

Memo



Date: September 15, 2010
File: 5225-03
To: City Manager
From: F. Schaad - Utilities Technologist, Infrastructure Planning
Subject: 2010 Flood Protection Program Funding Application - Mill Creek Relocation and Flood Protection Works at Kelowna International Airport

Recommendation:

THAT Council directs staff to use \$750,000 from Airport Reserve towards completing the Mill Creek Relocation & Flood Protection Works, east of the existing airport runway, conditional on receiving Federal & Provincial funding;

AND THAT the 2010 Airport Financial Plan be amended to transfer \$750,000 to the Mill Creek Relocation and Flood Protection Works (Capital Project);

AND FURTHER THAT Council directs staff to apply for the 2010 Flood Protection Program Funding Grant associated with flood hazard reduction projects in BC with one third coming from local government, one third paid by the Provincial Flood Protection Program of Emergency Management BC, and one third by the Federal Building Canada Plan (BCP), Disaster Mitigation Category of Infrastructure Canada.

Purpose:

To secure Federal and Provincial funding to complete the relocation of Mill Creek through the Kelowna International Airport to reduce potential flooding impacts and operational conflicts with the existing airport runway and proposed taxiway expansion.

Background:

The Kelowna International Airport is a significant aviation service provider in the region. Traffic growth and air service is forecasted to increase, resulting in the need to increase overall capacity of the airfield.

Mill Creek currently runs parallel to the airport runway and adjacent taxiway. The creek channel has been extensively modified through the airport to minimize the risk of encroachment on the runway and to improve airport safety. Wildlife can pose a hazard to operating aircraft through occurrence of accidental strikes with aircraft on approach, departure or while taxiing on the airfield. The Kelowna International Airport ensures ongoing monitoring of the natural environment through measures set out in its Wildlife Risk Assessment Management Plan.

Water levels fluctuate dramatically from year to year; particularly, during spring freshet flows which can result in periodic flooding. These high seasonal flows can also generate gravel recruitment in the channel restricting the carrying capacity of the stream. Furthermore, a recently completed Mill Creek Floodplain Bylaw Analysis (Associated Engineering, March 2010), indicates portions of the airport runway and taxi area will be inundated during the larger storm events.

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To resolve the issues described and ensure airside safety is maintained during significant flood events, a relocation of the Mill Creek channel through the airport property is proposed. Additional floodplain mapping will be required to determine optimal channel geometry and flood protection works. A detailed engineering design will be required to ensure civil works are constructed using best engineering practices. In addition, the completed works will result in a significant net benefit to fish habitat values in this reach of stream.

Legal/Statutory Procedural Requirements:

Mill Creek is considered one of the major fish bearing streams in the Okanagan basin and is regulated under the Federal Fisheries Act. Environmental Approvals and stream compensation measures will be required. We anticipate approximately \$500,000 in stream compensation works may be required.

Transport Canada's *Aerodrome Standards and Recommended Practices (TP-312)* require taxiway development to provide an obstacle free zone extending 47.4m from the taxiway center line. In addition, there must be a clearance of 22.5m from the taxiway centre line to any graded area. The proposed Mill Creek relocation project is intended to comply with these Transportation requirements.

Financial/Budgetary Considerations:

The total cost of the proposed project is estimated to be \$2.25 million, with one third coming from local government, one third paid by the Provincial Flood Protection Program of Emergency Management BC, and one third by the Federal Building Canada Plan (BCP), Disaster Mitigation Category of Infrastructure Canada. Application for this funding is due September 24, 2010 and the project must be fully constructed by February 28, 2014.

Internal Circulation:

S. Samaddar, Director, Airport

T. Cashin, Manager, Environment & Land Use

Considerations not applicable to this report:

Community & Media Relations Comments:

External Agency/Public Comments:

Existing Policy:

Personnel Implications:

Alternate Recommendation:

Submitted by:



F. Schaad, Utilities Technologist, Infrastructure Planning

Approved for inclusion:



R. Cleveland, Director, Infrastructure Planning

cc: J. Paterson, General Manager, Community Sustainability
M. Bayat, Director, Development Services
D. Graham, Director, Strategic Initiatives
S. Samaddar, Director, Airport
S. Kinsey, Fire Chief