# Disaster Mitigation and Adaptation Fund

**RECOMMENDATION:**

That Council confirm support and provide overall grant management in the amount of $4,000,000 for the Cedar Creek Drainage Pump Station project and $5,600,000 for the Maple Creek Drainage Pump Station project from the Infrastructure Canada Disaster Mitigation and Adaptation Fund.

## PREVIOUS COUNCIL/COMMITTEE ACTION

Funding for the Maple Creek Drainage Pump Station project was approved with the 2020/21 capital program. Funding for the Cedar Drainage Pump Station project was approved with the 2023/24 capital program.

## REPORT SUMMARY

This report provides information to support a Council resolution for $4M in grant funding for the Cedar Creek Drainage Pump Station project (construction cost of $10M) and $5.6M for the Maple Creek Drainage Pump Station project (construction cost of $14M) from the Infrastructure Canada Disaster Mitigation and Adaptation Fund. Municipal governments are entitled to a maximum 40% federal contribution of the total eligible expenditure for a given project. A council resolution indicating support for the projects and willingness to provide overall grant management is one of the application requirements.

Watersheds in the City of Port Coquitlam are under increasing levels of pressure due to development and climate change. Wetter winters with more intense storms, drier summers, and sea level rise all present significant challenges. Infrastructure upgrades help the City mitigate impacts to people and property that result from flooding, sea level rise, and storms while preserving the environment and aquatic life. Upgrades to the Cedar Creek Drainage Pump Station and Maple Creek Drainage Pump Station are planned to provide flood and property protection and improve the community's climate change resiliency.

The Cedar Creek Drainage Pump Station was constructed in 1980 and requires pump upgrades to provide additional capacity for increased flows during significant rain events. Several locations in the watershed experienced flooding during the winter atmospheric storm events in 2021. The recommended scope of work includes: site works, replacement of the existing well and pump with fish friendly design, new piping and valves, electrical and mechanical upgrades, seismic and structural upgrades, permanent generator and partial dike reconstruction. Preliminary design is underway in 2023. Detailed design is scheduled for 2024 with construction to follow in 2025. A project brief is provided in Attachment 1.

The Maple Creek Drainage Pump Station was constructed in 1990 and has issues related to capacity, condition, safety, and fish passage. The Maple Creek Integrated Watershed Management

plan included a recommendation to upgrade the pump station with additional capacity, fish friendly pumps, and replacement of the flap gate and inlet grill for fish passage. Seismic, structural, mechanical, and electrical upgrades are also included in the project scope. Preliminary design was completed in 2022. Detailed design is underway in 2023, with construction to follow in 2024. A project brief is provided in Attachment 2.

## DISCUSSION

The Disaster Mitigation and Adaptation Fund (DMAF) is a national, competitive, and merit-based contribution program intended to support public infrastructure projects designed to mitigate current and future climate-related risks and disasters triggered by climate change, such as floods, wildland fires, droughts and seismic events.

Eligible infrastructure projects include new construction of public infrastructure and/or modification or reinforcement of existing public infrastructure including natural infrastructure that prevent, mitigate or protect against the impacts of climate change, disasters triggered by natural hazards, and extreme weather. Eligible applicants include provinces, territories, municipal or regional governments, First Nations, public sector bodies, and private sectors including profit or not-for-profit organizations. Projects must have a minimum of $1 million in total eligible costs to be considered for funding.

Projects must be aimed at reducing the socio-economic, environmental and cultural impacts triggered by natural hazards and extreme weather events while taking into consideration current and potential future impacts of climate change in communities and infrastructure at high risk. Natural hazard and extreme weather events include but are not limited to: avalanche, drought, earthquake, erosion, extreme temperature, flood, hurricane, landslides, permafrost thaw, sea level rise, storm, tsunami and wildland fire.

The DMAF is a national, competitive, and merit-based contribution program. All eligible projects will be evaluated against the following merit criteria

1. **Natural Hazard Risk Assessment**
   Assessment is based on natural hazard risk, including the likelihood, exposure, vulnerability and impacts on health and safety critical infrastructure, including interruptions to essential services; and economic activity. Strong proposals will include qualitative and quantitative risk assessments that consider the likelihood and socio-economic impacts of the hazard such as:

   - loss of lives
   - % of people directly affected
   - % local economic loss and
   - % population without essential services

2. **Community Resilience**
   Assessment is based on risk reduction, particularly in the context of climate change on health and safety; critical infrastructure, including interruptions to essential services; and economic activity. Strong proposals will include overall or significant risk reduction after project completion such as reductions to:

   - essential services interruptions
   - amount of at risk critical infrastructure
   - impacts on health
   - economic activity disruptions
   - cost of recovery/replacement
   - impacts on vulnerable regions

3. **Return on Investment (ROI)**
   Assessment is based on the project's expected ROI. Strong proposals will demonstrate the capacity of the asset to decrease or avoid future natural disaster losses. The ROI ratio measures the estimated disaster losses avoided within the asset life cycle.

4. **Project Rationale**
   Assessment is based on the rationale for the selection of the proposed project to mitigate or avoid future natural disaster losses. Strong proposals will include details on the options considered and the rationale for selecting the chosen project as the best solution to mitigate the risk will be evaluated.

5. **Innovation**
   Assessment is based on a project's capacity to provide innovative solutions and technology that result in better ways to manage increasing risks including those related to climate change. Strong proposals will consider innovative solutions, including natural infrastructure, and innovative approaches to better deliver the project.

6. **Natural Hazard Risk Transfer**
   Assessment is based on how the proposed project not only addresses the mitigation and adaptation of identified risks in the immediate area of the project, but also ensures that the risks are not transferred to a neighbouring area or community. Strong proposals will be supported by an effective risk transfer management strategy and procedures.

7. **Strategic Alignment**
   Assessment is based on how the project aligns with relevant plans, strategies and frameworks. Strong proposals will align with approved national and provincial/territorial/municipal adaptation and mitigation plans, strategies, frameworks, policies, related asset management plans and land-use plans.

8. **Project Co-Benefits**
   Assessment is based on the project's additional co-benefits. Strong proposals offer infrastructure solutions that provide additional benefits to the community such as addressing multiple hazards, providing environmental value and Greenhouse Gas (GHG) reduction, protecting valuable cultural assets, offering sports or recreational value, and/or offering employment opportunities.

Municipal governments are entitled to a maximum 40% federal contribution of the total eligible expenditure for a given project. There are no limits to the number of applications that can be submitted but a separate application is required for each project. Projects must have a minimum of $1M in total eligible costs to be considered for funding and must be substantially complete by December 31, 2032. The application deadline is July 19, 2023.

The Cedar Creek and Maple Creek Drainage Pump Station projects were selected for this funding program as they both align well with the funding program goals and criteria outlined above.

## NEXT STEPS

A grant resolution is required to finalize the City's applications. Pending approval from Council, a resolution will be submitted to Infrastructure Canada's Disaster Mitigation and Adaptation Fund to finalize the City's grant application.

## FINANCIAL IMPLICATIONS

Municipal governments are entitled to a maximum of 40% federal contribution of the total eligible expenditure; expenditures incurred prior to the grant award are ineligible. The applications request $4M in grant funding for the Cedar Creek Drainage Pump Station project (construction cost of $10M, City contribution of $6M) and $5.6M for the Maple Creek Drainage Pump Station project (construction cost of $14M, City contribution of $8.4M). If successful, grant funding will be applied to the project construction costs to free up the corresponding amount of general capital and/or other reserve funding.

## OPTIONS (✓= Staff Recommendation)

| | # | Description |
|---|---|---|
| ✓ | 1 | Confirm support for the Cedar Creek and Maple Creek Drainage Pump Station projects and provide overall grant management in the amount of $4,000,000 for the Cedar Creek Drainage Pump Station and $5,600,000 for the Maple Creek Drainage Pump Station. |
| | 2 | Request further information. |

## ATTACHMENTS

Attachment 1: Cedar Drainage Pump Station - Project Brief

Attachment 2: Maple Drainage Pump Station - Project Brief

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