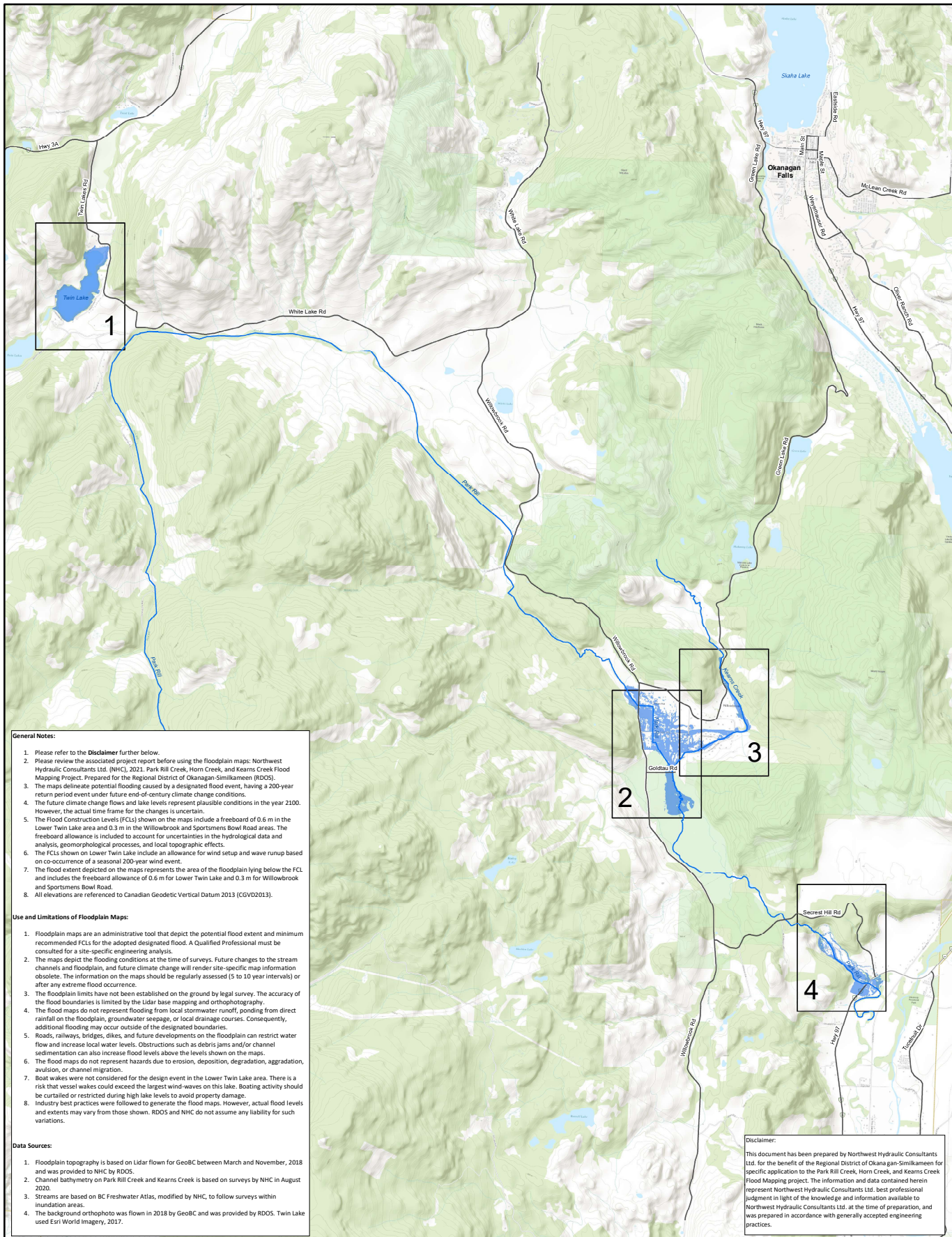




General Notes:

1. Please refer to the **Disclaimer** further below.
2. Please review the associated project report before using the floodplain maps: Northwest Hydraulic Consultants Ltd. (NHC), 2021. Park Rill Creek, Horn Creek, and Kearns Creek Flood Mapping Project. Prepared for the Regional District of Okanagan-Similkameen (RDOS).
3. The maps delineate potential flooding caused by a designated flood event, having a 200-year return period event under future end-of-century climate change conditions.
4. The future climate change flows and lake levels represent plausible conditions in the year 2100. However, the actual time frame for the changes is uncertain.
5. The Flood Construction Levels (FCLs) shown on the maps include a freeboard of 0.6 m in the Lower Twin Lake area and 0.3 m in the Willowbrook and Sportsmens Bowl Road areas. The freeboard allowance is included to account for uncertainties in the hydrological data and analysis, geomorphological processes, and local topographic effects.
6. The FCLs shown on Lower Twin Lake include an allowance for wind setup and wave runoff based on co-occurrence of a seasonal 200-year wind event.
7. The flood extent depicted on the maps represents the area of the floodplain lying below the FCL and includes the freeboard allowance of 0.6 m for Lower Twin Lake and 0.3 m for Willowbrook and Sportsmens Bowl Road.
8. All elevations are referenced to Canadian Geodetic Vertical Datum 2013 (CGVD2013).

Use and Limitations of Floodplain Maps:

1. Floodplain maps are an administrative tool that depict the potential flood extent and minimum recommended FCLs for the adopted designated flood. A Qualified Professional must be consulted for a site-specific engineering analysis.
2. The maps depict the flooding conditions at the time of surveys. Future changes to the stream channels and floodplain, and future climate change will render site-specific map information obsolete. The information on the maps should be regularly assessed (5 to 10 year intervals) or after any extreme flood occurrence.
3. The floodplain limits have not been established on the ground by legal survey. The accuracy of the flood boundaries is limited by the Lidar base mapping and orthophotography.
4. The flood maps do not represent flooding from local stormwater runoff, ponding from direct rainfall on the floodplain, groundwater seepage, or local drainage courses. Consequently, additional flooding may occur outside of the designated boundaries.
5. Roads, railways, bridges, dikes, and future developments on the floodplain can restrict water flow and increase local water levels. Obstructions such as debris jams and/or channel sedimentation can also increase flood levels above the levels shown on the maps.
6. The flood maps do not represent hazards due to erosion, deposition, degradation, aggradation, avulsion, or channel migration.
7. Boat wakes were not considered for the design event in the Lower Twin Lake area. There is a risk that vessel wakes could exceed the largest wind-waves on this lake. Boating activity should be curtailed or restricted during high lake levels to avoid property damage.
8. Industry best practices were followed to generate the flood maps. However, actual flood levels and extents may vary from those shown. RDOS and NHC do not assume any liability for such variations.

Data Sources:

1. Floodplain topography is based on Lidar flown for GeoBC between March and November, 2018 and was provided to NHC by RDOS.
2. Channel bathymetry on Park Rill Creek and Kearns Creek is based on surveys by NHC in August 2020.
3. Streams are based on BC Freshwater Atlas, modified by NHC, to follow surveys within inundation areas.
4. The background orthophoto was flown in 2018 by GeoBC and was provided by RDOS. Twin Lake used Esri World Imagery, 2017.

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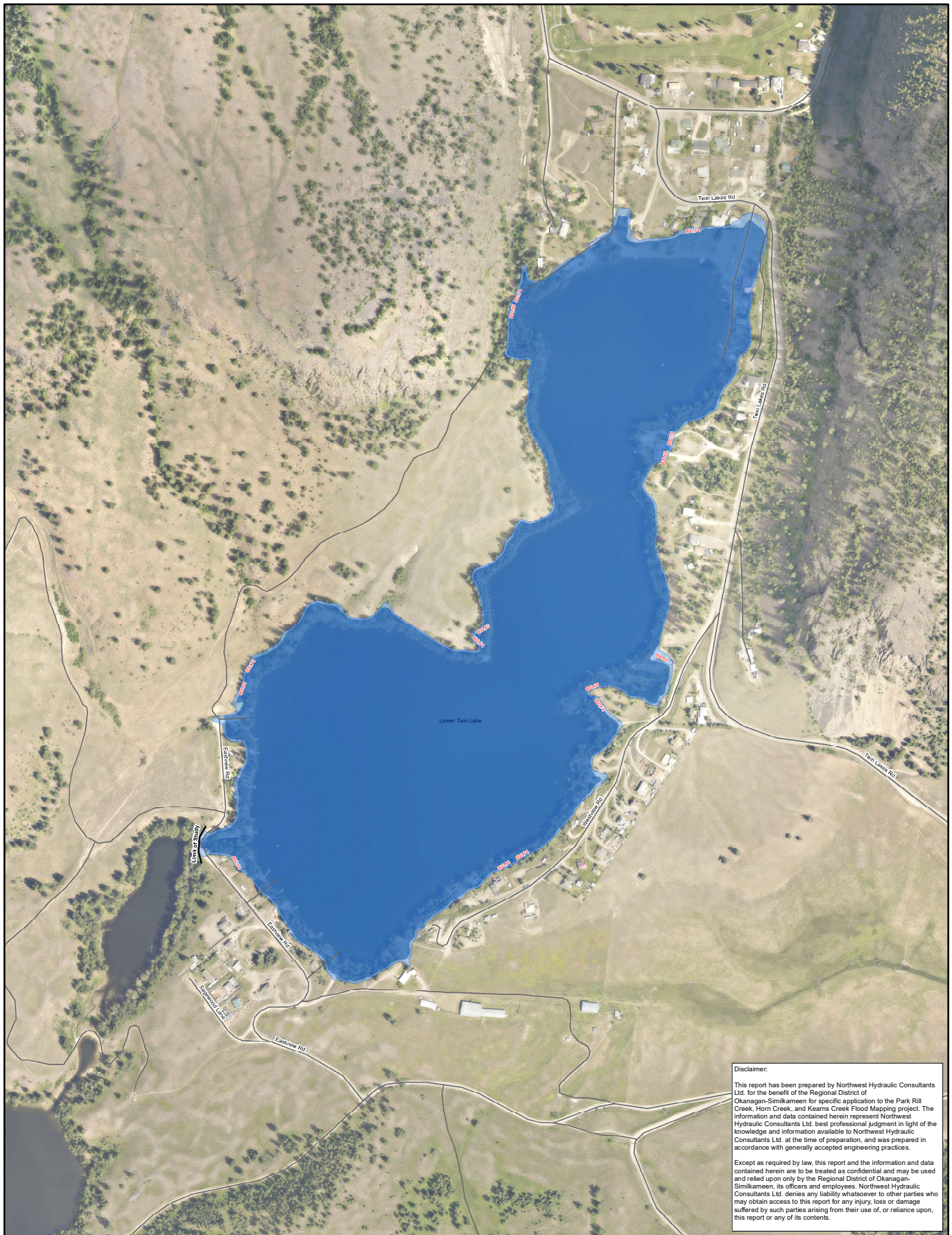


- Roads
- Watercourses
- Inundation extent (without freeboard)

PARK RILL CK HORN CK AND KEARNS CK FLOOD MAPPING

INDEX MAP

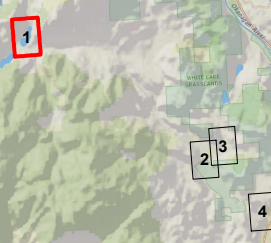
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Coordinate System: NAD 1983 CSRS UTM ZONE 11N		
Engineer:	GIS:	Reviewer:
MLB/JV	JXD	PKK
Job Number:	Date:	
3005878	19-APR-2021	



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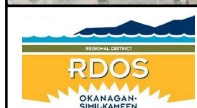
  30 Giesels Place North Vancouver, B.C. V7M 3G3 Canada Office: 604.980.8011 Fax: 604.980.9264 www.nhcnbc.com		Refer to map notes on index map — Roads - xxx.x Flood Construction Level (FCL) zone Lake - Labeled with FCL in Metres - Inundation extent (without freeboard) - Inundation extent (with wave run-up and freeboard) - Boundary between adjacent FCL zones	PARK RILL CK HORN CK AND KEARNS CK FLOOD MAPPING SHEET 1 OF 4 SCALE - 1:2,500 0 50 100 150 Meters Coordinate System: NAD 1983 CSRS UTM ZONE 11N <table border="1"> <tr> <td>Engineer MLB/JV</td> <td>GIS JJD</td> <td>Reviewer PKK</td> </tr> <tr> <td>Job Number 3005878</td> <td>Date 29-NOV-2021</td> <td></td> </tr> </table>	Engineer MLB/JV	GIS JJD	Reviewer PKK	Job Number 3005878	Date 29-NOV-2021	
Engineer MLB/JV	GIS JJD	Reviewer PKK							
Job Number 3005878	Date 29-NOV-2021								



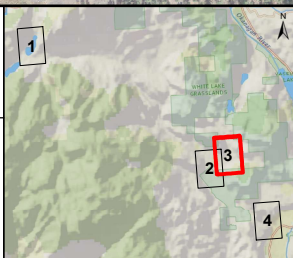
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- Roads
- Streams
- Flood Construction Level (FCL) (m)
- Inundation extent (without freeboard)
- Inundation extent (with freeboard)

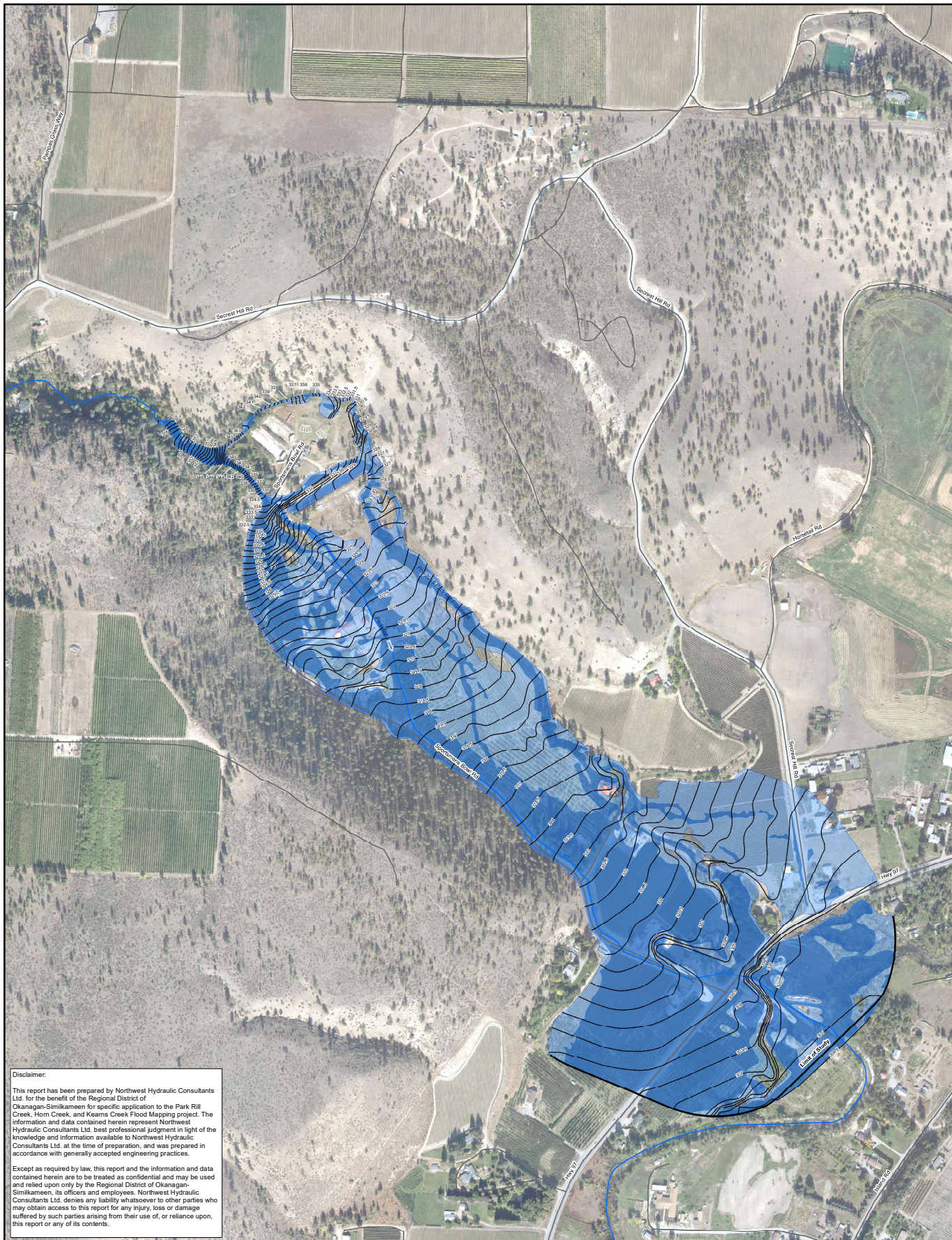
Refer to map notes on index map

PARK RILL CK HORN CK AND KEANS CK FLOOD MAPPING SHEET 3 OF 4

SCALE - 1:2,500
0 50 100 150 Meters

Coordinate System: NAD 1983 CSRS UTM ZONE 11N

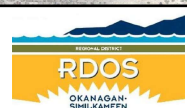
Engineer N.B./J.V.	GIS J.V.	Reviewer P.K.
Job Number 3005878	Date 29-NOV-2021	



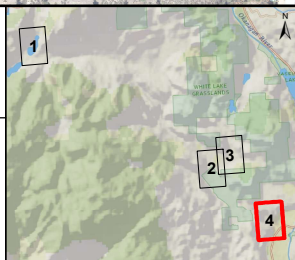
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- Roads
- Streams
- Flood Construction Level (FCL) (m)
- Inundation extent (without freeboard)
- Inundation extent (with freeboard)

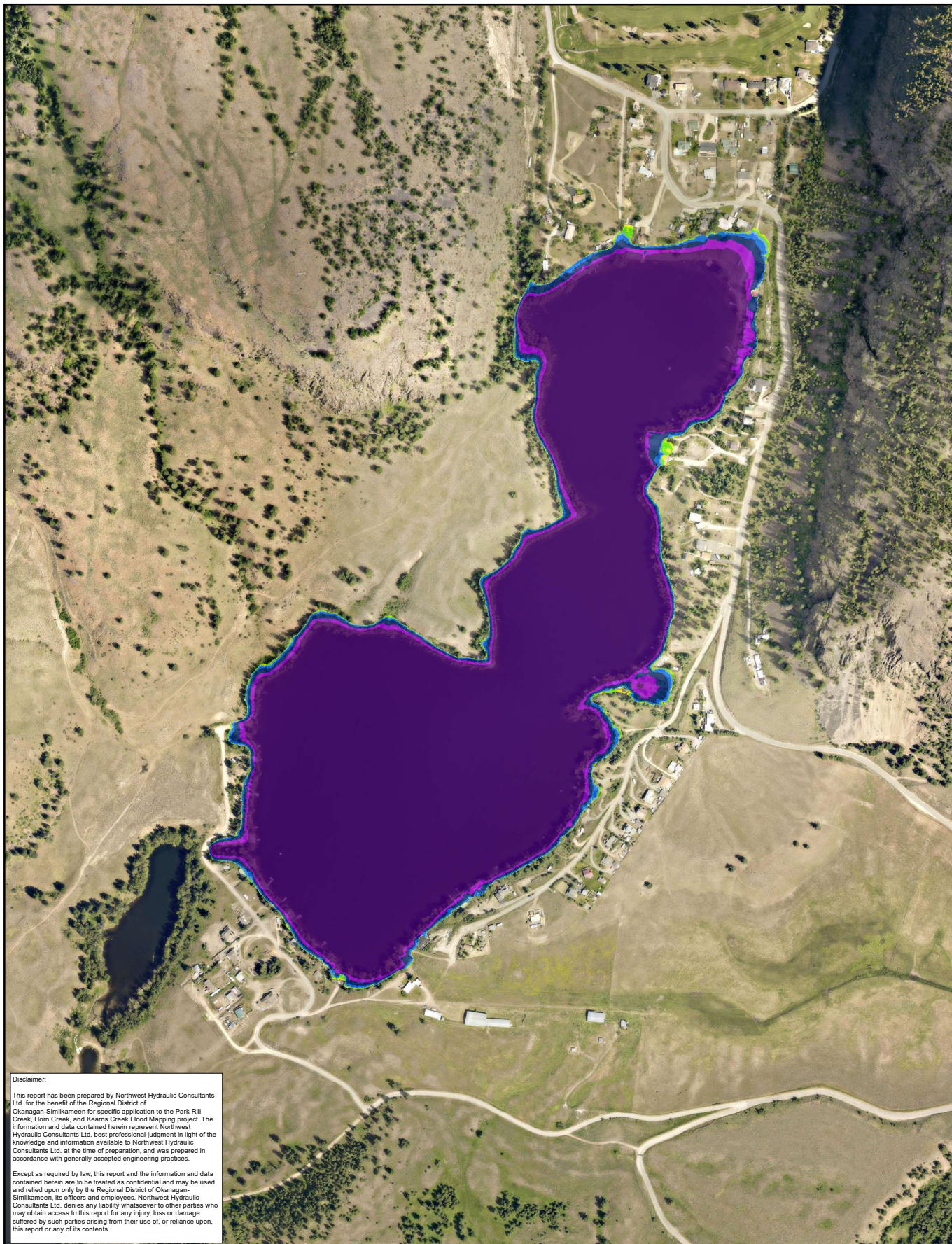
Refer to map notes on index map

PARK RILL CK HORN CK AND KEARNS CK FLOOD MAPPING SHEET 4 OF 4

SCALE - 1:2,500
0 50 100 150 Meters

Coordinate System: NAD 1983 CSRS UTM ZONE 11N

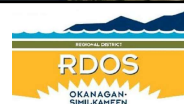
Engineer N.B./J.V.	GIS J.V.	Reviewer P.K.
Job Number 3005878	Date 29-NOV-2021	



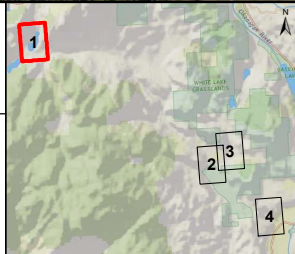
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Refer to map notes on index map

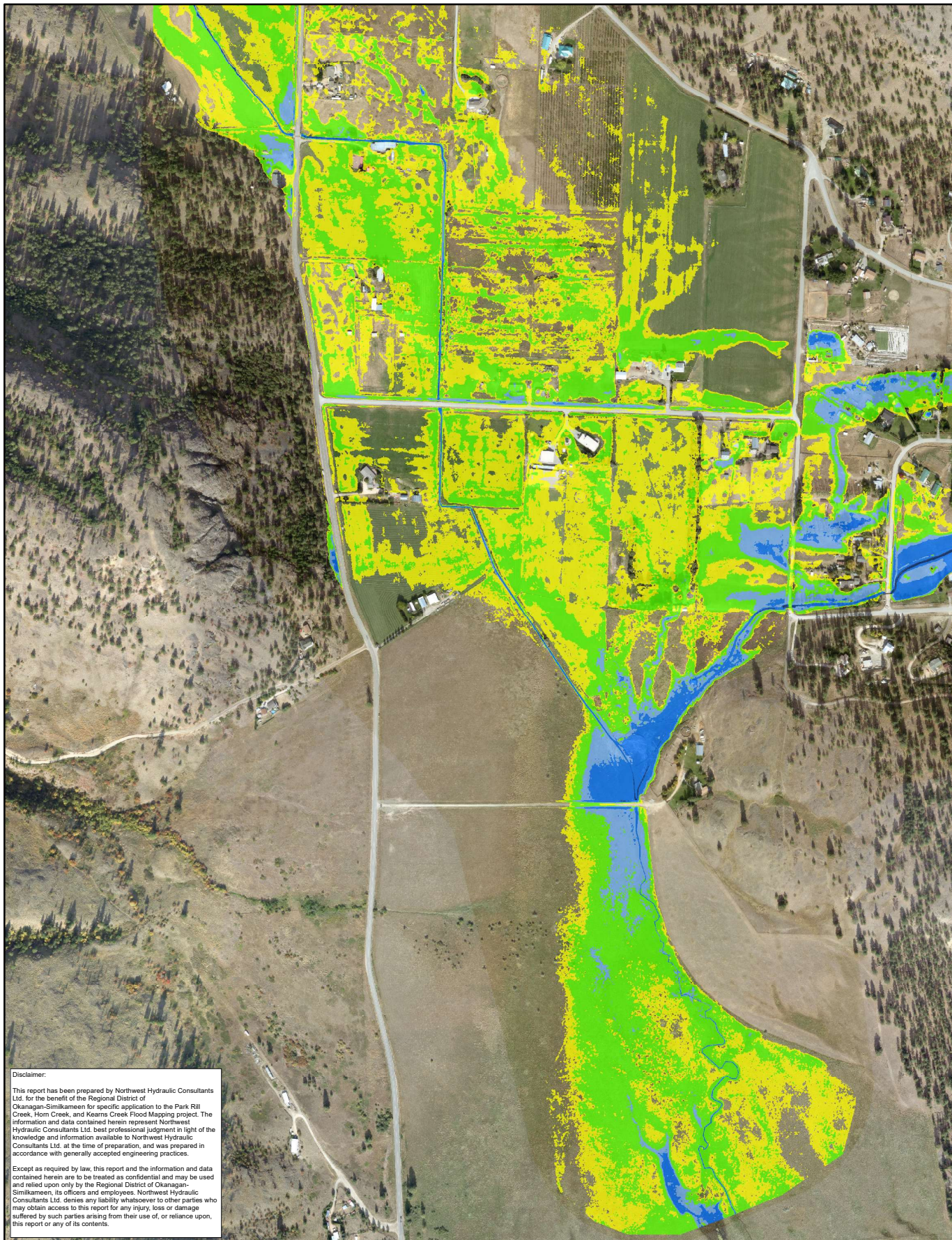
**PARK RILL CK HORN CK
AND KEARNS CK
FLOOD MAPPING**

**MAX. DEPTH
SHEET 1 OF 4**



Coordinate System: NAD 1983 CSRS UTM ZONE 11N
Units: METRES, Vertical Datum: CGVD2013

Engineer: HLB/AJV	GIS: JND	Reviewer: PKK
Job Number: 3005878	Date: 03-MAY-2021	



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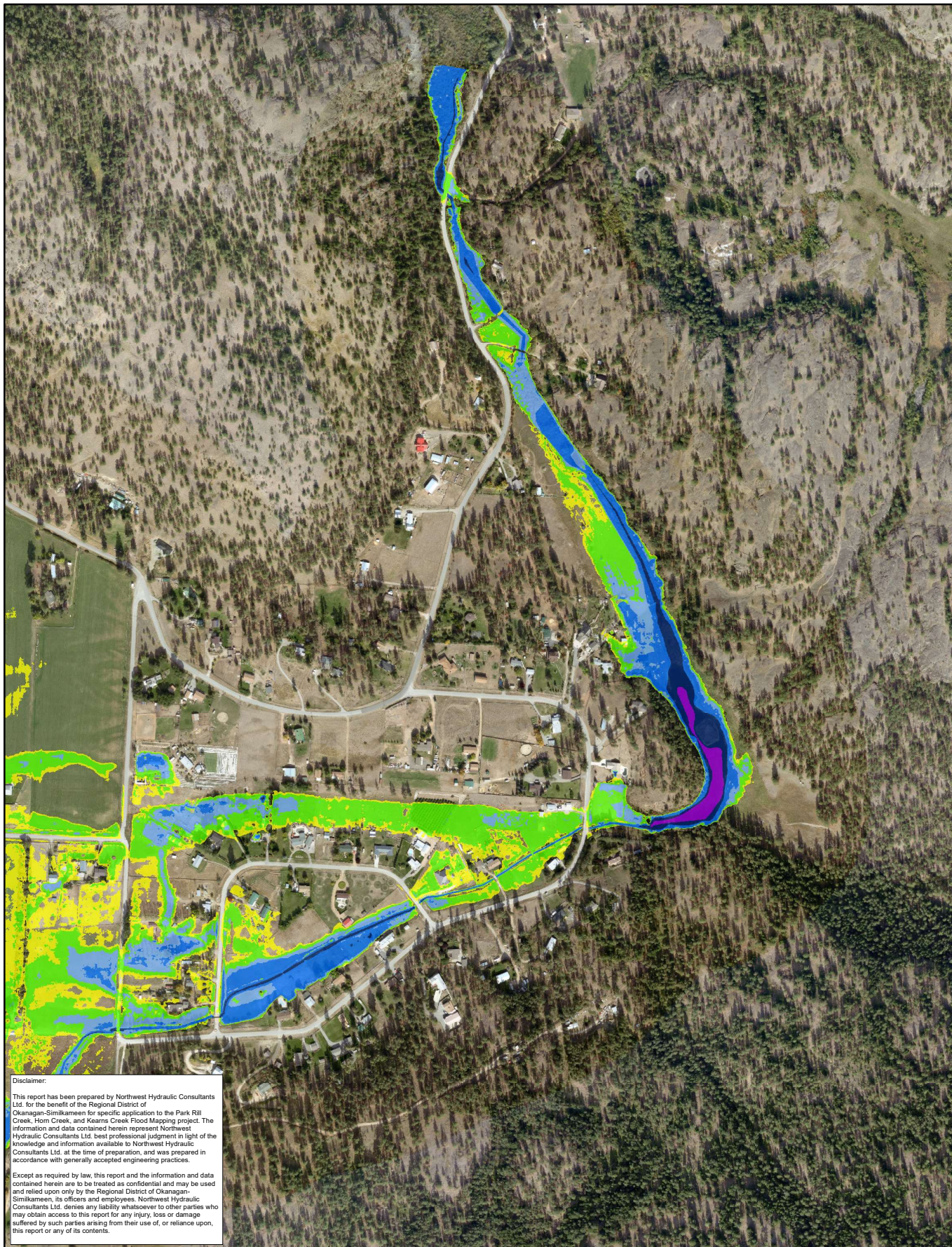
Refer to map notes on index map

**PARK RILL CK HORN CK
AND KEARNS CK
FLOOD MAPPING
MAX. DEPTH
SHEET 2 OF 4**



Coordinate System: NAD 1983 CSRS UTM ZONE 11N
Units: METRES; Vertical Datum: CGVD2013

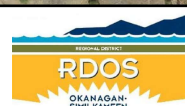
Engineer: HLB/A/V	GIS: JWD	Reviewer: PKV
Job Number: 3005878	Date: 03-MAY-2021	



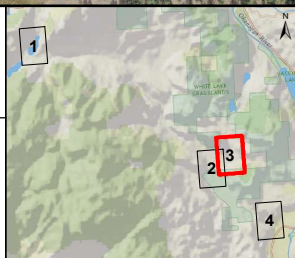
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Refer to map notes on index map

**PARK RILL CK HORN CK
AND KEARNS CK
FLOOD MAPPING**

**MAX. DEPTH
SHEET 3 OF 4**



Coordinate System: NAD 1983 CSRS UTM ZONE 11N
Units: METRES, Vertical Datum: CGVD2013

Engineer: NLB/AV	GIS: JKD	Reviewer: PKK
Job Number: 3005878	Date: 03-MAY-2021	



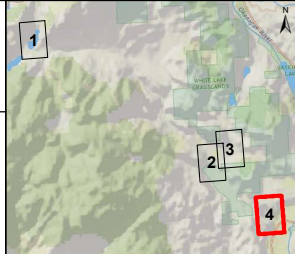
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Refer to map notes on index map

**PARK RILL CK HORN CK
AND KEARNS CK
FLOOD MAPPING
MAX. DEPTH
SHEET 4 OF 4**



Coordinate System: NAD 1983 CSRS UTM ZONE 11N
Units: METRES; Vertical Datum: CGVD2013

Engineer: NJB/AJV	GIS: JND	Reviewer: PKV
Job Number: 3005878	Date: 03-MAY-2021	