

## REPORT TO MAYOR AND COUNCIL

<b>PRESENTED:</b>	SEPTEMBER 20, 2021 - REGULAR MEETING	<b>REPORT:</b>	21-104
<b>FROM:</b>	ENGINEERING DIVISION	<b>FILE:</b>	5280-23
<b>SUBJECT:</b>	SOUTH CAMPBELL HEIGHTS - BROOKSWOOD AQUIFER		

### RECOMMENDATION:

**That** Council receive the South Campbell Heights – Brookswood Aquifer Report for information.

### EXECUTIVE SUMMARY:

At its Regular Meeting on July 12, 2021, Council directed staff to provide a report to Council regarding the anticipated effect on the Brookswood aquifer from industrial development in Surrey. South Campbell Heights refers to the local area in south-east Surrey along the border with the Township of Langley (Attachment A). The area is separated into two Local Area Plans (LAPs) that provide direction on the type and density of future development, including servicing and environment:

1. Campbell Heights LAP, approved by Surrey Council in 2000 and currently nearly built out; and
2. South Campbell Heights LAP, currently in the early stages of planning process and being considered for a Regional Growth Strategy (RGS) amendment by Metro Vancouver (MV).

The formal Local Area Planning process for South Campbell Heights was initiated by Surrey in 2015 and was recently approved by the City of Surrey Council and submitted to MV for consideration of RGS amendments. During the review, stakeholders (including the Township) will be provided with an opportunity to make submissions. If the RGS amendments are approved, and following the City of Surrey OCP amendments, subsequent stages of the LAP process would include detailed servicing analyses to support the approved land uses, detailed design, and development of policies including guidelines related to aquifer protection.

An environmental study, including groundwater review, has been completed by the City of Surrey to assess potential impacts on the natural environment with the following identified as key findings:

- Groundwater conditions in the Brookswood aquifer influence surface water flows and water quality in the Little Campbell River and its tributaries;
- Reduced infiltration in developed areas may reduce groundwater recharge, thus impacting creek baseflows, particularly during the late summer and fall; and
- Properties along the southern end of South Campbell Heights rely on private wells for water supply utilizing the Brookswood, Langley Upland, and Hazelmere Valley aquifers. With reduced infiltration, aquifer water levels will be affected, particularly in the Brookswood aquifer, which is a shallow unconfined aquifer influenced by precipitation and direct recharge.

Site specific investigations will be required to determine the appropriate approach to ensure infiltration and recharge of aquifers and maintenance of water quality, which may include restricting high polluting land uses/activities, stormwater treatment/management, and groundwater monitoring.

### PURPOSE:

This report is provided in response to Council direction regarding proposed development in Surrey.

**BACKGROUND/HISTORY:**

At its Regular Meeting on July 12, 2021, Council passed the following resolution:

“That Council ask staff for a report on the anticipated effect on the Brookswood aquifer should this industrial land conversion proceed.”

Campbell Heights is a land area in south-east Surrey along the border with the Township of Langley (Attachment A). The area is separated into two Local Area Plans (LAPs) that provide direction on the type and density of future development, transportation, utility infrastructure, parks, and the environment.

The Campbell Heights LAP encompasses an area of approximately 798 hectares (1,971 acres) of land. City of Surrey Council approved the LAP for Campbell Heights in 2000 which is nearly built out. The formal LAP process for the South Campbell Heights was initiated by the City of Surrey in 2015. The process included community consultation, discussions, presentations on land use concepts and planning principles, and has undergone several refinements over the past number of years.

The formal LAP process for South Campbell Heights was initiated by Surrey in 2015 and was recently approved by the City of Surrey Council and submitted to Metro Vancouver (MV) for consideration of Regional Growth Strategy (RGS) amendments.

During the MV review, stakeholders (including the Township of Langley) will be consulted. If the RGS amendments are approved, and following the City of Surrey OCP amendments, Stage-2 of the LAP process would include a detailed servicing and transportation strategy to support the approved land uses, detailed design, and development policies and guidelines, aquifer protection measures, and a financial strategy.

Studies conducted to-date have further recognized that site specific investigations will be required to determine the appropriate approach to ensure infiltration and recharge of aquifers and maintenance of water quality. This may include restricting high polluting land uses/activities, stormwater treatment and management measures, and groundwater monitoring.

The South Campbell Heights LAP includes lands that are outside of the Agricultural Land Reserve (ALR) and south of the existing Campbell Heights Business Park near the Township of Langley border encompassing an area of approximately 245 hectares (600 acres). The planning process (Stage-1) included an environmental study including a groundwater review to assess potential impacts on local aquifers.

An application to support amendments to the MV RGS, including amendments to the Urban Containment Boundary, and amendments to the Regional Land Use Designations from Rural and Mixed Employment to Conservation Recreation, Mixed Employment, and Agriculture was recently submitted to MV for consideration. This submission followed a previous 2017 submission that was referred back to the City of Surrey for refinements to the draft plan.

**DISCUSSION/ANALYSIS:**

Background and technical studies have identified potential impacts of the South Campbell Heights LAP on local aquifers including reduced infiltration and groundwater recharge resulting in lower groundwater levels, reduced baseflows to surface waters, and risk of reduced aquifer water quality. Studies have included recommendations to mitigate potential risks to water quality, aquifer water supply, and baseflows associated with the proposed future development.

During development of Stage-1 of the LAP for South Campbell Heights, an environmental study including groundwater review was conducted to assess potential impacts on the natural environment.

Based on the studies and current known information to date, it is expected that South Campbell Heights may impact local aquifers including:

- Groundwater conditions in the Brookswood Aquifer influence surface water flows and water quality in the Little Campbell River and its tributaries;
- Reduced infiltration in developed areas may reduce groundwater recharge thus impacting creek baseflows, particularly during the late summer and fall; and
- Properties along the southern end of South Campbell Heights rely on private wells for water supply utilizing the Brookswood, Langley Upland, and Hazelmere Valley aquifers. With reduced infiltration, aquifer water levels will be affected, most notably in the Brookswood aquifer, which is a shallow unconfined aquifer influenced by precipitation and direct recharge.

Studies have further recognized that site specific investigations will be required to determine the appropriate approach to ensure infiltration and recharge of aquifers and to maintain water quality. This may include restricting high polluting land uses, stormwater treatment and management measures, and groundwater monitoring.

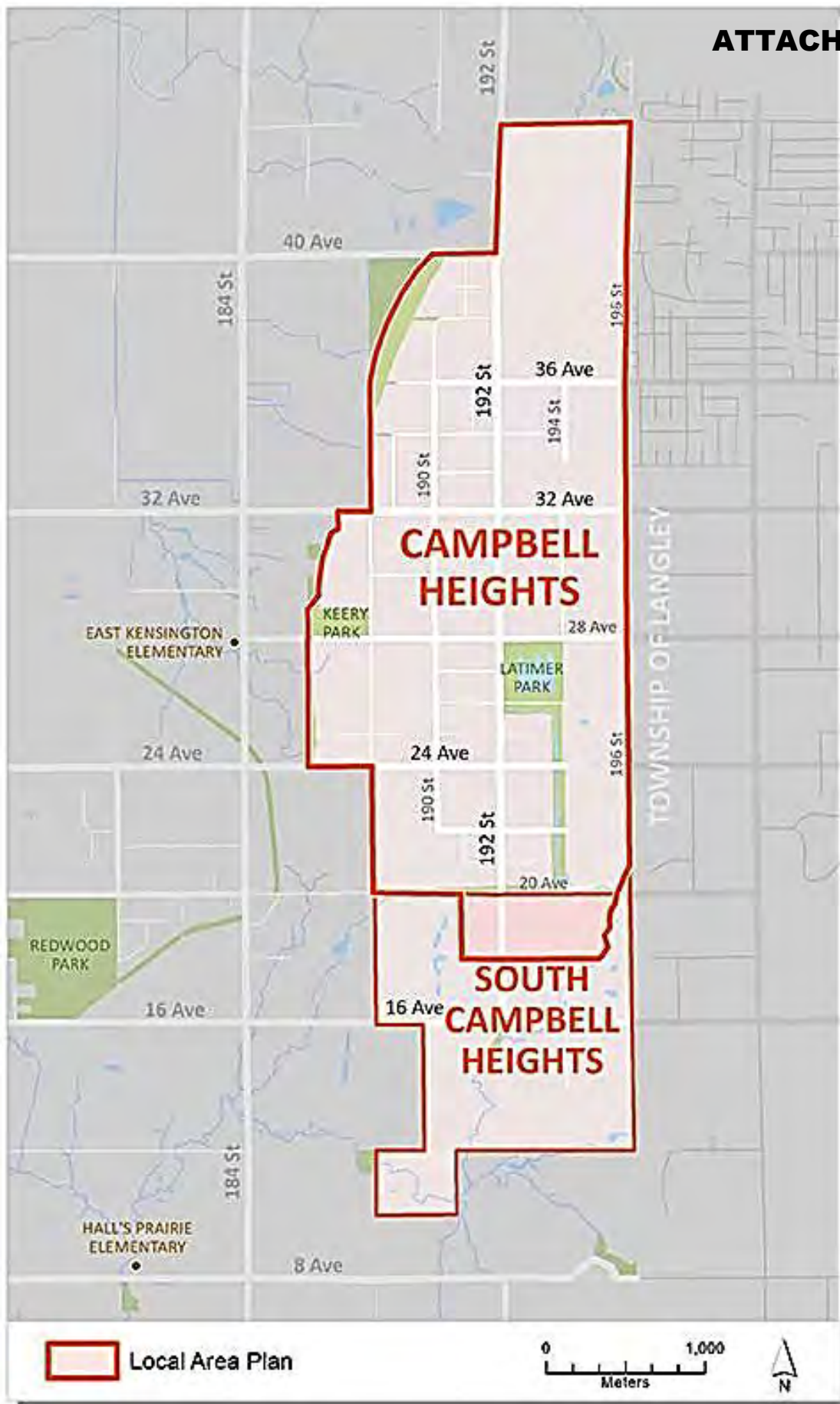
Amendments to MV's RGS will include stakeholder consultation. Staff anticipate an opportunity to provide formal input on the South Campbell Heights LAP in the near future. If approved by MV, it is anticipated that the City of Surrey will proceed with Stage-2 of the LAP process. Stage-2 would include a detailed servicing and transportation strategy to support the approve land uses, detailed design and development of policies and guidelines, aquifer protection measures, and a financial strategy.

Respectfully submitted,

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for  
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ATTACHMENT A      Campbell Heights Area Plan Boundaries

**ATTACHMENT A**



Source : City of Surrey (for general reference only)