

September 16, 2019

MEMO TO : Park Board Commissioners

FROM : Malcolm Bromley

General Manager, Vancouver Board of Parks and Recreation

SUBJECT: VanDusen Botanical Garden Groundwater Well – Board Briefing Memo

## Dear Commissioners,

The purpose of this memo is to inform you about the installation of a groundwater test well at VanDusen Botanical Garden, which will be used to determine the feasibility of using groundwater for irrigation. Drill contractors began working today near Gate 3 on West 37 Ave (southern side) of VanDusen Garden.

On September 18, 2017, Park Board approved a motion endorsing a <u>Water Conservation Action Plan</u>. One of the plan's 2017-2020 priority projects is VanDusen, where potable water usage consistently ranks in the top three parks citywide, with annual consumption estimated in 2017 to be 54,000 m<sup>3</sup>. The water is primarily used for irrigation during the summer months, a use that does not require the water to be potable. This plan also aligns with the City's <u>Greenest City Action Plan</u>, which calls for a 33% reduction on 2006 potable water usage levels city-wide.

Staff completed an initial assessment of water conservation options for VanDusen. It is believed that the garden could utilize groundwater instead of potable for its irrigation needs, as is the case at Langara Golf Course. In 2017, Piteau Associates was retained to complete a hydrogeological study of the groundwater supply potential at the garden. The results indicated that there is high potential for a source that is capable of supplying sufficient quality groundwater for irrigation of non-food plants.

Staff have engaged a well drilling contractor to install a groundwater well to test the flow rate and water quality in order to determine both the quantity and viability of the supply. Work will occur between 8am and 6pm, and is expected to take 2 to 3 weeks to complete. Drilling during the first week is expected to generate some noise and vibration. Consequently, a noise by-law exception permit has been obtained, and notices will be distributed to nearby residents. Garden staff have prepared the site, scheduled bookings in advance to ensure that no events or filming will be affected by this work, and that visitors are detoured around the well site.

If this test well is successful, staff will proceed to the next phase of the project, which is to design and construct facilities to make use of the groundwater. Staff will also continue to pursue other water conservation measures at VanDusen, including the investigation of retrofit options that could potentially enable use of the <u>old water reservoir</u> located under the stone garden.

Regards,

Malcolm Bromley

General Manager - Vancouver Board of Parks and Recreation

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Copy to: PB Senior Leadership Team, Park Development, PB Communications