WATERCOURSE CLASSIFICATION ASSESSMENT REPORT

TERMS OF REFERENCE AND TEMPLATE GUIDANCE

City of Surrey

February 2025

CONTENTS

1.0 INTENTION AND PURPOSE

A Watercourse Classification Assessment Report (WCA Report) may be required by the City of Surrey (City) early in the building or development application process to determine if there are any jurisdictional[1] watercourses within 50 metres (m) of the subject property and to assess whether the proposed activities necessitate a Sensitive Ecosystem Development Permit (SEDP)[2]. The WCA Report is to be prepared by a Qualified Environmental Professional (QEP) and must use the fillable WCA Report Template available on the City's website (www.surrey.ca). A non-fillable example of the WCA Report Template is included as Attachment A.

This Terms of Reference is designed to help applicants and their QEP comply with the information requirements of the WCA Report Template and the City's development and building application processes. The reader of this Terms of Reference should understand the basic principles related to hydrology, biology, and environmental legislation or consult a QEP if the concepts described herein are unfamiliar.

Before starting the WCA Report, the applicant or their QEP should check with the City to see if there is already an accepted classification for the watercourse. To do this, send an email to TreeBylaw@surrey.ca with the property address and "WCA Report Inquiry" in the subject line.

Note, this Terms of Reference and the WCA Report Template is a living document and may be updated periodically. Please visit the City's website (www.surrey.ca) regularly for access to the most current version.

[1] A jurisdictional watercourse is one that is subject to the *Water Sustainability Act* (WSA), Riparian Areas Protection Regulation (RAPR), and/or the *Fisheries Act* and may be subject to municipal bylaws.

[2] For more information on the Sensitive Ecosystem Development Permit process and requirements, please refer to Section I (DP3: Sensitive Ecosystems, pp. 293-297) and Section VI (DP3 Development Permit Guidelines: Sensitive Ecosystems, pp. 375-388) of the Official Community Plan, available on www.surrey.ca.

2.0 WCA REPORT TEMPLATE CONTENTS

The information requirements in the WCA Report Template are presented below and are expanded on in the following sections. Common resources are referenced herein, and a list provided in Section 4.0 of this Terms of Reference.

- Project and QEP Information
- Site Description
- Methodology
- Watercourses(s)
- Legislative Purview
- Municipal Watercourse Classification
- Limitations
- Conclusion
- List of Professionals
- Attachments (Figures, Photographs, and Other Supporting Documents)

The amount of detail and rationale required for each section will vary depending on site complexity and project scope. As well, named natural streams will likely not require a WCA Report or will not require a great amount of detail as their characteristics and classifications are well documented (e.g., Serpentine River, Nicomekl River, Bon Accord Creek, Little Campbell River).

The QEP's scope of work should reflect the necessary effort needed to deliver a sound professional opinion and may require multiple site visits or secondary QEP's with specific knowledge sets. The WCA Report must include the methods, data, and rationale used to demonstrate due diligence[3] and be scientifically defensible.

PROJECT AND QEP INFORMATION (TITLE PAGE)

The first page of the WCA Report includes information fields detailing the WCA Report information, the property and applicant details, and primary QEP information.

[3] As defined by the QEP's governing body and bylaws.

- **Report Information:** Identify the date the WCA Report was prepared and the version number. The date and version are to be updated with each revision as necessary.

- **Property Information**: Identify all civic addresses and legal descriptions of properties included in the application submission. Property addresses, parcel identifiers (PID), and legal descriptions are available on the City of Surrey Mapping Online System (COSMOS).

- **Applicant Information**: Include the name, company information, and contact details for the applicant and/or their designated representative.

- **Primary QEP Information, Sign Off, and Declaration**: The WCA Report is to be signed and stamped by the primary QEP and their contact information provided. A QEP is defined in the City's Zoning Bylaw 12000 as a registered professional Biologist, Geoscientist, Engineer, Forester and /or Agrologist registered in British Columbia, with demonstrated education, expertise, accreditation and knowledge relevant to sensitive environment, ecosystems and/or riparian & streamside management.

  Other professionals such as those registered with the Applied Science Technologists and Technicians of BC may carry out assessment works and prepare the WCA Report under oversight of the primary QEP.

  By signing the WCA Report, the primary QEP agrees to the declaration that they have completed the WCA Report in consideration of their professional designation, scope of practice, and the code of ethics laid out by their professional association. All other authors and/or secondary QEP's may be listed in Section 8.0 of the WCA Report Template.

SITE DESCRIPTION (SECTION 1.0)

Include a description of the subject property relative to the surrounding area, present and historic land use, and any key features of note (e.g., existing structures, impervious surfaces, mapped watercourses, etc.).

METHODOLOGY (SECTION 2.0)

Identify the methods and equipment used to carry out the watercourse classification assessment. Assessment methods chosen should be scientifically defendable and carried out in accordance with industry standards. Methodology components include:

- **Background Research and Historical Data Analysis:** Desktop research efforts are to include review of current and historical aerial imagery, geospatial data (e.g., Lidar Imagery), searching online databases for watercourse reports, well records, drainage plans, and species information. Note, aerial imagery available on COSMOS may be limited. Where additional years or clarity is required to fill information gaps, high resolution aerial images are available from the University of British Columbia (UBC) Geographic Information Centre.

- **Field Assessments/Surveys**: Site visits should be done during an appropriate time of year and may require multiple site visits if adequate data cannot be collected in a single visit (e.g. spring to assess for wetland vegetation, winter to assess high flows and connectivity, etc.). Information on date, time, weather conditions, and intensity of effort is to be included.

- **Equipment:** Identify any field equipment used to carry out the field assessment (e.g., soil auger, handheld GPS, water quality sampling or monitoring metres).

- **Mapping and Delineation**: Identify methods and techniques employed to delineate wetted areas of interest, watercourses, and/or wetlands (e.g., stream boundary as defined by the RAPR).

WATERCOURSE(S) (SECTION 3.0)

A detailed description of all watercourses and/or any wetted areas of interest that were investigated during assessment is to be included in the WCA Report. The term 'watercourse' herein refers to any body of water, such as a stream, ditch, pond, spring, or wetland and/or wetted area of interest (AOI).

The scope of the assessment area is to extend beyond the subject property to an extent that identifies the source of flows, the receiving environment, and any other factors that may influence

the hydrology of the watercourse (e.g. catchment area size, stormwater infrastructure, impervious surfaces, etc.). This can be done through desktop research efforts and may need to be supplemented with field assessments beyond the boundary of the subject property. Any access constraints or other limitations should be identified.

If more than one watercourse is present, the contents of the Section 3.0 table are to be filled out for each watercourse by copying and pasting the table as many times as needed. Watercourses with similar biophysical characteristics, source waters, legislative purview, and municipal classification (e.g. a series of on-site drainage ditches) may be grouped together in one table, and each given a label (e.g. Watercourse 1, Wetted AOI 1, etc.).

Note, onsite and offsite watercourses are to be described separately for municipal review purposes.

Information requirements of Section 3.0 include the following content:

- **Historical Review:** Review of aerial photographs and topographic maps (e.g. LiDAR imagery) is required to assess for the historical presence of natural watercourses on the landscape and to help inform if evidence of a modified stream and/or wetland remains. For example, a meandering watercourse that is straightened overtime is indicative that the feature may be a 'channelized' stream type and not a 'ditch'.[4] For complex sites, the scope of review is recommended to be inclusive of the catchment area to inform how local hydrology may have changed overtime and to assess whether the subject watercourse continues to convey a natural source of water supply.[5]

  Historical imagery is available on COSMOS and may need to be supplemented with other sources (e.g., UBC Air Photo Collection) where a site is complex, there are missing years, and/or images are of low resolution. Relevant years (minimum of 6) are to be appended in Attachment A of the WCA Report to support the assessment. Chosen images should be clear (i.e., not pixelated) and any points of interest labelled (e.g., the watercourse or property). Note, analysis of aerial imagery should be carried out using a precautionary approach as forest cover may mask the presence of historical watercourses and darkened

[4] Refer to Table 2 herein for a list of municipal stream types (i.e., natural, channelized, ditch, large ravine) and their definitions.

[5] The term 'natural source of water supply' means the same as that included in the definition of a 'stream' under the *Water Sustainability Act*

areas of shrub or ground cover vegetation may be indicative of wetlands (e.g., saturated conditions and/or hydrophytes).

- **Physical Description:** Describe the biophysical characteristics of assessed watercourses, including total depth, depth of flow (if present), approximate top-of-bank (TOB) width, and/or stream boundary width, substrate characterization, qualitative gradient (e.g., low, steep, etc.), evidence of scour, presence of anthropogenic features (e.g. culverts, bridges, etc.), and riparian vegetation community. Plants are to be identified to the genus or species level where possible.

- **Hydrology**: Describe the local hydrology of the catchment area and watercourse. Information requirements include identifying the source waters (e.g., surface runoff, perched/seasonal groundwater, aquifer, another watercourse), connectivity with or isolation from other watercourses, and flow regime (i.e., perennial, intermittent, or ephemeral).

  Note: a perennial stream never ceases to flow, an intermittent stream flows only part of the year, and an ephemeral stream flows only after a rain event.

  Weather conditions preceding the site visit should be assessed (e.g., amount of precipitation within the last 72 hours) and any weather abnormalities or extremes described, such as whether observed conditions are reflective of unseasonal patterns (e.g., prolonged drought or series of significant rainfall events).

- **Fish Presence and Habitat:** This section is to include a description of fisheries resource values. Identify the species that frequent the waterbody (if present) and their anticipated use of the habitat (i.e., spawning, rearing, over-wintering, or migration).

  Determining fish absence can be affirmed by using one or more of the methods described in the RAPR Technical Manual: assessment of stream gradient (Section 2.2.2.1); assessment of man-made barriers to fish passage (Section 2.2.2.2); and/or undertaking sampling to confirm fish absence (Section 2.2.2.3 and Appendix 2).

Note: man-made structures are generally not accepted as fish barriers where they are the only factor as infrastructure may be upgraded and technology facilitating fish passage continues to evolve (e.g., flexi baffles, floating ramps, etc.). Presence of a natural barrier must also be present for the purpose of watercourse classification.

Identify if watercourses that are non-fish bearing meet the definition of fish habitat as defined by the *Fisheries Act*, such as contributing to fish habitat downstream as a source of nutrients and/or baseflow.

- **Wildlife:** Other wildlife, such as amphibians, may rely on watercourses to carry out life history functions and may have limited mobility during their aquatic life stage. Identify wildlife species that may rely on the subject watercourses and if they are subject to further protection under legislation (e.g., provincial *Wildlife Act* or federal *Species at Risk Act*).

- **Wetland Indicators**: The WCA is to include a reconnaissance-level assessment of the landscape for characteristics that may indicate the presence of a jurisdictional wetland (i.e., one that is subject to the *Water Sustainability Act* and/or the Riparian Areas Protection Regulation). General wetland indicators include:

    - A hydrologic regime that can support wetland conditions (e.g., prolonged saturation within 30 cm of the soil surface during the growing season[6]);
    - hydrophytic vegetation community[7] (e.g., plant species adapted to anaerobic conditions and are typically assigned a wetland indicator status[8] of facultative, facultative wetland, and/or obligate plant species); and,
    - hydric soil indicators (e.g., gleyed soils or mottling within the upper 30 cm, organic soils[9] within the upper 40 cm, hydrogen sulphide odour).

[6] Supplemental review of aerial imagery and/or local hydrology databases (e.g. well records, Integrated Stormwater Management Plans, etc.) to assess the hydro period may be required if timing of the assessment is not optimal or limited to a single site visit.

[7] Timing of assessments should be cognizant of herbaceous hydrophyte indicator species that may not be observable during winter months (e.g. skunk cabbage).

[8] It's recommended to reference the wetland indicator status prescribed by the USACE (US Army Corps of Engineers) National Wetland Plant List for the Western Mountains, Valleys, and Coast Region where applicable.

[9] For the purposes of a reconnaissance assessment, its recommended to assess for an organic soil layer inclusive of peat (mesic and fibric soils) and humic soils (von Post scale of 7 or more) until a detailed soil assessment is undertaken to assess for hydric soil properties using a scientifically defensible methodology.

Provide a description of onsite conditions relative to the three wetland indicators (i.e., hydrology, hydrophytic vegetation, and/or hydric soils) and any specific methodology used to assess for wetland indicator presence/absence.

Should one or more wetland indicators be present, a detailed wetland assessment using industry recognized methodologies[10] may be required to confirm if the area of interest meets the criteria of a jurisdictional wetland. All three wetland indicators must be present to be considered a jurisdictional wetland (i.e., wetland hydrology, hydrophytic vegetation, and hydric soils).

Note: much of the Lower Mainland has been disturbed by human activity over time, resulting in severely modified vegetation communities, soil profiles, and hydrology. When assessing for wetland indicators on highly modified and/or recently disturbed landscapes, it is imperative to consider if wetland indicators would be present under normal circumstances. It may be necessary to look beyond property boundaries and/or carry out desktop research to supplement any on-site observations.

If further exploration for wetland indicators is deemed unnecessary, provide scientifically defensible rationale in the WCA report as to how wetland absence was determined and inclusive of review of historical conditions, a description of how disturbance and/or timing factors were considered, present vegetation community, and intensity of effort onsite.

LEGISLATIVE PURVIEW (SECTION 4.0)

A table is provided in this section for each of the three main pieces of legislation governing land development activities in and around watercourses in British Columbia: the *Water Sustainability Act* and Regulation; the Riparian Areas Protection Regulation; and the *Fisheries Act.*

Information requirements in this section include a statement on the applicability of each piece of legislation and supporting rationale. Rationale should include both background research and

[10] See Section 4.0 for a list of common wetland assessment and delineations methodologies.

observational data to support the legislative conclusions. Fill out the information fields of each table per watercourse. If more than one watercourse is assessed, the sections may be copied and pasted as needed (an example is provided below).

***Water Sustainability Act* and Regulation**: Assess each watercourse against the criteria of a 'stream' as defined by the WSA and any relevant criteria listed in the WSR. Review of historical data and source hydrology will be necessary. Note, the historical presence of a natural watercourse likely indicates the feature is a modified WSA 'stream'. Copy and paste the section below as needed for each watercourse.			
Watercourse Name	*Watercourse 1*		
Is the watercourse subject to the WSA?	Yes ☒	No ☐	Unsure ☐
Supporting Rationale (if unsure, state if additional investigation is recommended).			
[supporting rationale]			
Watercourse Name	*Watercourse 2*		
Is the watercourse subject to the WSA?	Yes ☐	No ☒	Unsure ☐
Supporting Rationale (if unsure, state if additional investigation is recommended).			
[supporting rationale]			

It is important to consider the highly modified areas of the Lower Mainland. Many natural streams have been channelized to function like ditches, and diversions have altered the historical drainage patterns overt time. Similarly, many seasonally flooded fields are former wetlands, and surviving wetlands may be adjacent to the area. When left fallow, some of these fields will revert to having wetland properties. Identifying the source of water supply is crucial to determining legislative purview and watercourse classification.

Multiple site visits and/or the involvement of more than one QEP may be necessary to determine a watercourses source of flow, the depth to groundwater, presence or absence of wetland features (e.g., hydric soils, hydrophytic vegetation hydrologic regime), and to collect the necessary data for a conclusive determination regarding the applicability of legislation. Additional guidance for each section is provided below. Further guidance on legislative purview can be found on the respective government website(s).

- ***Water Sustainability Act* and Regulation**: Assess each watercourse against the criteria for a 'stream' as defined by the WSA and relevant criteria listed in the Water Sustainability Regulation. Historical data and source hydrology review will be necessary. The historical presence of a natural watercourse and a groundwater source likely indicate a WSA 'stream'.

  If it is unclear whether the watercourse meets the definition of a WSA 'stream', it's

recommended that the QEP consult the provincial "Jurisdiction of Stream Questionnaire" and "A Users' Guide for Changes In and About a Stream in British Columbia" prepared by the Ministry for further guidance.

If the QEP concludes that the watercourse or wetted area of interest does not meet the WSA's definition of a 'stream', the feature may still be considered a stream under other pieces of legislation (e.g., RAPR, *Fisheries Act*, City's Zoning Bylaw 12000).

- **Riparian Areas Protection Regulation**: Assess each watercourse against the criteria of a 'stream' and 'fish habitat' as defined by the RAPR and the RAPR Technical Assessment Manual (as amended). Review of fisheries resources values, connectivity, and riparian vegetation will be required. Differentiate if the watercourse is a RAPR Stream or RAPR Ditch stream type as defined in the Technical Assessment Manual.

  Note: a RAPR Ditch stream type is described as one that is man-made, straight, with no headwaters or sources of groundwater (i.e., the feature is not a channelized stream). If a watercourse is determined to be a WSA 'stream', it is likely a RAPR Stream steam type.

  In keeping with directive from RAPR staff[11] and the RAPR Technical Manual, "where ditches are connected via surface flow to fish habitat as defined in the RAPR, they are considered *streams* under the regulation".[12] For clarity, open ditches that do not meet the definition of 'fish habitat' but discharge to 'fish habitat', either in open channel or through stormwater pipe, are considered to be within the purview of the RAPR as a RAPR Ditch stream type. An example of this is a purpose-built grass swale that only receives surficial run off from adjacent surfaces during precipitation events, and discharges to 'fish habitat' via stormwater infrastructure.

- ***Fisheries Act***: Assess the watercourse against the criteria of 'fish habitat' as defined by the *Fisheries Act*. Review of fish presence/absence, fisheries values, and connectivity will be required.

[11] A.McKay, personal communication, A.McKay, July 15, 2024

[12] Ministry of Forests, Lands, Natural Resource Operations and Rural Development. 2019. Riparian Areas Protection Regulation Technical Assessment Manual. V.1.1. November 2019. Prepared by the Fish and Aquatic Habitat Branch. p..54 + Appendices

MUNICIPAL WATERCOURSE CLASSIFICATION (SECTION 5.0)

In accordance with the City's Zoning Bylaw 12000, a *stream* means any of the following, in accordance with the WSA (as amended) and the RAPR (as amended) that provides fish habitat:

(a) a watercourse, whether it usually contains water or not;

(b) a pond, lake, river, creek, brook, ravine, swamp, gulch or natural or channelized stream; or,

(c) a ditch, spring or wetland, that is connected by surface flow to any items referred to in (a) or (b) above.

The municipal definition of a 'stream' relies on a mix of WSA and RAPR definitions to assign a municipal watercourse classification, which is comprised of two parts: a stream class (Table 1) and a stream type (Table 2). Information requirements of this section include assigning a municipal watercourse classification in consideration of the legislative purview of each watercourse in addition to the biophysical characteristics. Fill out the information fields for each watercourse. If more than one watercourse is assessed, the sections may be copy and pasted as needed. An example is provided below.

Assign a municipal watercourse classification (stream class and stream type) in accordance with Tables 1 and 2 of the complimentary WCA Report TOR and provide supporting rationale for each watercourse. Copy and paste the section below as needed for each watercourse.							
Name	*Watercourse 1*						
Stream Class	A ☒	AO ☐	B ☐	C ☐	Isolated ☐	Unregulated ☐	Unsure ☐
Stream Type	Natural ☒	Channelized ☐		Large Ravine ☐	Ditch ☐	Unsure ☐	
Supporting Rationale (if unsure, identify if additional investigation is recommended).							
[supporting rationale]							
Name	*Watercourse 2*						
Stream Class	A ☐	AO ☐	B ☐	C ☒	Isolated ☐	Unregulated ☐	Unsure ☐
Stream Type	Natural ☐	Channelized ☐		Large Ravine ☐	Ditch ☒	Unsure ☐	
Supporting Rationale (if unsure, identify if additional investigation is recommended).							
[supporting rationale]							

Table 1: Surrey Stream Classification				
Surrey Stream Class	**Definition**	**Legislative Purview**		
		Fisheries Act	**RAPR**	**WSA**
Class A[†]	Inhabited by salmonids year-round or are potentially inhabited year-round with access enhancement.	Yes	Yes	Likely
Class AO[†]	Inhabited by salmonids, primarily during the overwintering period, or potentially inhabited with salmonids during the overwintering period with access enhancement and non-salmonid species generally present year-round.	Yes	Yes	Likely
Class B[†]	A significant source of food and nutrient value to downstream fish populations with no documented fish presence and no reasonable potential for fish presence. The watercourse is 'fish habitat' as defined by the *Fisheries Act.*	Yes	Yes	Likely
Class C[‡]	The watercourse is not 'fish habitat' as defined by the *Fisheries Act,* and is not a 'stream' as defined by the WSA. The watercourse is connected via surface flow to fish habitat as defined in the RAPR and meets the criteria of a RAPR ditch.*	No	Yes*	No
Isolated[‡]	The fulfills the criteria of a 'stream' as defined by the WSA and is not connected by surface flow to fish habitat at any given time of year (i.e., it is isolated).	No	No	Yes
Unregulated[‡]	Watercourse or feature is not governed by the *Fisheries Act*, RAPR, or WSA.	No	No	No

[†] The Class A, Class AO, and Class B stream class are defined in Part 7A of the Zoning Bylaw.

[‡] The Class C, Isolated, and Unregulated stream class are not defined in the Zoning Bylaw and, with exception of 'Unregulated', may be subject to additional senior government legislative requirements.

* Section 3.6.5 of the 2019 RAPR Technical Document states "where ditches are connected via surface flow to fish habitat as defined in the RAPR, they are considered streams under the regulation".[5] The definition of the Class C designation is revised to capture the Ministry directive[4] that watercourses connected to fish habitat are subject to the RAPR.

Table 2: Surrey Stream Type			
Surrey Stream Type	**Definition**	**Legislative Purview**	
		WSA	**RAPR**
Channelized†	*Stream* that has been dyked, diverted or straightened carrying drainage flows from headwaters or significant sources of groundwater and can include channels that divert irrigation from a *stream* and send overflow water back to a *stream.*	Yes	Stream
Ditches†	*Stream* that is a constructed drainage channel, carrying water that does not originate from a headwater or significant source of groundwater.	No*	Ditch
Natural†	*Stream* predominantly in its natural state that is not significantly altered by human activity.	Yes	Stream
Large Ravines†	*Stream* with a narrow steep-sided valley with a minimum of 60 m between the top of bank from either side of the *stream*.	Yes	Stream
† Stream types are defined in Part 7A of the Zoning Bylaw. * Where there is no historical evidence of a natural watercourse being present on the landscape or a natural source of water supply (e.g., stream, wetland, pond, spring)			

LIMITATIONS (SECTION 6.0)

Identify any limitations encountered during the assessment, such as timing issues or access constraints. Recommend follow-up actions or additional assessments if knowledge gaps exist in the watercourse classification determination or delineation (e.g., wetland assessment).

CONCLUSION (SECTION 7.0)

Populate the watercourse classification summary table provided in the conclusion section with the applicability of legislation and assigned municipal classification (i.e., stream class and stream type) for each watercourse. Note, onsite and offsite watercourses are to be listed separately (an example is provided on the following page).

Watercourse Classification Summary Table (example)					
Name	WSA (Yes/No)	RAPR (Stream/ Ditch)	*Fisheries Act* (Yes/No)	Municipal Class	
				Stream Class (A, AO, B, C, Isolated, Unregulated)	Stream Type (Natural, Channelized, Large Ravine, Ditch)
On Site					
[Watercourse 1]	*Yes*	*Stream*	*Yes*	*A*	*Natural*
Off Site					
[Watercourse 2]	*No*	*Ditch*	*No*	*C*	*Ditch*

As well, provide a summarized statement of assessed watercourses and the rationale used to support the watercourse classification. If required, state whether additional/follow-up site assessments are recommended to address any information gaps with regards to the presented watercourse classification conclusions.

LIST OF PROFESSIONALS (SECTION 8.0)

The primary QEP is responsible for overseeing the contents of the WCA Report and is the signatory. Notwithstanding, secondary QEP's with specialized expertise may be required to provide advice where site characteristics warrant. Other professionals, such as Applied Science Technologists and Technicians of BC, may carry out the works and prepare WCA Report contents under oversight of the primary QEP. All professionals involved and/or secondary authors may be listed in this section.

Any secondary QEP reports (e.g., wetland assessment, hydrology assessments) are to be appended to the WCA Report. These secondary reports be signed off and stamped by the respective QEP, with their contact information provided.

ATTACHMENTS

ATTACHMENT A: FIGURES

At minimum, three (3) Figures are required to be appended to the WCA Report:

i) A "**Site Location**" map of the property illustrating:
- the location of the property relative to the surrounding area;

- current aerial photograph;
- delineated property boundaries;
- property addresses and street names;
- delineated watercourses (if present);
- scale and north arrow;
- map/figure title and date; and,
- formatted to letter paper size (8.5 x 11 inches)

ii) A "**Watercourse Assessment**" drawing illustrating:
- subject property boundaries and existing anthropogenic structures or surfaces;
- topographical survey base prepared by a BCLS showing 1 metre contours;
- watercourse 'top-of-bank' picked up a BCLS;
- watercourse 'stream boundary' as delineated by the QEP (if necessary)
- points of significance/ interest (e.g. point of water infiltration, pipe, barrier, etc.);
- property address, street names, watercourse labels and proposed classification;
- scale and north arrow;
- drawing title and date; and,
- formatted to tabloid paper size (11 x17 inches) and text legible

iii) A "**Historic Aerial Imagery**" figure illustrating:
- relevant historic aerial images (minimum 6);
- clear images (i.e., not pixelated) and the property delineated;
- image should be sized so points of interest are clear and delineated (e.g., arrow pointing to the location of the subject watercourse);
- a description of the image, year, and north arrow;
- source of the images should be cited (e.g., UBC or COSMOS);
- figure title and date included; and,
- formatted to tabloid (11x17 inches).

ATTACHMENT B: PHOTOGRAPHS

Photographs from the site assessment are required. The site photographs are to capture relevant points of interest and accurately reflect the current site conditions (within the past 2 years). The QEP should provide as many photographs as necessary to illustrate the nature of the assessment

area, watercourses, riparian area, and features of interest. Each photograph is to be in colour and include:

- a description of the subject matter;
- the location that the photograph was taken from; and,
- the date the photograph was taken.

An example of photograph information requirements is provided below as Photograph 1.

Photograph 1. West (upstream) view of the Serpentine River; taken from 168 Street (March 13, 2023).

ATTACHMENT C: OTHER SUPPORTING DOCUMENTS

Optional documents that may be relevant to append to the WCA Report include:

- **Wetland Assessment Report:** If wetland indicators are present, a QEP with knowledge, training, and practice in wetland identification, classification, and delineation may be needed to conduct a separate detailed wetland assessment. This assessment will evaluate wetland soils, hydrology, and vegetation using recognized and scientifically defensible wetland assessment methodologies. The report is to be prepared in consideration of the possibility that urban or disturbed wetlands might not conform to standard BC or national wetland site associations. Please see Section 4.0 for a list of common wetland assessment methodologies.

- **Hydrogeology Report:** For complex sites, it may be necessary to engage a hydrogeologist to study the groundwater condition, how groundwater is recharged, how it flows through the subsurface, and how it interacts with surficial waterbodies. As well, how the proposed works may impact the local hydrogeology.

3.0 REVIEW PROCESS

Submit the WCA Report, along with any supporting documents to TreeBylaw@surrey.ca. The City will review the WCA Report and reach out to the applicant and their QEP with next steps and/or if additional information is required.

Please note WCA Reports may be subject to review and/or updates five (5) years from the date of their acceptance to assess for continued compliance with senior government legislation.

4.0 REFERENCE & RESOURCES

The following section offers additional resources and common reference materials. Please be aware this is not an extensive list and that website addresses referenced herein may change over time. It's recommended to revisit the original source often to check for updates.

***Fisheries Act* and Guidance Documents**	• ***Fisheries Act*, RSC 1985, c. F-14** https://laws.justice.gc.ca/eng/acts/F-14/ • **Projects Near Water** https://www.dfo-mpo.gc.ca/pnw-ppe/index-eng.html • **Standards and Codes of Practice** https://www.dfo-mpo.gc.ca/pnw-ppe/practice-practique-eng.html • **Measures to Protect Fish and Fish Habitat** https://www.dfo-mpo.gc.ca/pnw-ppe/measures-mesures-eng.html
Fish Presence and Habitat Information	• **Fisheries Inventory Data Queries (FIDQ)** http://a100.gov.bc.ca/pub/fidq/welcome.do • **iMapBC – "All Fish Points" Layer** maps.gov.bc.ca/ess/hm/imap4m • **Fish Passage – Province of BC** https://www2.gov.bc.ca/gov/content/environment/plants-animals-ecosystems/fish/aquatic-habitat-management/fish-passage

	• **Fish & Fish Habitat Data and Information – Province of BC** https://www2.gov.bc.ca/gov/content/environment/plants-animals-ecosystems/fish/fish-and-fish-habitat-data-information
Hydrology	• **Surrey Integrated Stormwater Management Plans, Drainage Plans, and Drainage Reports** https://www.surrey.ca/services-payments/water-drainage-sewer/stormwater/integrated-stormwater-management-plans • **Provincial Groundwater Wells and Aquifer (GWELLS) Map** https://apps.nrs.gov.bc.ca/gwells/ • **DFO PSEC Community Stream Monitoring (CoSMo)** https://pacificdatastream.ca/
Imagery and Geospatial Databases	• **City Of Surrey Mapping Online System (COSMOS) – Images Layer** www.cosmos.surrey.ca/external • **University of British Columbia Air Photo Collection** https://gic.geog.ubc.ca/aerial-photo-request/ • **iMapBC – Province of BC** https://www2.gov.bc.ca/gov/content/data/geographic-data-services/web-based-mapping/imapbc • **BC Map Hub** https://governmentofbc.maps.arcgis.com/home/index.html
Land Use Information	• **City of Surrey Land Use Planning (OCP/NCP's)** https://www.surrey.ca/renovating-building-development/land-planning-development/land-use-planning/official-community-plan • **COSMOS – Land Use/Environment Layers** www.cosmos.surrey.ca/external
Legal Description	• **COSMOS – Lot Information** www.cosmos.surrey.ca/external • **BC Land Title and Survey** www.ltsa.ca
Qualified Environmental Professionals	• **College of Applied Biologists** https://cab-bc.org • **Engineers and Geoscientists BC** https://egbc.ca • **Forest Professional BC** https://fpbc.ca • **BC Institute of Agrologists** https://www.bcia.com/ • **Applied Science Technologists and Technicians of BC** https://asttbc.org
Precipitation Data	• **Surrey Rainfall Monitoring - FlowWorks** www.flowworks.com Log In ID and Password: surreyrain

Riparian Areas Protection Regulation	• ***Riparian Areas Protection Act*, SBC 1997. ch.21** https://www.bclaws.gov.bc.ca/civix/document/id/complete/statreg/00_97021_01 • **Riparian Areas Protection Regulation, BC Reg. 32/2023** https://www.canlii.org/en/bc/laws/regu/bc-reg-178-2019/latest/bc-reg-178-2019.html • **RAPR Technical Assessment Manual (2019) V.1.1** https://www2.gov.bc.ca/gov/content/environment/plants-animals-ecosystems/fish/aquatic-habitat-management/riparian-areas-regulation
Stream Assessment and Delineation Methods	• **Forest Practices Code of BC. (1998). Fish-Stream Identification Guidebook** https://www2.gov.bc.ca/assets/gov/environment/plants-animals-and-ecosystems/fish-data-information/fishstream.pdf • **RISC Inventory Standards for Aquatic Ecosystems** https://www2.gov.bc.ca/gov/content/environment/natural-resource-stewardship/laws-policies-standards-guidance/inventory-standards/aquatic-ecosystems • **RAPR Technical Assessment Manual (2019) V.1.1** https://www2.gov.bc.ca/gov/content/environment/plants-animals-ecosystems/fish/aquatic-habitat-management/riparian-areas-regulation
Vegetation Identification and Wetland Indicator Status	• **Pojar, J. and MacKinnon, A. (1994). Plants of Coastal British Columbia: Including Washington, Oregon, and Alaska.** Lone Pine Publishing, Vancouver, BC https://lonepinebooks.com/product/plants-of-coastal-british-columbia-3/ • **Hitchcock, C.L. and Cronquist, A. (1973). Flora of the Pacific Northwest**. University of Washington Press. Seattle, WA https://www.pnwherbaria.org/florapnw.php • **Fenneman, J. and Durand, R. (2024). Wetland Plants of British Columbia. Field Guide of Indicator Species to Wetland Classification. V2**. https://bcwfbogblog.wordpress.com/wp-content/uploads/2021/06/wetland_plants_of_british_columbia.pdf • **USACE [US Army Corps of Engineers] (2022). National Wetland Plant List for the Western Mountains, Valleys, and Coast Region** https://wetland-plants.sec.usace.army.mil/download/ ** Note: it's recommended to check the online database frequently for updates to the above document and wetland plant indicator status* • **USACE (2012).** National Wetland Plant List Indicator Rating Definitions. https://cwbi-app.sec.usace.army.mil/nwpl_static/data/DOC/NWPL/pubs/2012b_Lichvar_et_al.pdf
***Water Sustainability Act* and Guidance Documents**	• ***Water Sustainability Act*, SBC 2014.ch 14** https://www.bclaws.gov.bc.ca/civix/document/id/complete/statreg/14015 • **Water Sustainability Regulation, BC Reg 36/2016** https://www.bclaws.gov.bc.ca/civix/document/id/complete/statreg/36_2016 • **Jurisdiction of a Stream under the WSA – 2021 Provincial Questionnaire** *Note: not published online; request a copy from the Ministry or City if needed*

	• **Government of BC (2022) A Users' Guide for Changes In and About A Stream in British Columbia** https://www2.gov.bc.ca/assets/gov/environment/air-land-water/water/working-around-water/wsa-cias-users_guide.pdf • **Government of BC (2022) Requirements and Best Practices for Making Changes In and About A Stream in British Columbia** https://www2.gov.bc.ca/assets/gov/environment/air-land-water/water/working-around-water/wsa-cias-requirements-bmps.pdf • **Government of BC (2019) Guidance for Applications or Notifications for Changes in and about a Stream under the *Water Sustainability Act* in the South Coast Region.** https://www2.gov.bc.ca/assets/gov/environment/air-land-water/water/working-around-water/south_coast_cias_guidance.pdf
Wetland Identification and Delineation Methods	• **USACE (2010) Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Western Mountains, Valleys, and Coast Region (Version 2.0).** https://www.spk.usace.army.mil/Portals/12/documents/regulatory/pdf/west_mt_finalsupp.pdf *Note: to be used in conjunction with the following*: **USACE (1987) Wetland Delineation Manual** https://www.nae.usace.army.mil/Portals/74/docs/regulatory/JurisdictionalLimits/wlman87.pdf **NRCS and USDA (2018) Field Indicators of Hydric Soils in the US** https://www.nrcs.usda.gov/sites/default/files/2022-09/Field_Indicators_of_Hydric_Soils.pdf • **Government of Alberta (2015) Alberta Wetland Identification and Delineation Directive** https://open.alberta.ca/publications/9781460123638 *Note: This protocol is based on "The Primary Indicators Method – A Practical Approach to Wetland Recognition and Delineation in the United States"*
Wetland Classification and Evaluation	• **MacKenzie, W.H. (2012) Biogeoclimatic ecosystem classification of non-forested ecosystems in British Columbia.** Victoria, BC. Tech. Rep. 068. https://www.crownpub.bc.ca/Product/Details/7610004081_S • **MacKenzie, W.H. and Moran, J.R. (2004) Wetlands of British Columbia: a guide to identification**. Res.Br.BC.Min.For., Victoria, BC. Land Management Handbook No. 52. https://www.for.gov.bc.ca/hfd/pubs/docs/lmh/lmh52.htm • **NWWG [National Wetland Working Group]. (1997). The Canadian Wetland Classification System.** Second Edition. B.G. Warner and C.D.A. Rubec (Ed.), Wetlands Research Centre, University of Waterloo, Waterloo, ON. https://publications.gc.ca/site/eng/9.867506/publication.html • **Wetland Ways and Evaluation Guide - Province of British Columbia** https://www2.gov.bc.ca/gov/content/environment/air-land-water/water/water-planning-strategies/wetlands-in-bc

Wildlife Occurrences and Survey Methods	• **BC Frogwatch Atlas** https://maps.gov.bc.ca/ess/hm/bcfa/ • **The BC Conservation Data Centre (CDC) iMap** https://maps.gov.bc.ca/ess/hm/cdc/ • **iNaturalist** www.inaturalist.org/observations • **BC Frog Watch (Ministry of Environment) Call and Visual Survey Protocols** https://www2.gov.bc.ca/gov/content/environment/plants-animals-ecosystems/wildlife/wildlife-conservation/amphibians-reptiles/frogwatching • **RISC (1998) Inventory Methods for Pond-Breeding Amphibians and Painted Turtle + Erratums 1-3** https://www2.gov.bc.ca/assets/gov/environment/natural-resource-stewardship/nr-laws-policy/risc/pond.pdf

ATTACHMENT A

Watercourse Classification Assessment Report Template Example

Watercourse Classification Assessment Report Template

City of Surrey - Qualified Environmental Professional - WCA Report

Please refer to the corresponding City of Surrey "WCA Report - Terms of Reference and Template Guidance" document for template guidance and submission instructions. Note, WCA Reports may be subject to review and/or updates five (5) years from the date of their acceptance to assess for legislative compliance.

Report Information			
Date	Click or tap to enter a date.	Version No.	Click or tap here to enter text.

Property Information	
Property Address	Click or tap here to enter text.
Parcel Identifier (PID)	Click or tap here to enter text.
Legal Description	Click or tap here to enter text.

Applicant Information			
First Name	Click or tap here to enter text.	Last Name	Click or tap here to enter text.
Company	Click or tap here to enter text.	Phone No.	Click or tap here to enter text.
Address	Click or tap here to enter text.		
Email	Click or tap here to enter text.		

Primary QEP Information			
First Name	Click or tap here to enter text.	Last Name	Click or tap here to enter text.
Designation	Click or tap here to enter text.	Registration No.	Click or tap here to enter text.
Company	Click or tap here to enter text.		
Address	Click or tap here to enter text.		
Phone No.	Click or tap here to enter text.		
Email	Click or tap here to enter text.		

Primary QEP Sign Off and Declaration
I hereby declare that this WCA Report was completed and overseen by the primary QEP and that all information has been provided with due consideration of my professional designation, scope of practice, and the code of ethics laid out by my professional association.

X

Primary QEP Signature/ Stamp

Click or tap to enter a date.

Date

Table of Contents

1.0 Site Description

Describe the property relative to the surrounding area, present and historic land use, general vegetation composition, and any key features of note (e.g., existing structures, impervious surfaces, mapped watercourses, etc.).
Click or tap here to enter text.

2.0 Methodology

Identify the methods and equipment used to conduct the watercourse classification assessment in the table below. Applied assessment methods should reflect the intensity of effort needed to deliver a sound professional opinion, be scientifically defendable, and carried out in accordance with industry standards.

Background Research and Historical Data Analysis: Identify desktop research efforts and any databases queried for background reports and records.			
Click or tap here to enter text.			
Field Assessments/Surveys: Identify the date, time, weather conditions, and rainfall in the preceding 72 hours, any field assessment/survey methodologies used, and intensity of effort for each site visit.			
Date of Survey(s)	Click or tap here to enter text.	Time	Click or tap here to enter text.
Weather at the time	Click or tap here to enter text.	Rainfall 72 hours preceding (mm)	Click or tap here to enter text.
Field assessment/survey methodologies and intensity of effort			
Click or tap here to enter text.			
Equipment: Identify any field equipment used to carry out the field assessment (e.g., soil auger, handheld GPS, water quality sampling and monitoring metres).			
Click or tap here to enter text.			
Mapping and Delineation: Identify any specific methods and/or techniques consulted to delineate wetted areas of interest, watercourses, and/or wetlands.			
Click or tap here to enter text.			

3.0 Watercourse(s)

Fill out the following section for each watercourse or wetted area of interest that was investigated by copying and pasting the table as needed. Note, watercourses with similar source hydrology, biophysical characteristics, and legislative purview (e.g., drainage ditches that originate from a single source) may be grouped together except where they occur onsite vs. offsite. The term 'watercourse' herein refers to any body of water, such as a stream, ditch, pond, spring, wetland, and/or wetted area of interest (AOI). The scope of the assessment area is to extend beyond the

subject property to an extent that identifies the source of flows, the receiving environment, and any other factors that may influence the hydrology of the watercourse. Any access constraints or other limitations should be identified in the rationale.

Watercourse Name(s):	Click or tap here to enter text.			
Is the watercourse onsite or offsite?	Onsite ☐	Offsite ☐	Both ☐	
Historical Review: Consult historical aerial photographs and topographic maps to identify if natural watercourse were present historically on the landscape and if evidence of a modified stream and/or wetland remains. Relevant aerial images (minimum 6) are to be appended to the WCA Report to support the assessment. Images are to be clear (i.e., not pixelated) and labelled.				
Are any natural watercourses (e.g., streams, wetlands) apparent on the landscape historically?	Yes ☐	No ☐	Unsure ☐	
Provide supporting rationale and description of any points of interest on included aerial imagery.				
Click or tap here to enter text.				
Is there evidence that a natural or modified watercourse is still present?	Yes ☐	No ☐	Unsure ☐	
Provide supporting rationale and any notable changes in the landscape.				
Click or tap here to enter text.				
Physical Description: Describe the physical characteristics of watercourses and riparian habitat.				
Provide a description of the physical characteristics of the watercourse including approximate depth, top-of-bank (TOB) and/or stream boundary width, substrate characterization, qualitative gradient (low, steep, etc.), evidence of velocities (e.g. scour), and presence of any anthropogenic features (e.g., culverts, bridges, etc.).				
Click or tap here to enter text.				
Provide a description of the riparian habitat, vegetation species present, condition, and presence of any anthropogenic features or surfaces (e.g., paved areas).				
Click or tap here to enter text.				
Hydrology: Describe the local hydrology and flow regime of the watercourse				
Provide a description of the local hydrology of the catchment area and documents or databases consulted (e.g., ISMP, drainage catchment plans, hydrogeology reports, well records, etc.).				
Click or tap here to enter text.				
Were source waters identified?	Yes ☐	No ☐		
Provide a description of the source waters (e.g., surface runoff, perched/seasonal groundwater, deep aquifer, another watercourse) and evidence to support the description. If source waters could not be identified, provide rationale why they could not be identified.				
Click or tap here to enter text.				
Is the watercourse isolated?	Yes ☐	No ☐		
If isolated, provide a description of the intensity of effort undertaken to eliminate the presence of an outflow channel and/or pipe. If the watercourse is connected to another, provide a description of the downstream environment and where the flows discharge to.				
Click or tap here to enter text.				
What is the flow regime?	Perennial ☐	Intermittent ☐	Ephemeral ☐	Unsure ☐

Provide rationale and evidence used to identify the flow regime, the weather conditions preceding the site visit, if observed conditions were reflective of seasonal norms, and/or if additional information is required. Note, a perennial stream never ceases to flow, an intermittent stream flows only part of the year, and an ephemeral stream flows only after a rain event.			
Click or tap here to enter text.			
Fish Presence and Habitat: Describe the fisheries resource values (if present). Note, 'fish' herein is the same definition as that of the federal *Fisheries Act*.			
Are there fish present and/or able to access the watercourse?	Yes ☐	No ☐	Unsure ☐
If yes, provide a description of fish species present and anticipated use (e.g., rearing, migration, over-wintering, spawning, etc.). If no, provide supporting rationale and expand on the methodologies used to determine fish absence as well as any natural and/or anthropogenic barriers to fish movement.			
Click or tap here to enter text.			
Does the watercourse directly or indirectly support fish and fulfill the definition of fish habitat as defined by the *Fisheries Act*?	Yes ☐	No ☐	Unsure ☐
Provide supporting rationale as to why the watercourse does or does not meet the criteria of fish habitat (i.e., an area on which fish depend directly or indirectly to carry out their life processes including, but not limited to, food supply and base flows).			
Click or tap here to enter text.			
Wildlife: Other wildlife may rely on aquatic habitat to carry out life history functions (e.g., amphibians) and may be protected under provincial and federal legislation.			
If applicable, identify any wildlife species that may rely on the watercourses, their least risk timing windows or conditions, and if they are subject to further protection under legislation (e.g., *Wildlife Act* or *Species at Risk Act*).			
Click or tap here to enter text.			
Wetland Indicators: Provide a description of onsite conditions relative to the three indicators of a wetland (i.e., hydrology, hydrophytic vegetation, and hydric soils) and methodologies used to determine presence/absence of each indicator. Should one or more wetland indicators be present, a detailed wetland assessment may be required using industry recognized and scientifically defensible methodology. If a detailed wetland assessment report was prepared separately, please append to the WCA Report and make note to reference the attachment in the rationale text box.			
Is the hydrologic regime capable of supporting wetland presence? For example, sustained soil saturation within 30 cm of the surface during the growing season.	Yes ☐	No ☐	Unsure ☐
Provide supporting rationale of how the local hydrology may or may not support wetland processes.			
Click or tap here to enter text.			
Are any hydrophytic vegetation species or communities present?	Yes ☐	No ☐	Unsure ☐
Provide a description of the vegetation community, identified to species-level where possible, and the wetland indicator status as prescribed by the USACE for the Western Mountains, Valleys, and Coast Region (if applicable).			
Click or tap here to enter text.			

Was the soil investigated for the presence of hydric soil indicators?	Yes ☐	No ☐
If yes, provide a description of the methodology used, intensity of effort, soil properties, and if any hydric indicators were present (i.e., mottling, gleying, organic, and/or sulphur smell within the upper 30-40 cm of soil). If no, provide rationale as to why soil investigation was not undertaken.		
Click or tap here to enter text.		
Is a detailed wetland assessment recommended?	Yes ☐	No ☐
Provide supporting rationale on why a detailed wetland assessment is or is not recommended.		
Click or tap here to enter text.		

4.0 Legislative Purview

Review the biophysical characteristics of each watercourse relative to the purview of the *Water Sustainability Act* (WSA) and Regulation (WSR), Riparian Area Protection Regulation (RAPR), and *Fisheries Act*.

***Water Sustainability Act* and Regulation**: Assess each watercourse against the criteria of a 'stream' as defined by the WSA and any relevant criteria listed in the WSR. Review of historical data and source hydrology will be necessary. Note, the historical presence of a natural watercourse likely indicates the feature is a modified WSA 'stream'. Copy and paste the section below as needed for each watercourse.

Watercourse Name	Click or tap here to enter text.		
Is the watercourse subject to the WSA?	Yes ☐	No ☐	Unsure ☐
Supporting Rationale (if unsure, state if additional investigation is recommended).			
Click or tap here to enter text.			

Riparian Areas Protection Regulation: Assess each watercourse against the criteria of a 'stream' as defined by the RAPR and the RAPR Technical Assessment document (as amended). Review of fisheries resources values, connectivity, and riparian vegetation will be required. Note, in many instances WSA streams are RAPR Streams and not RAPR Ditches. Copy and paste the section below as needed for each watercourse.

Watercourse Name	Click or tap here to enter text.			
Is the watercourse subject to the RAPR?	Yes ☐	No ☐	Unsure ☐	
What is the RAPR stream type ?	Ditch ☐	Stream ☐	Pond/Wetland ☐	N/A ☐
Supporting Rationale (if unsure, state if additional investigation is recommended).				
Click or tap here to enter text.				

Fisheries Act: Assess each watercourse against the criteria of 'fish habitat' as defined by the *Fisheries Act*. Review of fish presence/absence, stream and riparian conditions, and connectivity will be required. Copy and paste the section below as needed for each watercourse.

Watercourse Name	Click or tap here to enter text.		
Is the watercourse subject to the *Fisheries Act*?	Yes ☐	No ☐	Unsure ☐
Fish Habitat Type	Direct ☐ (Fish Present)	Indirect ☐ (Fish Absent)	N/A ☐ (Not Fish Habitat)
Supporting Rationale (if unsure, identify if additional investigation is recommended).			
Click or tap here to enter text.			

5.0 Municipal Watercourse Classification

Assign a municipal watercourse classification (stream class and stream type) in accordance with Tables 1 and 2 of the complimentary WCA Report TOR and provide supporting rationale for each watercourse. Copy and paste the section below as needed for each watercourse.							
Watercourse Name	Click or tap here to enter text.						
Stream Class	A ☐	AO ☐	B ☐	C ☐	Isolated ☐	Unregulated ☐	Unsure ☐
Stream Type	Natural ☐	Channelized ☐			Large Ravine ☐	Ditch ☐	Unsure ☐
Supporting Rationale (if unsure, identify if additional investigation is recommended).							
Click or tap here to enter text.							

6.0 Limitations

Identify any limitations encountered during the assessment, such as timing issues or access constraints. Recommend follow-up actions or additional assessments if knowledge gaps exist in the watercourse classification determination or delineation (e.g., wetland assessment).
Click or tap here to enter text.

7.0 Conclusion

Watercourse Classification Summary Table					
Watercourse Name	WSA	RAPR	*Fisheries Act*	Municipal Class	
				Stream Class	Stream Type
On Site					
Click or tap here to enter text.	Choose an item.	Choose an item.	Choose an item.	Choose an item.	Choose an item.
Off Site					
Click or tap here to enter text.	Choose an item.	Choose an item.	Choose an item.	Choose an item.	Choose an item.

Provide a summarized statement of assessed watercourses and rationale to support the legislative purview and assigned municipal classification. State whether additional/follow-up site assessments

are required to address any information gaps with regards to the presented watercourse classification conclusions
Click or tap here to enter text.

8.0 List of Professionals

A QEP is defined in the City's Zoning Bylaw 12000 as a registered professional Biologist, Geoscientist, Engineer, Forester and /or Agrologist registered in British Columbia, with demonstrated education, expertise, accreditation and knowledge relevant to the sensitive environment, ecosystems and/or riparian/streamside management. Secondary QEP's with specialized expertise may be required to provide advice where site characteristics warrant. Please list the primary QEP, any additional authors, and any secondary QEP's below.

Name (Company)	Professional Designation (Registration No.)	Component of WCA Report Responsible For	Report Date
Click or tap here to enter text.	Click or tap here to enter text.	Click or tap here to enter text.	Click or tap here to enter text.
Click or tap here to enter text.	Click or tap here to enter text.	Click or tap here to enter text.	Click or tap here to enter text.
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ATTACHMENT A
FIGURES

ATTACHMENT B
PHOTOGRAPHS

ATTACHMENT C
OTHER SUPPORTING DOCUMENTS