

# Long-term Flood Mitigation Options

## OPTION #3

Added floodway, storage area, enhancements to Barrowtown Pump Station and a new Sumas River pump station.

### Summary

Implementing this option would reinforce the existing flood protection system with the creation of a floodway by relocating parts of the Sumas Dyke north of Highway 1, setting it back from the Sumas River. Existing dykes will be reinforced and raised and new dykes will be constructed to protect the Huntingdon area and area east of Saar Creek. This option also includes a new Sumas River pump station and upgraded resiliency of Barrowtown Pump Station. Sumas Prairie West would remain part of an unprotected floodplain with buildings relying on private local flood proofing for protection.

This option would meet minimum flood protection guidelines in B.C. with some enhanced levels of protection. With this option, the area of the unprotected floodplain reduces and protection increases. This change guards Sumas Prairie Lake Bottom for up to a one in 200-year event (with climate change consideration).

#### **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 to protect Huntingdon area extending up to Hwy 1
- **New** dyke along Saar Creek, extending along the border
- Remove Interceptor Dyke in Arnold area (to restore flow to Lake Bottom)

#### **PUMP STATIONS**

- Upgrade resiliency of Barrowtown Pump Station
- **New** Sumas River pump station

#### **UNPROTECTED FLOODPLAIN**

- Sumas Prairie West (private mitigation only)

#### **SUPPORTING INFRASTRUCTURE**

- Hwy 1 to be raised between Hwy 11 and Atkinson Road (by Province)

#### **DESIGNATED FLOODWAYS/CONTROLLED OVERFLOW**

- Create Lake Bottom designated temporary storage area
- 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
- Create controlled flows at border to Arnold Slough

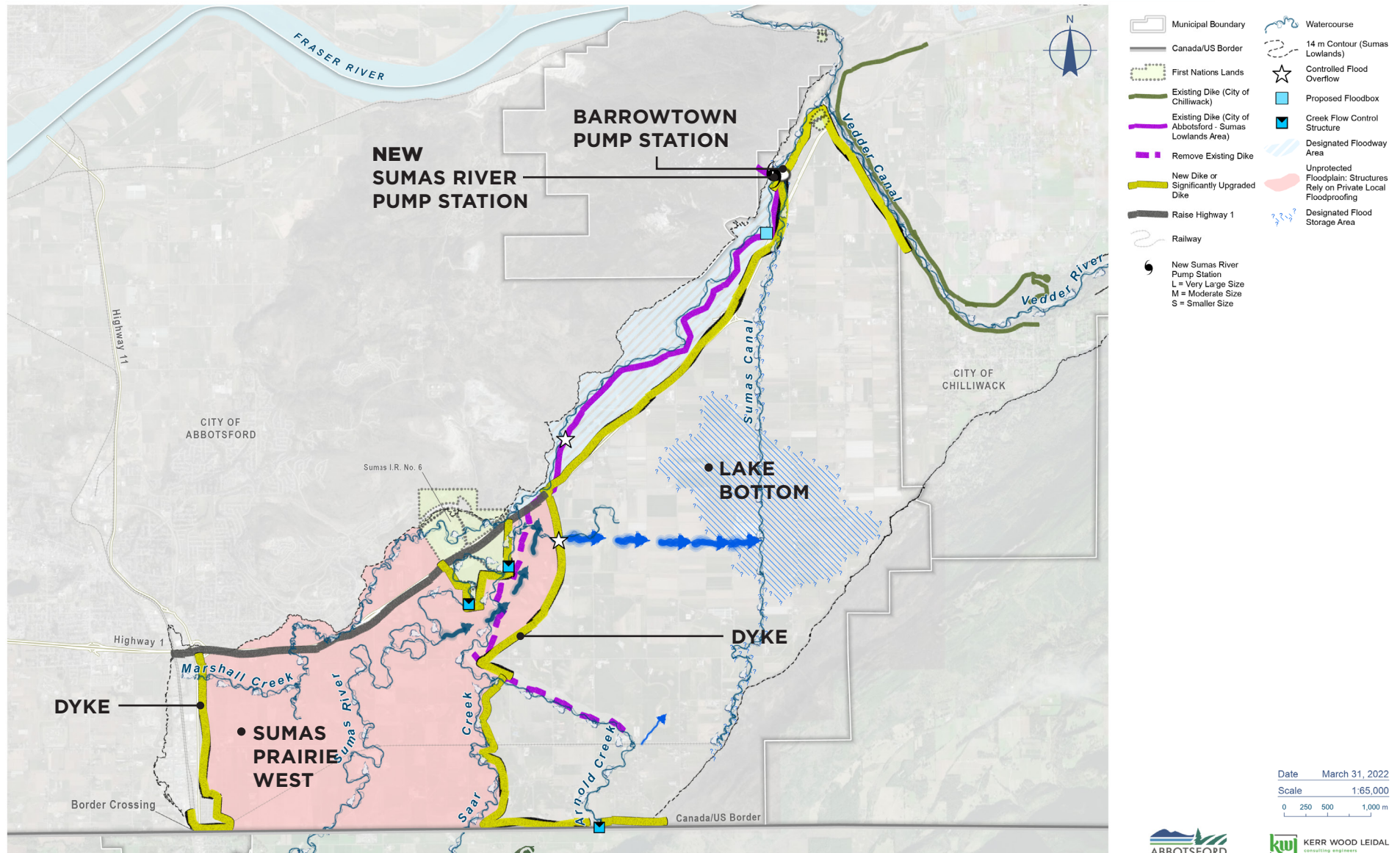
#### **COST (ESTIMATIONS)**

• Nooksack/Sumas Prairie Mitigation	<b>\$2B</b>
• Clayburn Village Enhancements	<b>\$32M</b>
• New Water Source Resiliency	<b>\$77M</b>
• Matsqui Dyke Resiliency	<b>\$388M</b>

**TOTAL ESTIMATED COST: \$2.497B**

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