

NO: R243

COUNCIL DATE: December 14, 2015

REGULAR COUNCIL

TO: Mayor & Council **DATE: December 14, 2015**

FROM: General Manager, Planning and Development **FILE: 6520-20 (East Fraser Heights LAP)**
General Manager, Engineering

SUBJECT: East Fraser Heights Local Area Plan – Stage 1 Land Use Concept

RECOMMENDATION

The Planning and Development and Engineering Department recommend that Council:

1. Receive this report as information;
2. Approve the Stage 1 Land Use Concept for the East Fraser Heights Local Area Plan ("LAP"), as described in this report and shown in Appendix I (to be named the "Abbey Ridge" LAP);
3. Authorize staff to proceed with all necessary actions associated with the preparation of the Stage 2 component of the Abbey Ridge LAP as generally described in this report;
4. Authorize staff to receive and process development applications for properties within the Abbey Ridge LAP on the basis of the Stage 1 Land Use Concept, as illustrated in Appendix I, provided that any such application not proceed to final approval until the Stage 2 component of the LAP is completed and approved by Council; and
5. Authorize staff to forward a copy of this report and the related Council resolutions to the Fraser Heights Community Association.

INTENT

The purpose of this report is to:

- provide a synopsis of the results of public open houses, environmental study, and public consultation regarding the development of a preferred Stage I Land Use Concept for the East Fraser Heights Area, to be named the "Abbey Ridge LAP";
- provide an overview of and seek Council's approval of the final Stage 1 Land Use Concept component of the LAP, which will form the basis for more detailed planning related to the Stage 2 component of the LAP, including resolution of outstanding engineering and servicing issues;

- provide an overview of the proposed land uses, densities and population estimates related to the Land Use Concept, as well as estimates of community amenity contributions related to the implementation of the Stage 1 Land Use Concept, to be refined through the Stage 2 component of the LAP; and
- seek authorization to proceed with the Stage 2 engineering and servicing study and development of the financing components of the LAP.

BACKGROUND

The following is a summary of the work to date related to the East Fraser Heights LAP planning process, leading to the Stage 1 Land Use Concept being presented for Council's approval:

- **March 23, 2015 – Corporate Report No R048;2015**

Council authorized staff to initiate a land use planning and community consultation process for the East Fraser Heights area, in response to increased development interest in the area, which is not within a secondary plan area such as a Neighbourhood Concept Plan ("NCP"). The purpose of the planning process was to develop a coordinated land use concept and servicing strategy for the area;

- **June 25, 2015 – Kick-off Public Open House**

On June 25, 2015, a kick-off public meeting was held with property owners and the general public living within and around the East Fraser Heights area to provide an update on the status of the study. The purpose of this first meeting was to:

- provide background on the reasons for conducting the plan, to introduce the City's planning team, and to discuss how the planning process will take place;
- provide initial results of an environmental study recently conducted in the area; and
- allow comments and suggestions about a future Land Use Concept and vision for the neighbourhood.

Approximately 132 people attended this first public open house held at Fraser Heights Recreation Centre. The Planning and Development Department received 31 completed feedback forms following the meeting, representing comments from 25 properties within the study area or within approximately 1.3 kilometres of the study area.

- **July 29, 2015 – Environmental Study Final Results**

On July 29th, 2015 Phoenix Environmental Services Ltd completed an Environmental Assessment and Tree Study of the plan area. The Environmental Assessment and Tree Study provided a baseline environmental context as a first step in the development of a Land Use Concept for the area;

- **September 23, 2015 – Fraser Heights Community Association Land Use Options Update**

On September 23, 2015 staff attended and presented two draft land use concept options to the Fraser Heights Community Association to provide the association members with an opportunity to comment on draft plans for the area. Several comments, and

recommendations were provided, and refinements were made to the working draft land use concept options in order to develop a preferred land use concept to present to the public;

- **October 1, 2015- Preferred Land Use Concept - Public Open House**

On October 1, 2015, a public meeting was held with property owners and residents living within and around the East Fraser Heights area to provide residents, owners, and other interested parties with an opportunity to comment on the development of a draft land use concept plan for the East Fraser Heights neighbourhood. The purpose of this meeting was to:

- provide a summary of initial public feedback received following the first public open house meeting;
- provide an opportunity to view and comment on draft vision and neighbourhood planning principles; and
- provide an opportunity to view and comment on a preferred land use concept for the East Fraser Heights Neighbourhood.

Approximately 276 people attended the second public open house at Fraser Heights Recreation Centre. The Planning and Development Department received 92 completed feedback forms, representing comments from the owners of 42 properties within the East Fraser Heights area, seven properties located within 100 metre of the boundary, and 43 properties outside these areas;

- **December 3, 2015 Inter-agency Meeting**

Staff held a meeting with a range of public agencies and utility companies to review and provide comment on the proposed plan. These agencies and utilities included BC Hydro, Kinder Morgan, CN Rail, Port Metro Vancouver, the Ministry of Transportation and Infrastructure, the Ministry of Agriculture, Metro Vancouver Regional Planning, School District No. 36, TransLink, Fraser Health Authority and the major telecommunications firms operating in the area; and

- **Additional land owner and developer consultation and meeting feedback**

In addition to the public consultation work identified above, City staff have had several meetings with individual land owners, developers, stakeholders and other groups, as well as received and documented several phone calls and letters associated with the Land Use Concept Plan.

Appendices II(a) and (b) of this report summarize the public comments and feedback that were received at both public open houses noted above.

POLICY CONSIDERATIONS

The development of a Land Use Concept and Local Area Plan for the East Fraser Heights area will guide future Official Community Plan ("OCP") and zoning amendments, as well as confirm many existing designations. The East Fraser Heights area has not been the subject of a secondary plan such as a General Land Use Plan or NCP, and through this process is the only area within Fraser Heights to be part of a secondary plan.

If a LAP is approved by Council for the area, the plan area may be designated as an Infill Area in Surrey Zoning By-law, 1993, No. 12000 (the "Zoning By-law"), with an attached schedule of Amenity Contributions to support park development, library materials, police and fire service capital needs in exchange for bonus density, consistent with other LAP, NCP and Infill Areas.

The Plan Area

The East Fraser Heights LAP comprises approximately 184 hectares (455 acres) and is generally bounded by Highway No. 1 to the south, 172 Street to the west, Highway 17, Daly Road and the CN Railway to the north, and Golden Ears Way to the east, as illustrated in Appendix III. The LAP is bisected north to south by the Big Bend major drainage catchment area to the west of 176 St. (Highway 15) and the large Port Kells drainage catchment area to the east of 176 Street. The LAP Area generally slopes to the north offering excellent views of the Fraser River and North Shore Mountains.

Existing OCP, Zoning and Development

The majority of the study area is occupied by residential uses. The residential neighbourhoods within the study area are a mix of large suburban properties, undeveloped and rural properties and pockets of higher-density urban subdivisions and developments that have been approved on a case-by-case basis over the years.

The majority of the area is designated Suburban in the OCP, with areas of Industrial designation in the north and east areas adjacent to Highway 17. The Suburban areas include:

- approximately 140 properties zoned One Acre Single Family Residential (RA) Zone;
- 25 properties zoned Half-Acre Single Family Residential (RH) Zone;
- 54 properties zoned Gross Density Half-Acre Single Family Residential (RH-G) Zone;
- 35 properties zoned Cluster Residential (RC) Zone; and
- one property zoned Assembly Hall 1 (PA-1) Zone, occupied by a church.

Over the last several years, a number of higher-density developments have been approved that involved an OCP amendment to Urban, Multiple Residential or Commercial designations. The Urban designated areas include a total of 123 properties zoned Single Family Residential (RF) Zone in three locations and the Multiple Residential and Commercial areas encompass a single large development site zoned Comprehensive Development (CD) permitting the construction of up to 80 townhouse units and up to 435 units in six low-rise apartment buildings along with neighbourhood commercial space.

Current Development Applications

There are five active development applications within the LAP area currently in process which were received prior to the initiation of the LAP process, including:

- **Development Application No. 7911-0170-00** - Proposal for OCP Amendment for a portion of the site, rezone from RA to RF and RH in order to subdivide into nine single family lots and one half-acre lot. This Application is currently at Third Reading;
- **Development Application No. 7913-0193-00** - Proposal for rezoning and subdivision into three single family residential lots;

- **Development Application No. 7910-0298-00** - Rezoning from RA to CD (based on RH-G) in order to allow subdivision into seven suburban residential lots; and
- **Development Application No. 7915-0141-00** - Rezoning from RA to CD (based on RH-G) in order to allow the development of five suburban single family lots; and
- **Development Application No. 7915-0166-00** - To rezone a portion of the IL property into RA and a portion of the RA property into IL, subdivision from three to five lots, including an OCP amendment from Suburban to Industrial and creek area dedication to the City.

In addition to the above-noted development applications under review, there have been a number of development inquiries made in the area. Staff has advised prospective applicants that the LAP is under preparation and that development applications will be reviewed in the light of a Council-approved Land Use Concept and servicing strategy.

Environmental Context

As part of the LAP process an environmental and tree study was commissioned, with Phoenix Environmental Consultants retained to complete the study with recommendations. This study was completed in June of 2015, and identified several significant environmental features within the LAP area, including Leoran Brook and several other Class A and Class B fisheries watercourses that receive groundwater base flows from springs along the escarpment and ravine slopes. There are also numerous Class C drainage watercourses and ditches along property boundaries and roads within the Study Area.

While extensively developed for residential uses, there are several large parcels of forested lands offering wildlife habitat values within the LAP area, including a Regional Green Infrastructure Network (GIN) Corridor identified in the Biodiversity Conservation Strategy, along Leoran Brook, with a wildlife crossing under Highway 1 connecting to the Anniedale - South Port Kells area to the south of the LAP.

The large natural conservation areas of the Surrey Bend Regional Park and Tynehead Regional Park are situated nearby to the north and south respectively, but are separated from the LAP area by major highways and railway corridors that significantly limit connectivity.

Along with sensitive natural environments, the Phoenix study also identified and mapped significant stands of trees and outstanding specimen trees that were deemed high value for retention in the context of new development.

The environmental context of the area as generally illustrated in Appendices IV (a), (b) and (c), and the recommendations of the Phoenix study greatly influenced the development of the Land Use Concept.

Existing Schools

The East Fraser Heights area is located within the Bothwell Elementary School catchment. This school is located on 102 Avenue, just to the west of the study area and, according to School District No. 36 staff, currently has capacity for an additional 150 students. There are no schools located within the study area and no additional schools are currently proposed.

The Fraser Heights area in general, including the LAP area, has a low "participation rate" for attending its catchment school, Bothwell Elementary. This is likely due to the proximity of a large private school, Pacific Academy, which exerts an influence on residents choosing to live in the Fraser Heights community. With an aging demographic trend in the more established areas of Fraser Heights and with some additional capacity available at the elementary level, it has been determined that there is not a requirement to set aside a dedicated school site in this LAP. There may, however, be a requirement at some point to expand Bothwell Elementary which is currently on a constrained and undersized site.

The local public secondary school catchment for the area is Fraser Heights Secondary, which is currently at capacity and includes portable classrooms. Over time, as the demographic profile of Fraser Heights ages, it is expected that capacity may open up at this school, allowing for additional growth without unduly straining the capacity of the school.

DISCUSSION

The purpose of the East Fraser Heights LAP process was to provide clarity and direction to guide future development, to ensure a comprehensive and coordinated land use, transportation, environment and servicing plan and to ensure broad neighbourhood consultation on the future of the area.

Overview of the Stage 1 LAP – Land Use Concept

The Land Use Concept for the East Fraser Heights LAP area is reflective of the Vision and Planning Principles contained in Appendix V. The Stage 1 Land Use Concept incorporates refinements to a draft Land Use Concept presented to the community following feedback received from property owners, the Fraser Heights Community Association and other stakeholders, as well as comments received from the public after the October 1, 2015 public open house. Based on feedback forms returned to the City, over 68% of those residents within the plan area indicated some level of support for the draft Abbey Ridge LAP land use concept, and minor refinements to the plan were made to better address areas of expressed concern, specifically:

- adjustments to the densities and transitions along Lyncean Drive and Barnston Drive East, addressing the strongest feedback received at the public open;
- refinements to the transitional densities around the acreage properties in the Abbey Drive area;
- the location of a proposed neighbourhood park on Lyncean Drive; and
- adjustments to the land use and density in the eastern part of the LAP.

Stage 1 Land Use Concept – Designations and Key Features

The LAP is envisioned as a mainly single family residential neighbourhood with one small commercial area and a few strategically located townhouse blocks. The plan also provides for the preservation of the majority of the industrial lands along the north eastern edge of the plan in order to maintain employment land opportunities. Its social, economic and environmental sustainability will be ultimately be supported by:

- retention of existing established and stable suburban/urban neighbourhoods;
- appropriate interfaces between new and established areas;

- protection of riparian areas and wildlife corridors and retention of significant tree stands;
- additional housing choice through strategic areas of multifamily and urban single family areas along the Highway 1 corridor and Highway 17 (South Fraser Perimeter Road);
- a more cohesive local road network providing connections within the plan area, and connections to the surrounding areas;
- a network of pedestrian and cycling routes, including future connections to the Fraser Heights Greenway and adjacent regional parks; and
- inclusion of neighbourhood parks in each sub-area, to serve local needs.

Description of Proposed Land Use Concept Designations

The following section provides a general description of each of the land use designations in the proposed Land Use Concept, as shown in Appendix I.

Residential Areas

The Abbey Ridge Stage I Land Use Concept includes nine residential land use designations, six of which allow only detached single family dwellings, two cluster housing designations, one both ground oriented single family dwellings and attached units depending on site conditions and open space provisions, and two designations which allow multi-family development such as townhouses.

These residential land use designation areas are shown in the table below, with base densities, open space provision requirements and typical lot sizes.

Table 1: Abbey Ridge Stage 1 LAP - Residential Land Use Designation Guidelines

Land Use Designation	Density	Typical Form	Typical Zones or Base Zones	Typical Lot Sizes (Sq. Ft.)	Estimated Parks/Open Space %
Acreage Residential	1-2 UPA (Net)	Detached Single Family	RA, RH	43,000 – 21,000	5%
Suburban Residential	2-4 UPA (Gross)	Detached Single Family	RH, RH-G, RC, RF	21,000 – 10,000	15%
Urban Transition	4-5 UPA (Gross)	Detached Single Family	RH-G, RF	8,000 – 6,500	5%
Single Family Residential 4-6 UPA	4-6 UPA (Net)	Detached Single Family	RF	7,000 – 5,000	5%
Low Density Cluster	4-6 UPA (Gross)	Detached Single Family	RF-G, RF, RC	7,200 - 4,500	15%
Urban Residential	8-10 UPA (Net)	Detached Single Family	RF, RF-12	5,500 - 4,000	5%
Medium Density Cluster	10-12 UPA (Gross)	Single Family Semi-Detached Townhouse	RF-12, RF-SD, RC, CD	1 Acre Consolidation (residential unit lot sizes will vary)	15%
Low Density Townhouse Residential (Tree Preservation)	12-15 UPA (Gross)	Townhouse	RF-SD, RM-10, RM-15, CD	1 Acre Consolidation (residential unit lot sizes will vary)	Up to 10% for tree preservation
High Density Multiple Residential		Townhouse Lowrise Apartments	RM-30, RM-45, CD	1 Acre Consolidation (residential unit lot sizes will vary)	

Acreage Residential 1-2 UPA

The Acreage Residential 1-2 UPA designation is intended to maintain an enclave of existing single family housing on one acre lots located in the Abbey Drive area. This designation does allow for subdivision to half acre suburban lots although it is expected that the majority of lots will remain one acre or larger for some time into the future, based on the current housing condition, age and house location on the lots.

Suburban Residential 2-4 UPA

The Suburban Residential designation is intended to support suburban development at a gross density of less than four units per acre, with lots typically quarter acre in size although somewhat smaller lots may be permitted in conjunction with substantial open space provision.

Three areas, totalling 66 acres of land, are designated Suburban Residential, including both existing subdivisions and areas that may be subdivided in the future to this density. These areas include:

- an area of existing lots of half acre or larger along the northern section of Lyncean Drive;
- an existing subdivision of lots west of 181 Street along 180A Street, 98A Avenue and 180 Street; and
- an area of both existing suburban lots and future subdivision surrounding the Acreage Residential enclave in the Abbey Drive area. Within this area there is a small area south of 101 Avenue where pan-handle lots may be considered due to constraints imposed by the existing Trans Mountain Pipeline right of way.

Single Family Residential 4-6 UPA

The Single Family Residential designation is intended to support single family detached housing on urban sized lots, generally consistent with the Single Family Residential (RF) Zone. Lots in this designation are expected to have a minimum lot width of 15 metres, and a minimum lot area of 6,000 square feet.

This designation is proposed in areas throughout the LAP, including both existing subdivisions and proposed subdivision areas. In one small area within this designation "large lot frontages" are required adjacent to the 96A Avenue and 98A Street cul-de-sacs to provide an appropriate transition to adjacent, larger existing suburban lots.

Urban Transition 4-5 UPA Gross

The Urban Transition designation is intended to support single-family residential development on lots that are somewhat wider and larger than the Single Family Residential designation. This designation is confined to a strip of land along the south and west sides of Lyncean Drive where lots with a minimum width of 20 metres and a minimum lot size of approximately 6,500 square feet are intended to provide a transition between higher-density single family housing to the south and larger existing suburban lots to the north along Lyncean Drive. These areas are expected to generally conform to the Single Family Residential (RF) Zone requirements, except for the increased lot width requirement.

Low Density Cluster 4-6 UPA

The Low Density Cluster designation allows for detached single family housing at a density of up to six units per acre, calculated on the basis of the entire lot with clustering or grouping of single family development on one area of land, so that the remaining lands can be protected through conservation easements, parkland open space dedication and/or land trusts. While not required, it is expected that development in this designation may include a strata form of ownership in order to most efficiently and effectively utilize the land while retaining significant open spaces or ecologically sensitive lands. Two small areas of the plan totalling 7.3 acres are designated for this purpose.

Urban Residential 8-10 UPA (Gross Density)

The Urban Residential designation is intended to provide for smaller, single-family urban residential lots generally consistent with the Single Family Residential (12) (RF-12) Zone. There are two areas totalling 16.1 acres that are designated for this purpose, although this form and density of housing may also be appropriate in designations that permit higher densities, as described below. The areas designated for Urban Residential are found adjacent to Highway 1 along Barnston Drive East as follows:

- west of 179 Street and south of Lyncean Drive; and
- west of 182 Street in the eastern part of the plan area.

For lots served by rear lanes, the minimum lot width may be a minimum of 12 metres, and for lots without rear lanes (front driveways) the minimum lot width is 13.4 metres. No front lot driveway access will be permitted along Barnston Drive East Avenue within this designation for traffic safety reasons.

A small band of "large lot frontages" is identified within this designation west of 182 Street on the south side of 98 Avenue in order to provide an appropriate transition with existing suburban lots on the north side of 98 Avenue.

Medium Density Cluster 10-12 UPA (Gross Density)

The Medium Density cluster designation allows for a density of up to 12 units per acre calculated on the basis of the entire lot, and may include both detached single family homes on fee simple lots or in a strata form of ownership and ground oriented multiple residential buildings such as townhouses or rowhouses. Development in this designation will typically involve the clustering or concentration of dwelling units on portions of the site with substantial protected open space totalling at least 15% of the original lot for the provision of natural areas, dedicated parks or landscaped areas. Two areas in the plan totalling 16.9 acres are designated for this type of development.

Low Density Townhouse Residential 12-15 UPA (Tree Preservation)

The Low Density Townhouse Residential designation is intended to support the development of ground-oriented multifamily residences such as townhouses on strata lots or duplexes and rowhouses on individual lots at a density of 15 units per acre measured on the gross site area. Portions of the lands in this designation may be appropriate for lower-density housing such as

detached housing, depending on site conditions. Three areas of the plan totalling 27.3 acres are designated for this use, as follows:

- a larger area south of 100 Avenue/Barnston Drive West along Highway 1;
- a small pocket along Barnston Drive East south and west of Lyncean Drive; and
- a triangular area on the far eastern edge of the plan area adjacent to Highway 1, Golden Ears Way and the future Highway 17.

This designation includes areas of tree preservation, where significant stands of coniferous trees have been identified in the Environmental Study. These tree retention areas may be incorporated into the open space of a strata development, landscape buffers, or may be dedicated to the City as parkland, at the City's discretion, at the time of development.

High Density Multiple Residential and Commercial

The High Density Multiple Residential and Commercial designations are intended to reflect a single, approved higher-density development in the area adjacent to the Highway 1 and Highway 15 interchange along Barnston Drive East. This development is currently under construction and is regulated by a Comprehensive Development Zone that includes townhouses, low-rise apartments and future commercial development. The land use designations in the Abbey Ridge LAP are not intended to affect the current zoning of the site, but provide guidance for any future proposals to amend the prevailing CD Zone. The Commercial designation allows for local commercial services that are important to the viability of the neighbourhood.

Summary of Population and Residential Unit Projections

The table provided in Appendix VI summarizes the residential unit and population projections for the LAP area based on the proposed Stage 1 Land Use Concept shown in Appendix I. A summary of the existing population and units and the land use projections area generally described below.

Current Population and Residential Units

There are approximately 522 residential dwelling units existing in the East Fraser Heights LAP area, with a population of approximately 1,767 people. This works out to approximately one residential unit and 3.9 persons per acre. It is also estimated that there are currently some 135 secondary suites within the existing residential areas with an estimated population of approximately 258. In total, the existing population for the area is estimated to be approximately 2,025 including residents in secondary suites.

Projected Population and Residential Units for LAP

Based on the Stage I Land Use Concept, approximately 1,166 additional residential dwelling units and a population increase of approximately 3,432 people is expected. Of these, 151 residential units and some 411 people are expected within the approved townhouse site located east of 176 Street and south of Barnston Drive.

At full-build out (approximately 15 to 20 years from now), East Fraser Heights is projected to have a total of 1,578 dwelling units, with a total projected population of just over 4,816 based on the Stage I Land Use Concept. These projections work out to approximately 3.5 residential units and 10 people per acre on average. Of these total housing units, some 970 units are expected to be

single family homes (of which 412 which are already existing), and 608 are expected to be townhouse units (of which 267 are located in previously approved development and 116 are already constructed).

Limited growth, Suburban Infill and Long term-growth Areas within LAP

The East Fraser Heights LAP contains a mix of developed and undeveloped lands, with small remnant areas of limited infill potential, enclaves of suburban estates and more recent urban subdivisions, as well as some areas where additional infill growth may be accommodated in the future. Appendix VII shows these anticipated "limited growth", "suburban infill", and "future growth" areas based on the Stage 1 Land Use Concept. A summary of the residential unit and population projections are summarized below:

- **Limited Growth Area** - This area includes 103 Acres or nearly 23% of the LAP area. There are currently 412 residential units within this area and very limited or no additional growth is projected. This area contains about four units per acre;
- **Suburban Infill Area** - This area includes 25 Acres or 5 % of the LAP area. There are currently 23 existing residential units within this area, but has the potential for about 72 total units in the future. This area at build out will contain about three units per acre;
- **Future Growth Area** - This area includes 136 Acres or 30% of the LAP area. There are currently 87 existing residential units within this area, but there is the potential for about 1,088 units in the future. This area at build out will contain about eight units per acre; and
- **Areas not within Residential Development Areas noted above** - This area includes 188 Acres or 42% of the LAP area. There are no residential units within this area, and there are no units projected in the future. This area is intended for roads, landscape buffers, parks, industrial, institutional and commercial uses.

Institutional Areas

There are currently two Institutional designated areas within the LAP accounting for 2.0 hectares (5.0 acres) of land to accommodate existing institutional uses:

- A Korean Central Presbyterian Church, located at 10117 - 176 Street, planned to be maintained and expanded for church uses; and
- Fire Hall #5, located on Barnston Drive, immediately east of 176 Street along Barnston Drive East, which will also remain.

School Projections

If current school participation rates in the area continue, it is estimated that as little as 150 elementary students and 150 secondary students would be generated by future development in the LAP. A more cautious scenario, however, is that participation rates may increase as the housing stock is varied to more family oriented housing. Based upon this precautionary assumption, the Surrey School District No. 36 staff have indicated that the LAP could generate up to 300 additional elementary students and 250 additional secondary students in the Surrey School District system over the total buildout of the plan. The local elementary school, Bothwell

Elementary, has capacity to accommodate the expected growth in the student population, and in the event of higher than anticipated growth the school property is sufficient in size to permit school expansion if required. Based on growth projections, School District staff do not anticipate the need for a new elementary or secondary school site in this LAP.

If development occurs more rapidly than anticipated (two to seven years), and depending on how the rest of the neighbourhood's demographics evolve, it is possible that secondary school catchment changes would have to contemplate sending some of the area school aged children to a secondary school south of Highway 1 to reduce the pressure on Fraser Heights Secondary School.

Surrey Planning staff anticipates that development will likely occur at a slower pace (five to 15 years) for the majority of lands in the LAP as servicing constraints will need to be resolved and because a large amount of the plan area contains well-established residential areas that are expected to remain mostly unchanged.

Industrial Areas

There are 8.6 hectares (21.3 acres) of land currently identified as industrial within the LAP. These areas are intended for existing and future long term employment lands, and are situated along the South Fraser Perimeter Road on the north eastern edge of the plan boundary.

Landscape Buffer Areas

Approximately 7.0 hectares (17.4 acres) of landscape buffers are identified in the Abbey Ridge LAP. Some of these areas are currently within unconstructed road rights-of-way such as the area east of Highway 15, and some areas are future landscape buffers to ensure appropriate interface between industrial and residential areas or between highways and residential areas.

Environmental Management

Riparian Area Priorities

Much of the existing development around watercourses in the LAP area occurred prior to the application of riparian setbacks. Based on the Phoenix Environmental study recommendations and City policy, priority areas for future environmental management of riparian areas include the Class A and B streams and their riparian areas and remaining forest stands of >1 hectare.

Watercourses and their riparian areas in the City are currently protected by the Land Development Guidelines for the Protection of Aquatic Habitat. Under this guideline, setbacks for streams range from 15 to 30 metres from the high water mark or from the top of ravine (if slopes steeper than 3:1 exist) depending on the density of development at a site.

The City is currently preparing new riparian area setbacks to regulate riparian areas in the City, which is in the draft bylaw phase. Watercourse classifications proposed are based on the anticipated setbacks identified in the riparian area regulations, and are expected to range from 15 metres to 30 metres from top of bank, although final setbacks will be assessed as part of the riparian area bylaw review process, in Stage 2 of the LAP. The riparian area setback for ravines and Class A, A/O or B streams will need to be determined by a Qualified Environmental Professional ("QEP"), as generally described in the table below, for the streams identified in Appendix IV(a).

Table 2: Typical Riparian Area setbacks expected in the Abbey Ridge LAP

Stream Type	Typical Minimum Riparian Area Setback from Top of Bank	
	Class A or A/O Streams	Class B Streams
Channelized/Relocated	25 m	15 m
Constructed Channel/Ditch	10 m	7 m
Natural Stream	30 m	15 m

Terrestrial and Biodiversity Habitat Priorities

The City has identified a minimum 60 metre wide Green Infrastructure Network (GIN) corridor along the Leoran Brook ravine and west along the lower escarpment areas, including existing greenbelts and natural areas. The Land Use Concept shown in Appendix I incorporates all of the GIN identified in the Biodiversity Conservation Strategy (BCS) within protected areas.

A proposed Biodiversity Corridor would extend northwest through the north portion of the study area, which can aid in the establishment of the BCS GIN Corridor in East Fraser Heights, and is expected to be dedicated to the City at the time of development, as part of riparian area setbacks. A large culvert crossing of Highway 1 for Leoran Brook has ample potential for use as a wildlife crossing, including deer. Remaining forest patches need to be protected and wildlife movement corridors need to be maintained or established to improve the ecological integrity of the area and to provide suitable living habitats for sensitive species.

Privately and transit owned forest patches adjacent to Abbey Glen Park, 26C-Greenbelt, 27E-Greenbelt, Barnston Park, and between Leoran Brook and 182A Street, are proposed to be protected and established as greenbelts to encourage wildlife movement corridors and to improve the ecological integrity of the study area. These privately owned forested areas provide suitable living habitats for several sensitive species so further development and fragmentation of these areas should be avoided. Provision of natural habitats that have protected corridors will result in increased biodiversity within the area as generally identified in Appendix IV(b).

Significant Forest Stands

There are several significant stands of forest that were identified in the LAP area as illustrated in Appendix IV(c). The tree protection priorities for the LAP, based on the Phoenix Environmental Study, will include:

- detailed assessments by a qualified arborist experts for any development applications including, tree surveys and topographic information to accompany assessment reports;
- trees on steep slopes, watercourses, ravines and un-developable managed for retention wherever possible;
- wind throw and danger trees within the stream protection and enhancement areas assessed and considered;
- preservation of existing trees, woodlots and natural features wherever possible. Where trees of large size are retained, large groups or wide leave strips are preferred, including within the

seven stands of trees highlighted in Appendix IV(c), as these represent some of the better opportunities to retain such groups of trees;

- enhanced landscaping at the street level which will contribute to the continuity of landscaping between adjacent properties;
- stabilization of slopes (where existing) with ground cover and trees;
- selection of plant materials that is ecologically sound, appropriate for the existing and future site conditions and suitable for all seasons;
- consideration of the location of existing trees in the design of development plans prior to the submission of development applications;
- enforcement of tree protection measures during development; and
- consideration of a "no net loss of trees" policy through the planting of replacement trees.

Parks, Open Spaces and Natural Areas

Parks, wildlife corridors, and riparian areas amount to approximately 20.2 hectares (50.7 acres), or just over 11% of the total LAP area as illustrated in Appendix VIII. Existing parks and natural areas make up about 8.5 hectares (21.2 acres), while an estimated net area of 3.1 hectares (7.8 acres) of new neighbourhood parkland will need to be purchased using Parkland DCC funds. The remainder (approximately 8.8 hectares or 21.7 acres) of natural areas, including riparian corridors, are expected to be conveyed to the City as undevelopable lands at the time of development.

Existing Neighbourhood Parks

Existing neighbourhood parks include two parks with a total area of 1.1 hectares (2.7 acres). These areas are currently providing limiting amenity spaces such as passive lawn/open space and trails.

Proposed Neighbourhood Parks

A total of 3.1 hectares (7.8 acres) of additional neighbourhood parks are proposed within the LAP. Neighbourhood parks provide local park amenities to serve immediate residents and are located to be within walking distance of most residences. Neighbourhood park amenities may include:

- playgrounds;
- passive lawn/open space;
- sports courts (ball hockey/basketball);
- pathways/trails; and
- benches/picnic tables.

Three new or expanded neighbourhood parks are proposed, serving the western, central and eastern neighbourhoods of the Abbey Ridge LAP.

Existing Natural Areas

A total of 7.5 hectares (18.5 acres) of existing natural area parkland and open space is located within the LAP. Many of these natural area parks were dedicated to the City as part of "gross density" suburban and urban subdivisions approved in the area, or as riparian setback areas. These areas provide limited direct amenities, but contribute to the identity and sense of place for residents living nearby while providing important ecosystem services.

Proposed Natural Areas

A total of 8.8 hectares (21.7 acres) of additional natural area parkland is proposed within the LAP. Natural area parklands accommodate special natural amenities such as mature vegetation; watercourses, ravines or other landscape features worthy of preservation and can contribute to the open space and green infrastructure of the area. Proposed natural areas are made up of the following:

- Riparian areas along Class A, Class AO and Class B fisheries watercourse riparian areas that provide for limited or no public access, as their function is to protect sensitive habitat areas, including the land around all significant creeks. The final amount and location of riparian areas will be subject to the approval of the Surrey Riparian Area Bylaw and, at minimum, will comply with the federal *Fisheries Act* and provincial *Fish Protection Act*. Natural area amenities may include:
 - creeks and natural areas, including the protection of large canopy trees;
 - forest trails (adjacent to, but outside the fisheries setbacks); and
 - creek crossings where pathways or greenways cross a creek; and
- Significant tree retention areas dedicated to the City as parkland through the development process;
- Biodiversity Corridor areas, including linear parks and biodiversity corridors that provide natural areas and support wildlife movement through the plan area. Where these corridors include lands outside of riparian setbacks they may contain limited active park amenities such as:
 - natural areas, reforestation and re-naturalization;
 - pathways/trails; and
 - benches/rest areas and viewpoints along pathways and trails.

Lot Consolidation Areas

In some parts of the LAP lot consolidation may result in the more equitable development of multiple parcels of land. These areas have been identified through the plan process and are shown in Appendix IX. Lot consolidation may ensure that:

- future development results in the most efficient development of properties;
- dedication of strategic road connections supports the plan objectives;
- construction of off-site works and services costs are distributed equitably among developments;
- small acreage and irregular shaped lots have equitable development potential;

- cluster designation areas are built out strategically;
- shared road construction costs are provided where appropriate; and
- remnant lots that are not independently developable are avoided.

In the Lot Consolidation Areas shown in Appendix IX, developers will need to either consolidate the lots into a single development application, or:

- demonstrate that the planned development potential of all excluded properties is not compromised; and
- equitably allocate required road construction costs amongst the properties shown in the Lot Consolidation Area.

Specific consolidation opportunities can, in most circumstances, be determined on a case-by-case basis at development application stage; however, in general it is expected that individual sites be consolidated into one to two acre parcels as part of a comprehensive development application.

Naming of the NCP Area

The unique sense of identity, place, and community of a neighbourhood can be enhanced by a name that is associated with the history, heritage or a distinguishing feature of the area. During the public open house, residents were asked to identify a preferred name for the LAP area from a list of four potential names that was proposed by staff.

Based on feedback from the public meeting, "Abbey Ridge" was selected as the proposed LAP name for the area as documented in Appendix II(b). The existing Abbey Drive located within an existing suburban area of the LAP was significant in relation to this name, and will distinguish this neighbourhood within the larger Fraser Heights community area.

Overview of Engineering Servicing Infrastructure

Servicing Strategy

An engineering servicing analysis for water, sanitary sewer and drainage, as well as a financial plan for the LAP will be developed as part of the Stage 2 plan. The Stage 2 plan will also include a Traffic Impact Analysis that will identify the need for any network changes beyond the LAP area, but are partially attributable to development in the LAP area.

Only those works that normally form part of the City's development cost charge (DCC) program, such as major trunk sewer and grid water mains, collector and arterial roads, and major stormwater management infrastructure, will be included in the servicing strategy. Local engineering services will be addressed on a site-by-site basis during the development application review process, which is the usual practice of the City for Local Area Plans.

Proposed Road Network

The future road network illustrated in Appendix X, showing existing and proposed local, collector and arterial roads, as well as flex roads and greenways, is planned in accordance with the designated densities in the plan. The future road pattern attempts to establish a finer grained street pattern, while recognizing the established residential neighbourhood by retaining existing limited local roads. There are also flex local roads that are identified to reflect the need for new

municipal roads, but are flexible in terms of their alignment subject to detailed site planning during the individual development application process. All existing and future roads within the planned area will have sidewalks on both sides, and will provide on-street parking for future residents on the adjacent residential lots.

The Ministry of Transportation and Infrastructure is currently constructing the Golden Ears Connector, which connects the existing Golden Ears Way (at 96 Avenue), to the South Fraser Perimeter Road (at 104 Avenue). This future provincial highway will link to the plan area at intersections with 177A Street and 179 Street, which will both be signalized, and offer more efficient access and egress to Highway 1.

Transit

Currently, there are no existing transit service stops within the Abbey Ridge area. A local bus service is available to the west (at 104 Avenue and 168 Street), providing service to Fraser Heights, Guildford Town Centre and Port Kells. As a result of densification in the area, future bus service for the area needs to be considered. The City will be working with TransLink during Stage 2 to better define potential future bus service for the area.

For regional transit service, bus services along Highway 1 provides service to Langley, and Burnaby. The network of planned greenways, pathways, and the public road system will support effective circulation routes for walking and cycling within the community and to/from adjacent communities.

Greenways (Multi-use Pathways)

Several kilometres of new greenways are proposed within the Abbey Ridge LAP. These 4 metre wide pathways are proposed to connect and enhance several adjacent greenways serving the Fraser Heights area, including the Fraser Heights Greenway, Riverside Greenway and the Golden Ears Greenway; and provide important linkages to major regional parks such as Tynehead and Surrey Bend. In many areas the 4 metre wide pathway will be incorporated into an existing or future road right-of-way to enhance and expand typical sidewalk areas, resulting in an increase in road dedication of 2.5 to 2.7 metres. Where a proposed greenway is not adjacent to a road, it is expected that an 8 metre wide right-of-way will be provided at the time of development to incorporate the 4 metre wide paved greenway and adjacent landscaping.

Sanitary Sewer

Some parts of the LAP area are currently serviced by the City's sanitary sewer system, with the remaining areas serviced by private septic fields. In order to accommodate the proposed higher density development in the LAP area, the City's sanitary sewer system will need to be expanded and upgraded.

The portion of the LAP area that is currently serviced drains to the Big Bend Trunk Sewer. Flows to the Big Bend Trunk Sewer are conveyed to the Big Bend Sanitary Pump Station located at 104 Avenue and 176 Street. Sanitary flows are then pumped to Metro Vancouver's North Surrey Interceptor at 173 Street and 104 Avenue.

In addition to flows from existing developments within the LAP area, flows from the Port Kells industrial area, located to the east of the LAP, are pumped to the Big Bend Trunk Sewer. Both the Big Bend Trunk Sewer and Big Bend Pump Station are undersized and need to be upsized in order to support development of the Port Kells industrial area and the LAP area. In addition, the Big Bend Pump Station needs to be relocated as it is currently susceptible to flooding during the extreme Fraser River freshet. The relocation and upsizing of the Big Bend Pump Station is estimated to be completed in the next three to four years. There are currently no plans in place to upsize the Big Bend Trunk Sewer.

Upgrading the Big Bend Trunk Sewer to support development of the Port Kells industrial area and the LAP area will be challenging, if feasible, given that the existing sewers are located within narrow rights-of-ways (3 metre) on private properties that had been developed in the last 20 years.

As part of the Stage 2 Plan, analysis will be undertaken to identify the works required to support the development of both the Port Kells industrial area and the LAP Area, including consideration of future potential land uses that are not anticipated at this time. It is envisioned that analysis will include evaluating opportunities to upgrade or twin the Big Bend Trunk Sewer and opportunities to divert flows from the Port Kells industrial area from the Big Bend Trunk Sewer in an effort to free up capacity to support development of the LAP area. This will also include evaluating opportunities to divert Port Kells industrial area flow to North West Langley Wastewater Treatment Plant ("NWLWWTP"). If this approach is found to be feasible, the time to realize this opportunity may be in the distance future as it is likely dependant on improvements to the NWLWWTP by Metro Vancouver. Currently no properties in the City are serviced by the NWLWWTP.

While diverting flows from the Big Bend Trunk Sewer may free up capacity to support development of the LAP area, it will likely result in increased operational and maintenance costs as the flows generated from the LAP area alone will not be enough to produce adequate cleansing velocity in the Big Bend Trunk Sewer. To address this challenge, as part of the Stage 2 Plan, opportunities will also be evaluated to determine if some of the infrastructure already planned to support the development of a portion of the Anniedale-Tynehead NCP area can be revised so that some flows from the NCP area can be diverted north to the Big Bend Trunk Sewer. This opportunity, while helping to address an operational challenge by ensuring that there will be sufficient cleansing velocity, may also remove one of the challenges in advancing some development within the Anniedale-Tynehead NCP area.

The City's existing sewer infrastructure, including the Port Kells Pump Station, Big Bend Pump Station, Big Bend Trunk and Metro Vancouver's North Surrey Interceptor are illustrated in the map attached to this report as Appendix XI.

Stormwater

The existing storm sewers in the LAP drain to Leoran Brook, Lyncean Creek East, Lyncean Creek West and Centre Creek. These watercourses drain to the Fraser River. The City's stormwater infrastructure will need to be expanded to service the LAP increased density.

The LAP is in the Bon Accord – North Slopes Integrated Stormwater Management Plan ("ISMP") study area. The ISMP identifies onsite and offsite drainage mitigation measures for various land uses, as well as creek protection and restoration measures. The ISMP was completed in advance of the proposed development densities in the LAP.

The Stage 2 Plan analysis will confirm if the ISMP recommended measures are sufficient to support the further development of the LAP. The Stage 2 Plan will specify the onsite and offsite works required within the LAP and provide minimum building elevations for the industrial lands located in the 200-year Flood Plain.

The City's existing drainage infrastructure, including local watercourses, is illustrated in the map attached to this report as Appendix XII.

Water

Some parts of the LAP area are currently serviced by the City's water system, with the remaining areas serviced by private groundwater wells. In order to accommodate the proposed higher density development in the LAP area, the City's water system will need to be expanded.

The topography within the LAP area requires that two separate pressure zones be established. The majority of the LAP would be located in a lower pressure zone (90m), while the remaining area, due to higher ground elevations, would be located in a higher pressure zone (135 m).

Water supply to the area is currently provided by a feeder main on 96 Avenue, which is supplied by a direct connection to Metro Vancouver's transmission main on 164 Street at 95 Avenue. This feeder main does not have the capacity to support the proposed higher density development in the LAP area.

Lower Pressure Zone (90m)

A 400mm feeder main, connected to the existing pressure reducing station at Cherryhill Court will need to be extended to supply the 90m zone to support the existing area. This work is already identified in the current 10 Year Servicing Plan.

As part of the Stage 2 Plan, analysis will be undertaken to confirm if any further feeder main upgrades from the City's existing Whalley Pump Station are required. The Stage 2 Plan will also identify what distribution works are required within the LAP area.

Higher Pressure Zone (135m)

Currently, there is no City water infrastructure in this area. It may be possible to service the LAP area by expanding infrastructure already planned to support the development of the Anniedale-Tynehead NCP area.

As part of the Stage 2 Plan, analysis will be undertaken to confirm if the works already planned to support the development of the Anniedale-Tynehead NCP area can be upsized to support development within the LAP area. The Stage 2 Plan will also identify if there are other opportunities to supply the LAP area given that servicing from the Anniedale-Tynehead NCP area will be dependent on development within the NCP area. In addition, the Stage 2 plan will identify what distribution works are required within the LAP area.

The City's existing water infrastructure, planned infrastructure through the LAP area to support the development of the Anniedale-Tynehead NCP area and the proposed pressure zones are illustrated in the map attached to this report as Appendix XIII.

Financial Analysis and Implementation Plan for Engineering Infrastructure

The Stage 2 Plan will include a financial analysis to determine if the expected DCC revenues generated from the development of the LAP area are sufficient to cover the costs of servicing the LAP area. Should the analysis indicate that the expected DCC revenues are insufficient; the Stage 2 Plan will include a recommended financing approach.

Based on a cursory review of the expected DCC revenues and expected expenditures to support development of the LAP area, it is likely that there will be a DCC revenue shortfall for sanitary sewer and potentially for water for the higher pressure zone.

In addition to the financial analysis, the Stage 2 Plan will also include an implementation plan for each component of engineering infrastructure in an effort to minimize the investment required to support initial development within the LAP area.

Amenity Contribution Requirements

In accordance with City policy, to address the amenity needs of the proposed new residents in Secondary Plan areas such as NCPs and LAPs, all future development proposals at the time of rezoning or building permit issuance will be required to make a monetary contribution toward the provision of new police, fire protection and library services and toward the development of the parks, open spaces and pathways.

The monetary contributions toward police, fire and library materials will offset the capital costs of providing these services to the new development and are applied on a standardized basis in all of Surrey's Secondary Plan areas. The monetary contributions toward parks, open spaces and pathway development are based on an estimate of the capital costs of these improvements for this particular LAP area. The total estimated cost is divided by the average anticipated number of new dwelling units (and acreages in the case of non-residential development) to ensure an equitable contribution arrangement. The amenity contributions will be payable upon subdivision for single-family subdivisions or upon issuance of building permits for multiple development and other uses.

Amenity Contribution Rates have not yet been finalized, but estimated rates have been projected based on the average projected amount of new residential development, as illustrated in the table below. Final LAP Amenity Contribution rates will be provided as part of the Future Stage 2 works outlined in this report as is typical for secondary land use plans.

Table 3 – Estimated Abbey Ridge LAP CAC Rates

"DRAFT" STAGE 1 – COMMUNITY AMENITY CONTRIBUTIONS*			
Community Amenity	Per Unit Contribution All Residential (Approx. 1,166 additional dwelling units @ average density)	Per Acre Contribution All Non-Residential Uses	Anticipated Total Revenue at Build Out
Police Protection	\$64.39 per dwelling	\$257.56 per acre	\$75,078.74
Fire Protection	\$278.12 per dwelling	\$1,112.48 per acre	\$324,287.92
Development of Parks & Pathways	\$1,450.00 per dwelling	n/a	\$1,690,700.00
Library Materials	\$144.84 per dwelling	n/a	\$168,883.44
Total Contribution (per unit or per acre)	\$1,937.35 per dwelling	\$1,370.04 per acre	

Future Development Applications

The current OCP designation and the existing zoning in many portions of the LAP may not permit the development of the densities envisioned in the Stage 1 Land Use Concept plan. As such, the plan densities envisioned will occur through individual land development applications brought forward by developers that will include an OCP amendment, rezoning and subdivision consistent with the land uses and densities set out in the a Stage 1 Council approved Land Use Concept. In addition, in some cases a Regional Growth Strategy ("RGS") amendment may be required where areas are amended from industrial to residential uses.

The public elements of the LAP (parks, streets and greenways) will be secured through the development approval process by dedication or by purchase with funds generated from development in the area or through other agreements.

Next Steps

In order to commence the planning process for the Stage 2 component of the LAP, staff will resolve all outstanding issues, including:

- confirming the block sizes for some of the single family, multiple residential and cluster residential sites and, if necessary, adjusting the plan to ensure the block sizes will allow for efficient site layouts, including lot consolidation areas;
- determining the estimated cost of the "greenspace" and preparing a financing strategy to acquire the lands;

- confirming the details, requirements and cost estimates of the engineering servicing and transportation infrastructure improvements; and
- preparing a servicing plan and financial strategy including DCC and Amenity Contribution Rates and any other special levies and/or charges.

Additional items to be addressed in Stage 2 include the following:

- prepare development policies and design guidelines for the various land uses and features such as greenways, walkways, selected streets, and buffers, shown on the Stage 1 Land Use Concept Plan;
- establish the list of amenities that are needed to serve the population of the LAP area, including park development, fire and police protection services and library needs, develop cost estimates to provide these amenities and establish the appropriate amenity contributions required from each new development in the LAP area towards the provision of the amenities;
- finalize the engineering servicing plans, cost estimates and anticipated DCC revenues, and prepare a financing and implementation strategy including options to address any anticipated shortfall between the costs and DCC revenues; and
- prepare an implementation strategy to guide the development of this LAP area in keeping with the LAP's Vision, Planning Principles and the Stage 1 land Use Concept Plan.

It is estimated that upon Council approval of the Stage 1 Abbey Ridge Land Use Concept, the Stage 2 components of the LAP will take approximately eight months to complete. The Stage 2 consultation component will include one additional public open house meeting with the neighbourhood prior to a final servicing strategy and LAP document being provided for Council's consideration and approval in the summer of 2016.

Processing of Development Applications within the LAP

As has been the City's practice in other Secondary Plan areas, it is recommended that Council authorize staff to receive and process development applications for properties within the East Fraser Heights LAP on the basis of the Stage 1 Land Use Concept, as illustrated in Appendix I, provided that any such application not proceed to Council for final approvals until the Stage 2 component of the LAP planning process is completed and approved by Council, and servicing of sites can be demonstrated by individual development applications.

SUSTAINABILITY CONSIDERATIONS

The comprehensive and sequential planning of urban neighbourhoods incorporating land use, transportation, parks, schools, environmental protection, and the servicing and financing of growth responds to a number of the objectives in the City's Sustainability Charter; more particularly:

- EN9: Sustainable Land Use Planning and Development Practices; and
- EN8: Sustainable Engineering Standards and Practices.

CONCLUSION

Based on the above discussion it is recommended that Council:

- Approve the Stage 1 Land Use Concept for the East Fraser Heights LAP, as described in this report and shown in Appendix I (to be named the "Abbey Ridge" LAP);
- Authorize staff to proceed with all necessary actions associated with the preparation of the Stage 2 component of the Abbey Ridge LAP as generally described in this report;
- Authorize staff to receive and process development applications for properties within the Abbey Ridge LAP on the basis of the Stage 1 Land Use Concept, as illustrated in Appendix I, provided that any such application not proceed to final approval until the Stage 2 component of the LAP is completed and approved by Council; and
- Authorize staff to forward a copy of this report and the related Council resolutions to the Fraser Heights Community Association.

Original signed by
Jean Lamontagne
General Manager,
Planning and Development

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

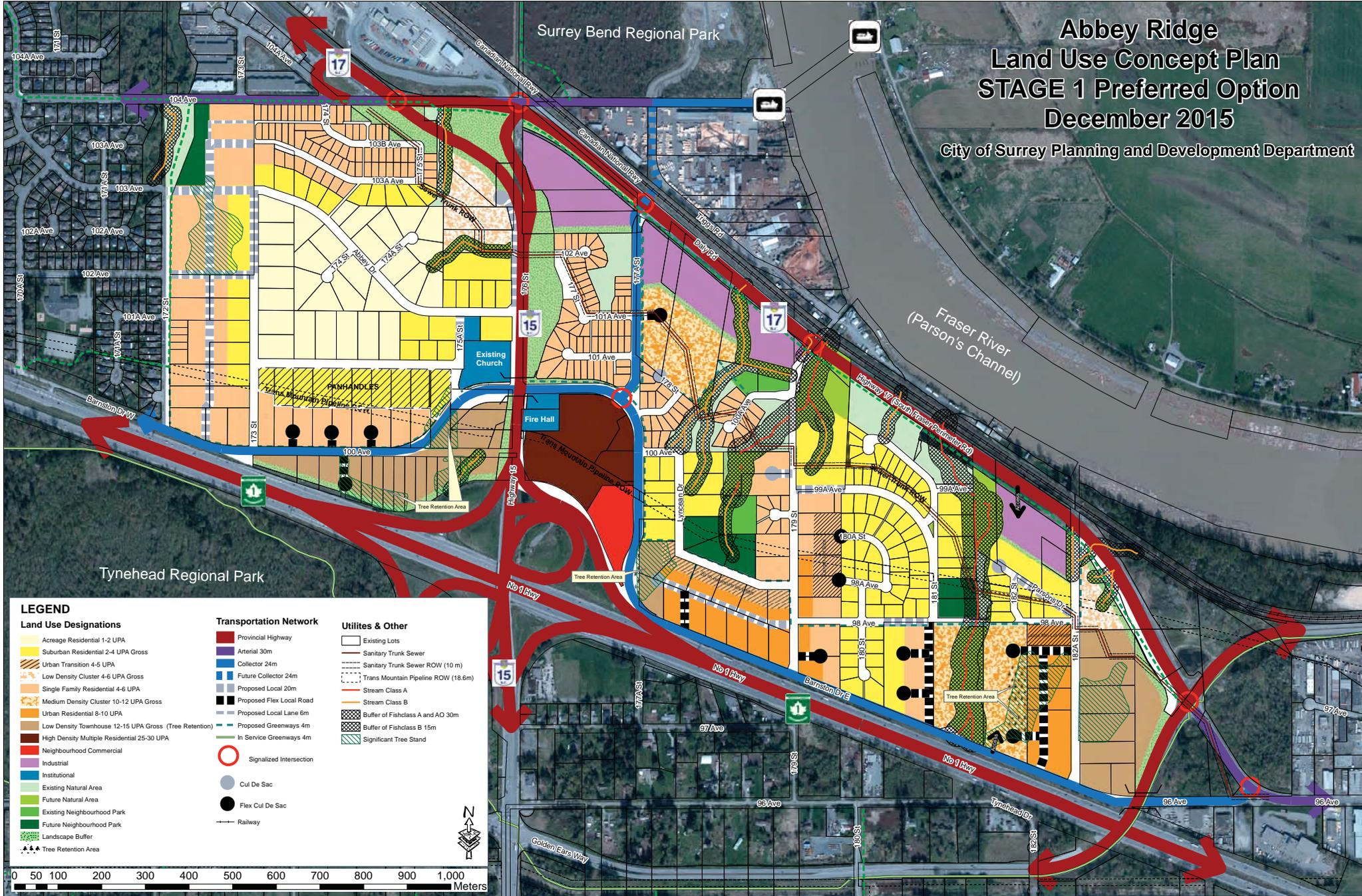
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Attachments:

Appendix I	Abbey Ridge LAP Preferred Stage I- Land Use Concept
Appendix II(a)	Planning and Public Consultation Process and Feedback Summary June 2015
Appendix II(b)	Planning and Public Consultation Process and Feedback Summary Oct 2015
Appendix III	Abbey Ridge LAP Boundary and Context Map
Appendix IV(a)	East Fraser Heights Watercourse Classifications Map
Appendix IV(b)	East Fraser Heights Terrestrial Habitat Priorities Map
Appendix IV(c)	East Fraser Heights Significant Forest Stands Map
Appendix V	Abbey Ridge LAP Vision and Planning Principles
Appendix VI	Stage I Land Use, Residential Unit and Population Projections
Appendix VII	Abbey Ridge LAP Growth Potential Areas
Appendix VIII	Abbey Ridge Stage 1 LAP Parks and Natural Areas Map
Appendix IX	Abbey Ridge Stage 1 Proposed LAP Consolidation Areas Map
Appendix X	Abbey Ridge Stage 1 LAP Transportation Network Plan
Appendix XI	Abbey Ridge Stage 1 LAP Significant Sanitary Sewer Infrastructure
Appendix XII	Abbey Ridge Stage 1 LAP Significant Stormwater Infrastructure
Appendix XIII	Abbey Ridge Stage 1 LAP Significant Water Distribution Infrastructure

Abbey Ridge Land Use Concept Plan STAGE 1 Preferred Option December 2015

City of Surrey Planning and Development Department



LEGEND

Land Use Designations	Transportation Network	Utilities & Other
<ul style="list-style-type: none"> Acreage Residential 1-2 UPA Suburban Residential 2-4 UPA Gross Urban Transition 4-5 UPA Low Density Cluster 4-6 UPA Gross Single Family Residential 4-6 UPA Medium Density Cluster 10-12 UPA Gross Urban Residential 8-10 UPA Low Density Townhouse 12-15 UPA Gross (Tree Retention) High Density Multiple Residential 25-30 UPA Neighbourhood Commercial Industrial Institutional Existing Natural Area Future Natural Area Existing Neighbourhood Park Future Neighbourhood Park Landscape Buffer Tree Retention Area 	<ul style="list-style-type: none"> Provincial Highway Arterial 30m Collector 24m Future Collector 24m Proposed Local 20m Proposed Flex Local Road Proposed Local Lane 6m Proposed Greenways 4m In Service Greenways 4m Signalized Intersection Cul De Sac Flex Cul De Sac Railway 	<ul style="list-style-type: none"> Existing Lots Sanitary Trunk Sewer Sanitary Trunk Sewer ROW (10 m) Future Collector 24m Trans Mountain Pipeline ROW (18.6m) Stream Class A Stream Class B Buffer of Fishclass A and AO 30m Buffer of Fishclass B 15m Significant Tree Stand

0 50 100 200 300 400 500 600 700 800 900 1,000 Meters

V:\Policy\Long Range\GIS_ANALYSIS\FRASER_HEIGHTS\East_Fraser_heights_Abbey_Ridge\LAND_USE_PLAN

**EAST FRASER HEIGHTS (ABBEY RIDGE) LAND USE CONCEPT PLAN
PUBLIC OPEN HOUSE – JUNE 25, 2015
COMMENT SHEET SUMMARY**

Approximately 132 people attended the East Fraser Heights Land Use Concept Plan Public Open House held on June 25, 2015 at Fraser Heights Recreation Centre. To date, the Planning & Development Department has received 31 completed feedback forms, representing comments from 25 properties in the study area or within approximately 1.3 km of the study area. Below is a summary of the comments received from the 24 property owners, including the top 5 responses identified in **red**.

A. THE TOP SIX 'PLANNING PRIORITIES' FOR A LAND USE PLAN IN THE ABBEY RIDGE AREA, INCLUDED:

- | | |
|---|--------------|
| 1. Appropriate Interface with established residential neighbourhoods | (64%) |
| 2. Parks, Trails and connections to existing large parks | (60%) |
| 3. Transportation Network Connections | (48%) |
| 4. Creation of Sub-Neighbourhoods and /or a Neighbourhood Centre | (44%) |
| 5. Environmental Protection | (36%) |
| 6. Appropriate Interface to Transportation Corridors | (20%) |

B. THE FEATURES RESIDENTS HOPE TO SEE AS PART OF THE LAND USE PLAN FOR THIS AREA, INCLUDED:

- | | |
|---|---------------------|
| <input checked="" type="checkbox"/> Preservation of Greenspace | 10 responses |
| <input checked="" type="checkbox"/> More Transit | 7 responses |
| <input checked="" type="checkbox"/> Higher Density | 6 responses |
| <input checked="" type="checkbox"/> Some Increased Density on Existing Large Lots | 5 responses |
| <input checked="" type="checkbox"/> A Neighbourhood Centre | 4 responses |
| <input type="checkbox"/> Large Acreage Lot Preservation | 4 responses |
| <input type="checkbox"/> Medium Density Single Family development | 3 responses |
| <input type="checkbox"/> Smaller Single Family Lots | 3 responses |
| <input type="checkbox"/> Interface with existing and established residential neighbourhoods | 3 responses |
| <input type="checkbox"/> Affordable Housing | 3 responses |
| <input type="checkbox"/> Playgrounds | 3 responses |
| <input type="checkbox"/> Traffic Calming | 3 responses |
| <input type="checkbox"/> Sidewalks | 3 responses |
| <input type="checkbox"/> Interface to Transportation Corridors | 2 responses |
| <input type="checkbox"/> Access to Major Roads | 2 responses |
| <input type="checkbox"/> Good Mix of Housing Forms to Create Strong Community | 2 responses |
| <input type="checkbox"/> Transition Between Low and High Density Areas | 1 response |
| <input type="checkbox"/> Adult Townhomes | 1 response |
| <input type="checkbox"/> Bike Lane | 1 response |
| <input type="checkbox"/> Recreation Facility | 1 response |
| <input type="checkbox"/> Preserve Views | 1 response |

C. THE TOP THINGS RESIDENTS DO NOT WANT TO HAPPEN AS PART OF THE LAND USE PLAN FOR THIS AREA, INCLUDE:

- | | |
|--|--------------------|
| <input checked="" type="checkbox"/> High Density (Apartments, Townhouses) | 8 responses |
| <input checked="" type="checkbox"/> Mega-houses with Multiple Suites / Secondary Suites | 5 responses |
| <input checked="" type="checkbox"/> Destruction of Green Space/Trees | 4 responses |
| <input checked="" type="checkbox"/> More Traffic Congestion | 3 responses |
| <input checked="" type="checkbox"/> Neighbourhood Decline | 3 responses |
| <input type="checkbox"/> Low Density | 2 responses |
| <input type="checkbox"/> Lack of Mixture of Housing Density | 2 responses |
| <input type="checkbox"/> Urban Sprawl | 1 response |

<input type="checkbox"/> <i>Greenspace</i>	<i>2 responses</i>
<input type="checkbox"/> <i>Incomplete Connector Roads</i>	<i>1 response</i>
<input type="checkbox"/> <i>Lack of Access to Parks and Trails</i>	<i>1 response</i>
<input type="checkbox"/> <i>Land Use Plan That Does Not Meet the Needs of the Community</i>	<i>1 response</i>
<input type="checkbox"/> <i>Under Representation for Residents East of 176 St</i>	<i>1 response</i>
<input type="checkbox"/> <i>Lack of Consultation</i>	<i>1 response</i>
<input type="checkbox"/> <i>Transient / Tourist Trailer Park</i>	<i>1 response</i>
<input type="checkbox"/> <i>Truck Parking Lot</i>	<i>1 response</i>
<input type="checkbox"/> <i>Developments Such as the One at 176 St and Barnston</i>	<i>1 response</i>

Other General Feedback included:

- Ensure adequate Consultation with land owns from within the plan area*
- City Regulation of Train Whistles*
- Provide housing for Existing Aging Demographic and Neighbourhood renewal*

**EAST FRASER HEIGHTS (ABBAY RIDGE) LAND USE CONCEPT PLAN
PUBLIC OPEN HOUSE – OCTOBER 1, 2015
COMMENT SHEET SUMMARY**

Approximately 276 people attended the second East Fraser Heights Land Use Concept Plan Public Open House held on October 1, 2015 at Fraser Heights Recreation Centre. The Planning & Development Department received 92 completed feedback forms, representing comments from the owners of 42 properties within the East Fraser Heights boundary, 7 properties within 100 m of the boundary, and 43 properties outside these areas. Below is a summary of the comments received from the 49 properties within the East Fraser Heights boundary and within 100 m of the boundary. The Top answers in each category are highlighted in **red**.

Residency in East Fraser Heights (within the EFH boundary, based on mailing address):

- **38/49 lots are residents in East Fraser Heights** (78%)
- 11/49 lots are not residents in East Fraser Heights (22%)

A. Do the Draft Vision and Planning Principles for East Fraser Heights align with your ideas about how you would like to see it in the future (the next 5-25 Years)?

1. **Higher Density needed Along Barnston Dr E, Lyncean 179St, and East of 177A St** (26%)
2. **Yes, I Support Draft Vision and Principles** (22%)
3. **More Housing Choice and Affordable Housing Options needed** (20%)
4. **Lower Density areas need to be maintained** (20%)
5. **More Parks/Green Spaces needed** (16%)
6. Higher Density in general is needed (14%)
7. More Road improvement/Transit needed (10%)
8. Higher Density along Daily Road needed (6%)
9. Additional Schools Resources needed (4%)

B. Neighbourhood LAP Name?

1. **Abbey Ridge** (51%)
2. Barnston Heights (39%)
3. Abbey Glen for west of 176 St and Abbey Ridge for east of 176 St (2%)
4. East Fraser Heights (2%)
5. Fraser Heights Estates (2%)

C. What features do you like?

1. **Like the New Parks proposed** (35%)
2. **Like Focus on Single Family Lower Density** (28%)
3. **Like Higher Density Alternative Housing Options** (20%)
4. **Like limited/No Lanes and limits on road grid** (18%)
5. **Like Density Distribution / Transitions** (12%)
6. Housing Choices (2%)
7. Servicing Strategy (2%)
8. Meets resident's needs (2%)
9. Happy with Planning for Area (2%)

D. Do you Support the Draft Land Use Concept (LUC) Plan?

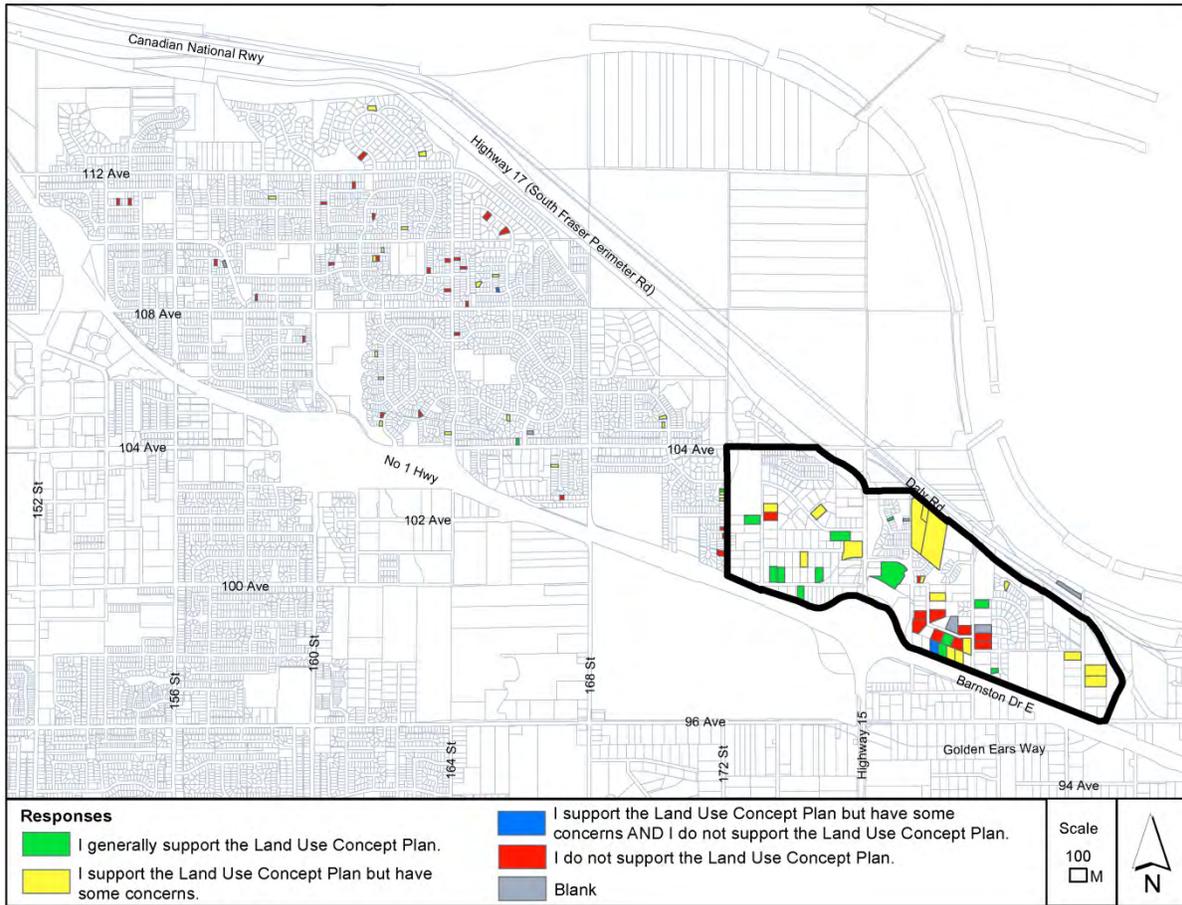
1. **Yes, I Support LUC Plan with some Concerns** (38%)
2. **Yes, I Support LUC Plan** (30%)
3. No, I Do not Support LUC Plan (23%)
4. No Comment (5%)

I Support the Land Use Concept Plan because...

- Long term housing is needed and provided;
- Cleans up the area;
- Benefits existing and new residents;
- There are too many vacant and empty lots that are unsightly;
- Some Townhouses would improve look of area.

I Support the Lane Use Concept Plan but...

- Need to consider including Some Higher density in East and South areas
- Don't like townhomes, prefer Single Family transition
- Townhomes already built are not working
- Don't see any 8-12 Story Apartments
- Single family only areas



E. What location do you prefer for the Lyncean Drive Park Site?

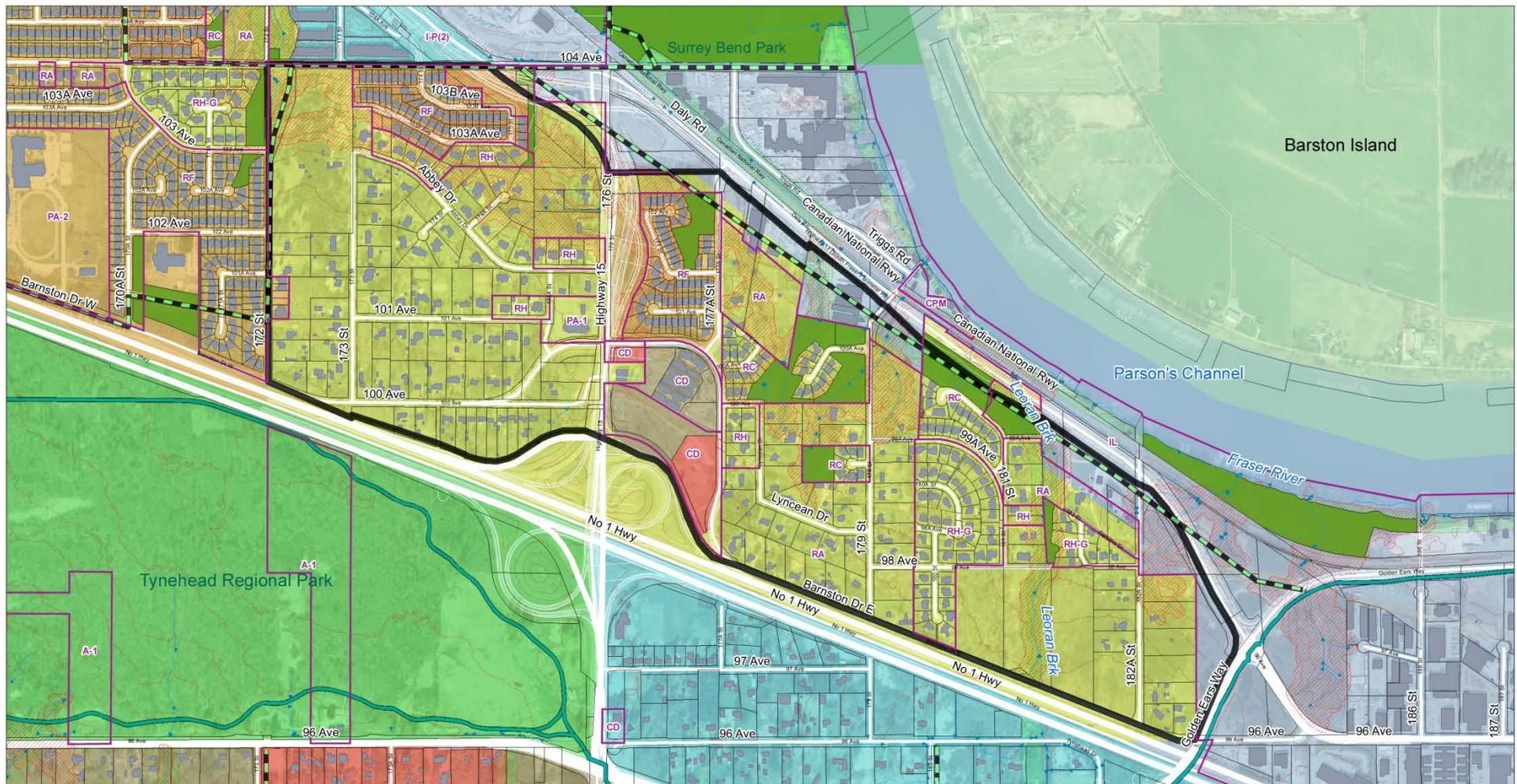
1. **Western Location** (51%)
2. Eastern Location (Alternative) (22%)

F. What concerns do you have about the plan?

1. **Density too Low [Daily Road, South of Lycean Dr, and along Barnston and 100 Ave]** (43%)
2. **Density too High [high density THs, RF-12/RF-10s/ Condos]** (39%)
3. **Traffic congestion created and better access to Highways needed** (16%)
4. **More Transit Needed** (10%)
5. **Greenways and Sidewalks Needed** (8%)
6. Ensure Commercial Areas Built (4%)
7. School Capacity (4%)
8. Plan for Younger Generations (4%)
9. Train Noise (4%)
10. Loss of Wildlife Habitat (2%)

G. General Comments

- Do not let General Concerns about Increased Density Hinder more density in Certain Logical Locations;
- Good Plan
- Could not hear presentation well, perhaps a better sound system?
- No Cul-de-Sacs, make the area more attractive.
- Preserve views with higher density in South decreasing to Lower Density in North
- Plan will help owner decide if they want to stay, or sell.
- Please clarify land use east of 172 Street south of 104 Ave.
- Trans Mountain Pipeline Environmental Concerns need to be addressed



East Fraser Heights / Abbey Ridge Base Map

Legend

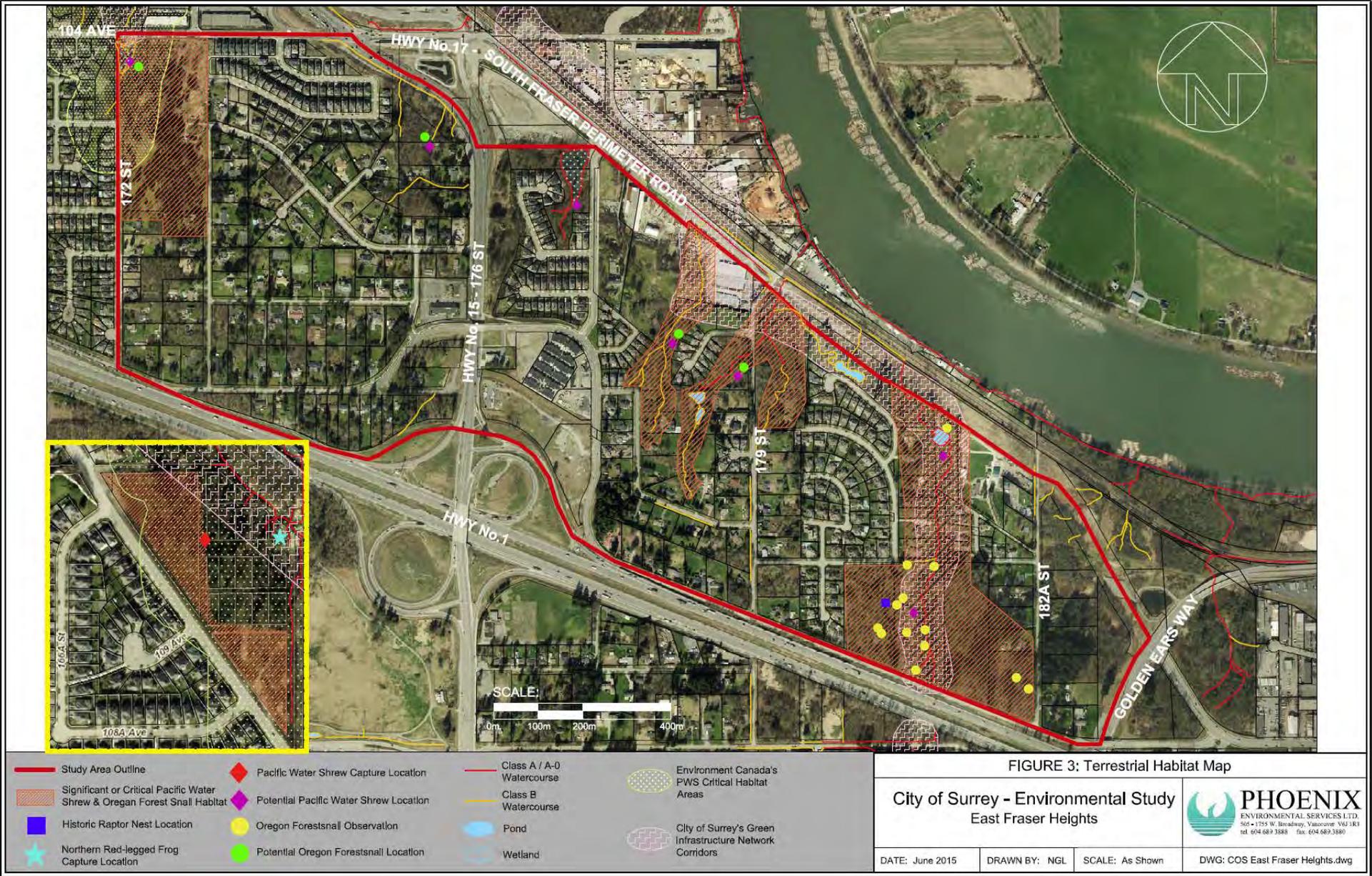
- East Fraser Heights / Abbey Ridge
- Utility ROW
- Lots
- Building Shadow
- Zoning Boundaries
- Contours - 5 metre
- Parks
- Existing Greenway
- Proposed Greenway
- Steep Slope Hazards DPA
- Biodiversity Corridors
- Watercourses
- Suburban
- Suburban - Urban Reserve
- Urban
- Multiple Residential
- Commercial
- Industrial
- Mixed Employment
- Conservation and Recreation



- Study Area Outline
- Class A or A(0) Watercourse
- Pond
- Class B Watercourse
- Artesian Well
- Wetland
- Class C Watercourse

FIGURE 2: Watercourse Classification Map

City of Surrey - Environmental Study East Fraser Heights		 PHOENIX ENVIRONMENTAL SERVICES LTD. <small>505 • 1755 W. Broadway, Vancouver V6J 1R3 tel. 604-689-3385 fax. 604-689-3380</small>
DATE: June 2015	DRAWN BY: NGL	
DWG: Fig.1 - Study Area Map.dwg		





SCALE:
0m 100m 200m 400m

 Study Area Outline

 Significant Forest Stands

 Giant Redwood Location

 Monkey Puzzle Location

 Oak Location

FIGURE 4: Tree Study Map

City of Surrey - Environmental Study
East Fraser Heights



DATE: June 2015

DRAWN BY: NGL

SCALE: As Shown

DWG: Fig.1 - Study Area Map.dwg

Abbey Ridge LAP - Neighborhood Vision

To determine a neighbourhood vision for the Abbey Ridge LAP, residents were asked what the neighbourhood was like before, what it is like currently, and what they want the neighbourhood to be like in the next five to twenty five years. A draft vision statement was then created based on the key words and feedback received during the consultation process for the LAP and based on sustainable development and sensitive infill best practices, as identified below:

“East Fraser Heights will continue to be an attractive community whose growth is planned to respect and complement the character of existing residents and the unique location of the area in the City. Building design will respect the scale and character of the neighbourhood, while providing for a range of ground oriented housing types and choices. Appropriate design will promote compatibility of new development with existing, with higher density housing primarily on appropriate sites along Barnston Drive, and adjacent to Highway 1 and Golden Ears Way. Appropriate setbacks and transition in building heights and scale will be encouraged along the edges of lower density residential areas.

The preservation of key natural areas, wildlife passages, large trees, and a respectful transition between urban and natural areas is encouraged, with lower density and cluster forms of housing surrounding environmentally sensitive lands. Access to nature and recreation will be provided through parks and greenways connections provided through the centre of the community, with greenway connections continued to the West Fraser Heights area and to neighbouring Regional and City parks. Incorporation of Green spaces and the clustering of homes along riparian areas, steep slopes and areas of high value tree stands is favoured in order to buffer the impact of urban development on environmentally sensitive areas. The local history, heritage, and unique character of the Neighbourhood will be respected and promoted in the creation of new places.”

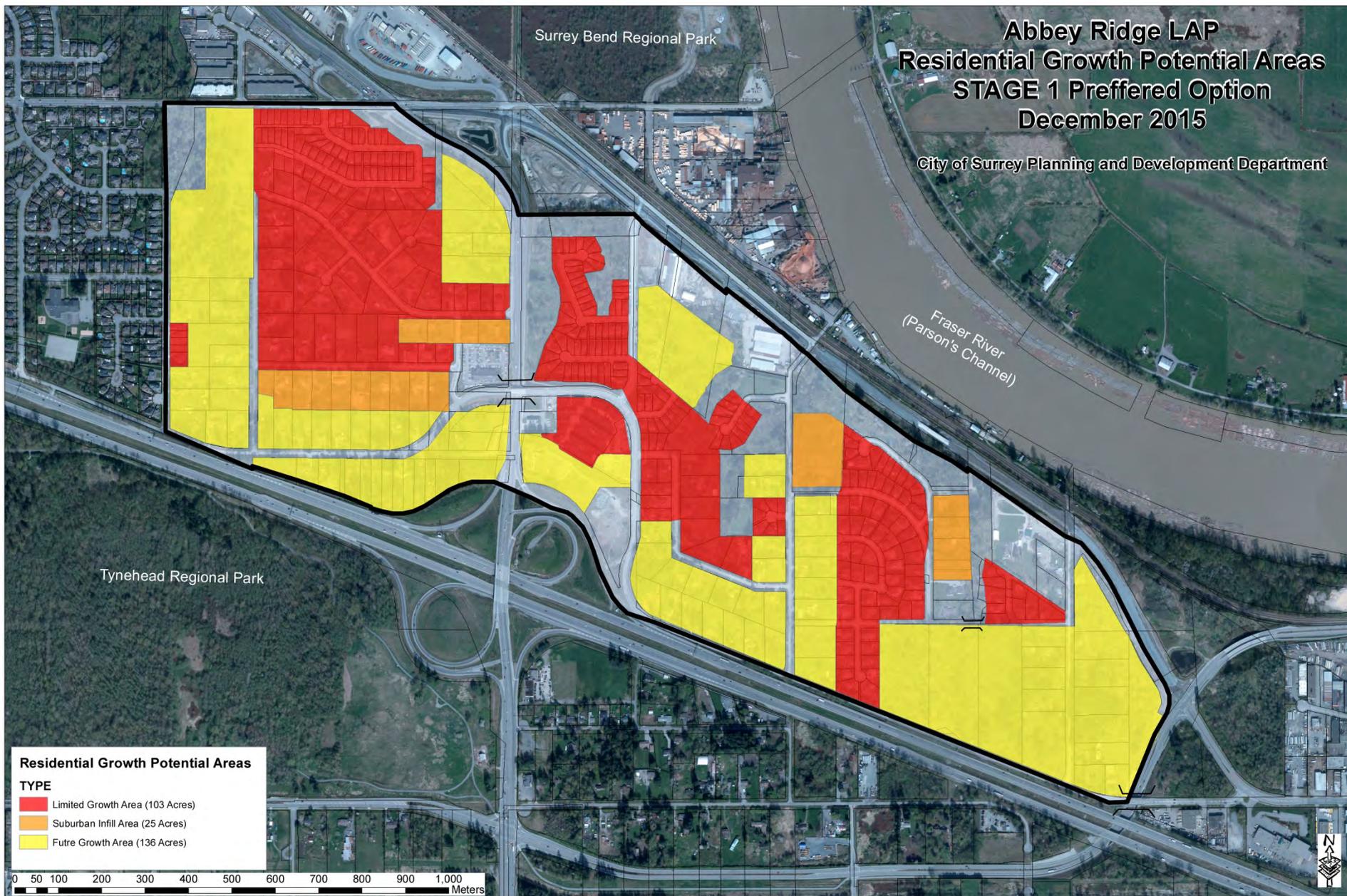
Abbey Ridge LAP - General Planning Principles

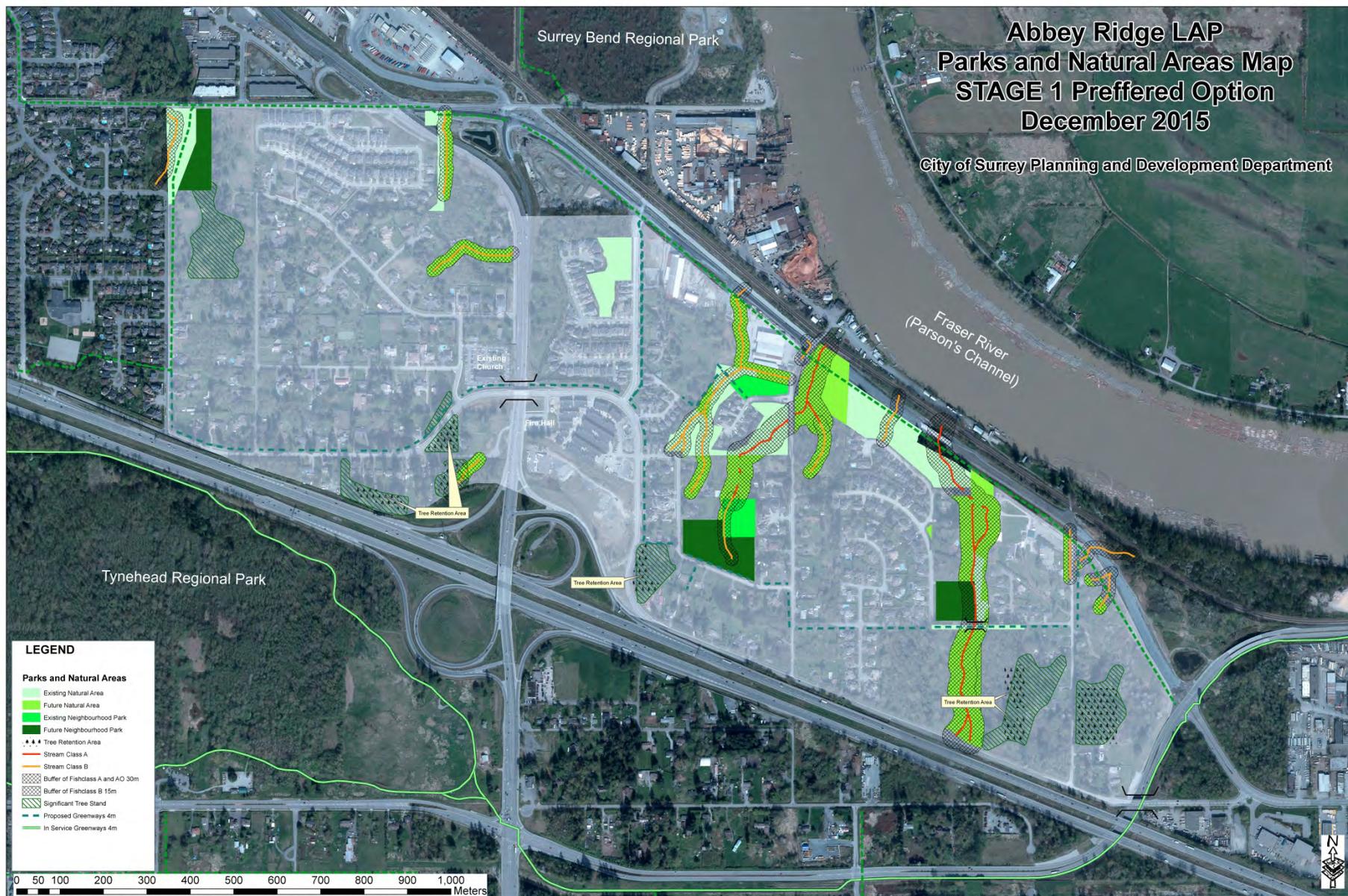
Eight (8) Planning Principles were developed to guide the Stage I Land Use Concept Plan during the consultation process, and included:

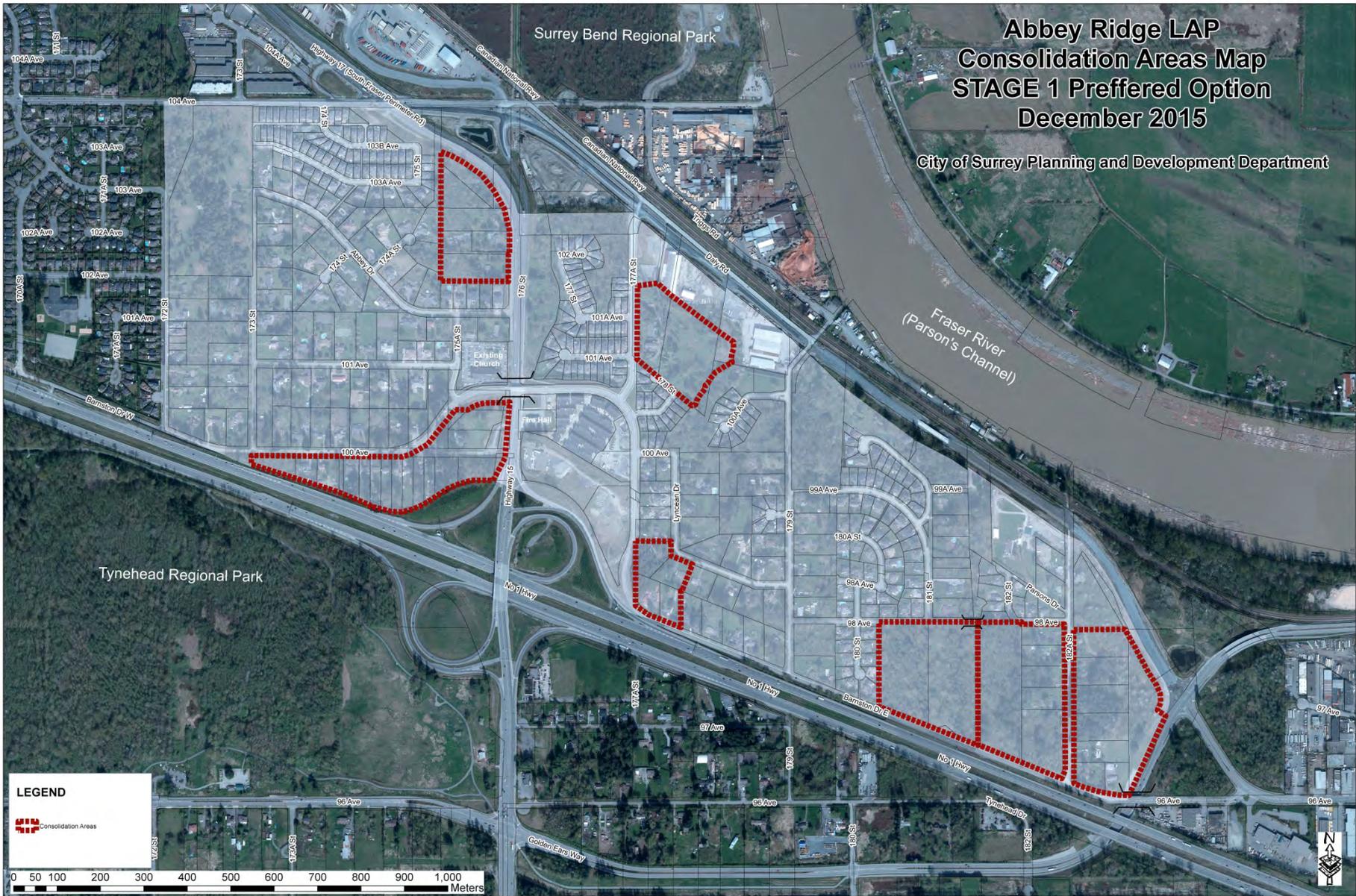
1. Retain and protect existing established and stable suburban neighbourhoods.
2. Provide an appropriate interface between new and established neighbourhoods through compatible density, form and scale of housing, and through landscape and natural buffers.
3. Protect riparian areas and wildlife corridors through dedication or land purchase, and retain significant stands of trees where feasible on development sites.
4. Provide for housing choice through selected areas of higher density along the Highway 1 corridor, supporting transit service and local retail.
5. Develop an integrated local road network providing connections within the plan area, and connections to the surrounding areas.
6. Develop a network of pedestrian and cycling routes, including connections to the Fraser Heights Greenway and to adjacent regional parks.
7. Locate and develop neighbourhood parks in each sub-area, serving local residents.
8. Develop a servicing strategy and financial strategy that ensures an equitable and sufficient contribution for development to infrastructure improvements and community amenities.

Abby Ridge LAP – Stage 1 Preferred Option Buildout Unit and Population Scenario December 2015

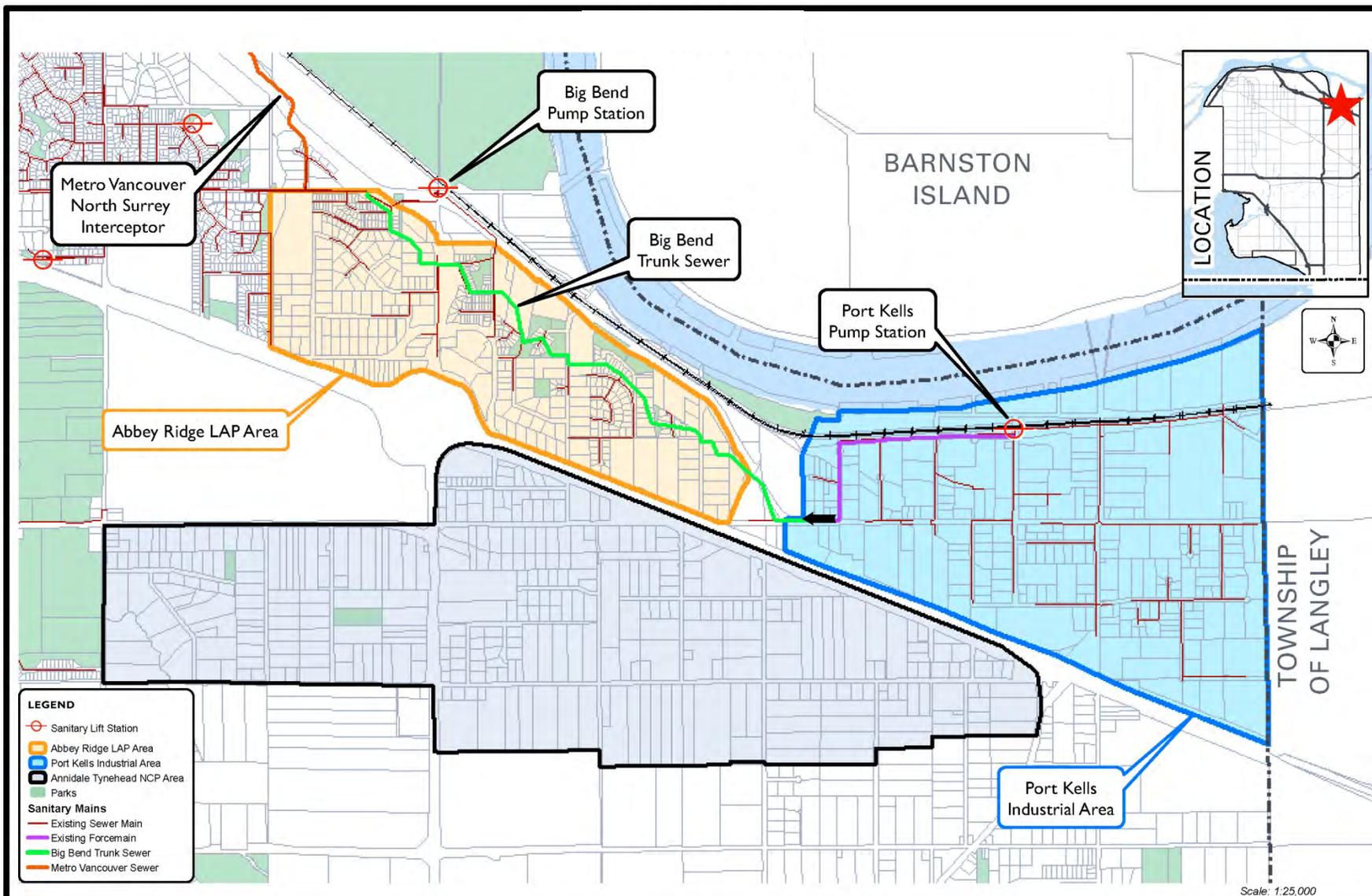
Land Use Designation	Acres	Area %	Existing Residential Units	Projected		Existing Population	Projected		Number of Existing Secondary Suites	Projected Secondary Suites	Existing Secondary Suite Population
				Low New Units	High New Units		Low New Population	High New Population			
Road Right of Way	109.9	24%	0	0	0	0	0	0	0	0	0
Landscape Buffer	17.4	4%	0	0	0	0	0	0	0	0	0
Existing Natural Area	18.5	4%	0	0	0	0	0	0	0	0	0
Future Natural Area	21.7	5%	0	0	0	0	0	0	0	0	0
Existing Neighbourhood Park	2.7	1%	0	0	0	0	0	0	0	0	0
Future Neighbourhood Park	7.8	2%	0	0	0	0	0	0	0	0	0
Industrial	21.3	5%	0	0	0	0	0	0	0	0	0
Institutional	5.0	1%	0	0	0	0	0	0	0	0	0
Neighbourhood Commercial	3.7	1%	0	0	0	0	0	0	0	0	0
Acreage Residential 1-2 UPA	30.9	7%	29	29	29	104	104	104	0	23	0
Suburban Residential 2-4 UPA Gross Density	66.1	15%	133	181	227	477	644	798	24	97	46
Urban Transition 4-5 UPA	2.8	1%	5	11	14	17	37	46	0	11	0
Low Density Cluster 4-6 UPA Gross Density	7.3	2%	4	29	44	14	105	157	1	29	2
Single Family Residential 4-6 UPA	65.3	14%	192	317	396	689	1,112	1,378	105	253	201
Urban Residential 8-10 UPA	16.1	4%	23	129	161	80	351	439	2	129	4
Medium Density Cluster 10-12 UPA Gross Density	16.9	4%	1	169	203	4	465	558	0	169	0
Low Density Multiple Residential 10-15 UPA Gross Density	27.3	6%	19	273	410	67	753	1,129	3	273	6
High Density Multiple Residential	11.4	3%	116	267	267	316	726	726	0	0	0
Grand Total	452.2	100%	522	1,406	1,750	1,767	4,297	5,336	135	984	258







V:\Policy\Long Range\GIS_ANALYSIS\FRASER_HEIGHTS\Exit_Fraser_Height_Abbey_Ridge\LAND_USE_PLAN

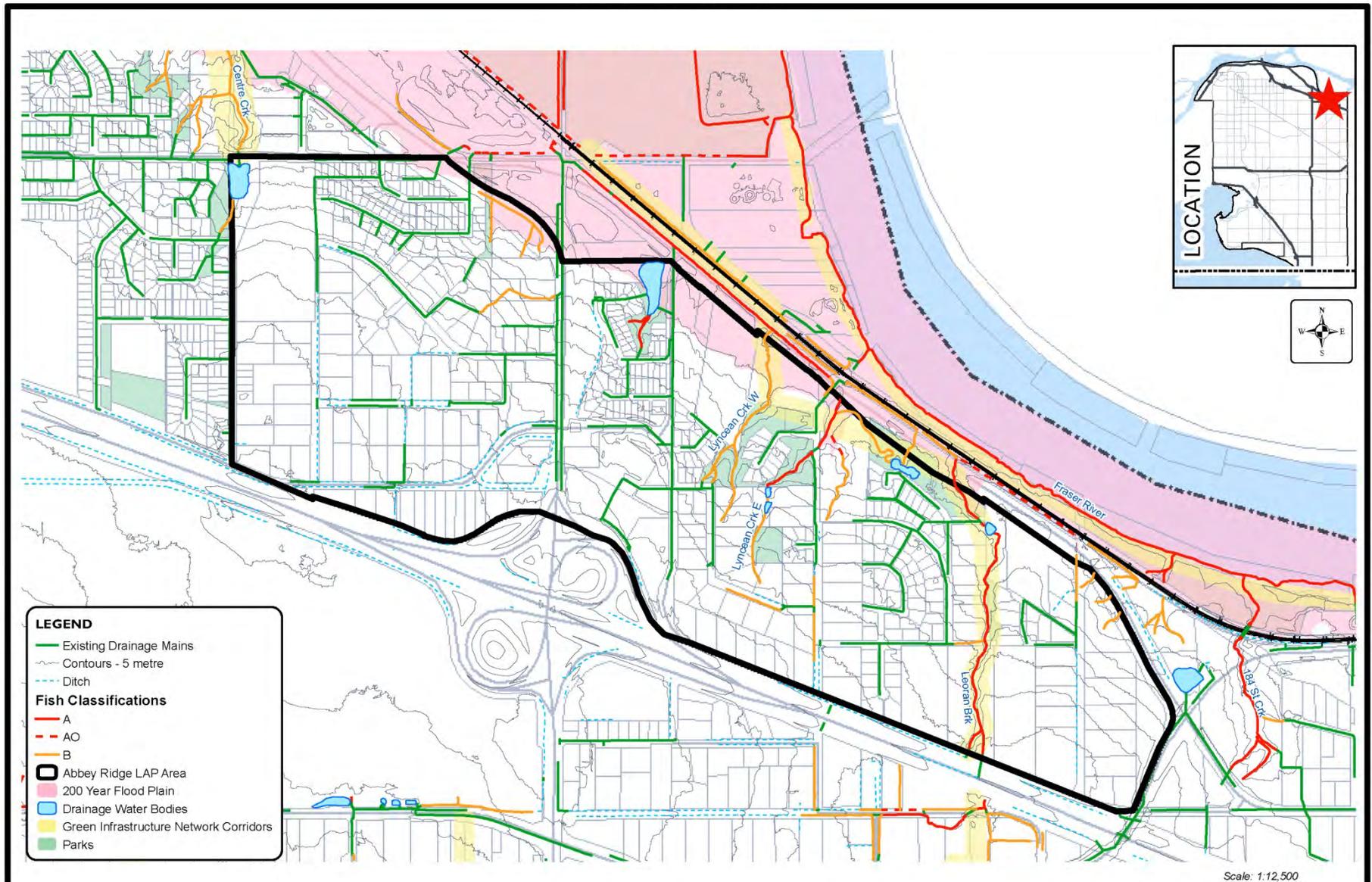


Abbey Ridge Stage 1 LAP
Significant Sanitary Sewer Infrastructure

ENGINEERING
DEPARTMENT

The data provided is compiled from various sources and IS NOT warranted as to its accuracy or sufficiency by the City of Surrey. This information is provided for information and convenience purposes only. Lot sizes, Legal descriptions and encumbrances must be confirmed at the Land Title Office.

Source: G:\MAPPING\GIS\Maps\CorporateReps\Utility\EM_AbbeyRidgeLAPServicingSewer-AL.mxd
Cartographer: em9 Date: 01-Dec-2015 © City of Surrey

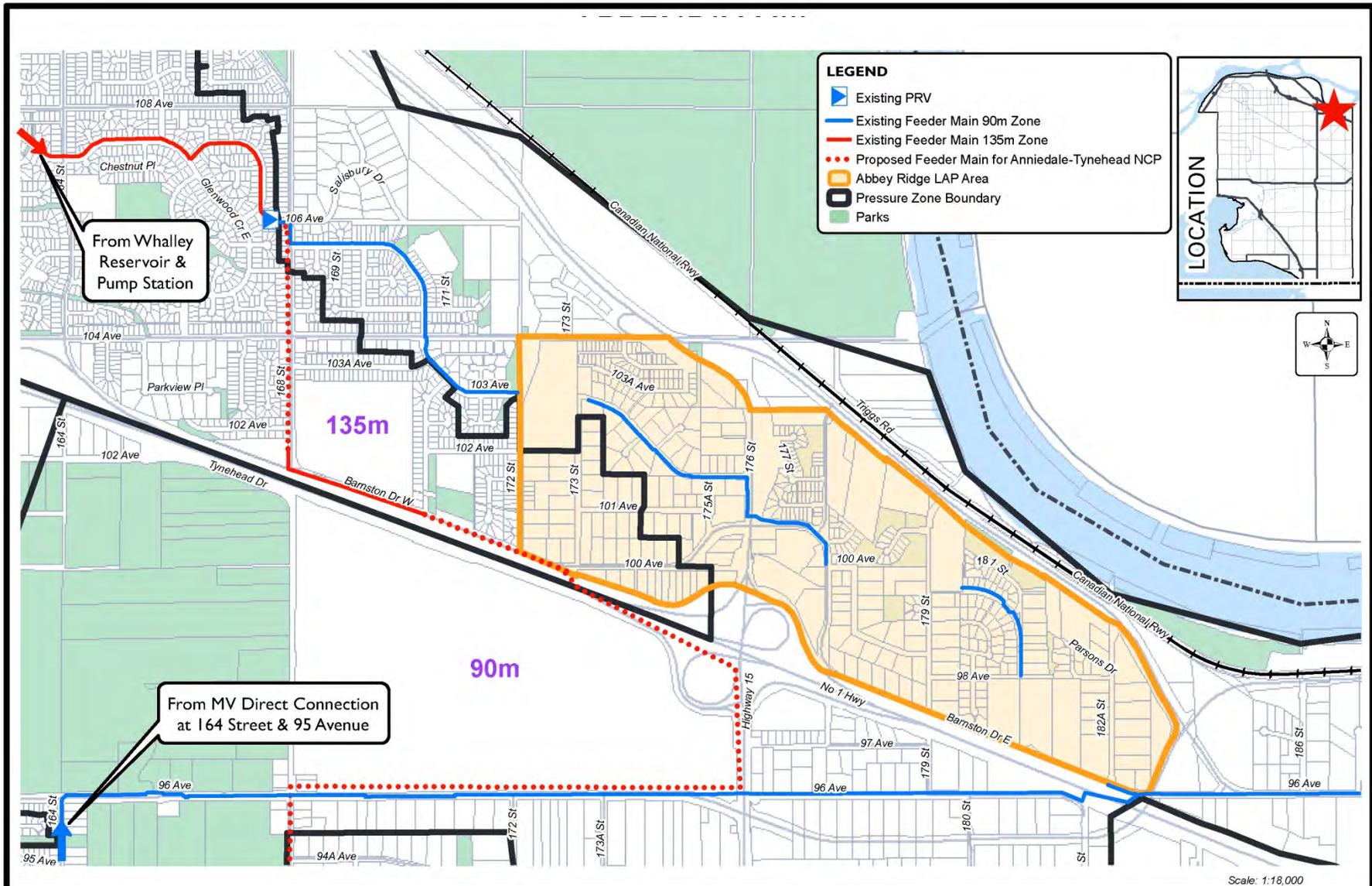


Abbey Ridge Stage 1 LAP Significant Stormwater Infrastructure

**ENGINEERING
DEPARTMENT**

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Cartographer: em9 Date: 01-Dec-2015 © City of Surrey



Abbey Ridge Stage 1 LAP
Significant Water Distribution Infrastructure

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