

Long-term Flood Mitigation Options

OPTION #4

Added narrow floodway, enhancements to Barrowtown Pump Station and more new pump stations.

Summary

Implementing this option would further enhance the existing flood protection system while maximizing agricultural land and food security. New dykes would be constructed on both sides of the Sumas River, extending along the border, and will create a narrow floodway through Sumas Prairie West. This option also includes the construction of a new Sumas River pump station and three pump stations in Sumas Prairie West, as well as upgraded resiliency to Barrowtown Pump Station. The intent of this option is to impact the least amount of agricultural land, residential properties and businesses.

This option would meet minimum flood protection guidelines in B.C. and incorporate enhancements such as dyke setbacks and floodway creation and provides the greatest level of overall protection out of all options. The level of protection offered by this option to Sumas Prairie Lake Bottom is up to a one in 200-year event (with climate change considerations).



DYKES

- Reinforce and raise parts of Sumas Dyke
- Reinforce and raise parts of existing Vedder Dyke
- Relocate parts of Sumas Dyke and setback to allow for flood overflow channel
- **New** relocated dyke along north side of Hwy 1 from Atkinson Road to floodboxes
- **New** dyke along both sides of Sumas River, through Sumas Prairie West (extending along the border and to protect Huntingdon area)



PUMP STATIONS

- Upgrade resiliency of Barrowtown Pump Station
- **New** Sumas River pump station
- **New** pump stations in Sumas Prairie West, at Marshall Creek (two locations) and Saar Creek



SUPPORTING INFRASTRUCTURE

- Hwy 1 to be raised from east of Sumas First Nation Reserve to Atkinson Road (by Province)
- Southern Railway raised (by Province)



DESIGNATED FLOODWAYS/ CONTROLLED OVERFLOW

- Create Sumas Prairie West floodway
- Create Sumas Prairie North floodway (from Atkinson Road to Barrowtown Pump Station floodboxes north of Hwy 1)
- Create controlled overflow to Lake Bottom near main breach and Arnold Slough (only for events over one in 200-years)
- Create controlled flows at border to Arnold Slough



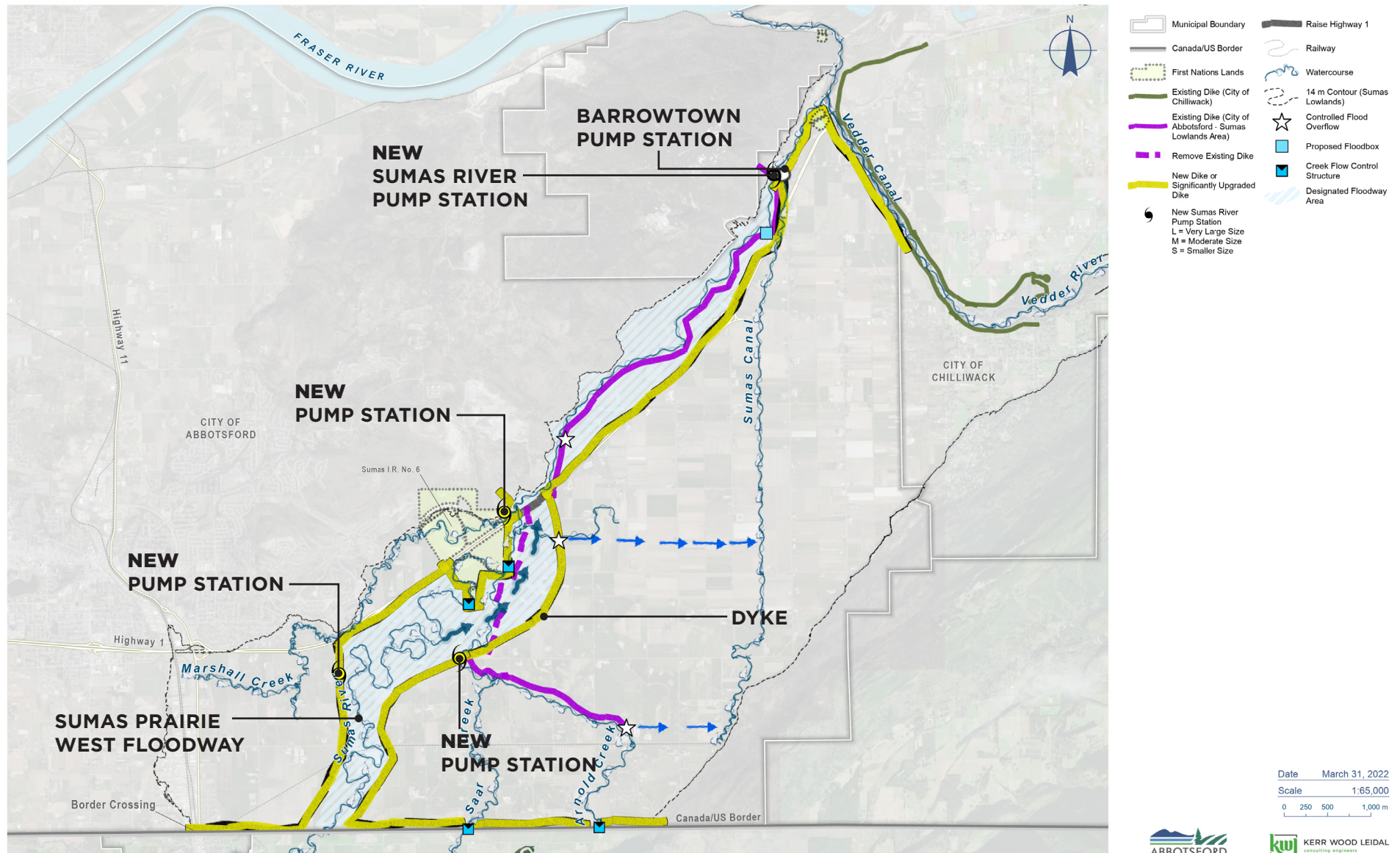
COST (ESTIMATIONS)

- | | |
|-------------------------------------|---------------|
| • Nooksack/Sumas Prairie Mitigation | \$2.3B |
| • Clayburn Village Enhancements | \$32M |
| • New Water Source Resiliency | \$77M |
| • Matsqui Dyke Resiliency | \$388M |

TOTAL ESTIMATED COST: \$2.797B

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① **NOTE:** all noted borders and locations are approximations and may be adjusted based on future modelling and as plans **finalize**.