

Secondary and Emergency Access Roads

October 26, 2016

Presenters: Mazhar Hajhossein, Manager Transportation &
Infrastructure Planning
Dawny George, Director Engineering Department

Introduction

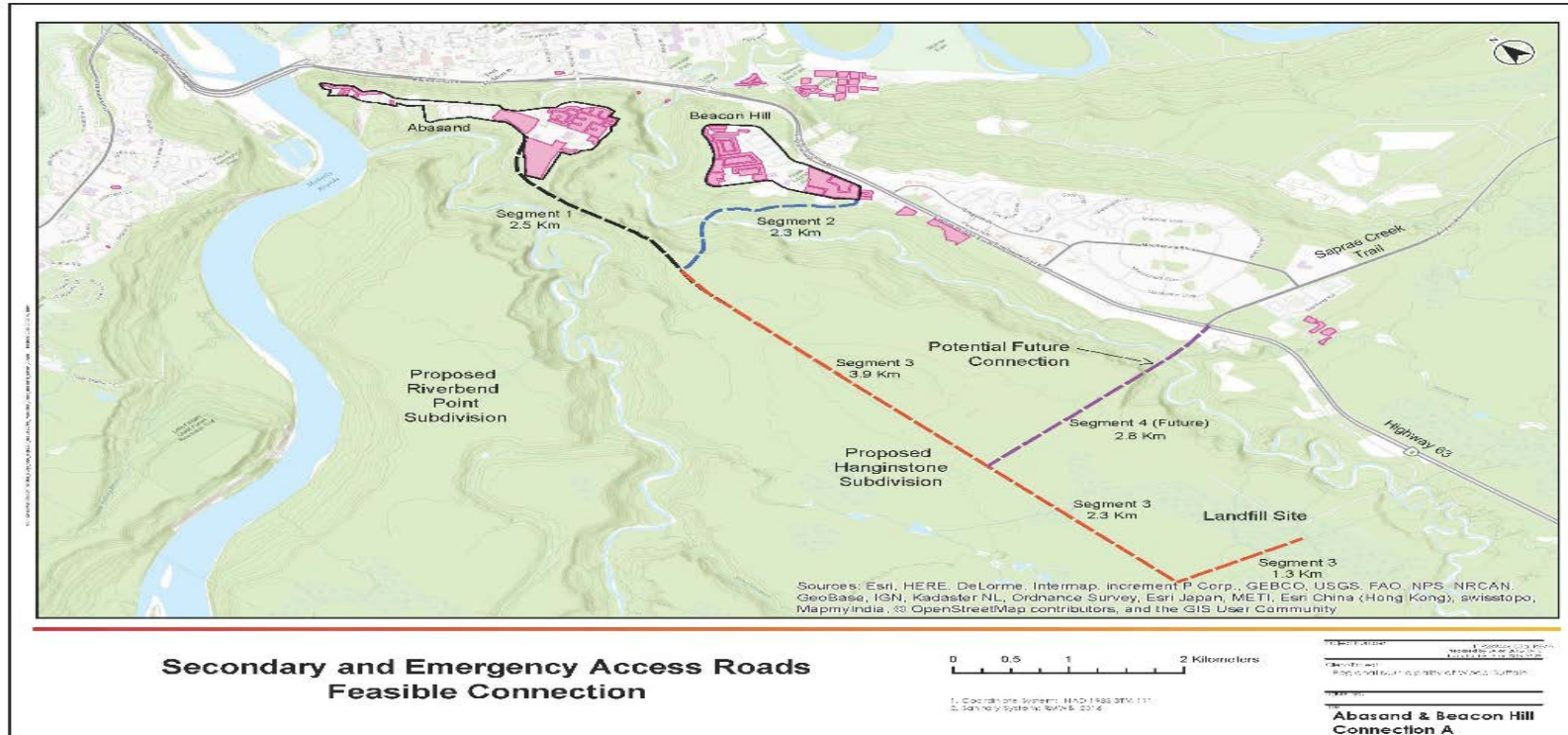
On June 28, 2016, Council passed the following resolution regarding Service Access Roads *“moved that Administration be directed to”*:

- a) Explore the possibility of opening new service access roads for the communities of Abasand, Beacon Hill, Waterways and Wood Buffalo, including the necessary permits and approvals for such roads and;
- b) Include all costs associated with opening the service access roads referenced in (a) above in its request to the Government of Alberta for funding to compensate for extraordinary costs arising from the wildfire

Background

- Administration explored multiple access points that could serve as secondary and emergency roads for the impacted communities of Abasand, Beacon Hill, Waterways and Wood Buffalo
- Out of the 9 options explored, 6 access roads (A to F) represent potential feasible connections for these neighborhoods
- 6 feasible access roads in detail are presented

Connection A - Abasand and Beacon Hill Secondary Access Road



Connection A - Abasand and Beacon Hill

Secondary Access Road

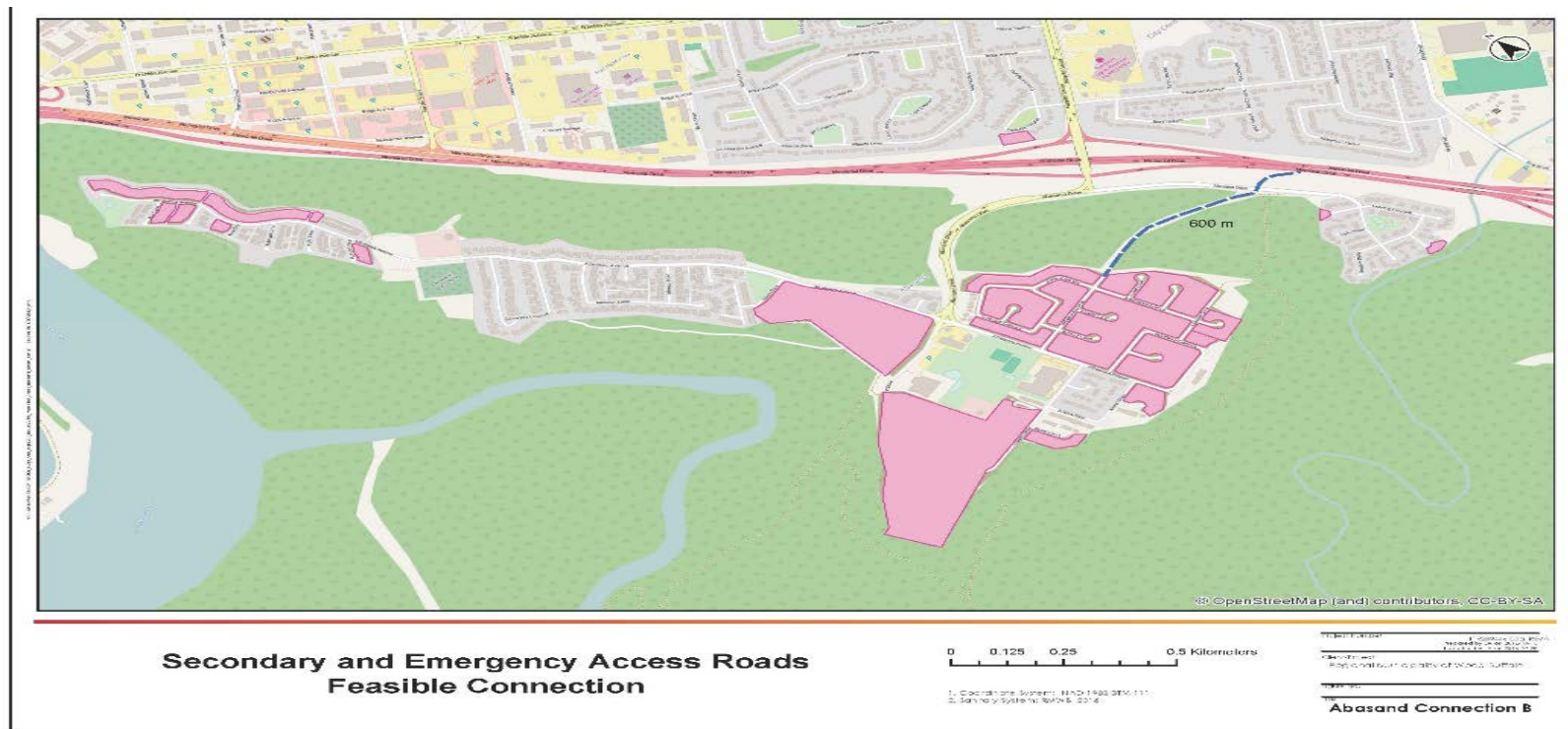
- Consists of 4 segments
- Segment 1 and 3 has an eight (8.0) meter wide gravel road west of Abasand, connecting with the landfill site
- Segment 2 also has an eight (8.0) meter wide gravel road from Beacon Hill, which will connect to segment 1 starting south of the community

Connection A - Abasand and Beacon Hill

Secondary Access Road - cont'd

- In the future, segment 4 may be an option to connect this road with Highway 63 at Saprae Creek Trail intersection
- Long term option for consideration

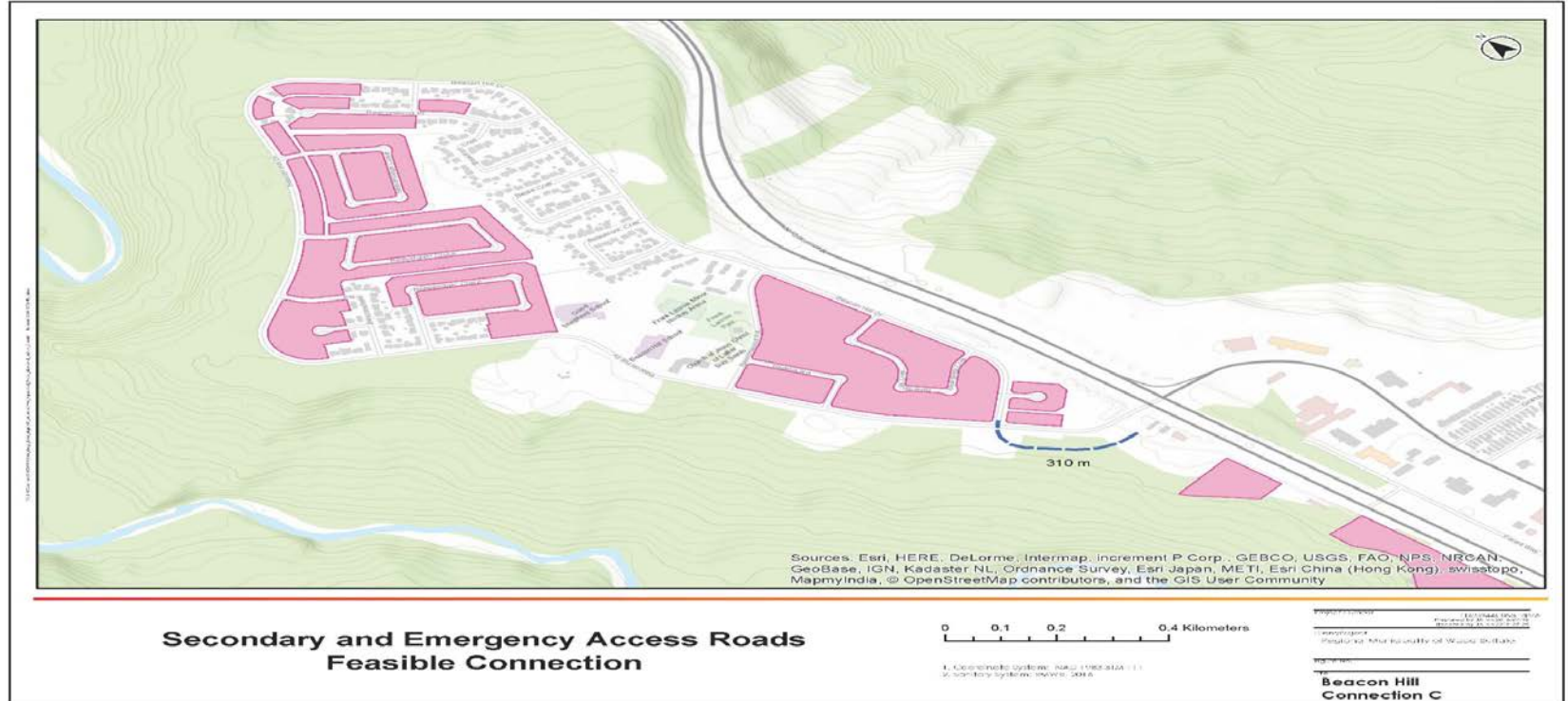
Connection B - Abasand Emergency Egress Road



Connection B – Abasand Emergency Egress Road

- Upgrade an existing three (3.0) meter paved trail to a five (5.0) meter wide road for vehicular egress from the top of Abasand at Abbottswood Drive down to Abasand Drive (just north of Grayling Terrace)
- Potential to connect this road with Highway 63 southbound traffic only
- Short term option for consideration

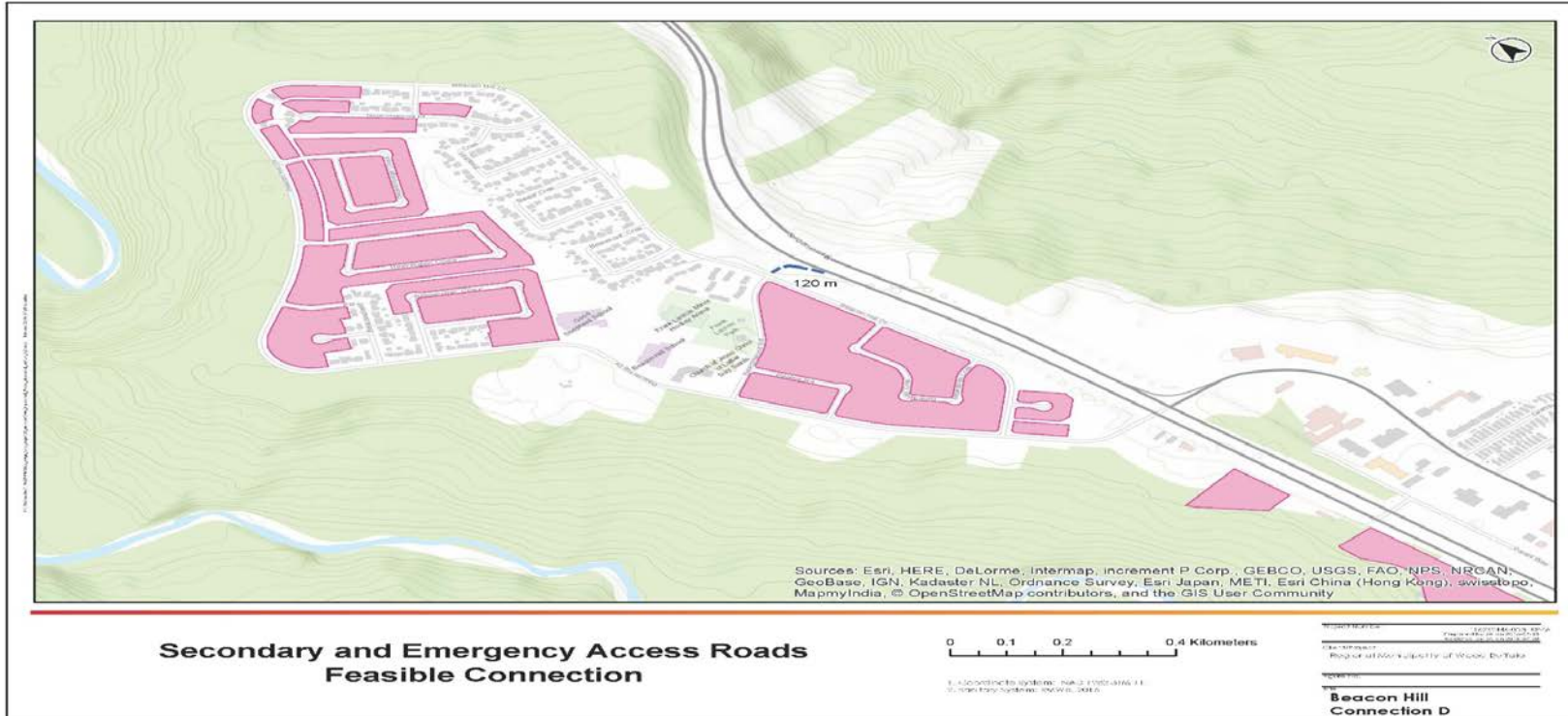
Connection C - Beacon Hill Secondary Access Road



Connection C - Beacon Hill Secondary Access Road

- New eight (8.0) meter wide gravel road connecting the existing service road west of Highway 63 to the first intersection in the Beacon Hill community
- Long term option for consideration

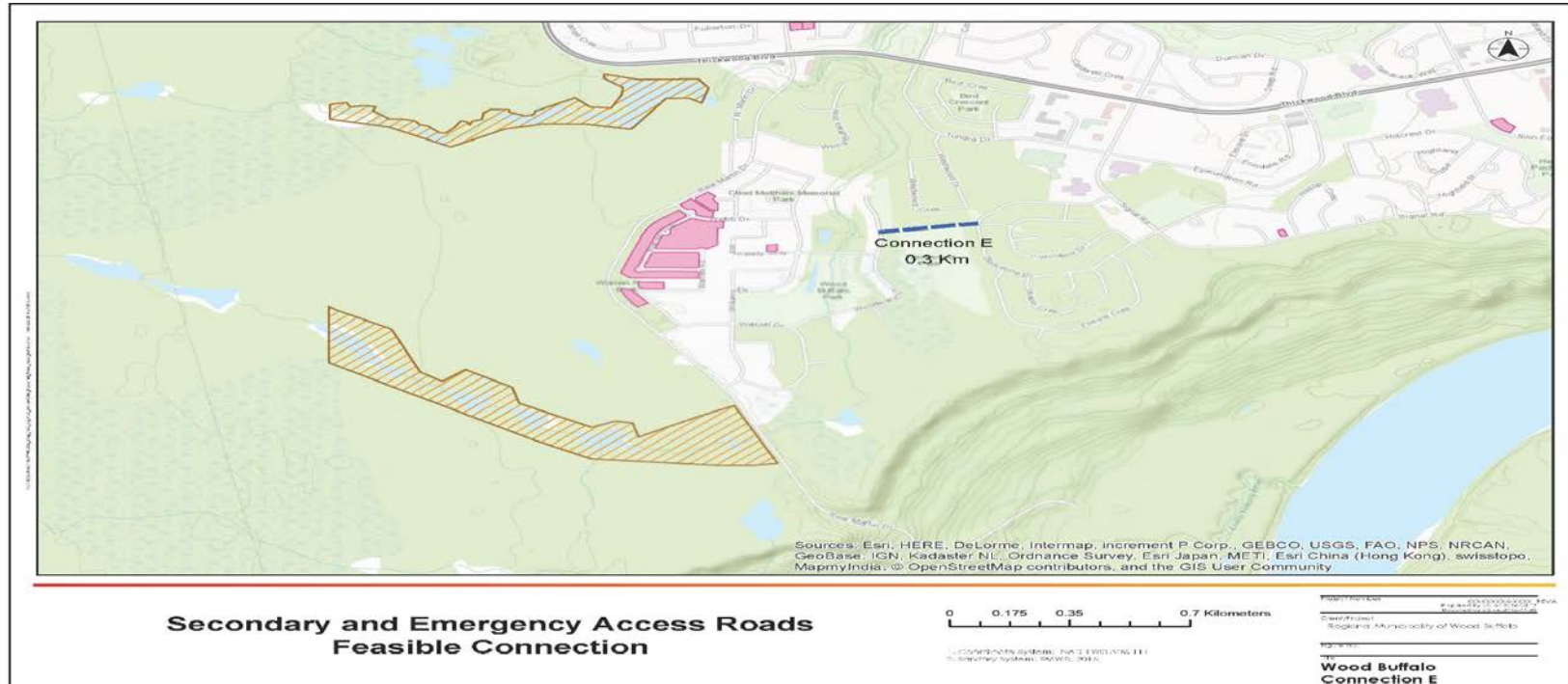
Connection D - Beacon Hill Emergency Egress Road



Connection D - Beacon Hill Emergency Egress Road

- New five (5.0) meter wide gravel egress route that would enable traffic to exit Beacon Hill along the east side of the community (Beacon Hill Drive), and connect with Highway 63 southbound
- Short term option for consideration

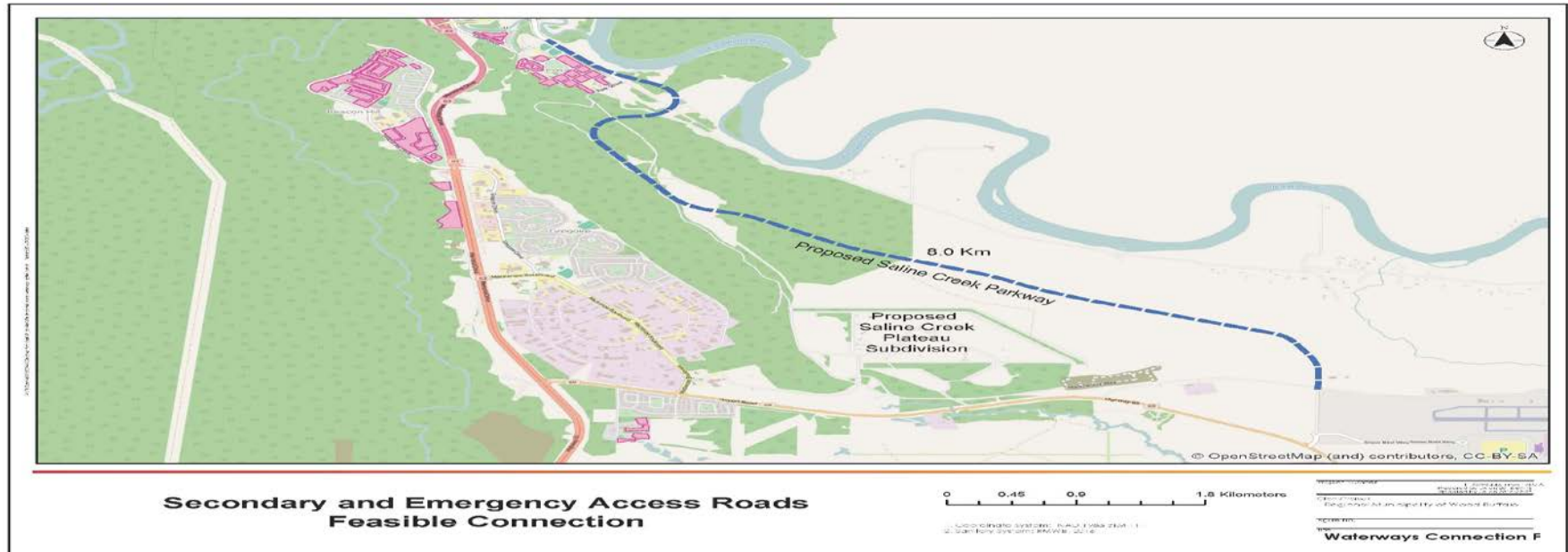
Connection E - Wood Buffalo Emergency Egress Road



Connection E - Wood Buffalo Emergency Egress Road

- Provides a five (5.0) meter paved connection between Wood Buffalo and Thickwood by way of upgrading an existing three (3.0) meter wide paved trail between Woodward Lane and Wolverine Drive
- Short term option for consideration

Connection F - Waterways/Lower Townsite Emergency Access Road (Saline Creek Parkway)



Connection F - Waterways/Lower Townsite Emergency Access Road (Saline Creek Parkway)

- Access route includes an eight (8.0) meter wide gravel road which would connect Waterways with Saline Creek Parkway
- The alignment would start at the end of the existing Saline Creek Parkway by the Airport and it would run perpendicular to the Clearwater Valley slope on top of Saline Creek Plateau.
- This would provide an alternate route to Highway 63 between the Athabasca Bridge and Saprae Creek Trail

Connection F - Waterways/Lower Townsite Emergency Access Road (Saline Creek Parkway) - cont'd

- As part of the Saline Creek Parkway project, pre-design is near completion
- Provides a short and long term egress to Waterways and the Urban Service Area, south of the bridge

Considerations for Proposed Connections A to F

- Potential challenges include river crossings, geotechnical challenges, environmental considerations, approval from Alberta Transportation to connect to Highway 63 and land ownership issues among others
- The emergency access roads consist of short segments that could be completed in one construction season, pending on all necessary permit approvals
- Abasand/Beacon Hill Access Road, Connection A, and Saline Creek Parkway, Connection F, would take longer to complete depending on found challenges and availability of funds

Budget/Financial Implications

- Preliminary cost and schedule are presented for connections A to F
- Costs could vary significantly as the predesign and detailed design progresses
- A full geotechnical study is needed to determine detailed estimated costs
- Administration would pursue any applicable DRP funding and/or other available grants

Budget/Financial Implications

Secondary and Emergency Access Roads – Project Estimated Cost (Connection A-F)

Community	Connection	Name	Estimated Cost			
			Predesign	Design	Construction	Total
Abasand & Beacon Hill	A	Abasand & Beaconhill Secondary Access Road	\$440,000	\$2,820,000	\$30,000,000	\$33,260,000
Abasand	B	Abasand Emergency Egress Road	\$25,000	\$50,000	\$1,000,000	\$1,075,000
Beacon Hill	C	Beacon Hill Secondary Access Road	\$25,000	\$50,000	\$500,000	\$575,000
Beacon Hill	D	Beacon Hill Emergency	\$25,000	\$50,000	\$500,000	\$575,000
Wood Buffalo	E	Wood Buffalo Emergency Egress Road	\$25,000	\$30,000	\$250,000	\$305,000
Subtotal			\$540,000	\$3,000,000	\$32,250,000	\$35,790,000
Waterways	F	Waterways Emergency/Secondary Access Road (Saline Creek Drive)	Completed	\$3,000,000	\$110,000,000	\$113,000,000
Subtotal			0	\$3,000,000	\$110,000,000	\$113,000,000
		Total	\$540,000	\$6,000,000	\$142,250,000	\$148,790,000

Budget/Financial Implications – cont'd

Secondary and Emergency Access Roads – Project Estimated Schedule (Connection A-F)

Community	Connection	Name	Project Estimated Schedule				Construction Seasons
			Priority	Predesign	Design	Construction	
Abasand & Beacon Hill	A	Abasand & Beaconhill Secondary Access Road	2	TBD	TBD	TBD	2+
Abasand	B	Abasand Emergency Egress Road	1	Nov 2016 – March 2017	April 2017 – June 2017	Aug 2017 – June 2018	1+
Beacon Hill	C	Beacon Hill Secondary Access Road	2	Nov 2016 – March 2017	TBD	TBD	2+
Beacon Hill	D	Beacon Hill Emergency	1	Nov 2016 – March 2017	April 2017 – June 2017	Aug 2017 – June 2018	1+
Wood Buffalo	E	Wood Buffalo Emergency Egress Road	1	Nov 2016 – March 2017	April 2017 – June 2017	Aug 2017 – June 2018	1+
Waterways	F	Waterways Emergency/Secondary Access Road (Saline Creek Parkway)	1	Completed	Jan 2017 – Dec 2017	May 2017 – Dec 2020	2+

Recommendations:

- The project implementation can be a six phased approach
- Phase 1 – Predesign for B, C, D and E, in 2016
- Phase 2 – Design for connections B, D, E, and F, in 2017
- Phase 3 – Construction for connections B, D, E, in 2017, and F in 2018
- Phase 4 – Predesign for A, TBD
- Phase 5 – Design for connections A & C, TBD
- Phase 6 – Construction for connections A & C, TBD

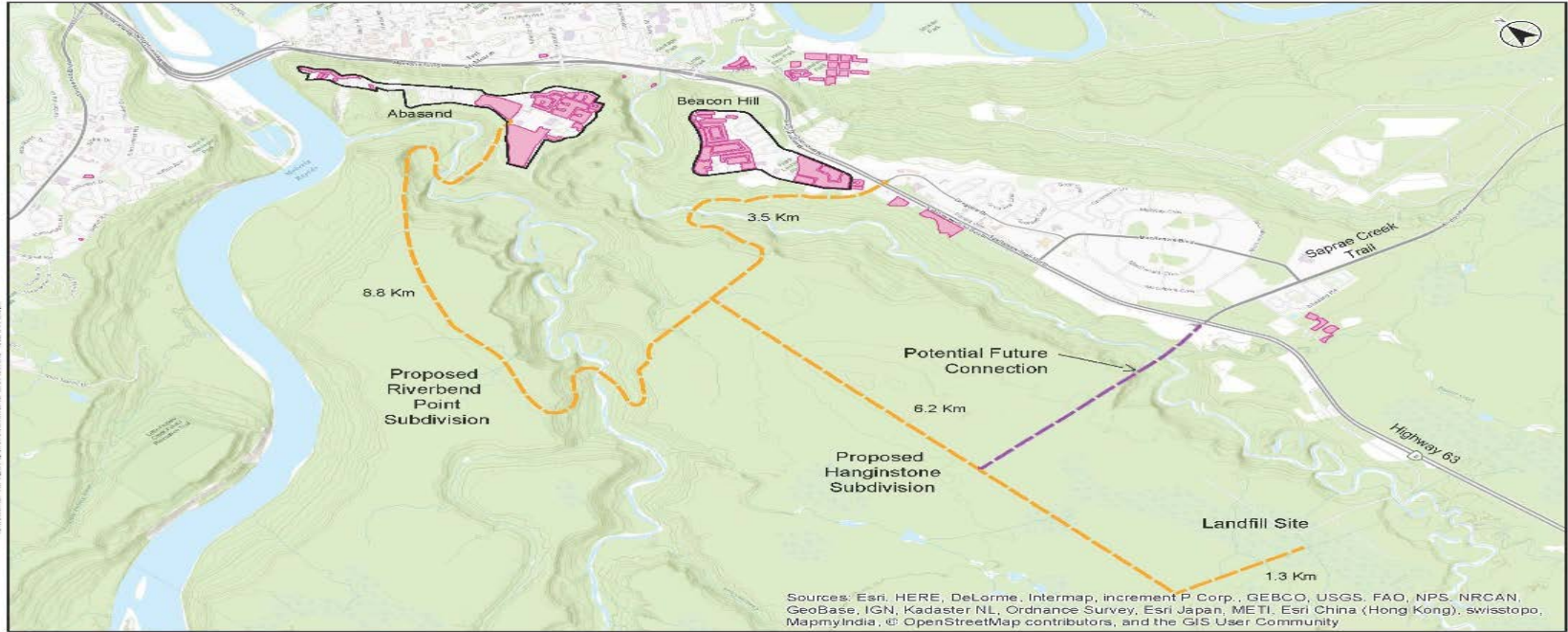
Recommendations - cont'd:

- That Council approves the 2016 capital budget amendment to advance the predesign for Connections (B to E) for a total of \$100,000 – Phase 1
- The design and construction budget (Phase 2 & 3) will be presented as part of the 2017 capital budget approval process
- The predesign for Connection A and the design and construction for Connections A and C (Phase 4 – 6) are to be decided later

Rationale for Recommendations:

- The new roadway alignments will provide the communities with alternate and secondary routes during emergencies
- Some of these alignments will also help in the demolition/rebuild of the communities, as they will separate the construction traffic from the residential traffic in certain areas, pending timely completion

Alternative Connection G



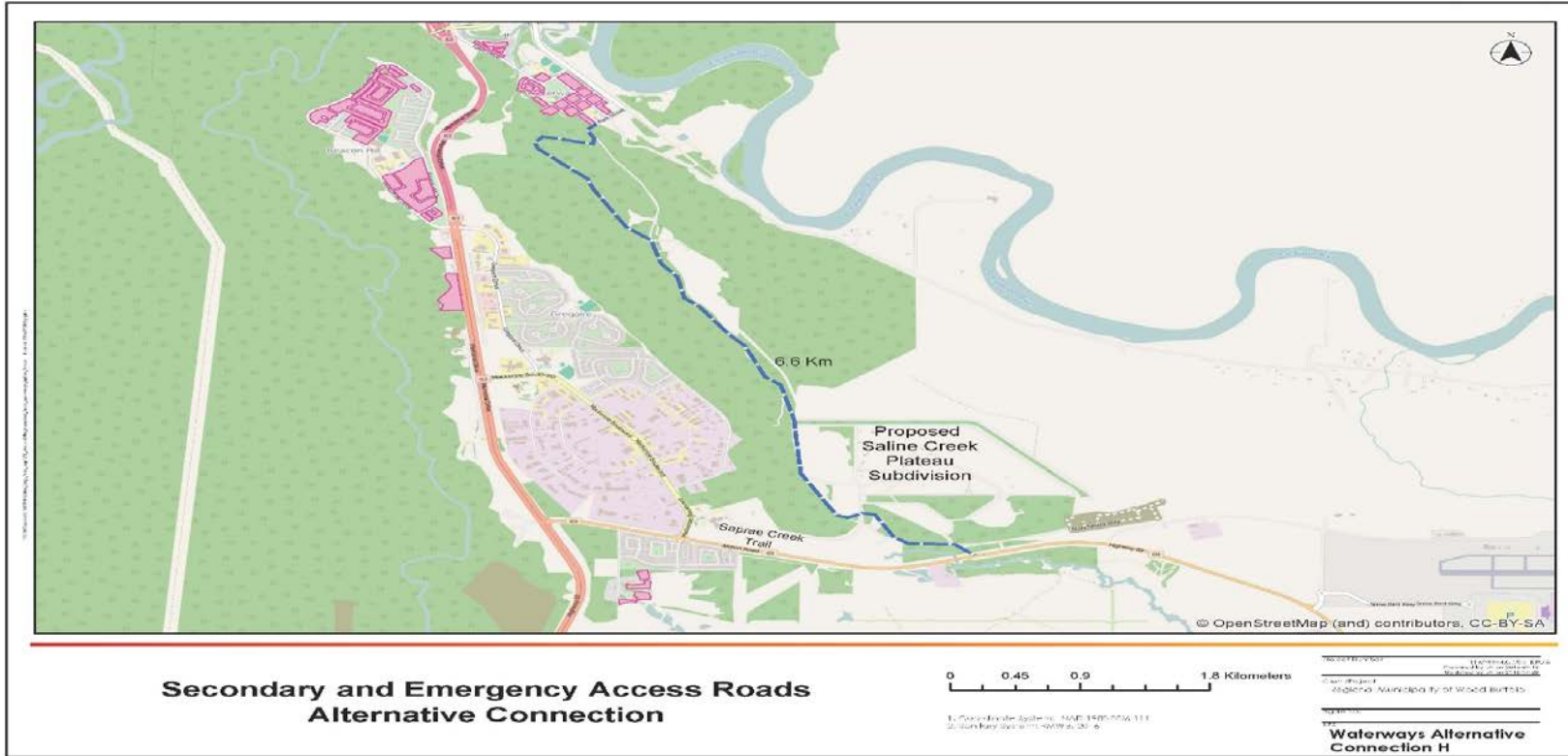
**Secondary and Emergency Access Roads
Alternative Connection**

0 0.5 1 2 Kilometers

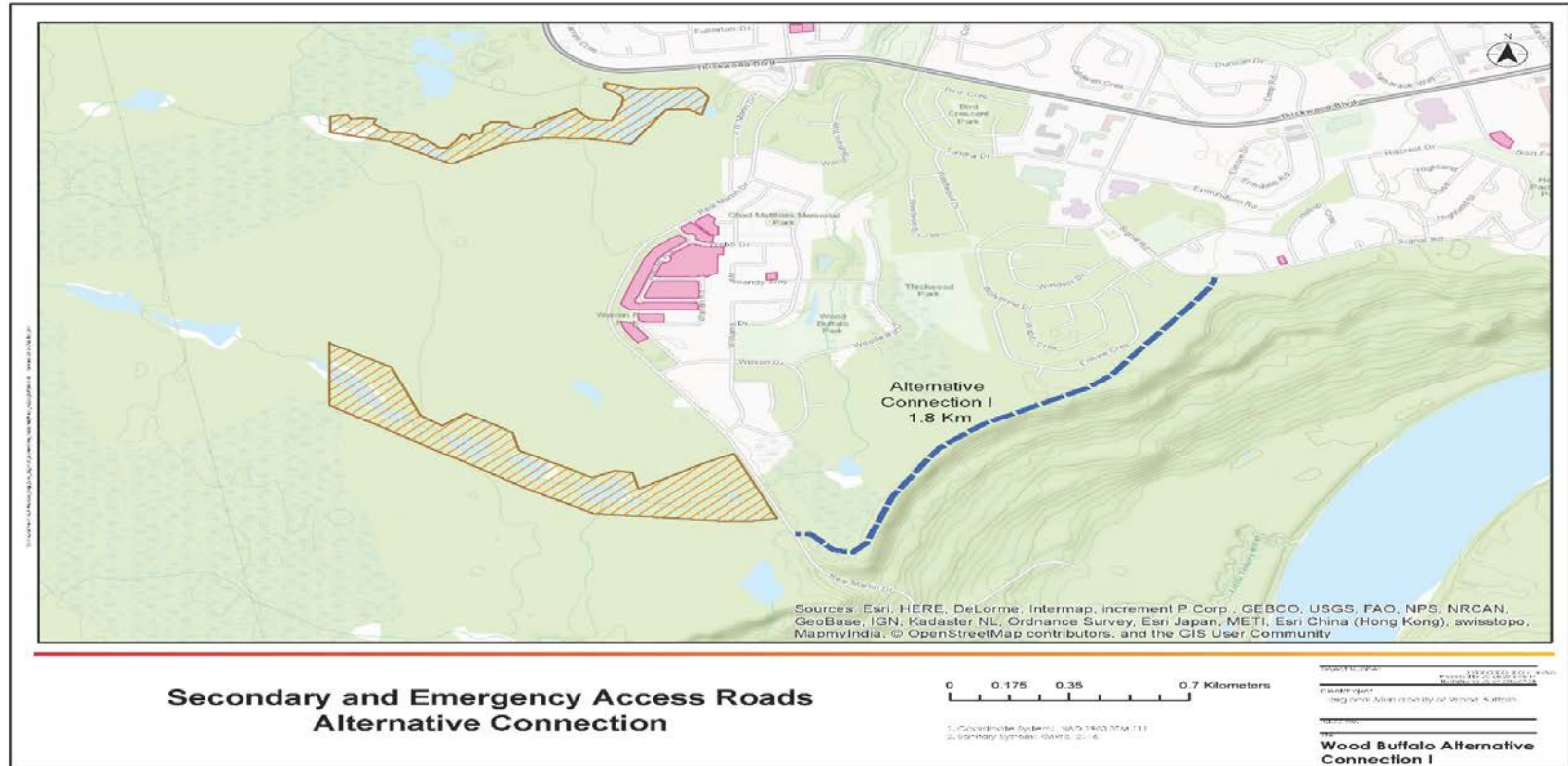
1. Coordinate System: NAD 1983 NAD 1983
2. Vertical System: NAVD 83

Scale: 1:10,000
Projection: UTM
Datum: NAD 1983
Units: Meters
Abasand & Beacon Hill
Alternative Connection G

Alternative Connection H



Alternative Connection I



Thank You
Questions?