

NO: **R199**

COUNCIL DATE: **DECEMBER 1, 2014**

REGULAR COUNCIL

TO: **Mayor & Council**

DATE: **December 1, 2014**

FROM: **General Manager, Planning and Development
General Manager, Engineering**

FILE: **6520-20 (South Campbell
Heights SSA)**

SUBJECT: **South Campbell Heights Special Study Area - Environmental Study**

RECOMMENDATION

The Planning and Development Department and the Engineering Department recommend that Council:

1. Receive this report as information;
2. Approve the Terms of Reference, attached as Appendix "I" to this report, as the basis for the preparation of an Environmental Study for South Campbell Heights Special Study Area and authorize staff to proceed with the development of an Environmental Study in accordance with the Terms of Reference.

INTENT

The purpose of this report is to obtain Council authorization to proceed with the preparation of an Environmental Study for the South Campbell Heights Special Study Area (the "Special Study Area")

BACKGROUND

At the Regular Council Meeting on September 8, 2014, Council considered Corporate Report No. R152; 2014, regarding a proposed process to initiate the preparation of background studies for the Special Study Area. Council adopted one of the recommendations of the report, which was to initiate an environmental review, as articulated in the following Council resolution:

"RES. R14-1603 That Council authorize staff to conduct an environmental study in support of South Campbell Heights Special Study Area Planning".

Other potential background studies identified in the report were considered by Council to be premature.

The Special Study Area contains significant environmental values and contains a major regional Biodiversity corridor along the Little Campbell River, as identified in the Surrey Biodiversity Conservation Strategy and the Metro Vancouver Regional Green Infrastructure Network Strategy. The significance of environmental values and the identification the Special Study Area in the

Official Community Plan ("OCP") have prompted staff to seek the direction of Council regarding the development of an Environmental Study for the area before future land planning is considered.

DISCUSSION

Special Study Area Boundaries

The South Campbell Heights area includes the land south of the Campbell Heights Local Area Plan (as shown in Figure 1 of Appendix I) of approximately 245 hectares (600 acres) and identified as a Special Study Area in both the Metro Vancouver Regional Growth Strategy ("RGS") and the draft new OCP. The Special Study Area indicates a neighbourhood where future land planning is projected, potentially leading to changes from current land use in the future.

Environmental Study Area Boundaries

The Environmental Study Area is generally bounded by the Campbell Heights Local Area Plan to the north, the Township of Langley to the east and the Agricultural Land Reserve ("ALR") to the south and west. In addition, for the purposes of this Environmental Study, the scope of the environmental review area is expanded to evaluate any Green Infrastructure Network (GIN) linkages outside the boundaries described above and includes lands up to 24 Avenue to the North, 184 Street to the West, 200 Street to the East, and 8 Avenue to the South (Figure 1 of Appendix I).

Official Community Plan Considerations

The entire Special Study Area is currently designated Agricultural in the existing OCP, but is not within the ALR. The Special Study Area is located outside of the Greater Vancouver Sewerage and Drainage District's Fraser Sewerage Area. The additional scope area for the Environmental Study will specifically assess GIN Connections, including the southern portion of the Campbell Heights Local Area Plan, ALR lands between Grandview Heights and Campbell Heights, and ALR/Agricultural Designated Lands north of 8 Avenue.

Environmental Study Objectives

As documented in Appendix I, an Environmental Study in the Special Study Area will determine environmental conservation opportunities, environmental constraints on development, biodiversity values and priorities, and the impacts to the local groundwater resources from development. These studies will also include an archeological review as the lands are within the Semiahmoo First Nation's traditional territory.

SUSTAINABILITY CONSIDERATIONS

Planning for significant environmental considerations in South Campbell Heights is consistent with the Environmental goal of the Sustainability Charter to: *"Demonstrate good stewardship of the land, water, air and built environment, protecting, preserving and enhancing Surrey's natural areas and ecosystems for current and future generations while making nature accessible for all to enjoy"*. This includes the following actions:

- EN7: Implement Green Infrastructure;
- EN9: Sustainable Land Use Planning and Development Practices; and

- EN12: Enhancement and Protection of Natural Areas, Fish Habitat and Wildlife Habitat.

CONCLUSION

Based on the above discussion, it is recommended that Council Approve the Terms of Reference, attached as Appendix "I" to this report, as the basis for the preparation of an Environmental Study for the South Campbell Heights Special Study Area and authorize staff to proceed with the development of an Environmental Study in accordance with the Terms of Reference.

Original signed by
Jean Lamontagne
General Manager,
Planning and Development

Original signed by
Fraser Smith, P.Eng., MBA
General Manager,
Engineering

MK:saw

Attachments:

Appendix I South Campbell Heights Environmental Study Terms of Reference

Terms of Reference

ENVIRONMENTAL STUDY SOUTH CAMPBELL HEIGHTS SPECIAL STUDY AREA Surrey, B.C.

22 September 2014

INTRODUCTION

The City of Surrey wishes to engage the services of a qualified professional consulting team to prepare an environmental review and assessment in the South Campbell Heights Area of Surrey. The Study will provide guidance to any future land use considerations within this Special Study designated Area in the Official Community Plan and is linked to the recently adopted City of Surrey Biodiversity Conservation Strategy (BCS).

These Terms of Reference specify the parameters for undertaking a detailed environmental review of the South Campbell Heights Special Study Area (the "Study Area") in advance of and in order to assist the City in the consideration of the development of any future land use planning. The Study Area is shown in the attached **Figure 1** in the context of the overall Campbell Heights Area. The Terms of Reference define the Study Area, establish the context, provide guidelines for preparing an environmental review and assessment and establish the minimum requirements and deliverables.

This environmental review supports the implementation strategy of the recently adopted Biodiversity Conservation Strategy ("BCS"), to assess conservation and significant environmental values, and will directly influence any future land use decisions. The selected environmental consultant will undertake a baseline environmental assessment of the Study Area, update and augment any existing environmental assessments and provide an environmental impact assessment.

The environmental study will determine environmental conservation opportunities, environmental constraints on development, and the impacts to the local groundwater resources from any future development. These studies are also to include an archeological review as the lands are within the Semiahmoo First Nation's traditional territory.

The detailed environmental assessment will specifically include a fisheries watercourse and riparian area assessment, a *Wildlife Act* Section 34(b) wildlife survey, *Species at Risk Act* (SARA) and Provincial red or blue listed species suitability mapping, as well as the identification of environmentally sensitive areas such as rare vegetation types, marshes, wetlands and critical wildlife hubs, sites and corridors making up the City of Surrey Green Infrastructure Network.

A tree survey will also be conducted to identify including, but not limited to, significant trees, remnant patches and forests and those specimen trees with high arboriculture values. An appraisal will be provided to identify, inventory, map, prioritize, and make recommendations regarding the protection and enhancement of key environmental features including biodiversity

conservation and ecosystem management areas. Management practices and policies for protecting and enhancing the ecological value of biological and ecological features will be incorporated into the assessment.

BACKGROUND

The Study Area is located south of the Campbell Heights Local Area Plan ("LAP") and is identified as a Special Study Area in both the Metro Vancouver Regional Growth Strategy ("RGS") and the draft new Official Community Plan ("OCP"). The Special Study Area indicates an area where future land planning is expected, potentially leading to changes from current land use designations in the long term.

Several development applications and inquiries have recently been received for lands within this Special Study Area, prompting staff to seek the direction of Council regarding the timing and scope of a planning process for this area. The Special Study Area may include detailed land use plans and will include policies and guidelines on land uses, neighbourhood design, amenities, servicing and financing.

On September 8, 2014, Surrey City Council approved the boundaries of the South Campbell Heights Special Study area and authorized staff to initiate an environmental Study for the Area. In the future Council may wish to consider additional studies including a Market Demand Assessment, Servicing and Transportation study and an Integrated Stormwater Management Plan (ISMP), following this environmental review as identified in Corporate Report R152.

Any future ISMP for the Study Area will be informed by this Environmental Study and provide recommendations on managing storm water drainage while protecting properties from flooding and protecting the healthy functioning of streams, riparian habitats and groundwater. It will appraise any long term land use, transportation and engineering servicing plans and assist in the development of strategies to implement drainage features and management of new neighbourhoods within the watershed. At this time Council has not directed City staff to initiate any other studies for the area pending the results of the Environmental Study.

STUDY AREA

The South Campbell Heights Study Area covers approximately 247 hectares (610 acres) and is identified as a Special Study Area in both the Metro Vancouver Regional Growth Strategy ("RGS") and the new Surrey Official Community Plan ("OCP"). For the purposes of this environmental review, the bounds of the environmental assessment will be widened for portions of the assessment beyond the South Campbell Heights Study Area to include an additional 546 hectares (1350 acres) to assess environmental assets and green infrastructure network linkages outside of the immediate Study Area boundaries (as illustrated in **Figure 1**).

The lands within the Study Area are characterized by a mix of agricultural fields and second-growth forests on gently-sloping lands on either side of the Little Campbell River, which flows within a shallow ravine from the northeast to the southwest through the area. Existing Land uses in the area include several working farms, rural residential properties and hobby farms, a

recreational vehicle park, small City-operated cemetery and the protected heritage Brooksdale Estate, operated as an environmental and education centre by the A Rocha Society. The immediate study area is generally bounded by the Campbell Heights Local Area Plan to the north (as illustrated in **Figure 2**), the Township of Langley to the east and the Agricultural Land Reserve ("ALR") to the south and west. The entire Special Study Area is currently designated Agricultural in the existing OCP, but is not located within the ALR. The entire Special Study Area is also outside of the Greater Vancouver Sewerage and Drainage District's Fraser Sewerage Area. In addition, for the purposes of this environmental study, the study area is expanded to evaluate Green Infrastructure Network linkages outside the Special Study Area Boundaries up to 24th Avenue to the North, 184th Street to the West, 200th Street to the East and 8th Avenue to the South. This additional scoop area for the purposes of assessing Green Infrastructure Network Connections includes the southern portion of the Campbell Heights LAP, ALR lands between Grandview Heights and Campbell Heights, and ALR/Agricultural Designated Lands north of 8th Avenue.

The Campbell Heights LAP, as approved in 2000 (**Figure 3**), shows 'Future Business Park or Live/Work in Cluster Housing Form' in nine of the lots along north central edge of the Special Study Area. In addition the Campbell Heights LAP identified 'Possible Future Residential' for lands north of 16th Avenue.

The Study Area is a predominantly rural area where large parcels of land are serviced by on-site septic systems and private wells, with only a limited number of municipal water service connections in an isolated area along 16 Avenue and 194 Street. The eastern part of the study area is located within the southern extent of the Campbell Uplands, south of the more heavily utilized area of the Brookwood aquifer where the Township of Langley production wells are located. Where the aquifer has been developed, it is reported as being highly productive, with sands and gravels over an unconfined aquifer, with a high rate of groundwater recharge, and a high risk of groundwater contamination from surface sources. It is uncertain at this time if the same aquifer characteristics extend into the study area.

The remainder of the study area is located within the eastern part of the Campbell Lowlands geographical area where most of the strata was laid down in a marine environment. Saline water quality has been reported by local well drillers in some areas of the lowlands. Marine silt or sand is present, and the area is located in a lower permeability groundwater recharge area.

The Study Area contains a Class 'A' river as well as several Class 'A' creeks (red-coded) including the Little Campbell River, Twin Creeks and Jacobsen Creek. These streams are known to contain a diverse range of fish species, including anadromous and resident salmonids as well as providing significant riparian habitat within the streamside areas for a diversity of wildlife species. The impact of reduced ground water recharge to creeks and streams during low flow periods may prevent salmon from reaching spawning areas. The contribution of groundwater to the base flow of groundwater fed streams and the hydrologic connection of the groundwater table to wetlands is an important environmental issue. Diminished groundwater supplies could also result in reduced supplies for licensed surface water sources.

It is integral that the headwaters of the Little Campbell River and the Twin Creeks be preserved, maintained and/or enhanced with respect to water quality and quantity, and as a vital Regional Green Infrastructure Network Corridor.

The City of Surrey Ecosystem Management Study ("EMS") and Biodiversity Conservation Strategy ("BCS") show a preponderance of forested ecosystems, and areas of cultivated or old fields within Hubs, Sites and Corridor areas (**Figure 4**). Most of the forested area is dominated by deciduous mixed forest of Cedar, Douglas Fir, big leaf maple, black cottonwood, red alder, and paper birch. Significantly, most of the forest area contains ecosystems that are Provincially red or blue-listed, despite the fact that most of them are immature. Ultimately they will develop into mature forests, if undisturbed.

Slopes in the area are typically gentle (less than 15%) but in certain areas along the Little Campbell River may exceed 20%. A large soil removal area (to the North West of the Little Campbell River) also contains a large gravel pit with large cuts and fills, which may require future terrain assessment and review.

STUDY OBJECTIVES

The objectives of the environmental assessment for the South Campbell Heights Special Study Area are as follows:

1. To identify, inventory, map, prioritize and make recommendations regarding the protection and/or restoration and enhancement of key environmental features in the South Campbell Heights Special Study Area, including:
 - Watercourses (including associated features such as wetlands, floodplains, and riparian zones), watersheds, and groundwater recharge areas;
 - Fish utilization and fish habitat including riparian areas;
 - Critical wildlife habitat for significant wildlife species and for support of biodiversity, with an emphasis on habitat with high potential to support provincially red or blue listed wildlife or species listed as Schedule 1 under the Federal Species at Risk Act, and wildlife nest sites referenced in the Provincial Wildlife Act section 34(b);
 - Ecologically significant areas that support biodiversity including rare plants, such as rare grassland, forest types, and productive soils;
 - Significant and valuable tree stands/canopies and tree specimens, including tree species and areas that support biodiversity and has a high potential for preservation/retention;
 - Sensitive or hazardous terrain such as steep slopes, that may be sensitive to development and soils not suitable for urban development;
 - Natural recreation areas; and
 - Natural areas with the potential to provide habitat corridors, greenways or aesthetic values linking with other green spaces within and beyond the Study Area.
 - Archeological review of lands within the Semiahmoo First Nation's traditional territory.

- Document the extent and value of the local and surrounding groundwater system underlying the study area.
2. To incorporate, in the early planning stages, the environmental requirements of both the City of Surrey and relevant regulatory agencies, e.g., the Ministry of Environment, Environment Canada and Fisheries and Oceans Canada;
 3. To provide scientifically sound advice to the City based on the environmental characteristics and sensitivities within the Special Study Area;
 4. To provide scientifically sound recommendations for the City of Surrey and Regional Green Infrastructure Network and for Biodiversity Conservation strategies to: Preserving large core habitat areas; ensure connectivity between habitat areas; and provide for a long term integrated network of habitat features throughout the Special Study Area.
 5. To provide the significance of the groundwater resource in this area and the level of sensitivity to impacts from land development at various development densities including:
 - Evaluation of the level of groundwater impact, including the cumulative impact, development might have on the groundwater resource and interconnections with watercourses (base flow), wetlands and recharge areas.
 - Evaluation of the natural areas above important recharge zones including recommendations for landowners on how to improve the security of their wells including the control or stopping of flowing artesian wells.
 - Preparing a check list for developers and landowners for the proper closure of abandoned wells after municipal water supply connections are installed, and for the retention of wells (where allowed) if being used for irrigation (include the Ministry's new Well Registration Form)
 - Providing recommendations on land uses and other preventative measures required to maintain or improve the integrity of the groundwater system (if applicable, provide Class D cost estimates for the recommended groundwater protection measures).
 5. To prepare a final report that makes specific recommendations for the preservation and enhancement of fish habitat, groundwater resources, plant communities, wildlife (herpetofauna, mammals, and birds) habitat, rare, threatened and endangered species, and significant tree stands and specimens generally for the Study Area, including recommendations regarding the extent of the environmentally significant areas, sites and corridors that should be protected.

SCOPE OF THE STUDY

To adequately fulfill the study objectives, the Consultant is required to undertake a two staged Environmental Assessment including, but not limited to, the following tasks:

1. Conduct an inventory of environmental features using a combination of a desktop review of existing information, aerial photography interpretation, extensive field study and "ground truthing", data syntheses, and reporting in order to achieve the stated objectives;
2. Update the City's existing aquatic/fisheries resources inventory and watercourse classification map, and compile a broad-based terrestrial resources inventory database, including a description of ecological features and functions;
3. Identify, map and assess tree stands and specimens that have the potential for preservation and establish canopy cover targets for different land uses that will contribute towards the City wide goal of 40%;
4. Determine environmental conservation and management opportunities, including parkland acquisition strategy for the City grounded on Biodiversity Conservation objectives and City Parkland strategies as an Appendix to the Environmental Study.
5. Liaise with City of Surrey staff, other stakeholders and relevant Provincial and Federal agencies;
6. Attend and make a presentations on the results of the study at a committee and public meeting along with attending meetings with City staff as required;
7. Produce a draft report for staff review and, based on this review, produce a final report in both paper and electronic formats, including maps and graphics in digital format.

STUDY REQUIREMENTS & DELIVERABLES

1. Periodically liaise with the City staff during the course of the study to discuss the findings and possible recommendations;
2. Produce a draft report and submit two complete printed copies and an electronic copy (PDF), for staff review and comments;
3. Revise the draft report, as required, and provide the final report. The consultant will submit three complete printed copies (coloured version) and an electronic copy of the final report, including all graphics, charts, maps and illustrations in digital format. In addition to the PDF format of the final report, the text portion of the final report should be submitted in a format compatible with Microsoft Word; and
4. In addition to the research and analysis in support of the study recommendations, both the draft and final reports will include annotated maps, plans, charts, illustrations, photographs, etc., as required, to describe and provide the rationale for the recommendations. The digital version will also include mapping and graphics in ArcGIS compatible format (i.e. map layer and geo-processing packages), so that the data can be used in the City's ArcGIS system.

BACKGROUND MATERIAL

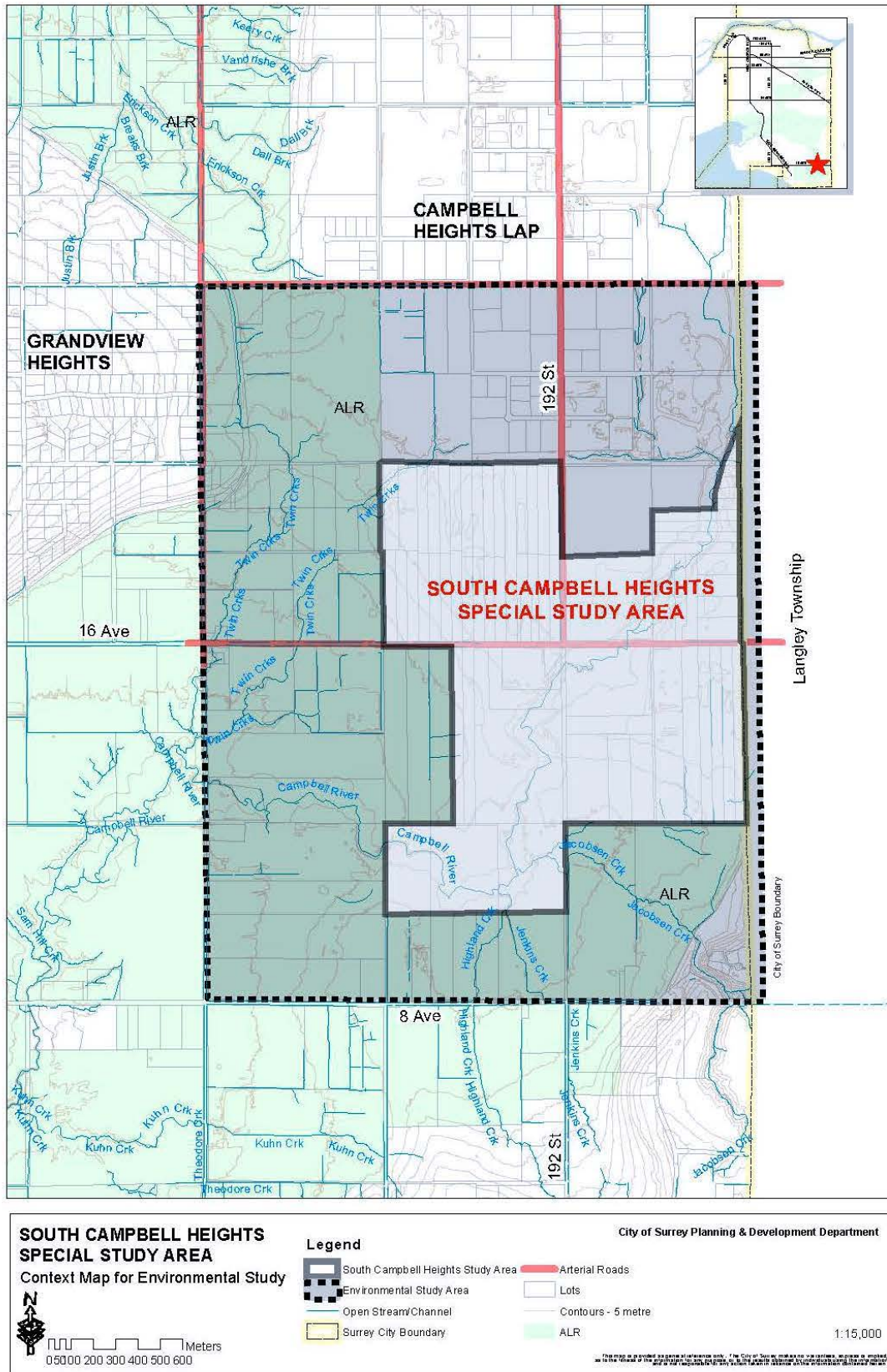
At Consultant's request, the following information and studies will be made available as background material for the study:

- Corporate Report No R152: South Campbell Heights Special Study Area Planning
- Mapping which includes: orthophotos, topographic, drainage and watercourse classification, cadastral, utilities, and land ownership information;
- City of Surrey's Official Community Plan (2014)
- 'Draft' City of Surrey Environmental Development Permit Area Guidelines
- City of Surrey Biodiversity Conservation Strategy, (2014)
- Metro Vancouver Regional Growth Strategy (2011)
- Metro Vancouver Regional Green Infrastructure Network Strategy (DRAFT)
- Surrey Ecosystem Management Study (EMS) (2011)
- City of Surrey's 10-Year Servicing Plan
- Campbell Heights Local Area Plan
- Campbell Heights Local Area Plan Environmental Study
- City of Surrey Sustainability Charter – A Commitment to Sustainability, 2008
- Ravine Stability Analysis (2002, 2005, 2009)
- B-IBI data from 1999 to 2013. Data for 2014 will be provided when available.
- City of Surrey by-laws including but not limited to the Stormwater Drainage Regulation and Charges By-Law #16610, the Tree Protection Bylaw #16610, the Erosion and Sedimentation Control By-Law #16138, and the Zoning By-law #12000
- Habitat Preferences of the Northern Red legged frog (A Rocha Draft Report)
- Little Campbell Water Quality Monitoring Report, Province of B.C. (2005-2007)
- City of Surrey Parks Recreation and Culture Strategic Plan, 2008
- City of Surrey Greenways Master Plan, 2012
- Characterization of Potential Pollution Sources in the Little Campbell River Watershed (Ministry of Environment, 2008)
- Surrey Ground Water Supply Study – Phase 1 Report, Gartner Lee Limited, 1999
- Township of Langley Water Management Plan, Golder & Associates, 2003
- City Of Surrey Groundwater Strategy Phase II – Groundwater Exploration, Gartner Lee Limited, 2004
- Little Campbell River Integrated Stormwater Scoping Study, Kerr Wood Leidal Associates Ltd., 2011
- A letter from the City for access to properties for the purposes of the Environmental Study.

Attachments

- Figure 1 South Campbell Heights Special Study Area
- Figure 2 2000 Campbell Heights Lands Use Overlap with Special Study Area
- Figure 3 2000 Campbell Heights Local Area Plan (LAP)
- Figure 4 Environmentally Significant Areas within the SCH Special Study Area

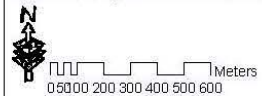
Figure 1 - South Campbell Heights Special Study Area



SOUTH CAMPBELL HEIGHTS SPECIAL STUDY AREA
Context Map for Environmental Study

- Legend**
- South Campbell Heights Study Area
 - Environmental Study Area
 - Open Stream/Channel
 - Surrey City Boundary
 - Arterial Roads
 - Lots
 - Contours - 5 metre
 - ALR

City of Surrey Planning & Development Department



1:15,000

This map is provided as a guide only. The City of Surrey makes no warranty, express or implied, as to the accuracy of the information shown on this map. The City of Surrey is not responsible for any errors or omissions on this map.

Figure 2 - Campbell Heights LAP Overlap with Special Study Area

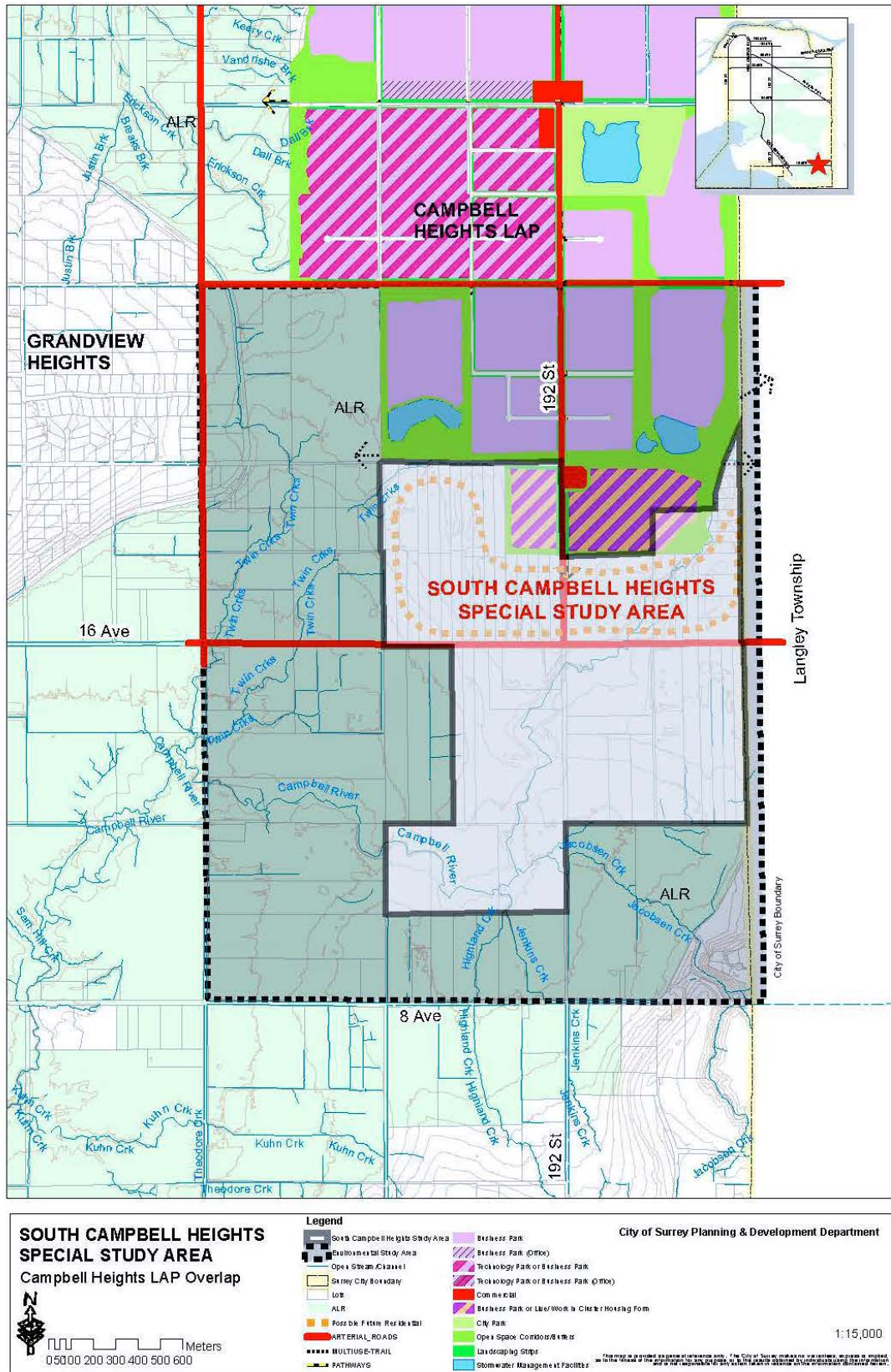


Figure 3 – Campbell Heights Local Area Plan

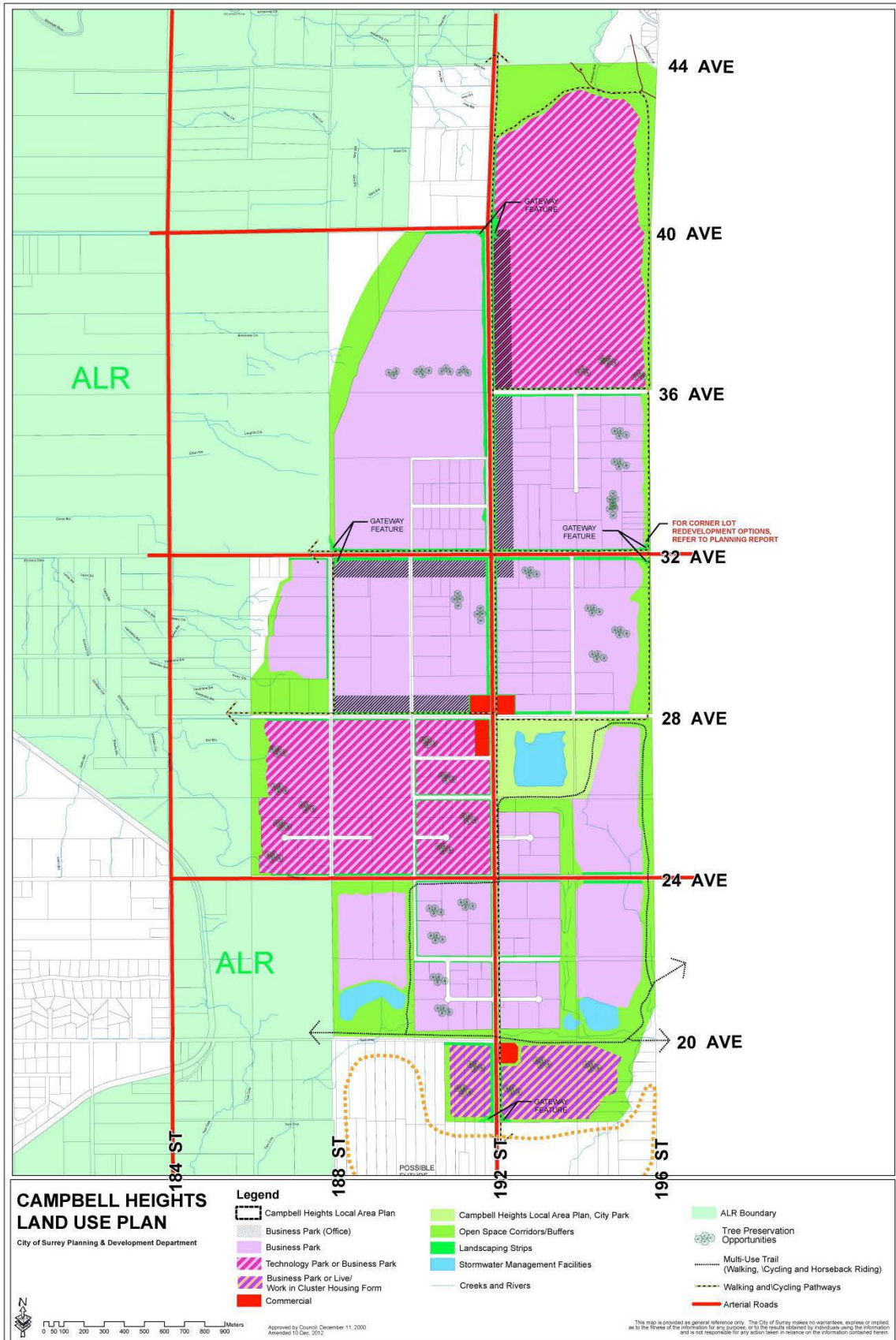


Figure 4 - Environmentally Significant Areas Special Study Area

