### THE CORPORATION OF THE CITY OF PORT COQUITLAM

# "DEVELOPMENT PROCEDURES BYLAW, 2013, NO. 3849"

#### WATERCOURSE DEVELOPMENT PERMIT

NO. DP000390

Issued to: GRD VICTORIA HOMES INC and RBD VICTORIA HOMES INC

(Owner as defined in the Local Government Act

hereinafter referred to as the Permittee)

Address: 41A-1145 INLET ST COQUITLAM BC V3B 6E8

1. This Development Permit is issued subject to compliance with all of the Bylaws of the Municipality applicable thereto, except as specifically varied by this Permit.

2. This Development Permit applies to and only to those lands within the Municipality described below, and any and all buildings, structures and other development thereon:

Address: 1160 VICTORIA DRIVE

Legal Description: LOT 48 EXCEPT: PART DEDICATED ROAD ON PLAN 77115, SECTION

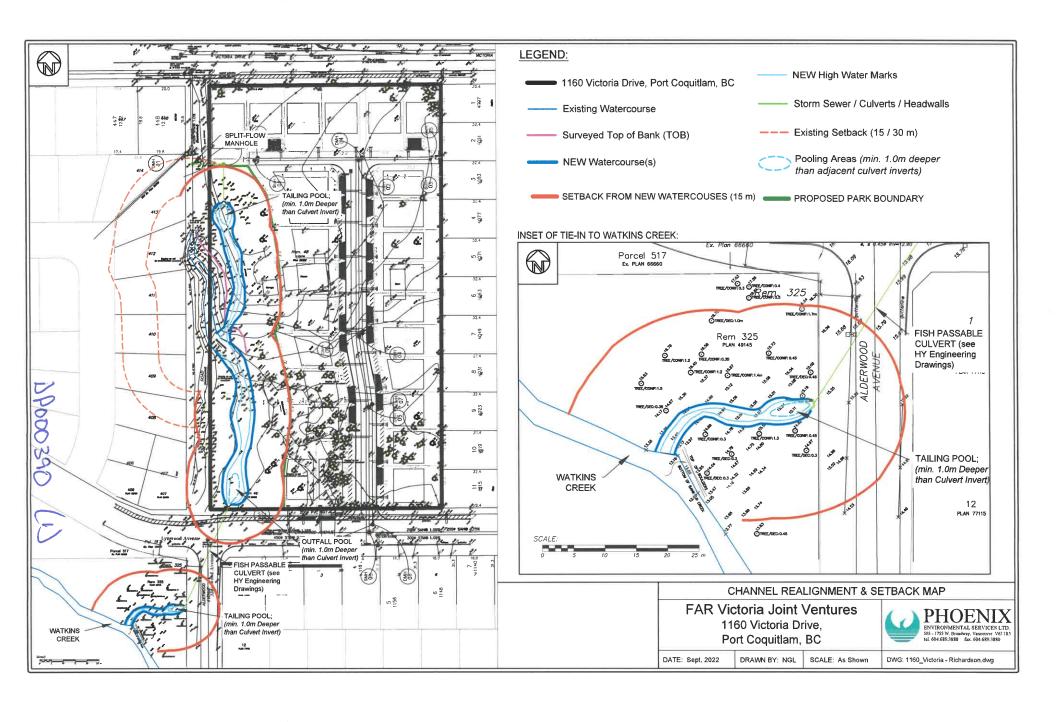
7 TOWNSHIP 40 NEW WESTMINSTER DISTRICT, PLAN 29352

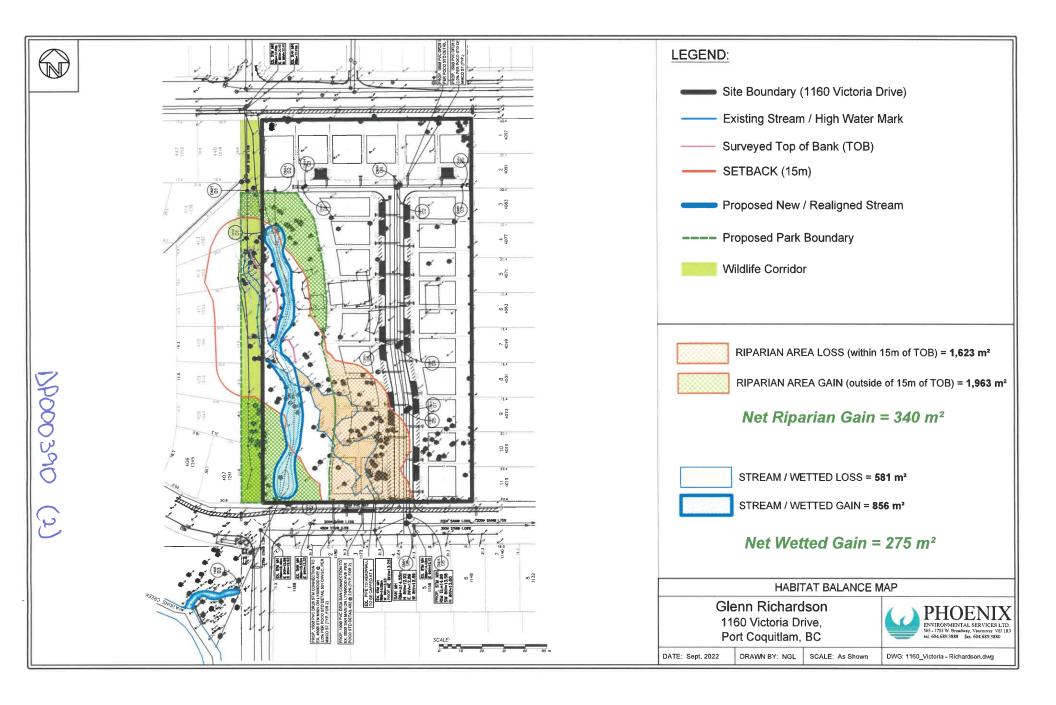
P.I.D.: 001-622-251

3. The above property has been designated as Development Permit Area under Section 9.8 —Watercourse Protection in the "Official Community Plan Bylaw, 2013, No. 3838".

- 4. Alteration of the watercourse, watercourse protection setback, and habitat enhancement works are to generally conform to the plans numbered DP000390 (1) to DP000390 (7) which are attached hereto and form part of this Permit.
- 5. The conditions of this Permit are:
  - a. Measures are implemented as outlined in the Fisheries and Oceans Canada letter dated August 18, 2023 attached hereto as Appendix 1 and form part of this permit.
  - b. Measures are implemented as outlined in the Water Sustainability Act Approval letter dated May 15, 2024 attached hereto as Appendix 2 and form part of this permit.
- 6. The land described herein shall be developed strictly in accordance with the terms and conditions and provisions of this Permit and any plans and specifications attached to this Permit, which shall form a part hereof.

| 7. | The terms of this Permit or an interest in the land affected | ny amendment to it, are binding on all persons who acquire ed by this Permit. |
|----|--|---|
|    | APPROVED BY THE COMMITT                                      | EE OF COUNCIL THE DAY OF, 2024.   |
|    | SIGNED THIS DAY OF _   | , YEAR  |
|    |  |   |
|    |  | Mayor   |
|    |  | Clark   |
|    |  | Clerk   |
|    | NOWLEDGE THAT I HAVE REAL<br>ITHIS PERMIT IS ISSUED.         | D AND UNDERSTAND THE TERMS AND CONDITIONS UPON                                |
|    |  |   |
|    |  | Applicant (or Authorized Agent or   |
|    |  | Representative of Applicant)  |



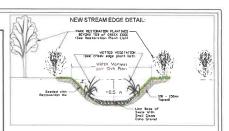




LEGEND: SITE BOUNDARY NEW WATERCOURSE TOP OF BANK OF EXISTING WATERCOURSE RIPARIAN AREA RESTORATION PLANTING

WATERCOURSE EDGE PLANTING WATKINS CREEK RIPARIAN SWATH PLANTING underston WILDLIFE FENCING

[TYP] PLANT LAYOUT DIAGRAM:



| Restoration   |
|---------------|
| Planting List |
|               |
| 22072         |

(List assumes only 80% of area requires plants based on existing / reestablished vegetation)

Amount Botanical Name Spacing Size Common Name Acer macrophylum Big-leaf maple 5 gallon Sorbus aucuparia Mountain Ash 5 gallon Pseudotsuga menziesii Douglas Fir 5 gallon Thuja plicata Western Red Cedar 5 gallon Crataegus douglasi Black Hawthorne 5 gallon Salix lucida Pacfic Willow 5 gallon Sambucus racemosa Red Elderberry 2 gallon Physocorous capitatus Pacific Ninebark 2 m 2 gallon Mahonia nervosa 2 gallon Oregon Grape 2 m 260 Rubus spectabilis Salmonberry 2 m 2 gallon Symphoricarpos albus Snowberry 2 gallon Acer circinatum Vine Maple 2 m 2 gallon Lonicera involucrata Black Twinberry 2 gallon 2 m Cornus stolonifera Red-osier Dogwood 2 m 2 gallon Gaultheria shalon Salal 1 gallon Total Plants = 2695

| Watercourse Edge | Amount | Botanical Name      | Common Name  | Spacing | Size     |
|------------------|--------|---------------------|--------------|---------|----------|
| Planting List    | 160    | Spiraea douglasii   | Hardhack     | 0.5 m   | 1 gallon |
|                  | 160    | Carex obnupia       | Slough Sedge | 0.5 m   | 1 gallon |
| 480 m²           | 160    | Scirpus microcarpus | Bulrush      | 0.5 m   | 1 gallon |
| Total Plants =   | 480    |                     |              |         |          |

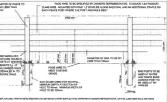
| Watkins Creek  | Amount | Botanical Name        | Common Name       | Spacing | Size     |
|----------------|--------|-----------------------|-------------------|---------|----------|
| Riparian Swath | 20     | Rubus spectabilis     | Salmonberry       | 1 m     | 2 gallon |
| Planting List  | 15     | Lonicera involucrata  | Black Twinberry   | 1 m     | 2 gallon |
|                | 15     | Physocarpus capitatus | Pacific Ninebark  | 1 m     | 2 gallon |
| 109 m²         | 20     | Cornus stolonifera    | Red-osier Dogwood | 1 m     | 2 gallon |
|                | 20     | Polystichum munitum   | Western Swordfern | 1 m     | 2 gallon |
|                | 20     | Gaultheria shalon     | Salal             | 1 m     | 1 gallon |
| Total Plants = | 110    |                       |                   |         |          |

- NOTES:

  I. INITIAL PAVEMENT / DEBRIS REMOVAL WITHIN THE RIPARIAN PLANTING AREA MUST BE COMPLETED UNDER THE DIRECT SUPERVISION OF THE PROJECT ARBORIST, AND THE ENVIRONMENTAL MONITOR (PHOENIX ENVIRONMENTAL, 604.689.3888) TO ENSURE PROTECTION OF EXISTING TREES AND THE CHANNELIZED WATERCOURSE. NO FILL IS TO BE ADDED INTO THE CRITICAL ROOT ZONE (CRZ) OF RETAINED TREES, UNLESS UNDER DIRECT ARBORIST SUPERVISION.
- NO MACHINES OR STORAGE OF MATERIALS IS PERMITTED INSIDE THE CRZ OF TREES TO BE RETAINED.
- ALL INVASIVE SPECIES (EG. HIMALAYAN BLACKBERRY) IS TO BE MECHANICALLY REMOVED INCLUDING ROOTS GRUBBED OUT ALONG THE EASTERN EDGES OF THE WATERCOURSE, AND ELSEWHERE IN THE PLANTING AREA IF PRESENT, AND DISPOSED OF OFF-SITE AT AN APPROVED DUMP SITE. THIS WORK MUST BE CONDUCTED UNDER DIRECT SUPERVISION OF THE PROJECT ARBORIST AND THE ENVIRONMENTAL MONITOR. EXISTING SOILS ARE TO REMAIN IN PLACE WHEREVER POSSIBLE, WITH THE EXCEPTION OF THE PROPOSED BENCHING SHOWN IN THE
- ALL WORKS ARE TO BE CONDUCTED IN ACCORDANCE WITH SEDIMENT CONTROL PROVISIONS OF THE "LAND DEVELOPMENT GUIDELINES FOR THE PROTECTION OF AQUATIC HABITAT" AND COMPLY WITH THE CITY OF PORT COQUITLAM'S WATERCOURSE DEVELOPMENT PERMIT.
- ADDITION OF ISCH OF WEED-FREE TOPSOIL IS REQUIRED THROUGHOUT THE RESTORATION AREA DUE TO BENCHING EXCAVATION AND PAVEMENT REMOVAL WORKS. TOPSOIL MUST MEET THE STANDARDS OUTLINED IN THE BC LANDSCAPE STANDARD SEVENTH EDITION FOR PLANTING AREAS IN "LEVEL 5 BACKGROUND & NATURAL AREAS".
- FENCING IS TO BE ERECTED ALONG PARK / RIPARIAN RESTORATION AREA AS SHOWN, AND MUST BE AS PER THE DETAILS ACCORDING TO THE CITY OF PORT COQUITLAM. AN EXAMPLE SPEC IS PROVIDED.
- ALL PLANTING STOCK SHALL BE NURSERY SUPPLIED. DISEASE FREE AND IN GOOD HEALTH WITHOUT BROKEN TOPS, BARK DAMAGE, ETC. ANY PLANTING SUBSTITUTIONS ARE TO BE REVIEWED AND APPROVED IN ADVANCE BY THE PROJECT BIOLOGIST (PHOENIX ENVIRONMENTAL, 604.689.3888)
- PLANTED STOCK SPACING SHALL BE ADJUSTED TO ACCOMMODATE EXISTING VEGETATION AND NATURAL RECRUITMENT AS REQUIRED, HOWEVER THE LAYOUT DIAGRAM SHOWN ON THIS PLAN SHOULD BE ADMERED TO. SHRUBS OF THE SAME SPECIES ARE TO BE PLANTING IN GROUPINGS OF 10 OF THE SAME SPECIES TO ENSURE GREATER SURVIVAL
- PLANTING SHOULD OCCUR IN LATE FALL TO ENSURE HIGHEST POSSIBLE PLANT SURVIVAL RATE.
- THE ADDITION OF WOOD-MULCH (5CM) IS TO BE BLOWN IN FOLLOWING INSTALLATION OF PLANTS, TO ASSIST IN EROSION CONTROL AND SUPPRESS WEEDS. THE OWNER IS TO CONTRACT WEEKLY WATERING SERVICES BETWEEN THE SUMMER MONTHS OF JULY - SEPTEMBER FOR THE FIRST TWO YEARS AND AS REQUIRED THEREAFTER TO ENSURE PLANT SURVIVAL THROUGHOUT THE MAINTENANCE PERIOD. THIS SHOULD BE ACCOMPLISHED BY USE OF A CONTRACTED WATERING SERVICE
- COMPANY, OR BY INSTALLING A TEMPORARY IRRIGATION SYSTEM.

  13. IT IS THE OWNER'S RESPONSIBILITY TO PROVIDE ANNUAL MAINTENANCE AND MONITORING OF THE RESTORATION AREA FOR A PERIOD OF 5 YEARS. PLANT SURVIVAL RATES MUST BE 100% FOR TREES, AND 80% FOR SHRUBS. AT NO POINT THROUGHOUT THE 5 YEAR MAINTENANCE PERIOD SHOULD THE RESTORATION AREA CONTAIN INVASIVE SPECIES EXCEEDING 5% OF THE PLANTED AREA.
  - \*\*THE CITY OF PORT COQUITLAM & PHOENIX ENVIRONMENTAL ARE TO BE CONTACTED FOR A SITE MEETING PRIOR TO PLANTING

#### WILDLIFE FENCE SPEC



#### **HABITAT ENHANCEMENT & RESTORATION PLANTING PLAN**

#### FAR Victoria Joint Ventures

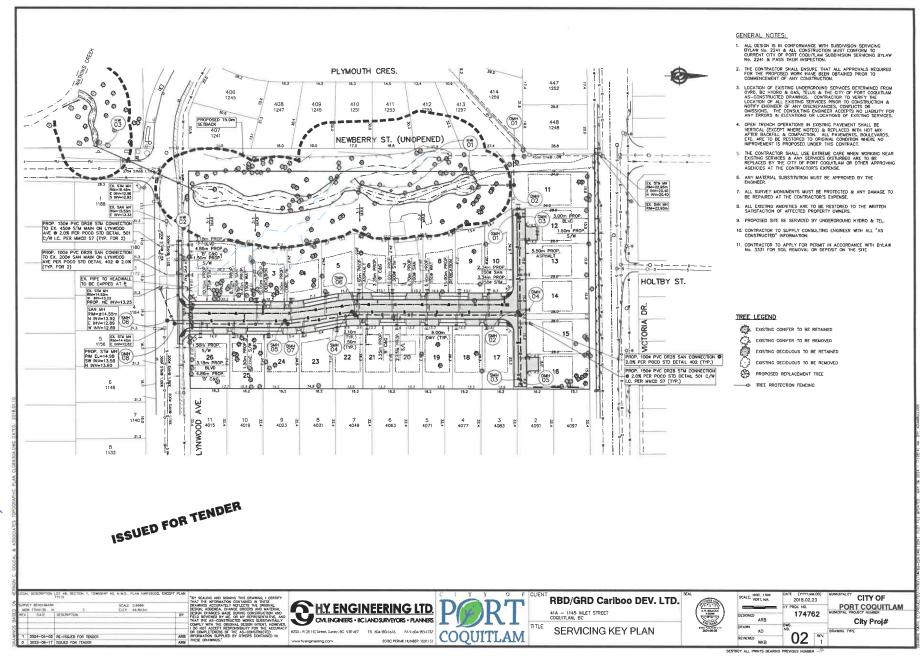
1160 Victoria Drive Port Coquitlam, BC



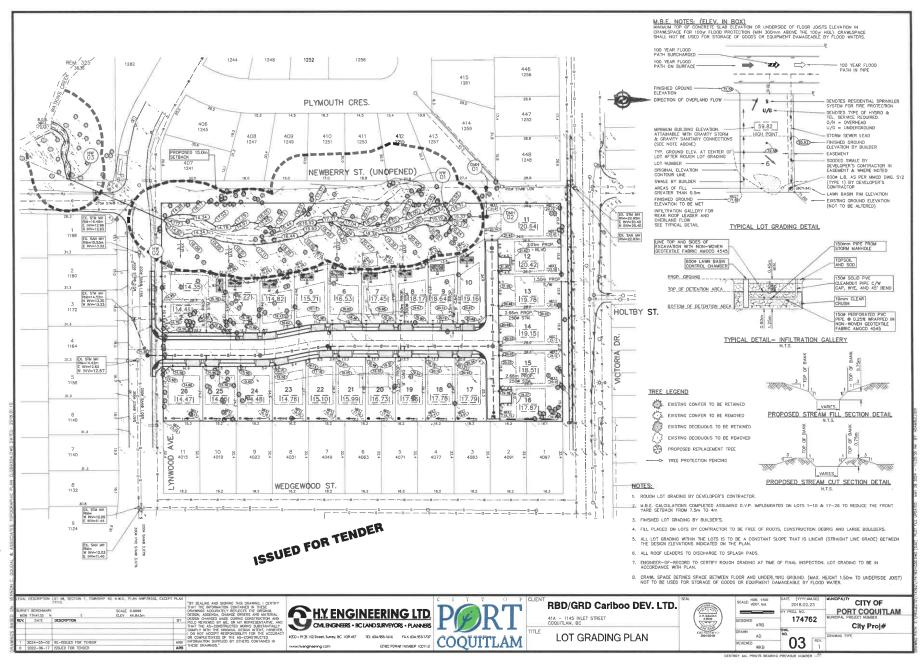
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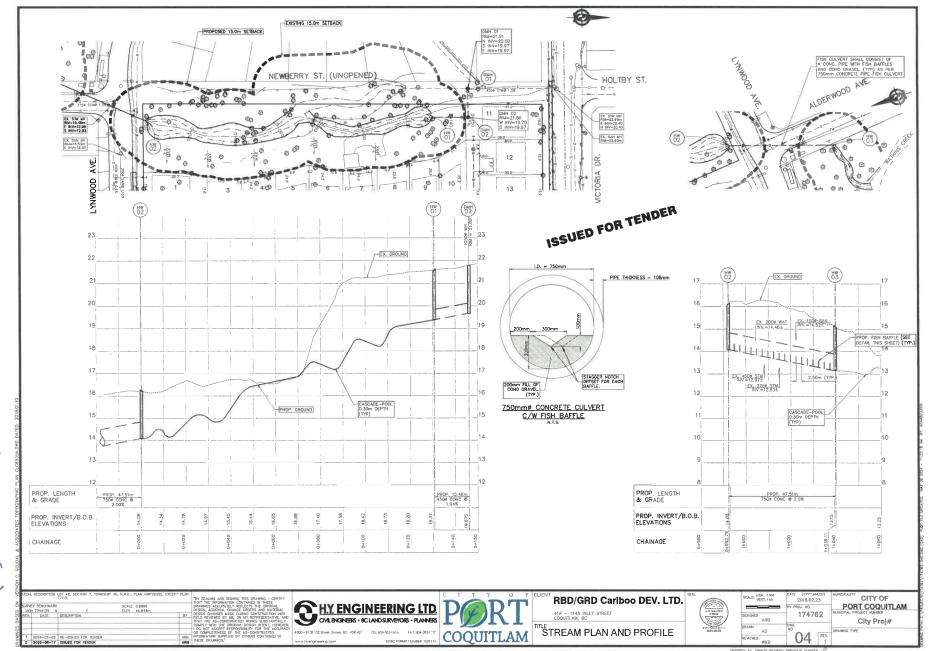
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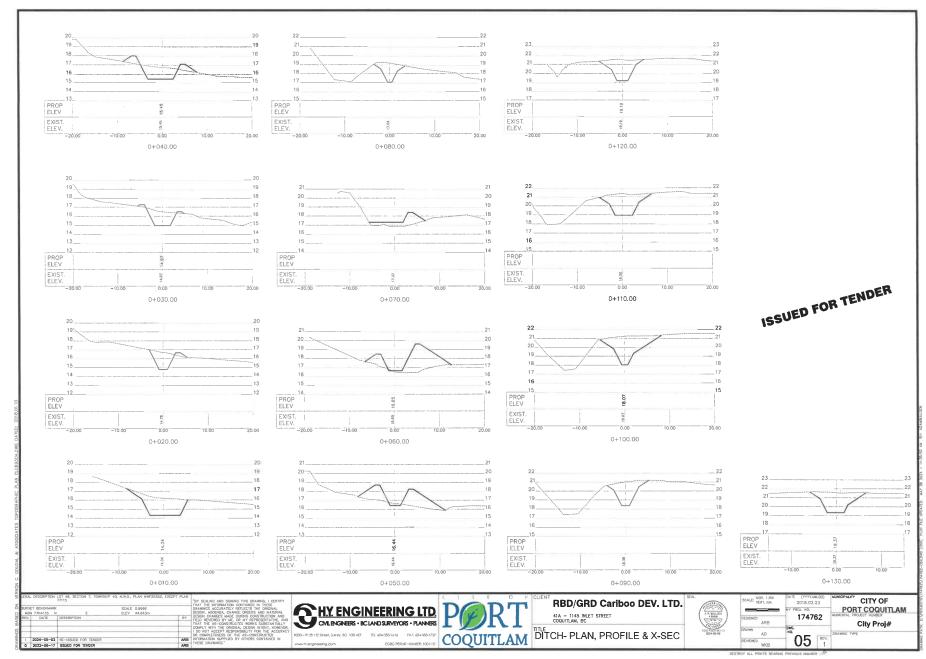
DWG: 1160 Victoria Dr\_Rest.Plan.dwg















Pacific Region Ecosystem Management Branch 200 – 401 Burrard Street Vancouver, BC V6C 3S4 Pêches et Océans Canada

Région du Pacifique Direction de la gestion des écosystèmes Pièce 200 – 401 rue Burrard Vancouver (C.-B.) V6C 3S4

August 18, 2023

Our file Notre référence 22-HPAC-01413

RBD Victoria and GRD Victoria Homes Inc 41A-1145 Inlet Street Coquitlam, BC V3B 6E8

Via email: <u>fargroupoffice@gmail.com</u>

Dear Glenn Richardson:

Subject: Stream Realignment, Watkins Creek, Port Coquitlam – Implementation of Measures to Avoid and Mitigate the Potential for Prohibited Effects to Fish and Fish Habitat

The Fish and Fish Habitat Protection Program (the Program) of Fisheries and Oceans Canada (DFO) received your proposal on November 16, 2022. We understand that you propose to:

• Partially infill and re-align an existing stream within Port Coquitlam, BC (approximately 581 m<sup>2</sup> aquatic footprint and 1623 m<sup>2</sup> riparian footprint).

Our review considered the following information:

- Request for Review package received via email from Alexander Drake of Phoenix Environmental Services Ltd. on November 16, 2022 including:
  - Appendices I-VI, prepared by Phoenix Environmental Services Ltd, dated November 2022; and
- Site visit conducted by Eleanor Willson and Oliver Franklin from the Fish and Fish Habitat Protection Program, Fisheries and Oceans Canada on January 13, 2023; and
- Additional information provided via email by Ken Lambertsen, dated May 30, 2023.

Your proposal has been reviewed to determine whether it is likely to result in:

- the death of fish by means other than fishing and the harmful alteration, disruption or destruction of fish habitat which are prohibited under subsections 34.4(1) and 35(1) of the *Fisheries Act*; and
- effects to listed aquatic species at risk, any part of their critical habitat or the residences of their individuals in a manner which is prohibited under sections 32, 33 and subsection 58(1) of the *Species at Risk Act*.



The aforementioned outcomes are prohibited unless authorized under their respective legislation and regulations.

To avoid and mitigate the potential for prohibited effects to fish and fish habitat (as listed above), it is important that all proposed measures are implemented as set out in the information that was submitted to the Program in relation to your project. In addition, we recommend implementing the measures listed below. If there is a conflict between the proposed measures as set out in the information that was submitted to the Program and the following measures, the following measures shall prevail.

- Ensure a Qualified Environmental Professional (QEP) is on site for start-up and during all works with the potential to harm fish or degrade fish habitat. The QEP is required to monitor for compliance with regulations and to ensure appropriate implementation of environmental best management practices, including adherence to water quality guidelines.
- Works are to be conducted during the least risk to fish instream work window of August 01 September 15 and, if possible, when the watercourse is dry.
- The removal of or disturbance to riparian vegetation should be kept to a minimum during the works.
- If works cannot be conducted in the dry, works are to be conducted in isolation of flow and the following measures are to be implemented:
  - o For works in fish-bearing waters, an appropriately qualified professional is to conduct a fish salvage of the isolated work area. Choose low impact salvage methods such as minnow trapping and seining before opting for higher impact electrofishing. In the event that isolation is breached, stop work and repeat fish salvage efforts.
  - o Dewater the isolated area gradually to reduce the potential for stranding fish.
  - Ensure pumps are screened to prevent entrainment or impingement of fish in accordance with DFO's interim code of practice for End-of-pipe Fish Protection Screens for Small Water Intakes in Freshwater (<a href="https://www.dfo-mpo.gc.ca/pnw-ppe/codes/screen-ecran-eng.html">https://www.dfo-mpo.gc.ca/pnw-ppe/codes/screen-ecran-eng.html</a>).
  - When diverting creek flows, maintain an appropriate depth and flow (i.e., base flow) for the protection of fish and fish habitat, both upstream and downstream of the isolated work area.
- Given the current drought conditions, additional fish salvage/work considerations should be implemented to reduce the risk of suffocation to fish or stress from high water temperature conditions. Conduct fish salvages in the morning, handle fish for short periods of time, and avoid works in areas of cold water refugia for fish where practicable (e.g., deep shaded pools).
- All culverts installed must be sufficiently sized and embedded such that scouring
  of the outlet streambed does not occur as a result of increased water velocities in
  the culvert.
- Equipment is to be situated in the dry stream channel within the footprint of the works or operated from the top of the bank.
- For works in fish-bearing waters, fish passage is to be maintained upon completion of the works.

- Ensure that material such as rock, riprap, or other materials placed on the banks or
  within the active channel or floodplain of the watercourse is inert and free of silt,
  overburden, debris, or other substances deleterious to aquatic life.
- Minimize the introduction of sediments (e.g., silts, clays and sand) into the watercourse or downstream reaches of the watercourse.
- Develop and implement an erosion and sediment control plan to avoid and minimize the introduction of sediment into or induced sedimentation in the watercourse.
- Do not deposit any substances deleterious to fish or fish habitat directly or indirectly into the watercourse or downstream reaches of the watercourse.
- Develop and implement a spill prevention and emergency response plan to avoid a spill of deleterious substances into the watercourse.
- If mitigation measures are not effective, immediately reassess and implement appropriate contingency measures to avoid death of fish, and the harmful alteration, disruption, or destruction of fish habitat.

Provided that you incorporate these measures into your plans, the Program is of the view that your proposal is not likely to result in the contravention of the above-mentioned prohibitions and requirements.

Should your plans change or if you have omitted some information in your proposal, further review by the Program may be required. Consult our website (<a href="http://www.dfo-mpo.gc.ca/pnw-ppe/index-eng.html">http://www.dfo-mpo.gc.ca/pnw-ppe/index-eng.html</a>) or consult with a qualified environmental consultant to determine if further review may be necessary. It remains your responsibility to remain in compliance with the *Fisheries Act*, the *Species at Risk Act* and the *Aquatic Invasive Species Regulations*.

It is also your Duty to Notify DFO if you have caused, or are about to cause, the death of fish by means other than fishing and/or the harmful alteration, disruption, or destruction of fish habitat. Such notifications should be directed to the DFO-Pacific Observe, Record and Report phone line at 1-800-465-4336 or by email at <a href="DFO.ORR-ONS.MPO@dfo-mpo.gc.ca">DFO.ORR-ONS.MPO@dfo-mpo.gc.ca</a>.

Please notify the Program by email at <u>Eleanor.Willson@dfo-mpo.gc.ca</u> at least 10 days before starting your project, ensuring your file number and appropriate on-site contact information is included. We recommend that a copy of this letter be kept on site while the work is in progress. It remains your responsibility to meet all other federal, territorial, provincial and municipal requirements that apply to your proposal.

Please note that this Letter of Advice does not provide relief from the obligations set out in the government of British Columbia's Riparian Areas Protection Regulations (RAPR) and cannot be construed to provide authorization pursuant to section 3(2) of the RAPR, for any work, undertaking or activity within the Riparian Assessment Area. For more information on the RAPR, including contacts, please visit: <a href="https://www2.gov.bc.ca/gov/content/environment/plants-animals-ecosystems/fish/aquatic-habitat-management/riparian-areas-regulation">https://www2.gov.bc.ca/gov/content/environment/plants-animals-ecosystems/fish/aquatic-habitat-management/riparian-areas-regulation</a>.

Please note that the advice provided in this letter will remain valid for a period of 1 year from the date of issuance. If you plan to execute your proposal after the expiry of this letter, we

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recommend that you contact the Program to ensure that the advice remains up-to-date and accurate. Furthermore, the validity of the advice is also subject to there being no change in the relevant aquatic environment, including any legal protection orders or designations, during the 1-year period.

If you have any questions with the content of this letter, please contact Eleanor Willson at our Vancouver office by email at <u>Eleanor.Willson@dfo-mpo.gc.ca</u>. Please refer to the file number referenced above when corresponding with the Program.

Sincerely,

Crystal Lloyd Senior Biologist

Crystal Haye

Fish and Fish Habitat Protection Program

c.c.: Ken Lambertsen, Phoenix Environmental Services Ltd., kenl@phoenixenvironmental.com



File Number: 2010276 May 15, 2024

RBD VICTORIA HOMES INC. INC.NO. BC1096064 41A-1145 Inlet Street Coquitlam, BC V3B 6E8

Dear RBD VICTORIA HOMES INC. INC.NO. BC1096064,

Change Approval - Changes In and About a Stream (File 2010276)

A Change Approval for the above application has been granted and a Water Sustainability Act Section 11(1) Changes In and About a Stream Approval document verifying this is attached.

This Change Approval does not authorize entry onto private or Crown owned land. Permission of the affected landowner must be obtained and should be in writing for your protection.

This Approval does not constitute the authority of any other agency. The holder of this Approval must have the necessary permits from other agencies concerned prior to the commencement of the works authorized herein. The permit holder is required to adhere to all other applicable Provincial and Federal Regulations.

A copy of this Approval (and associated plans/drawings listed on this Approval) must be available for inspection, upon request, at any location where the authorized changes in and about a stream are being undertaken.

The holder of this Approval must advise Water Authorizations at SouthCoastWSAReporting@gov.bc.ca with the Approval number in the subject line, five (5) working days prior to commencement and five (5) working days following completion of the authorized work to facilitate the timing of auditing.

The holder of this Approval must have permits or other written consent from any affected rightof-way holders before commencing work that could affect utilities or other structures within the rights-of-way.

The holder of this Approval must take reasonable care to avoid damaging any land, works, trees, or other property and must make full compensation to the owners for any damage or loss resulting from the exercise of rights granted hereunder.

This Approval requires the oversight of an appropriately Qualified Professional. For the purposes of this authorization, that professional must be registered with one of the five professional regulatory bodies named under the Professional Governance Act of British Columbia. They must be in good standing and acting under that professional regulatory body's code of ethics and subject to disciplinary action by that professional regulatory body.

Please ensure that machinery is free of invasive plant material that could potentially be transported throughout or between sites. In addition, ensure that invasive species removed from a site are disposed of appropriately.

If land clearing is to occur within the breeding bird period (March 30 to August 16 in Zone A1, which includes the Lower Mainland and Fraser Valley), a nest survey should be conducted and a 10m no-clearing buffer placed around the nest until the nest is determined to be no longer active.

For the protection of wildlife species, the Qualified Professional is responsible for planning and implementing fish and wildlife salvages prior to any instream and riparian works. Wildlife Act permits must be obtained from the Ministry of Forests (https://portal.nrs.gov.bc.ca/web/client/home).

The holder of this Approval must ensure that any proposed development and/or changes do not impact traditional or special sites in accordance with the Heritage Conservation Act or the ability of First Nation community members to participate in traditional activities on the land and water.

Archaeological sites (both recorded and unrecorded) are protected under the Heritage Conservation Act and must not be altered or damaged without a permit from the Archaeology Branch. The holder of this Approval must advise everyone who will be involved in grounddisturbance and construction that if archaeological materials are encountered, activities must be halted, and the Archaeology Branch contacted at 250-953-3334 for direction.

Section 105 of the Water Sustainability Act gives the recipient of this notice the right to appeal my decision. You may file an appeal within 30 days of the date indicated on this letter. Information on filing an appeal can be found on the Environmental Appeal Board website at http://www.eab.gov.bc.ca/.

If you have any questions or concerns regarding the document issued or the content of this letter, please contact the South Coast Office at WaterActReferrals.LowerMainland@gov.bc.ca.

Sincerely,

Roxanne Snook

RSmul\_

May 15, 2024 Job Number: 124646 File Number: 2010276

# Senior Authorizations Specialist, Assistant Water Manager

Cc:

Phoenix Environmental Services Ltd – Ken Lambertsen – <u>kenl@phonixenvironmental.com</u>
City of Port Coquitlam
Musqueam Indian Band
Kwikwetlem First Nation
Ministry of Water, Land, and Resource Stewardship – Alexandra Holmes



May 15, 2024

File Number: 2010276

# **APPROVAL**

WATER SUSTAINABILITY ACT - Subsection 11(1) (Changes in and about a stream)

# RBD VICTORIA HOMES INC. INC.NO. BC1096064

is hereby authorized to make changes in and about a stream as follows:

- The name of the stream is Unnamed Stream.
- b) The changes to be made in and about the stream are:
  - 1. Create a daylit channel that connects Watkins Creek to the fish friendly culvert under Lynwood Avenue;
  - 2. Connect new fish friendly culvert to Watkins Creek channel connection and Unnamed Stream;
  - 3. Infill a maximum stream area of six hundred square metres outlined in Phoenix Environmental Services LTD: 1660 Victoria Map to Scale.dwg dated September 29, 2022, by NGL and EAL;
  - 4. Install a split flow manhole at the unopened section of Newberry Street to split flows between the existing channel and the new channel;
  - 5. Create new stream channel parallel to existing stream channel and connect streams downstream:
  - 6. Install new stormwater conjunction from the developed area to connect to existing stormwater system for flows to connect into Hyde Creek;
  - 7. Restore and plant project site in accordance with Phoenix Environmental Services LTD drawings Titled Habitat Enhancement and Restoration Plan dated February 28, 2023, prepared by NL/EL.

> All works must occur within Legal: Within Lot 48 Except: Part Dedicated Road on Plan 77115, Section 7, Township 40, New Westminster District, Plan 29352.

- c) The location of the works are at the following coordinates, as provided by the applicant: 49.2851860, -122.7474230; 49.2842420, -122.7469340; 49.2839650, -122.7474710; and 49.2837230, -122.7478780.
- d) The works authorized in this Approval must be completed on or before September 15, 2026.
- e) All works associated with the Effectiveness Monitoring Plan, as outlined in clause (x) below, must be completed on or before December 1, 2031, seven years after the works are completed.
- f) Work in the stream and stream channel must occur only during the period of the Fisheries Window based on species present, typically: August 1 to September 15, fisheries interests protected. SO
- The holder of this Approval must advise the Water Authorizations at SouthCoastWSAReporting@gov.bc.ca with the Approval number in the subject line, five working days prior to commencement of the authorized work and five working days upon completion of the works authorized in this Approval.
- h) All works must comply with the following documents and any minor changes hereafter. Any major changes to the design must be submitted to the Water Manager for written authorization.
  - 1. Use Re-Issued for Tender Engineering Drawing, Titled Servicing Key Plan Number 02, version 1, dated May 02, 2024, prepared by ARB.
  - 2. Use Re-Issued for Tender Engineering Drawing, Titled Lot Grading Plan Number 03, version 1, dated May 02, 2024, prepared by prepared by ARB.
  - 3. Use Re-Issued for Tender Engineering Drawing, Titled Stream Plan and Profile Number 04, version 1, dated May 02, 2024, prepared by ARB.
  - 4. Use Re-Issued for Tender Engineering Drawing, Titled Ditch-Plan Profile & X-Sec Number 05, version 1, dated May 02, 2024, prepared by ARB.
- All work must be carried out in accordance with the Provincial "Requirements and Best Management Practices for Making Changes In and About a Stream in

> B.C." (2022). The Provincial guidance document can be found at the following https://www2.gov.bc.ca/assets/gov/environment/air-landwater/water/working-around-water/wsa-cias-requirements-bmps.pdf.

The holder of this Approval must hire an appropriately Qualified Professional to conduct Environmental Monitoring on all in-stream works authorized under this Approval. The Qualified Professional is responsible for observing the methods of construction and preparing information and reports on the compliance of the construction activities.

# The Qualified Professional must:

- 1. Ensure all best management practices and mitigation measures are in place to avoid and minimize environmental impact on the land and on fish and fish habitat of the stream.
- 2. Where applicable, assist in the isolation of the stream prior to the commencement of works.
- 3. Implement and ensure erosion and sediment control measures are constructed, installed, and maintained appropriately for the full duration of instream works.
- 4. Supervise all instream works authorized under this Approval.
- 5. When the works involve temporary diversions to isolate the work site:
  - Monitor all diversion works daily to ensure pumps and flow bypasses are in proper working condition;
  - Ensure diversion works that include pump intakes be screened ii. for fish and aquatic species in accordance with the "Interim code of practice: End-of-pipe fish protection screens for small water intakes in freshwater" (Fisheries and Oceans Canada, 2020); and
  - iii. Ensure fish are prevented from entering the works.
- 6. When the works involve dewatering or isolation of flow and the stream is known or suspected to contain fish and/or amphibians:
  - Attend the site prior to conducting any instream works to complete fish and wildlife search and salvage(s);
  - Obtain any permits needed prior to undertaking the salvage(s); ii.
  - Inspect the extraction area for fish stranding at least once after iii. water levels have declined.
- 7. Be granted authority to stop the work authorized under this Approval if deemed necessary to address risks to the environment. The Qualified Professional or their designate, as specified in writing, must be on site during all phases of construction in and around the stream to ensure this component is upheld.

> 8. Report any spills including detailed information such as time of day, staff involved, nature, cause, and degree of spill, recovery process deployed, and agencies notified.

- 9. In the event of an environmental incident or non-compliance with any of the terms or conditions of this Approval, an appropriately Qualified Professional must immediately mitigate the situation. Within 48 hours, each incident must be reported to the Water Manager at SouthCoastWSAReporting@gov.bc.ca with the Approval number in the subject line. The incident report must describe mitigation measures employed and a rationale as to why works have resumed, or the next steps required before works may resume. The holder of this Approval must follow the advice of the appropriately Qualified Professional.
- k) Wherever practicable, work must be carried out during favourable weather and low flow.
- Upon commencement of the project, the work must be pursued to completion as quickly as possible.
- m) All proposed works must be completed in isolation of the stream flows.
- All equipment and machinery used in or near the stream channel must:
  - 1. Be in good operating condition and free of leaks, excess oil and grease;
  - 2. Have a spill containment kit readily accessible on-site with operators and/or staff on site trained in handling and applying a spill kit appropriately to any spills/incidents;
  - 3. Be refuelled a minimum of 30 metres away from all streams;
  - 4. Use environmentally sensitive hydraulic fluids which are non-toxic to aquatic life and which are readily or inherently bio-degradable;
  - 5. Any spill of a substance that is toxic, polluting, or deleterious to aquatic life of reportable quantities must be reported to the Dangerous Goods Incident Report 24-hour phone line at 1-800-663-3456.
- o) Sediment and Erosion Control measures to prevent the release of silt, sediment or sediment-laden water must be in place before starting works that may result in sediment mobilization. Care must be exercised during all phases of the work to prevent the release of silt, sediment, sediment-laden water, raw concrete, concrete leachate, or any deleterious substances. All control measures must meet or surpass the Provincial "Requirements and Best Management Practices for Making Changes In and About a Stream in B.C." (2022) and the "Land Development Guidelines for the Protection of Aquatic Habitat" (Fisheries and Oceans Canada and the Province of British Columbia.

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p) Discharge and runoff water from the site into any watercourse(s) must comply with the BC Approved Water Quality Guidelines for the Protection of Aquatic Life (https://www2.gov.bc.ca/gov/content/environment/air-landwater/water-quality/water-quality-guidelines/approved-water-qualityguidelines) and/or the applicable Local Government Bylaw(s).

Water quality monitoring must be conducted by an appropriately Qualified Professional or a designate (in writing) Environmental Monitor on every day in which instream works are being conducted. Measurements must be taken upstream of any works taking place and within the extent of the sedimentation downstream of where instream work is actively occurring. Measurements are to be taken immediately prior to works beginning, and then at regular intervals until the works are completed and may require additional frequency during wet weather conditions. Wet weather conditions will be defined as being equal to or greater than 25 millimetres of rainfall within a 24-hour period.

- q) All excavated material and debris must be removed from the site or placed in a stable area above the high-water mark of the stream. Mitigative measures must be applied to protect the excavated material and debris from erosion and reintroduction watercourse. into the
- The holder of this Approval must ensure that instream works are designed and installed so as not to restrict fish passage and/or lead to fish stranding. The works must not result in depressions that have the ability to trap fish and other aquatic life.
- All temporary works (including a ford, stream crossing, flow bypass, and erosion and sediment control measures) must be removed on completion of the project, natural condition. and stream channel restored to its the
- The new channel of the stream must have greater or equal hydraulic capacity than the existing channel.
- The hydraulic capacity of installed culvert(s) must be equivalent to the hydraulic capacity of the stream channel or be capable of passing the 1 in 200-year maximum daily flow without the water level at the culvert(s) inlet exceeding the culvert(s). of the top
- v) Rock used as riprap must be clean of any substances deleterious to aquatic life and must be durable, angular in shape and suitably graded and sized to resist movement by stream flow. Any other engineering material required for the construction of the works must be clean of any substances deleterious to aquatic life.

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w) The holder of this Approval must provide a detailed post-construction report no later than December 1 of the year works are completed. The report must be submitted by email to <a href="SouthCoastWSAReporting@gov.bc.ca">SouthCoastWSAReporting@gov.bc.ca</a> with the Approval file number listed in the subject line of the email and the title of the report. The report must include a signed statement from an appropriately Qualified Professional summarizing:

- 1. The in-stream works undertaken;
- 2. The timing of those works;
- 3. The total in-stream area directly affected;
- 4. The volume of gravel or sediment removed (if applicable);
- 5. The frequency of monitoring, including the name(s) of the designated monitor(s);
- 6. The water quality reporting (e.g., turbidity, pH)
- 7. Representative site photographs;
- 8. Whether or not they observed or were otherwise aware of any non-compliance with the terms and conditions of this Approval; and
- 9. A description of any environmental incidents, non-compliance, or other difficulties, and how these were addressed and reported.
- 10. As-built drawings of the installed structures.
- x) The holder of this Approval must retain an appropriately Qualified Professional to design, implement and report on the effectiveness of mitigation, restoration, and/or offsetting measures required in this Approval. This includes the monitoring and maintenance of works, and implementation of any adaptive management measures.

The effectiveness monitoring term required for this Approval is seven years following the completion of construction. Effectiveness Monitoring Reports must be submitted by December 1 of each calendar year for the duration of monitoring to <a href="SouthCoastWSAReporting@gov.bc.ca">SouthCoastWSAReporting@gov.bc.ca</a>. The reports and subject line of the email must be labelled with this Approval file number.

# The reports must include:

1. Documentation (including photographs) and summary of the survival of planted trees and shrubs. Tree survival rates must be 100%. Shrub and other plant survival rates must exceed 80%. Replanting may be required to achieve this success rate. If the area is susceptible to invasive species, the riparian planting plan should be modified to include a denser plant spacing as well as additional monitoring and maintenance to ensure an adequate plant survival rate of 80% can be achieved. It is recommended that trees and shrubs be protected from beavers and voles with metal fencing and vole guards, respectively. Additional watering may be required during sustained hot and dry periods.

> 2. Observation and documentation (including photographs) related to flows and function of the restored or new channel and its features.

- 3. Seasonal observation records of fish [and amphibian] presence, including species composition and periodicity, time of year monitoring took place, and assessment of if and how the observations meet target values for that stream.
- 4. Assessment of fish stranding (direct observations of stranding, or potential stranding sites) within the newly constructed channel. Where stranding is, or is suspected to be, a problem, an appropriately Qualified Professional must provide solutions which are to be implemented by the holder of this Approval and described in the reports.
- 5. Summary detailing the monitoring, maintenance, and implementation of any adaptive management measures undertaken, such as additional channel complexing or modifications if required, to address habitat limitations such as insufficient flows, fish stranding, etc.
- 6. Water quality monitoring including but not limited to temperature, pH, and Dissolved Oxygen.
- Water level monitoring (e.g., for wetlands).

The final monitoring report must include a signed statement from the appropriately Qualified Professional outlining the rationale for concluding monitoring or, if applicable, the next steps required before restoration works are considered functioning as intended. If the works are assessed to be working as intended and functional after five years, an Amendment may be submitted to terminate effectiveness monitoring. The holder of this Approval must follow the advice of the appropriately Qualified Professional.

Sincerely,

Roxanne Snook

Senior Authorizations Specialist, Assistant Water Manager

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Cc:

Phoenix Environmental Services Ltd - Ken Lambertsen - kenl@phonixenvironmental.com Ministry of Water, Land and Resource Stewardship - Alexandra Holmes City of Port Coquitlam Musqueam Indian Band Kwikwetlem First Nation