

CIRCULAR LETTER NO. 487

January 10, 2022

TO ALL BRITISH COLUMBIA LAND SURVEYORS

Re: Integrated Survey Area No. 26, City of Powell River, coordinate refresh

The coordinate control listing for Integrated Survey Area (ISA) No. 26, the City of Powell River has been updated under the authority of section 13(6) of the Land Survey Act. This update is the result of survey control work undertaken in early 2018 using static and RTK GNSS observations. The official PDF listing is available on the LTSA website under **Professionals** > Surveyor General -> Integrated Survey Area Program and then by clicking on the ISA number.

GeoBC has taken the observations from 47 stations (11 static + 36 RTK) and generated modelled corrections for the remaining 170 GCMs throughout the ISA. A refresh of all 217 stations in the ISA has been applied resulting in corrections to both horizontal and vertical coordinate values for these stations.

The refreshed coordinates and elevations are now compatible with GNSS methodologies including solutions derived via NRCan's CSRS PPP service. The corrections to published values are not constant throughout the ISA. Horizontal corrections range from 0.09 - 0.19 m in Easting values, 0.30 - 0.36 m in Northing values. New elevations will be notably lower than previously published values: vertical corrections range from -2.99m to -3.25m. Up to present, elevations for Powell River have been referenced to a local datum. The newly published values aim to be compatible with GNSS-derived heights in conjunction with the HTv2.0 (1997.0)1 height transformation model.

Each station has been assigned one of three classes: A (11 static GNSS-derived values), B (36 RTK GNSS-derived values), and C (170 model-derived corrections to the remaining historic terrestrial network). New 68% confidence regions have been assigned to each station which correlates to the different methods of corrections that have been applied.

New MASCOT datasheets are available immediately and now refer to the following official datums.

Horizontal datum: NAD83(CSRS)4.0.0.BC.1

Vertical datum: CVD28BC

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¹ https://www2.gov.bc.ca/gov/content/data/geographic-data-services/geo-spatial-referencing/geoidmodel-data/htv2-0-model-info

For additional technical details on the work done by GeoBC to improve the coordinates in the Powell River ISA please review the <u>Bulletin</u>² posted on the GeoBC website on this topic.

An electronic map of the location and extent of Integrated Survey Area No. 26 is published in the *ParcelMap BC Search for Land Surveyors* view on myLTSA under the authority of section 13(1) of the *Land Survey Act*. ParcelMap BC shows the location and designation of the coordinate control monuments on the **`Survey Features' > `Survey Control'** layer and the boundary of the Integrated Survey Areas on the **`Survey Features' > `Integrated Survey Areas'** layer.

A user may also link to the MASCOT³ Survey Control Database to obtain control monument sketches and detailed coordinate information and revision history. To invoke this function within ParcelMap BC, turn on the 'Survey Control' layer to see the location of all monuments. Click on the desired monument location or use the 'Search by Shape' tool to select multiple monuments; in the Search Results pane on the right side of the screen the monument(s) will be listed by GCM number and when hovered over there is a link to 'Search MASCOT' which will bring up the long form monument datasheet in MASCOT.

Legal surveys within Integrated Survey Area No. 26 must be completed in compliance with the requirements under Rule 2-3 of the Survey and Plan Rules and Section 14 of the *Land Survey Act*. Any surveys that are not already complete or very near completion should adopt the new published coordinates moving forward immediately.

Yours sincerely,

Cristin Schlossberger, BCLS Surveyor General of British Columbia

² https://www2.gov.bc.ca/gov/content/data/geographic-data-services/geo-spatial-referencing/survey-control-operations/powell-river-isa-refresh

³ http://a100.gov.bc.ca/pub/mascotw/