Surrey Langley SkyTrain:

Environmental Screening Review

Draft Terms of Reference

November 2019

Prepared by:

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Abbreviations

A list of the acronyms and abbreviations used in the Terms of Reference is below.

Abbreviation	Definition
ALRT	Advanced Light Rail Transit
BC	British Columbia
CAC	Common Air Contaminant
CEMP	Construction Environmental Management Plan
EMF	Electromagnetic Field
ESR	Environmental Screening Review
GHG	Greenhouse Gas
SLS	Surrey Langley SkyTrain
OMC	Operations and Maintenance Centre
Project	Surrey Langley SkyTrain Project
TransLink	South Coast British Columbia Transportation Authority

Note to Readers:

All information relevant to the completion of the Surrey Langley SkyTrain project will be shared amongst the stakeholders and First Nations in an open, timely, and transparent fashion. To the extent that any confidential information is shared, it will be treated accordingly and not shared with any third party, except as required by law.

To support the project's objectives, TransLink will lead and coordinate all public messaging regarding the Surrey Langley SkyTrain. This includes: media interviews, news releases, fact sheets, backgrounders, public presentations, and website and social media content.

1 Introduction

The proposed Surrey Langley SkyTrain (SLS) project ("the project") will extend the Expo Line from King George SkyTrain Station in Surrey along Fraser Highway to 203 Street in Langley City via an elevated alignment.

This Terms of Reference (ToR) document outlines the methods and scope of issues that will be considered in assessing potential environmental effects of the project, and that will be reported on in an Environmental Screening Review (ESR). The ESR process will support TransLink's commitment to transparency and help design a project that is informed by public, stakeholder, and First Nations input. The ESR will also demonstrate TransLink's commitment to studying and appropriately managing environmental risk and ensuring relevant information is considered during procurement and construction.

1.1 Proponent

South Coast British Columbia Transportation Authority (TransLink)

The mailing address for TransLink is:

400-287 Nelson's Court
New Westminster, BC V3L 0E7

Website Address: **https://surreylangleyskytrain.ca/**

All communication regarding the project should be sent to:

Project email: **surreylangleyskytrain@translink.ca**

1.2 Regulatory Background

The proposed project is approximately 16-kilometre (km) of non-high-speed rail and is therefore not considered reviewable under either provincial or federal environmental assessment processes. In spring 2019, both the British Columbia Environmental Assessment Office and the Canadian Environmental Assessment Agency (under the previous *Canadian Environmental Assessment Act, 2012*, SC 2012, c. 19, s. 52) confirmed in writing their decisions not to review the project under their mandated legislation. The *Impact Assessment Act* came into effect on August 28, 2019 to replace the *Canadian Environmental Assessment Act, 2012*. TransLink has reviewed the Physical Activities Regulations to confirm that the project will not trigger a federal environmental assessment under the new regime.

Federal and provincial permitting of project components, such as new or modified watercourse crossings, contaminated soil handling, and other aspects of the project that may require permitting, will be initiated prior to construction.

1.3 Complementary Work

TransLink has over 30 years of experience building, operating, and maintaining Metro Vancouver's SkyTrain system. Accordingly, most construction and operational considerations are well-known. In addition, TransLink has initiated system-wide reviews of environmental and safety issues including the following:

- SkyTrain Noise Study – initiated in 2018, ongoing
- McNeil Program – implementation of safety, reliability, recovery, and customer experience recommendations arising from major service disruptions that occurred in July 2014
- Transit-Oriented Communities Design Guidelines – published by TransLink.

Additional information on these initiatives is available at **www.translink.ca**.

Project development for the SLS will also include preparation of Supportive Policy Agreements with partner municipalities through which the SkyTrain will run. These agreements will:

i. Specify supportive land use and transportation policies to coordinate and integrate with transportation and land-use planning in the Project corridor

ii. Identify specific actions and policies to coordinate and integrate with transportation and land-use planning.

The City of Surrey has initiated a Fraser Highway SkyTrain Corridor Planning process. Additional information is available at **www.surrey.ca**.

2 Project Description

The proposed project would extend the Expo Line 16-kilometres from the King George SkyTrain Station along Fraser Highway to 203 Street in Langley City (**Figure 1**). The proposed extension would run on an elevated guideway with the majority of the guideway situated along Fraser Highway. The design and location of the extension is guided by the approach for the existing SkyTrain network, TransLink planning documents, and Metro Vancouver's broader regional growth plans for transportation, population, and employment. The SLS is anticipated to provide high-quality rapid transit that increases transit mode share and helps shape land use to support and deliver federal, provincial, regional and municipal goals.

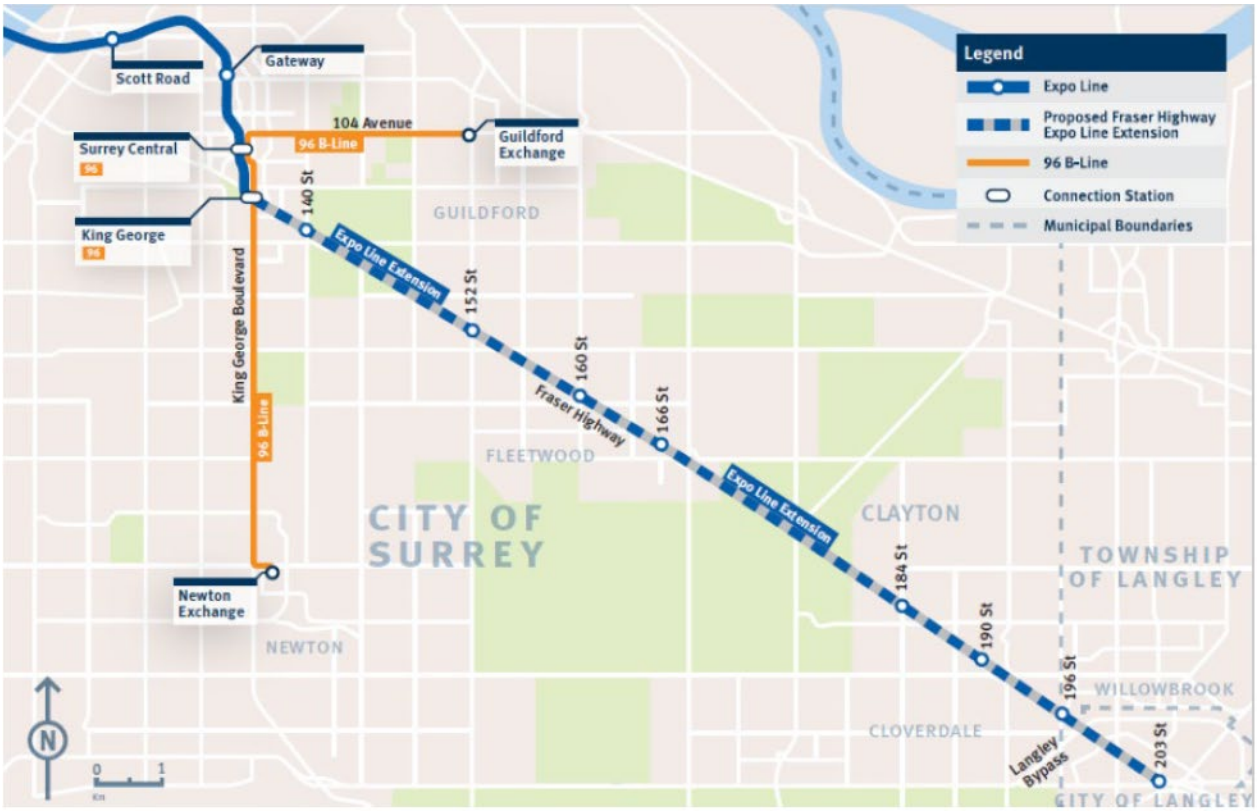

Figure 1 Map of Proposed SLS Alignment

Currently, project delivery is proposed as two phases, due to available funding. Phase 1 will extend 7-kilometres from King George SkyTrain Station to 166 St in the Fleetwood community of Surrey, and Phase 2, will terminate at 203 St. in the City of Langley. In July 2019, the Mayors' Council on Regional Transportation endorsed the continuation of project planning, including a detailed assessment of Phase 1 of the project.

The scope of the ESR reflects the phased approach. TransLink will conduct a comprehensive effects assessment for Phase 1, complemented by a high-level assessment for Phase 2 at the same time. When funding for Phase 2 is secured, a similar comprehensive effects assessment will also be completed for Phase 2.

2.1 Project Design Priorities

The following overarching design priorities supported the development of the SLS:

Maximize Value for Money

- Select lower-cost options unless a situation warrants more expense for a measurably improved outcome

Maximize Integration

- Maximize station integration with the surrounding community
- Foster the link between land use, development, and transit-oriented complete streets

Maximize Transit Segregation and Priority

- Maximize transit segregation of the SLS from the existing road system to prioritize rapid transit along the transportation corridors

Minimize Property Impact

- Avoid and minimize the need to acquire property outside of the existing right-of-way for project components wherever reasonable.

2.2 Design Guidance

The following will help inform and develop the Reference Concept Design, which will be assessed in the ESR:

2.2.1 Elevated Guideway

An elevated guideway will extend along Fraser Highway from the existing terminus of the Expo Line at King George SkyTrain Station.

- The guideway and supporting infrastructure will be situated primarily along Fraser Highway
- Storage tracks will be constructed on some segments
- Roadway segments will be widened and/or reconfigured, as needed, to accommodate the guideway columns, and may include work at certain locations to match existing topography and watercourse crossings.
- A section of the existing guideway east of King George SkyTrain Station will be modified and/or reconstructed to facilitate the project.
- Existing utilities and services will be modified or relocated, as needed, to facilitate project construction and operation.

2.2.2 Stations

The proposed Surrey Langley SkyTrain features up to eight stations that will be built in accordance with available funding and the phased construction approach described earlier.

Stations will feature platform(s) accessible by elevator and escalator from street-level station-house structures, similar to those along the existing Expo Line. Station names will be determined later in the process. **Figure 2** shows a design concept for a station.

Figure 2 Station Design Concept

2.2.3 Operations and Maintenance Centre

A new Operations and Maintenance Centre (OMC) is required to support a fully built Surrey Langley SkyTrain. It will be located in an industrial area near the alignment to support the project's additional operations and maintenance requirements. Similar to the existing OMC near Edmonds Station on the Expo Line, a new OMC will house yard track, operator facilities, service pits, power substation, and staff facilities. The OMC will also have perimeter fencing, roadways, and a staff parking area.

2.2.4 SkyTrain Vehicles

SkyTrain vehicles similar to those currently used on the Expo Line will run along the new extension. The SkyTrain fleet consists of various car models. Current train configurations include two, four, or six cars per train although future configuration may vary. SkyTrain vehicles are powered by linear induction motors, with power supplied by two electrified rails (+ve and -ve).

2.2.5 Supporting Infrastructure Requirements

The project will integrate fully with existing SkyTrain systems and protocols to accommodate the addition of the Project to the existing SkyTrain network while meeting background demand growth. TransLink has initiated independent projects to expand capacity within the existing SkyTrain network. The proposed extension will be powered by electricity supplied by BC Hydro via existing or new dedicated distribution lines, with up to 11 power substations along the alignment. The project may also include new transit bus exchanges and park-and-ride facilities at suitable locations next to stations for passenger convenience.

2.3 Construction Activities

The project's main construction activities include: site preparation and roadwork; elevated guideway construction, civil and structural works for stations and the OMC; and traffic and transit management.

Some early works may begin in 2020. These works could include associated environmental permitting and utility work. **Table 2-1** summarizes the scope of construction work.

Table 2-1 SLS Construction Activities

Project Component / Activity	Description
Management, Design, and Engineering	Project management; planning; architectural, civil, and systems engineering; procurement; systems integration; and cost, quality, schedule, and environmental control
Traffic Management	Implementation of traffic measures, including roadway diversions, signage, traffic control, temporary lane closures, temporary access closures, and temporary road closures
Utility Relocation	Relocation of buried and overhead utilities (e.g., electricity, telecommunications, municipal utilities)
Site Preparation	Ground improvement, clearing and grubbing, demolitions, culvert extensions, new watercourse crossings, including at Serpentine River
Environmental Mitigation	Implementation of environmental mitigation measures identified in the ESR, which may include, but are not limited to: contaminated material removal, fish habitat compensation, installation of noise attenuation measures, landscaping
Roadworks	Widening and alteration of roadways, where required, to accommodate guideway columns, including changes to medians and boulevards, and installation of drainage upgrades; replacement of street lights and signals where required to accommodate the guideway and stations
Elevated Guideway	Installation of reinforced concrete elevated guideway and piers, including track switches and crossovers
System Structures	Installation of power propulsion substation buildings, and power distribution/communications ducts
Stations	Construction, including platform structures, lighting, access, safety barriers, service connections, and station security
OMC	Construction of the OMC facility, including buildings service pits, yard track, and perimeter fencing
Testing and Commissioning	Testing and commissioning of system

2.4 Project Schedule

An overview of the current project schedule is outlined in **Figure 3**. At this time, the project is in the pre-procurement planning and design development phase. During this phase, engineering and planning activities support the preparation of a detailed business case.

Environmental studies began in 2016 and are ongoing. The draft ESR Report will be summarized for public feedback in early 2020. Public comments will be considered in the final ESR Report.

If project funding and approval is confirmed by mid-2020, and the project proceeds with a staged delivery approach, construction could begin as early as 2022. Construction and commissioning (testing) are expected to take approximately three to four years.

Key Project Activities	2019	2020	2021	2022	2023	2024	2025
First Nations Engagement							
Stakeholder and Public Engagement							
Environmental Studies and Screening Review							
Permitting and Environmental Management Planning							
Engineering Studies and Procurement							
Construction							
Commissioning							

Figure 3 Current Project Schedule

2.5 Project Operation

The operation of a Surrey Langley SkyTrain includes the following key features:

- Driverless system with central vehicle control centre
- Frequency: 6 to 8-minute headways in peak periods in both directions
- Travel Time:
  - Approximately 22 minutes from Surrey's King George SkyTrain Station to the Langley City Centre Terminus (full construction scenario)
  - Approximately 9.5 minutes from Surrey's King George SkyTrain Station to 166 Street in Fleetwood (phased construction scenario)

3 Project Benefits

The expected transportation, community, economic, and environmental benefits of the project are as follows:

Transportation benefits

- Improved transit accessibility and reliability
- Reduced travel time
- Increased transit capacity, ridership and mode share
- Reduced single vehicle occupancy
- Improved regional connectivity
- Reduced congestion
- Improved road safety
- Improved transportation choice south of the Fraser River.

Community benefits

- Supports regional growth strategy (i.e. Metro Vancouver's 2040: Shaping our Future), including connecting town centres and encouraging high-density land use around stations
- Connects people to housing, jobs, schools and services
- Improved affordability through greater mobility
- Improved safety
- Enhanced urban realm features
- Potential to reduce urban sprawl
- Promotes active transportation and associated health benefits.

Economic benefits

- Long-term business and transportation efficiencies, including enhanced goods and services movement and improved access to jobs and labour
- Direct and indirect employment through construction-related activities
- Regional and provincial economic benefits.

Environmental benefits

- Improved air quality during operation
- Reduced greenhouse gas (GHG) emissions and contribution toward limiting climate change during operation
- Improved health outcomes from increased active transportation
- Reduced urban sprawl.

4 Environmental Screening Review

The Environmental Screening Review (ESR) will provide a description of the project, related benefits and effects, conclusions on the overall effects on the natural and human environment, and a summary of the results of engagement with First Nations, the public, and stakeholders. The ESR Report will include the following sections:

- Executive Summary
- Introduction
- Project Description
- Project Benefits
- First Nations Engagement
- Public and Stakeholder Engagement
- ESR Scope and Methods
- Biophysical Environment Assessment (for Phase 1)
  - Air Quality and Greenhouse Gases
  - Noise and Vibration
  - Contaminated Sites
  - Fisheries and Aquatics
  - Vegetation and Wildlife Resources
- Human Environment Assessment (for Phase 1)
  - Archaeology and Heritage
  - Agricultural Land
  - Land Use
  - Traffic and Transportation
  - Emergency Services
- Supplemental Overview Assessment (for Phase 2)
- Environmental Management during Construction
- Environmental Management during Operations
- Summary and Conclusions.

The following provides an overview of the above-mentioned sections of the ESR.

4.1 Introduction

The introduction will describe the:

- Purpose of the document, and the project's objectives, including how they relate to broader private or public sector policies, plans, or programs
- Location of the project, including how it fits into the regional context
- Relevant background information, including exploratory or investigative studies as well as a review of project alternatives.

4.2 Project Description

This section will:

- Identify and describe project components
- Describe all phases of the project, including Project delivery, as well as timelines for construction and operation. Since the project has no fixed end to operation, project decommissioning and reclamation is not applicable and thus will not be a subject of study
- Describe activities associated with all components and phases of the project
- Outline "Early Works" activities that will be undertaken in advance of construction.

4.3 First Nations Engagement

The ESR will describe the project's approach to engagement, which includes:

- Providing potentially affected First Nations with general project and environmental-specific information; providing First Nations with opportunities to review and comment on key environmental documents
- Obtaining feedback on the project from First Nations and respecting the confidentiality of information provided by First Nations.

The ESR will summarize TransLink's engagement activities with First Nations, including:

- Key comments and issues raised by First Nations regarding the project and environmental review process, and TransLink responses including discussion of proposed mitigation
- Past and future engagement opportunities for First Nations on the ESR.

4.4 Public and Stakeholder Engagement

The ESR will outline public and stakeholder engagement, including:

- Background Information
  - Role of the City of Surrey, Township of Langley, and City of Langley
- Engagement
  - Summary of past and future ESR-related engagement opportunities
  - Description of project-related information available to the public (e.g., discussion guides, display boards)
  - Description of key ESR-related interests, responses, and how feedback is considered.

4.5 ESR Scope and Methods

This section of the ESR will describe methods to assess potential project-related effects to biophysical and human environment for Phase 1 components and activities. The ESR will follow the methodology described below to assess proposed Screening Elements, including the rationale for selection, baseline conditions, and potential changes due to the project. The ESR will also describe mitigation measures to avoid or minimize effects on the biophysical and/or human environment. Additional details on key elements of the ESR, such as environmental management during construction and operation, are provided in **Section 4.7**, and **Section 4.9**.

4.5.1 Scoping and Selection of Screening Elements

The ESR will describe how environmental values will be considered (referred to as "Screening Elements"), the metrics to measure or describe project-related changes to the Screening Elements (review indicators), as well as the spatial and temporal boundaries for the assessment of each Screening Element.

The ESR will describe how Screening Elements were selected. Proposed Screening Elements, identified in **Table 4-1**, were selected based on:

- Relevant environmental policies, regulations, and guidance
- Potential effects of the Project
- Elements that were assessed in similar projects (e.g., Evergreen Line and other recent advance light rail transit (ALRT) projects)
- Interests and concerns identified by First Nations, stakeholders, and the public.

A standard approach for the assessment methods will be employed, using the following steps:

- Confirmation of the proposed Screening Elements, the spatial and temporal boundaries, and review indicators
- Description of baseline conditions
- Determination of potential effects based on information and feedback identified in **Section 4.3** (First Nations Engagement) and **Section 4.4** (Public and Stakeholder Engagement)
- Determination of mitigation
- Conclusions.

The proposed Screening Elements, the rationale for their selection and their spatial boundaries are presented in **Table 4-1**.

Table 4-1 Summary of Proposed Screening Elements for SLS

Screening Element	Rationale for Selection	Proposed Spatial Boundaries
Biophysical Environment		
Air Quality and GHGs	During construction, the project may affect local air quality. During operation, net reductions in emissions as a result of the project may benefit local and regional air quality	City of Surrey and Langley Lower Fraser Valley airshed is considered the regional boundary
Noise and Vibration	Noise emissions during construction and operation may affect sensitive receptors Vibration from construction equipment and activities may affect sensitive receptors	Within 300 m of the project centreline for noise effects and 50 m for vibration effects
Contaminated Sites	Contaminated or hazardous material may be encountered during construction	Within 100 m of the project centerline Within 100 m buffer around the OMC
Fisheries and Aquatics	Construction and operation may affect freshwater fisheries and aquatic resources	Watercourses within 100 m of the project centreline and the OMC, as well as habitat up to 300 m downstream of instream works

Screening Element	Rationale for Selection	Proposed Spatial Boundaries
Vegetation and Wildlife Resources	Construction may affect vegetated areas and wildlife and their habitat	Urban and green space (such as urban forest, parks, and boulevards) within 100 m of the project centreline and the OMC
Human Environment		
Archaeology and Heritage	Construction may adversely affect archaeological and heritage resources	Within 100 metres (m) of the project centerline Within 100 m buffer around the OMC
Agricultural Land	Construction and operation may affect agricultural use, access, and infrastructure	Agricultural land within 100 m of the project centerline
Land Use	The project may influence land use The project may affect designated residential, commercial and park lands along the corridor	City of Surrey and Langley communities and travel routes near the project
Traffic and Transportation	Construction is expected to disrupt existing traffic flows Operation will change traffic patterns, access, and parking around new stations	City of Surrey and Langley communities and travel routes near the project
Emergency Services	Construction may affect access for emergency service providers Concerns may arise over safety and security around stations	City of Surrey and Langley communities and travel routes near the project

The ESR will consider additional Screening Elements that may be suggested during First Nations or public engagement, where a likely interaction can be reasonably anticipated between project activities and the proposed additional Screening Element.

4.5.2 Spatial and Temporal Boundaries for the Assessment

The ESR will review and finalize the proposed spatial boundaries of the assessment for each Screening Element. The determination will consider relevant project phases, components, and activities as well as the potential extent of project-related effects. Proposed spatial boundaries for each Screening Element are presented in **Table 4-1**.

4.5.3 Baseline Conditions

The ESR will provide an overview of the baseline conditions of the Review Area for each Screening Element, including geographical and biophysical features, land use, and the built environment as relevant to the topic. This will include mapping of municipal roads, parks and other public areas, institutions (e.g., schools and health facilities), and residential, commercial, and industrial areas.

The ESR will describe existing (or baseline) conditions for each Screening Element in sufficient detail to enable review of the identified potential project-related interactions. The ESR will contain technical appendices for Screening Elements, where appropriate, to provide more detailed information on field studies, modelling, and analysis. Key findings contained in these technical reports will be summarized in the ESR.

4.5.4 Project Interactions and Effects Assessment

The ESR will detail potential interactions between project construction and operation activities and Screening Elements, which will be summarized in a matrix for each Screening Element. The assessment will describe briefly the mechanism of each identified interaction between a project activity or physical work and a Screening Element, indicating how it could impact the Screening Element.

The proposed review indicators for anticipated project effects are summarized by Screening Element in **Table 4-2**.

Table 4-2 Potential Effects and Review Indicators

Screening Element	Change due to the Project	Review Indicators
Biophysical Environment		
Air Quality and GHGs	Change in ambient common air contaminant (CAC) concentration from baseline Change in emissions of GHGs from baseline	• Estimated change in emissions of CACs (SO2, NO2, CO, PM10, PM2.5, VOCs) relative to ambient CACs PM2.5) • Estimated changes in emissions of GHGs (CO2, CH4, N2O, reported as CO2e)

Noise and Vibration	Change in construction and operation noise levels compared to noise baseline
	Change in vibration levels during construction and operation compared to vibration baseline
		• Predicted noise levels (in dBA) at sensitive receptors as follows:
		  • Daytime and nighttime equivalent (Ld and Ln)
		  • Hourly equivalent (Leq [1 hour])
		  • Day-Night (Ldn)
		• Predicted ground vibration levels at sensitive receptors as follows:
		  • Peak particle velocity in mm/s
		  • Root mean square velocity in mm/s

Contaminated Sites	Release of contaminants during construction	• Effects of disturbance to contaminated sites during project construction • Extent and nature of contaminated sites within assessed area
Fisheries and Aquatics	Permanent change in fish habitat from baseline Changes to water quality from baseline	• Net changes (losses and gains) (m^2) to instream habitat and riparian habitat • Changes in water quality • Changes to fish mortality or health
Vegetation and Wildlife Resources	Change in abundance of species of management concern from baseline	• Extent of provincially listed ecological communities at risk • Change in availability of wildlife habitat features • Change in areal extent of forest canopy cover • Change in areal extent of vegetated elements and potential for changes to connectivity • Change in number and type of trees within the project alignment, including heritage or protected trees • Change to occurrence and locations of invasive species

Screening Element	Change due to the Project	Review Indicators
Human Environment		
Archaeology and Heritage	Changes to archaeological resources (known and unknown sites) Alterations to heritage buildings or other registered sites	• Areas with high archaeological potential that could be affected • Number and description of archaeological sites with potential to be altered • Number and description of heritage sites with potential to be altered
Agricultural Land	Change in agricultural land area, farm access, or infrastructure from baseline	• Extent of farmland affected • Changes to farm access • Changes to farm infrastructure • Change to water supply (e.g., wells)
Land Use	Change in commercial and residential land use from baseline, effects to parkland, and consistency with land use policy	• Alignment with local and regional government land use plans • Residential and commercial properties affected by the project and description of anticipated changes • Area of parkland affected
Traffic and Transportation	Change in traffic and transportation from baseline	• Roadway description (e.g., number of lanes, traffic flow characteristics) • Change in parking and access • Change in vehicle volume (vehicles/day, vehicles/km travelled) • Passenger vehicle travel time (selected origin/destinations) • Transit (travel time, ridership) • Changes to pedestrian and cycling access
Emergency Services	Change in emergency access and public safety from baseline	• Public access to emergency services (qualitative) • Emergency medical services, fire rescue, and police response (qualitative) • Potential change in public safety and security

4.5.5 Mitigation of Potential Effects

To avoid or minimize potential effects on the biophysical and human environment during construction, the ESR will propose project and site-specific, and industry standard, mitigation measures, as necessary. The mitigation measures will be incorporated into the framework for the Construction Environmental Management Plan (CEMP).

See **Section 4.7** and **Section 4.9** for additional detail on environmental management during construction and operation.

4.5.6 Discussion of Results and Conclusion

For each Screening Element, the ESR will describe the effects that remain following the implementation of mitigation measures. Characteristics of effects, such as magnitude, geographical extent, and duration, will be used to describe/characterize the effects. Where effects cannot be characterized quantitatively, they will be described qualitatively.

4.6 Summary and Conclusion

The ESR will offer key findings of the environmental screening and describe how these findings will be used to avoid and/or minimize potential effects as well as any next steps for First Nations, public, and stakeholder engagement.

4.7 Supplemental Overview Assessment

A Supplemental Overview Assessment will be conducted for the Screening Elements for the 166 St. to Langley City Centre portion of the project (Phase 2). Existing conditions of biophysical and human environment proposed for the Phase 2 project area will be summarized based on baseline and technical reports. Each of the Screening Elements will be qualitatively evaluated for their potential to interact with Phase 2 components and activities. Where an interaction that may affect the Screening Element is identified, a high-level approach for mitigation will be proposed. The Supplemental Overview Assessment will be updated to comprehensively assess potential effects to the biophysical and human environments, upon approval of Phase 2 and completion of detailed planning.

4.8 Environmental Management During Construction

The ESR will include a CEMP framework that will summarize the following in a table format: project activity or physical work, potential effects linked to that activity, and associated mitigation. The CEMP framework will describe performance objectives, associated best practices intended to meet those performance objectives, and required content for each sub-plan. The CEMP framework will also detail project roles and responsibilities for the team's key members.

The CEMP framework will include:

- Key performance measures to evaluate effectiveness of mitigation
- Proposed mitigation, best practices, and guidance
- Requirements to manage the effectiveness of monitoring.

The CEMP will include, at a minimum, the following sub-plans:

- Environmental Awareness and Training Plan
- Environmental Monitoring Plan
- Erosion and Sediment Control Plan
- Archaeological and Heritage Management Plan
- Agricultural Land Management Plan
- Fish and Fish Habitat Plan
- Vegetation and Wildlife Management Plan
- Spill and Emergency Response Plan
- Contaminated Soil and Water Management Plan
- Air Quality and Dust Control Management Plan
- Noise and Vibration Management Plan
- Construction Waste Management Plan
- Site Restoration Plan
- Traffic and Access Management Plan.

Each sub-plan will include a list of applicable licenses, permits, and/or approvals that may be required for construction, along with a description of which part of the legislation is applicable to the work. Each sub-plan will also reference other linked plans and consultation programs relevant to environmental management during construction.

4.9 Environmental Management During Operation

Environment management for the project during operation will be integrated and consistent with environmental management of the Expo Line. The following elements are likely to require ongoing management during operation:

4.9.1 Electromagnetic Fields

The ESR will describe findings from comparable electromagnetic fields (EMF) assessments for ALRT projects and how EMF will be managed to address the potential for human health effects. Engagement and consultation may help to identify site-specific requirements for assessment and mitigation.

4.9.2 Noise

Noise will be managed in accordance with current TransLink practices for SkyTrain projects. Additional information on TransLink's operational noise assessment is available at **www.translink.ca**.

Assessment, engagement, and consultation may indicate site-specific requirements for installation of noise attenuation measures.

4.9.3 Post-construction Monitoring

Mitigation measures may require post-construction monitoring to assess effectiveness. Adaptive management will be key in addressing measures that do not function as intended/designed.