

Q. How is the development considering climate change in the design of its utilities?

A. The recommended buildout approach outlines a phased implementation of stormwater infrastructure, balancing immediate development needs with long-term resilience. It proposes retaining stormwater connections to the city system, upsizing existing pipes for future climate conditions and installing detention measures for priority subcatchments. Recommendations that follow this approach are oriented around storm events that take into account future climate change and consider both the site and the surrounding community.

Groundwater

Q. How will the groundwater issue(s) be managed moving forward through the rezoning/approvals processes?

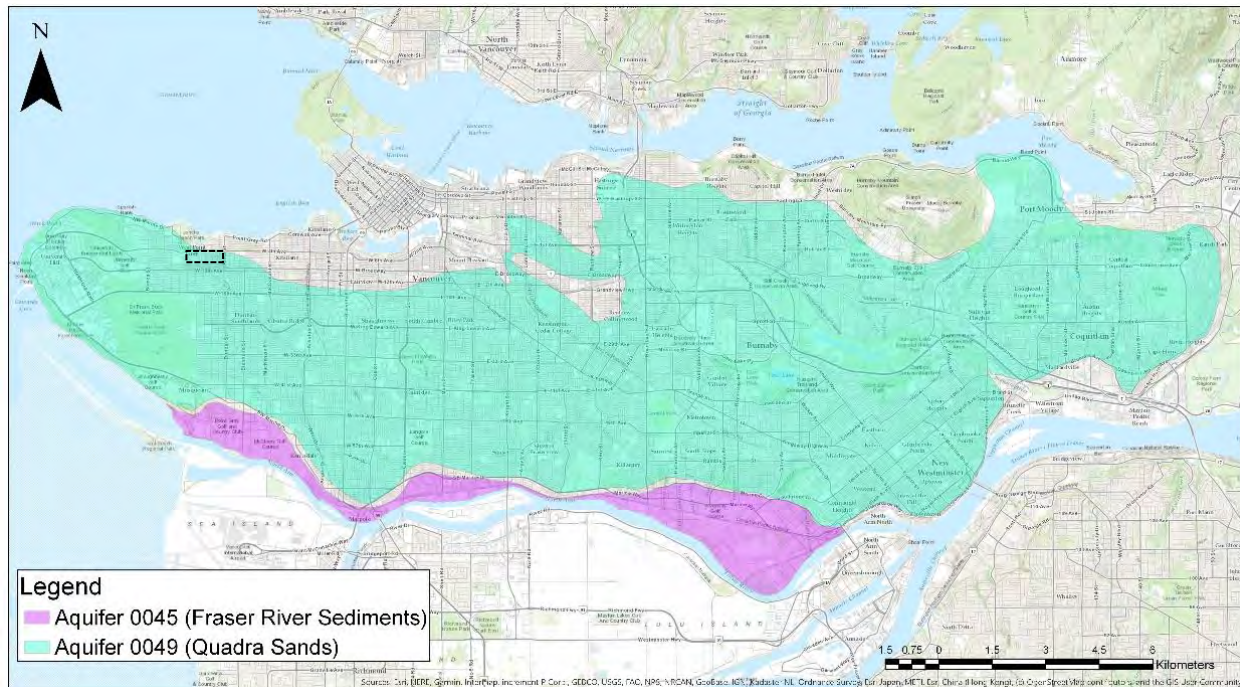
A. As per Policy 9.3.5.3, substantive additional groundwater studies for the entire site will be undertaken and are required prior to the first rezoning application; approval will be contingent on the appropriate mitigation of groundwater-related risks.

The detailed findings on groundwater conditions and its interactions, and subsequent analysis may significantly impact various elements of the site development, including: water management systems, ecological functioning (on and off-site), built form and open space design, subsurface parking and circulation, the alignment of the proposed UBCx SkyTrain, upfront and lifecycle costs of the project, and sustainability. Any necessary modifications required to mitigate groundwater-related risks will need to be incorporated into the proposals.

Q. Does the site include historic surface water sources, or an underground aquifer? And if so, what are the considerations being included in the site development.

A. The site includes two historic streams and we anticipate that there is an aquifer under a portion of the site. A hydrogeologic assessment will be completed to confirm the depth and location of the aquifer, if present. Groundwater considerations are included in the answer to the next question.

Figure Below: Mapped local aquifers (the Jericho Lands site is in dashed box within the Quadra Sands Aquifer)



Q. What do you expect will be the most challenging aspect of groundwater management on the site, and what will be done to mitigate that risk?

- **E.g., groundwater regime changes, local ecological functioning, Jericho Beach Park wetlands, underground parking**

A. Hydrogeologic conditions at the site are uncertain at this time as they have not been evaluated, however some challenging conditions or circumstances that could occur could include the following:

- Flowing artesian conditions, if present.
- Depending on how deep buildings go and their foundation design, managing groundwater levels with permanent dewatering system and discharge of the collected groundwater in accordance with the City's Groundwater Management Bulletin
- Determining how much groundwater discharges to the lagoon area of Jericho Beach

Q. Are there flowing artesian conditions on site? If so, how will it be managed to minimize impacts?

A. Possibly. A hydrogeologic assessment will be completed to confirm the depth and location of the aquifer beneath the site and whether it is artesian. If flowing artesian conditions are identified, risks will be appropriately mitigated based on technical analysis.

Q. Is there any historical contamination on site? If so, how will it be managed to minimize impacts?

A. There may be some localized remaining contamination at the site. A contaminated sites evaluation will be completed to confirm the presence and extent of the contamination. If found to be present, the contamination will be managed such that it does not impact the groundwater management strategy or site development activities in accordance with applicable regulations.

Q. If the UBCx Skytrain station is located within the site, what are the groundwater considerations, and how will impacts be mitigated?

A. A hydrogeologic assessment will be completed which will determine the groundwater conditions i.e. presence of an aquifer and groundwater levels. This information will help inform how the Skytrain corridor and station should be designed and constructed as it pertains to groundwater management.

Q. Are there any specific lessons learned from previous projects with the City which are being incorporated into the groundwater management strategy?

A. It is too early to define what the groundwater management strategy will be as the hydrogeologic/groundwater conditions have not been investigated and defined at the site and how they will overlap with the future development plans. However, lessons learned from other projects within the city may include taking into account the potential effects groundwater dewatering to adjacent infrastructure, and innovative strategies of groundwater discharge for benefit and reuse.

Q. Are you considering any innovative or alternative solutions with respect to groundwater management?

A. As indicated earlier, the groundwater management strategy has not been defined to date as the groundwater conditions have not been evaluated, including how they overlap with the future development plans. However, if groundwater did require permanent dewatering, innovative approaches to groundwater management and reuse would be explored e.g. groundwater discharge to surface water streams to allow for direct recharge of Jericho lagoons, or in combination with re-use on the site.

Jericho Beach Park

Q. Will the project be conveying flows through Jericho Park to the ocean?

A. The MST Nations propose to reestablish the hydrologic connection with downstream wetlands by conveying some of the stormwater to Jericho Beach Park, rather than the existing condition that conveys all of the stormwater to the City's combined sewer system. While this idea was conceptually explored throughout the One Water Approach proposed, diversion of

stormwater to Jericho Beach Park is under the jurisdiction of the Vancouver Board of Parks and Recreation (Park Board) and is not within the study area of this report. Conveyance through Jericho Beach Park will be considered as part of a future Park Board-led comprehensive planning process with MST Nation governments for the Park. The site approach would still meet the goals of the Rain City Strategy without the connection to Jericho Beach Park.

Q. How does the scale of urban development and construction of underground parkades impact the groundwater system and sources of water for Jericho Beach Park ponds?

A. Potential impacts will depend on the subsurface hydrogeologic conditions and subsurface development plans, both of which are not yet defined.

Q. Is it possible to direct water to recharge Jericho Beach ponds during the hot summer months to the benefit of wetland habitat?

A. A hydrogeologic assessment will be completed which will determine the groundwater conditions i.e. presence of an aquifer and groundwater levels. This information will help inform potential proposals for the wetlands including seasonality of recharge.

Q. What impact does the One Water approach have on the existing natural area on site and/or across the street in Jericho Beach Park (as they are connected ecologically)?

A. The One Water Approach aims to improve the state of the existing natural area on the site through restoration of native soils and vegetation, and the drainage patterns that feed these natural conditions. At a high level the approach explored the opportunity to further hydrologically reconnect the on-site natural area with the area in Jericho Beach Park. Feasibility of this proposal will be further explored through the groundwater study.