

**REQUEST FOR PROPOSAL “RFP” NO. PS20210486
FLOODPLAIN SUBSIDENCE STUDY**

QUESTIONS AND ANSWERS NO. 1

ISSUED ON: July 23, 2021

Q1	Will the City of Vancouver be providing the successful Proponent with any InSAR data from past InSAR projects? If yes, what are the InSAR satellites/sensors, dates, bands, frequency, and wavelengths?
A1	No, the City does not have any InSAR data and the data shall be procured as part of the project scope. Proponents shall include pricing for the data as a separate line item (see Appendix 3 Pricing Table) and include details of the data (i.e. number of years, which years, type of data, etc) in their proposal.
Q2	To quantify long-term floodplain subsidence in the City of Vancouver, say to the Year 2200, have any studies completed to collect historical and future climate projection data from specific global climate models (GCMs) for temperature and precipitation (also snow depth and evaporation, if available)?
A2	<p>In 2016, the City commissioned the Pacific Climate Impacts Consortium to create a climate impacts summary for the City of Vancouver for the 2050s and 2080s relative to the 1971-2000 baseline. Global climate models, e.g. CMIP5 models following RCP8.5 downscaled with BCCAQ, were used. This information is still the City’s planning standard until the outputs of AR6 are downscaled (estimated to take place in 2022). Climate impacts with respect to temperature, precipitation, heating and cooling, ecosystem impacts (growing season), snowpack (regional), and sea level rise were considered with respect to the 2050 and 2080 timeline.</p> <p>Historical climate data from specific GCMs for temperature, precipitation, snow depth or evaporation was not collected and assessed.</p> <p>If it’s useful, the City of Vancouver collects rainfall data at several rain gauges across the city which can be provided at project start.</p> <p>We didn’t anticipate GCM climate projection data to be crucial to this study. However, if the Proponent would like to propose innovative optional tasks to improve the quality of the project deliverables, they may be considered through the proposal submission.</p>
Q3	Will Proponents need to scope for processing the climate projection data from specific GCMs for the City of Vancouver project site?
A3	As mentioned in A2, the City has completed previous studies to process climate projection data from specific GCMs for Vancouver. If the Proponent believes it is

	required as part of their proposed approach, then please provide details in the proposal submission.
Q4	Estimating long-term future subsidence projections for floodplain areas, scattered along north and south shorelines, represents a large effort. Has any previous work completed to suggest the critical area(s) experiencing subsidence, so that the model projection for this project would be more focused?
A4	<p>No, the City of Vancouver has not completed previous studies to identify critical floodplain areas experiencing subsidence. However, the City is aware of two studies previously conducted, by others, in the Greater Vancouver Regional District:</p> <ul style="list-style-type: none"> • <i>Rapidly accelerating subsidence in the Greater Vancouver region from two decades of ERS-ENVISAT-RADARSAT-2 DInSAR measurements (2014) - Samsanov et al</i> • <i>Subsidence and Relative Sea Level Rise in the Fraser River Delta, Greater Vancouver, British Columbia, from Combined Geodetic Data (2008) - MacDonald, Dettwiler and Associates Ltd</i>

END OF Q&A No. 1