

WELCOME TO:
West Bragg Creek Emergency Access Study
Open House No. 2



September 20, 2017



Study Objectives & Background

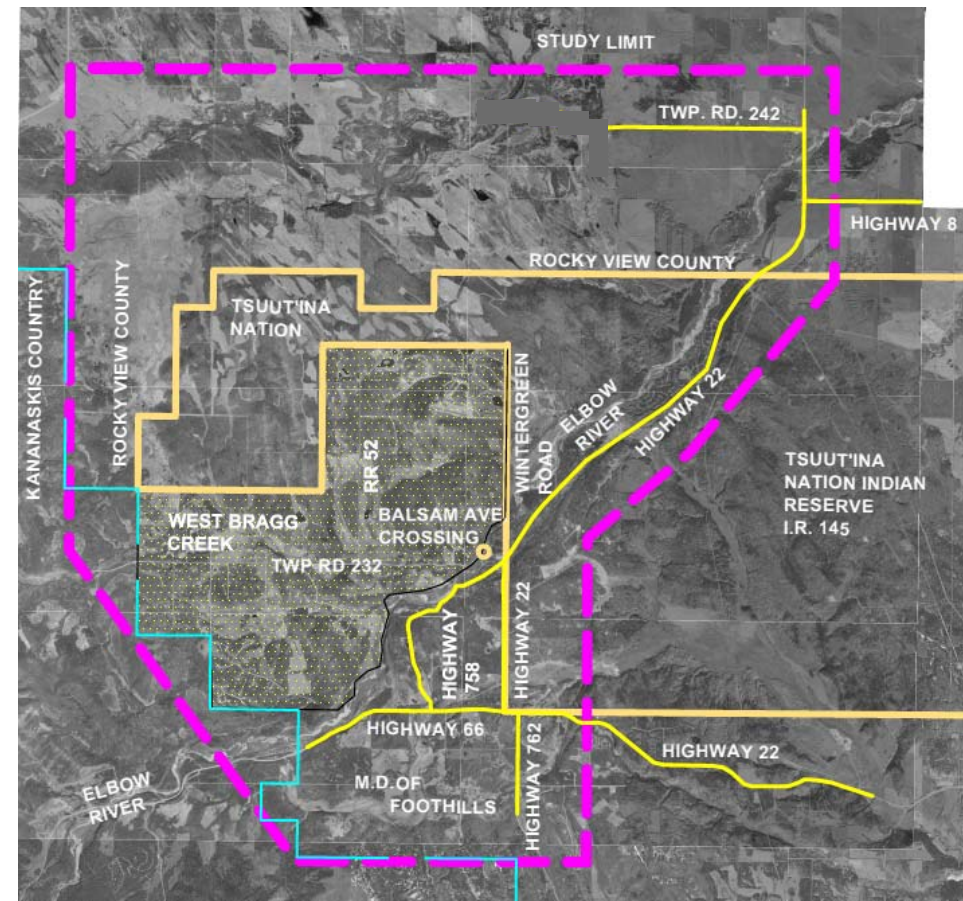
OBJECTIVES

- Determining an emergency access route that serves the community in West Bragg Creek
- Establishing plans for the recommended route that will assist with the future design and right-of-way protection
- *Ultimate goal – Prevent loss of life*

BACKGROUND

- Currently only one access to/from West Bragg Creek
- During the 2013 flooding:
 - The Balsam Avenue crossing was not accessible
 - Residents stranded on either side with no alternatives
 - 1,150 people evacuated ¹
 - 321 homes and businesses damaged ¹

STUDY AREA:

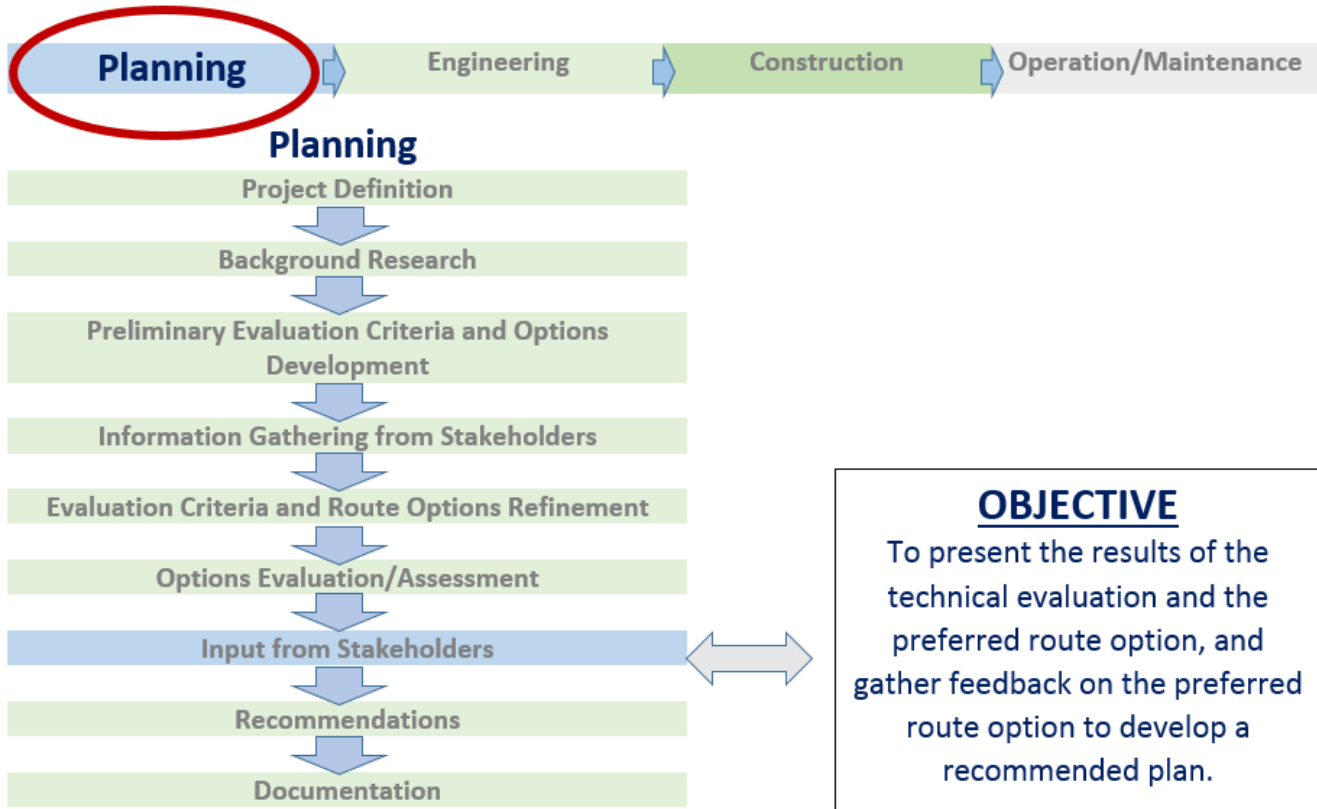


¹: Reported by Global News

Project Life Cycle

- Where are we?

WEST BRAG CREEK EMERGENCY ACCESS ROAD LIFE CYCLE OF AN INFRASTRUCTURE PROJECT



Open House 1
held in June 2016



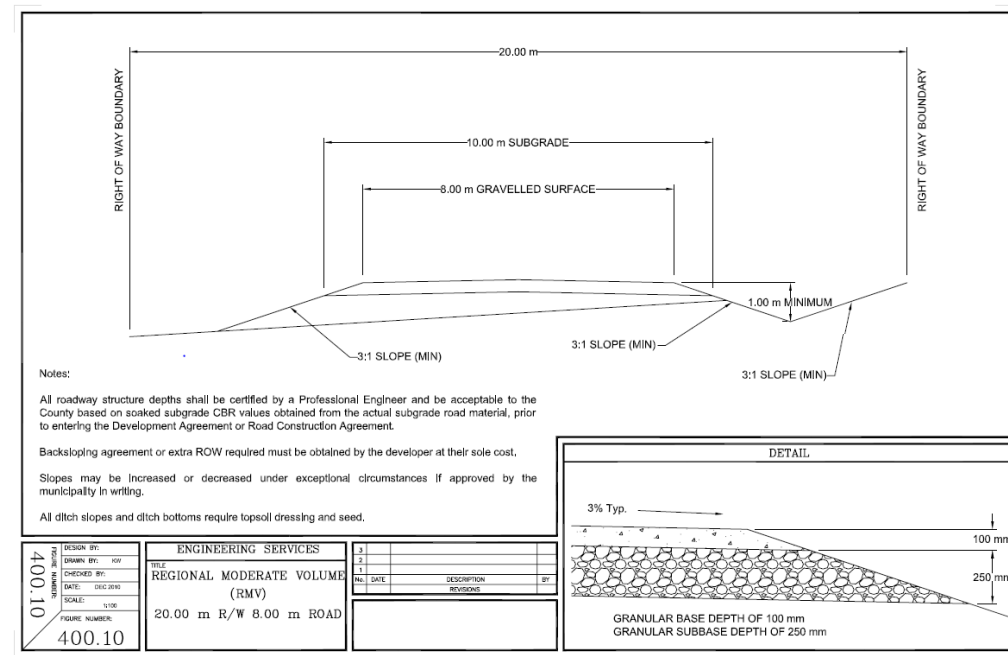
Open House 2,
September 2017



- Beyond this planning study, there are no timelines or funding established for implementation at this time

Function

- Rocky View County Emergency Services
 - Factors important to emergency responders:
 - Direct route (*serves the largest population density as possible in the shortest time*)
 - Familiarity (*on occasion, responders from other jurisdictions assist the County*)
 - Integrity (*when the road is needed, there are no problems with the road*)
 - Needs to support two-way traffic; emergency vehicles enter as residents exit the area
- Controlled access for use during emergency events only
- Geometric Details:
 - 2 lanes
 - 8.0 m wide gravel surface
 - 20 m basic right-of-way
 - Maximum gradient of 8%



Open House #1 Feedback Summary

Summary of Comments Received during the Open House

- Unanimous support for an emergency access route
- Factors deemed important for an emergency access route:
 - Easy of access
 - Exit time (fast/distance)
 - Cost
 - Account for fire, flood, sour gas
 - Timeliness of implementation
 - Land owner impacts
- Routes deemed to best address their important factors:
 - Route Option 2 had the highest support
 - Route Option 7 had the second highest support
 - Route Options 3 and 4 were the least supported
 - Route Option 1, 5, and 6 were mid-pack
- Considerations to address important factors:
 - Implications of crossing Tsuut'ina land
 - Implications of a new bridge
 - Implications of emergency access only
 - Multiple emergency accesses to serve different part of the community
 - Internal connection seen as being important to emergency access route
- Other alternative routes to consider:
 - Range Road 52 straight north
 - West to Kananaskis Country
 - Elkana area
 - Through Bragg Creek Provincial Park
 - Straight south from Option 7
- Other comments to consider:
 - Use nearest highway to assess evacuation
 - Emergency access only
 - Consult Sustainable Resources & Development (Alberta Environment & Parks)
 - Flood and fire needs to be evaluated separately

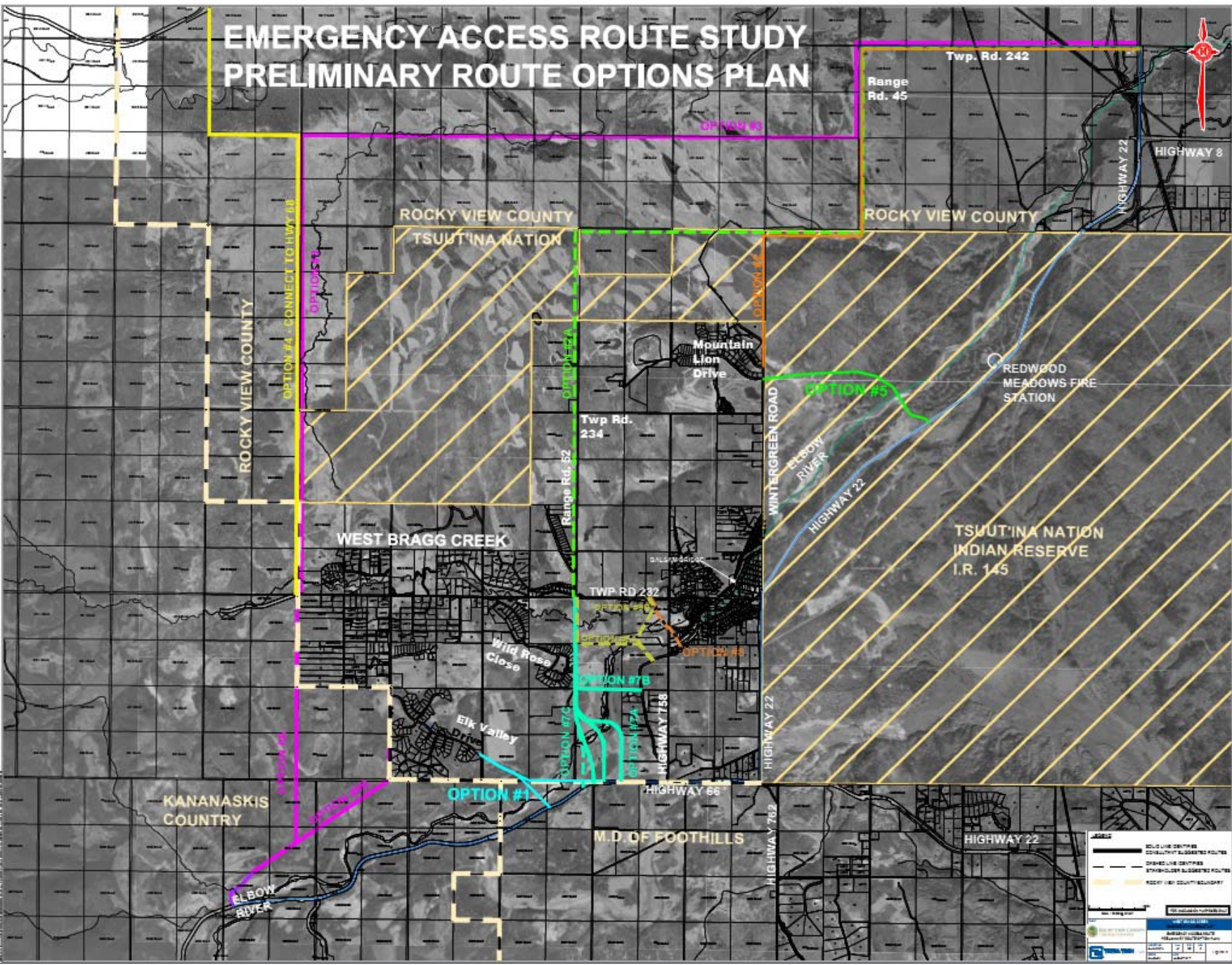
Addressing the Comments

- Factors deemed important for an emergency access route:
 - Emergency Access and Evacuation are part of the evaluation criteria
 - Cost is a part of the evaluation criteria
 - Land owner impacts are part of evaluation criteria
 - Emergency access route is for all emergencies
- Other comments considered:
 - Evacuation to nearest highway decision point was added to evaluation criteria
 - Study mandate is for emergency access only
 - Rocky View County emergency services and Alberta Wildfire were consulted for comments
 - Flood and fire considered under emergency access and evacuation criterions
 - Internal connection to be dealt through internal road planning exercises separate from this study

Addressing the Comments

- Alternative Routes suggested during Open House #1:
 - Range Road 52 north – reduce Tsuut’ina land impacts
 - Action: carried forward for further evaluation
 - Routes west into Kananaskis Country – higher wildfire risk and greater travel distances
 - Action: route not carried forward
 - Routes through Elkana area – crosses wide flood plain and likely requires realignment of Highway 758
 - Action: route not carried forward
 - Routes through Bragg Creek Provincial Park – have greater environmental, social and land impacts
 - Action: route not carried forward
 - Range Road 52 south – utilize County’s undeveloped road allowance
 - Action: carried forward for further evaluation

EMERGENCY ACCESS ROUTE STUDY PRELIMINARY ROUTE OPTIONS PLAN



Note:
This plan will be
printed on a
large-sized
board

Evaluation Methodology

Evaluation Process

- Each option was Rated: 1 to 5 for each criterion (1 being least favourable, 5 being most favourable)
- Each criterion was assigned a weighting factor (relative importance to other criterion)
- Rating x Weighting Factor = Criterion Score for each option
- Total Score normalized based on estimated construction cost
- Option with the highest score/cost ratio (i.e. benefit/cost or value) considered to be the technically preferred option

Evaluation Weighting

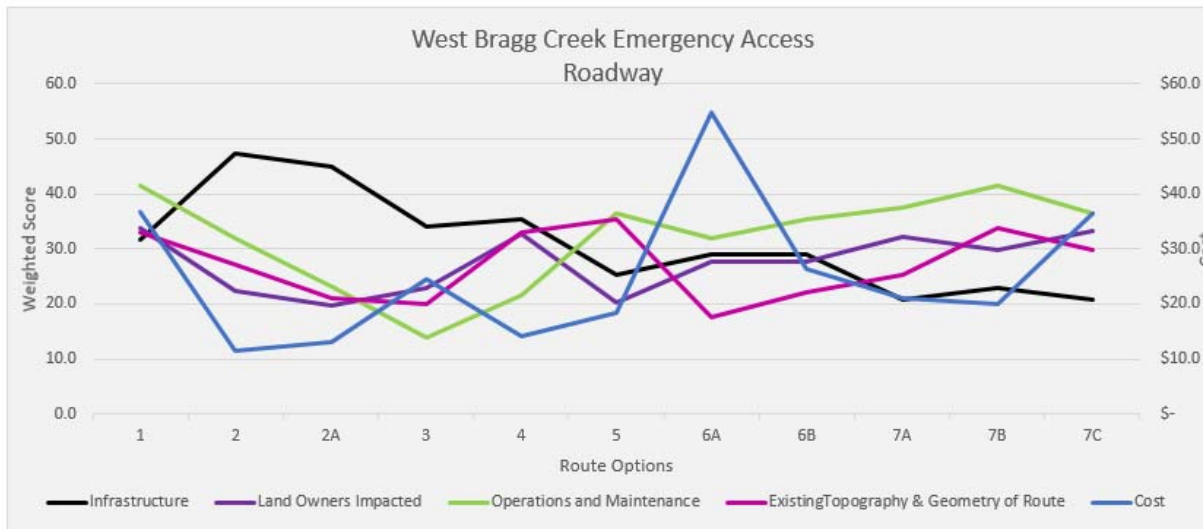
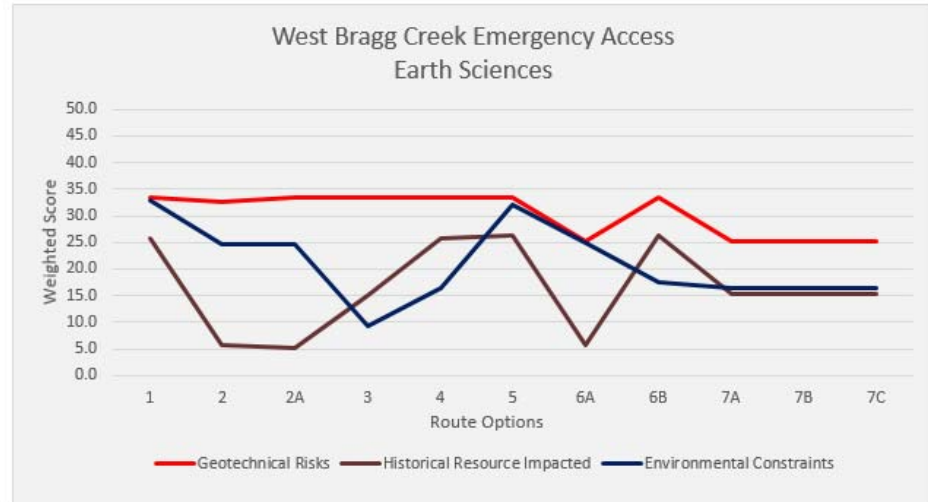
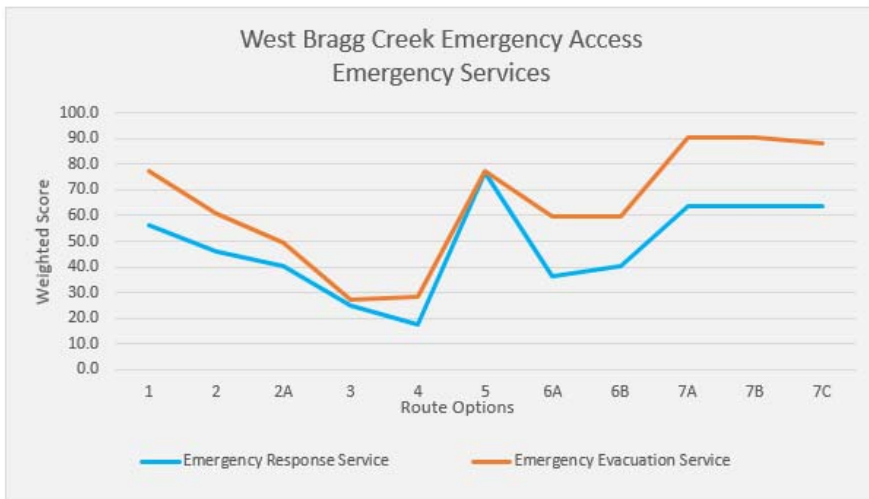
- Emergency Response and Emergency Evacuation were weighted the highest amongst all criteria

Evaluation Criteria

- **Emergency Response Service** – *distance from Redwood Meadows fire hall*
- **Emergency Evacuation Service** – *time for residents to reach the nearest highway decision point*
- **Environmental Constraints** – *impacts to crown reserves, parks and protected areas, significant/sensitive areas, wetlands, watercourse crossings etc.*
- **Geotechnical Risks** – *challenges associated with unsuitable ground conditions*
- **Historical Resource Areas** – *impact to areas of known or having potential historical significance*
- **Infrastructure** – *utilization of existing roads, new bridge and road construction*
- **Landowner Impacts** – *parties involved, possible extent of impact*
- **Operations and Maintenance** – *length of new road, frequency, reliability, route directness and familiarity*
- **Topography and Geometry** – *relative steepness of grade impacting response and evacuation effectiveness*
- **Utility Impacts** – *number, type, commodity, outages etc.*
- **Construction Cost Estimates** – *total cost for construction of road and bridge work*

Evaluation Results

(for each criterion)

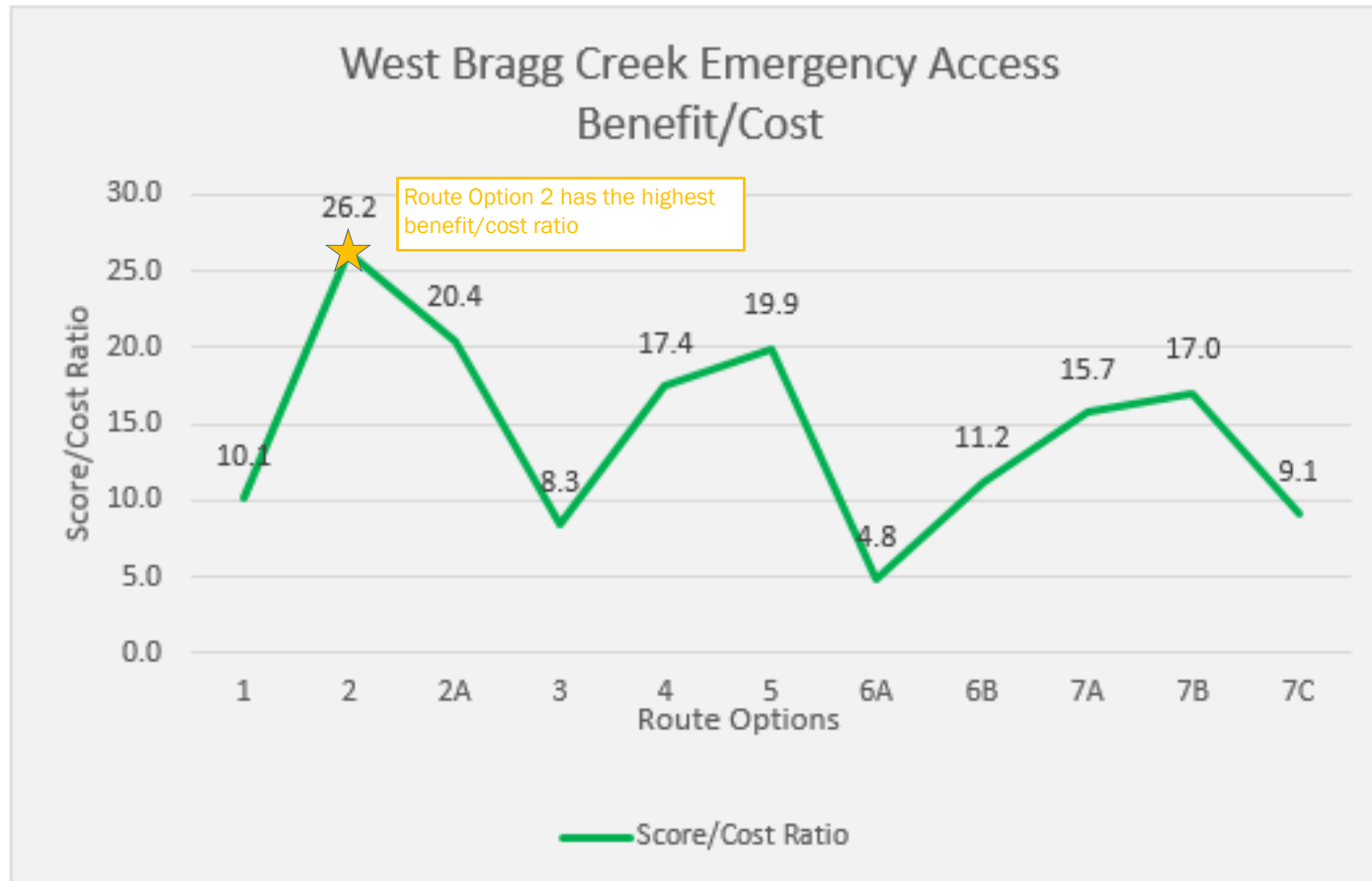


- All route have advantages and disadvantages
- The evaluation process identifies the option that provides the greatest ability to meet the technical requirements for the investment dollars spent

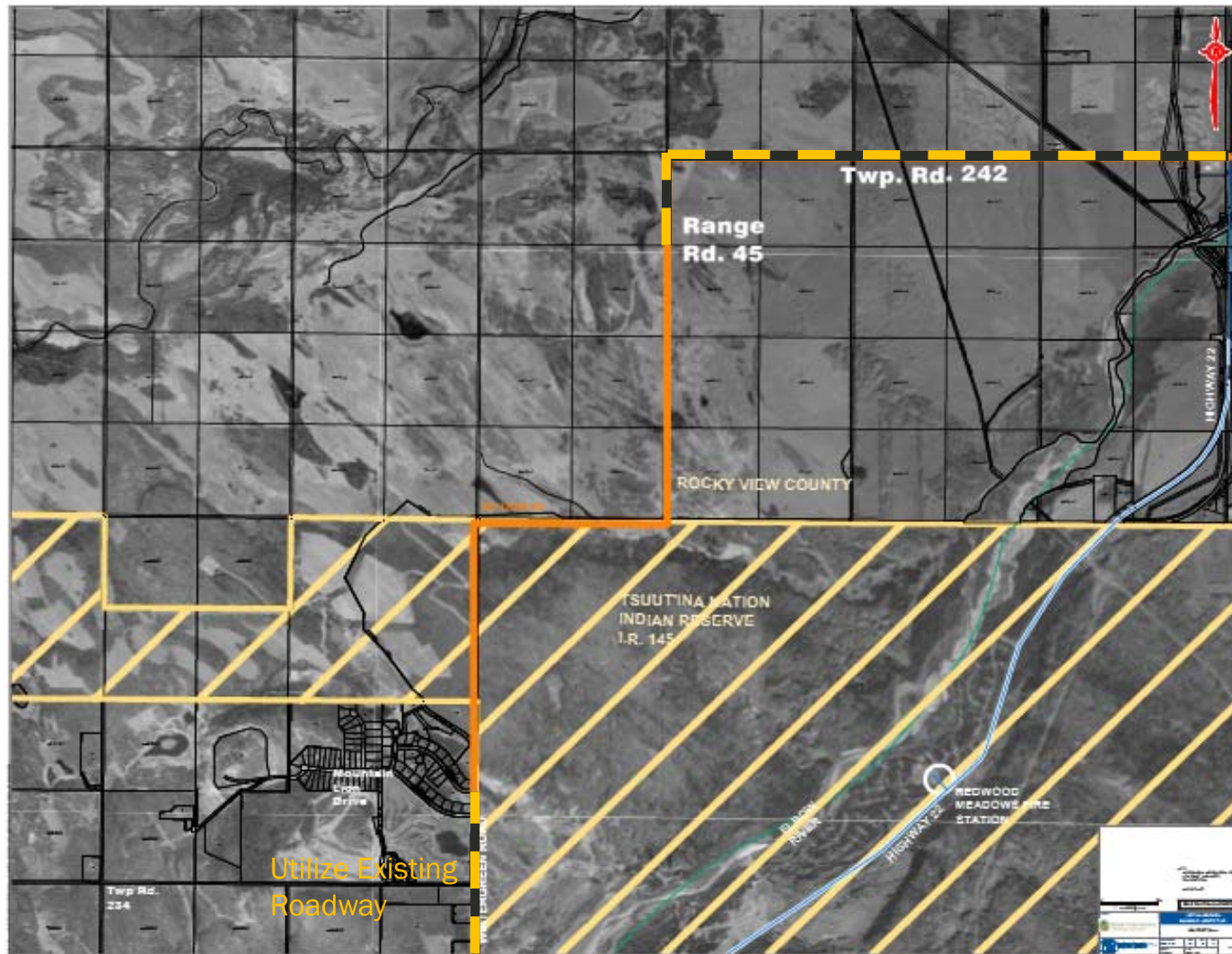
Note: Utility impacts were not a significant factor between the various route options and evaluation scoring and therefore not shown

Evaluation Results

(Benefit/Cost Ratio)



Technically Preferred Option – Route 2



- Proposed New Roadway
- Utilize Existing Roadway

Option 2 – Next Steps

- Complete the functional planning of Route 2
- Presentation to Rocky View County Policy and Priorities Committee
- Continue dialogue with Tsuut'ina Nation
 - Tsuut'ina Nation and the County are working together towards a mutually beneficial solution
 - Establish formal agreement and develop funding strategy with Tsuut'ina Nation
- Secure project funding for emergency access route construction

Please take the time to fill out the questionnaire and return to Tetra Tech

Direct comments to:

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Tel: 403.723.3260 or email: lou.mak@tetrattech.com

or

Rocky View County: Angela Yurkowsky, P.Eng., Project Manager

Tel: 403.520.7289 or email: ayurkowsky@rockyview.ca

Note: All material presented at the open house will be available on the Rocky View County website following the open house