furthermore, the system has leak detection capabilities

that will automatically shut down the impacted area to save water. Without Sentinel, irrigation programs need to be manually input and do not account for changing weather (i.e. rain events) or leaks.

Funding

The Local Government Climate Action Program (LGCAP) is a provincial program that provides annual funding to participating municipalities for completing climate related initiatives, such as water conservation. This replaced the former Climate Action Revenue Incentive Program (CARIP), although unallocated funds from both are in the Climate Action Reserve Fund.

Strategic Priorities:

Water conservation aligns with various strategic plans of the City of Prince George. Please see the following list:

- **myPG Communities Goals and Priorities:** Adapting to Climate Change
- **2023 – 2026 Strategic Plan:** Environmental Stewardship and Climate Action Priorities
- **Climate Forward Implementation Strategy:**
 - Improve Sentinel software to optimize water use and ensure that irrigation is happening at the most optimal time.
 - Apply for grants to make upgrades to improve water use, expand efficiencies for irrigation in areas not connected to Sentinel.
- **City Of Prince George Water Conservation Plan:** Strategy 5 – City Leadership in advancing water-use efficiency

Policy / Regulatory Analysis:

Administration recommends that we use a portion of the Climate Action Reserve Fund to upgrade and expand Sentinel. Priority areas that Sentinel could be expanded to include a portion of the boulevards at 3rd Avenue, 5th Avenue, 15th Avenue, University Way and Foothills. In addition to expansion of Sentinel coverage, communication quality needs to be improved for some existing areas. Field controllers need to communicate with the software system, which requires a secure connection. At times the current connection is unreliable and slow, upgrading the controllers would provide timely and reliable communication. Without a good connection the system cannot function properly and water savings will not be optimized. The system also depends on an aging weather station that requires upgrades to accurately determine optimal irrigation cycles.

Should council approve this funding allocation, components will be ordered as soon as possible and installed Fall 2024 to Winter 2025.

Sufficient funding is available through LGCAP to cover these upgrades, while continuing to support other City climate related initiatives.

Financial Considerations:

The proposed Sentinel upgrades and expansion meet the objectives of City climate adaptation strategies and the requirements of LGCAP. This funding can be utilized to partially or fully fund climate related initiatives and requires a yearly summary outlining funding allocation. If approved this project would be summarized in the 2024 and 2025 reporting for LGCAP.

Total project cost will be \$110,000, all of which will be covered by the LGCAP grant funding.

Summary and Conclusion:

Administration recommends that Council approve the use of LGCAP funding \$110,000 from the Climate Action Reserve Fund account to amend the existing Financial plan to include the following project:

Title;	Sentinel Irrigation System Upgrades Project
Description:	To upgrade and expand parks Sentinel irrigation system to help conserve water in City parks and increase resilience to potential drought conditions.

If successful, these improvements would help to conserve water and reach City climate adaptation goals.

Respectfully Submitted:

Deanna Wasnik, Director, Planning and Development

Prepared by: Jesse Labatiuk, Environmental Specialist

Approved:

Walter Babicz, City Manager

Meeting Date: 2024/08/19