


<b>DEPARTMENT: Public Works &amp; Community and Emergency Services</b>	
	<b>TOPIC: Foothills Regional Airport - Fire Protection Reservoir</b>
<b>REPORT PREPARED BY:</b> Wiaan Kruger - Director of Public Works Rick Saulnier - Director of Community and Emergency Services	
<b>REPORT PRESENTED BY: Wiaan Kruger - Director of Public Works</b>	

### **PURPOSE OF REQUEST**

The purpose of this report is to respond to Council's direction to investigate cost recovery options, alternate locations, and engineering work completed to date for the proposed fire protection reservoir at the Foothills Regional Airport.

### **BACKGROUND**

The Foothills Regional Airport requires a dedicated and reliable fire protection water supply to meet fire safety requirements and support existing and future airport development. A fire protection pond has been proposed as a long-term solution to provide year-round water availability for emergency response.

Following Council's review of the Preliminary Design Report, Administration engaged the project engineer to further evaluate alternative locations and design options, and also explored potential cost recovery options.

### **ENGINEERING REVIEW AND ALTERNATE OPTIONS**

WSP prepared a technical memorandum responding to Council's questions and reviewing alternative approaches. The following options were examined:

#### **Alternate Pond Location (Wetland Area):**

Relocating the fire protection pond to a nearby low-lying area was considered in order to potentially capture natural runoff and reduce reliance on potable water. The review concluded that:

- The area does not receive enough surface runoff to reliably fill the pond.
- The location would interfere with future planned airside airport development.
- There is increased risk of water contamination from airport runoff.
- A permanent body of water within the airside area would increase wildlife attraction, which is a safety concern for aircraft operations.

Based on these factors, relocating the pond was not recommended.

**Above-Ground Fill Line:**

Using an above-ground pipe to supply water to the pond was reviewed as a potential cost-saving measure. This option was not recommended due to:

- High risk of freezing during winter conditions.
- Reduced lifespan due to exposure to weather and ultraviolet light.
- Increased risk of physical damage.

A buried water connection remains the most reliable, year-round solution.

**Bladder (Pillow Tank) System:**

A flexible bladder tank system was also reviewed as an alternative to a permanent pond. While suitable for temporary or emergency use, this option was not recommended because:

- It is not intended for long-term, permanent infrastructure.
- It has a limited lifespan and requires frequent replacement.
- It is vulnerable to freezing and physical damage.

**Environmental Review:**

An environmental assessment was completed for the originally proposed pond location. The assessment confirmed that the site does not meet provincial criteria for a wetland and does not require wetland compensation or avoidance measures.

**Conclusion of Engineering Review:**

Based on the engineering, operational, environmental, and safety considerations, the originally proposed pond location with a buried water connection remains the most practical, reliable, and cost-effective solution to provide permanent fire protection water for the airport.

**COST RECOVERY OPTIONS**

Administration reviewed several ways the County could recover some or all of the cost of building and maintaining the airport fire protection pond over time. These options vary in how much revenue they could generate and how easy they would be to implement.

**Future lot pricing:**

The cost of fire protection infrastructure could be built into the price of future airport land or hangar lot sales. This approach spreads the cost over time and ensures that new development helps pay for the infrastructure it relies on. This is considered a low-risk option with good long-term value.

**Lease rate adjustments for existing tenants:**

Lease rates for existing airport tenants could be increased by a modest amount to help contribute toward shared fire protection infrastructure. While improved fire protection increases overall safety and reduces risk, it does not guarantee lower insurance costs for tenants. This option provides moderate benefit but would require careful consideration of tenant impacts.

**Use of general tax revenue:**

A portion of municipal tax revenue could be allocated to the project in recognition of the broader community benefit provided by the airport. The airport supports emergency response, air ambulance access, supply delivery, and can be used during major emergencies. This option competes with other County priorities.

**Fuel-related user fee:**

A small surcharge on aviation fuel sales could be dedicated to an airport fire protection or infrastructure fund. This approach links costs to airport use, captures visiting aircraft, and is commonly used at other airports. Revenue would depend on fuel sales and would require coordination with fuel providers.

**Ramp and transient parking fees:**

Adjusting ramp or transient parking fees, including charges for overnight parking without fuel purchase, could help recover infrastructure costs from visiting aircraft. This option is fair to non-based users but generates inconsistent revenue and requires enforcement.

**Tie-down fee adjustments:**

Seasonal or transient tie-down fees could be increased and aligned with market rates at comparable airports. This option is easy to administer and provides stable revenue, but the total revenue potential is limited.

**Commercial operator fees:**

Commercial operators located at the airport could contribute through specific fees or permits related to shared infrastructure. This option targets businesses that directly benefit from the airport but must be applied carefully to avoid discouraging economic activity.

**Special event and facility-use fees:**

Fees for non-aeronautical or community events held at the airport could help offset operating costs. This option is suitable for recovering small costs but is not appropriate for funding major capital projects.

**REQUEST OF COUNCIL**

*Proposed Motions:*

**Motion A:** *To approve the construction of a 1500m<sup>3</sup> active storage fire protection reservoir at Foothills Regional Airport excavation to be completed by Foothills County Public Works with contractors installing the liner, fencing, dry hydrant and cover.*

**Motion B:** *To deny the request for the construction of a fire protection reservoir at Foothills Regional Airport.*

**APPENDICES**

Appendix A: Foothills Regional Airport\_Prelim Report\_Memo 1