



MEMORANDUM

TO: MAYOR AND COUNCIL **DATE:** DECEMBER 4, 2017
FROM: COMMUNITY DEVELOPMENT DIVISION **FILE NO:** 14-05-0098
SUBJECT: **DEVELOPMENT PERMIT APPLICATION NO. 100890**
(161884 CANADA INC. / BEEDIE DEVELOPMENT / 4825 - 275 STREET)

The purpose of this memorandum is to provide Mayor and Council with information regarding Development Permit No. 100890 to permit the construction of a 9,835 m² (105,868 ft²) industrial building including accessory office space located at 4825 - 275 Street in Gloucester.

As noted in the November 6, 2017 report to Council: *"As part of the application, the applicant has proposed to relocate an existing Statutory Right of Way and storm sewer. The north portion of the site includes a bio filtration/detention pond constructed in 2007 as part of the overall DFO compensation for the Gloucester Industrial Park. A non-disturbance restrictive covenant was registered on the property in 2008 to protect the pond."*

The modification to the Statutory Right of Way (SRW) pertains to relocation of a stormwater pipe, that conveys stormwater flows. A tributary of West Creek exists (classified as Class B) south of Highway No. 1 with flow from that watercourse piped until it is received in the pond at the northerly portion of the subject site. The pond and flow outlet point have been constructed in compliance with Department of Fisheries and Oceans (DFO) and Township's Streamside Protection provisions and are respected by the subject application.

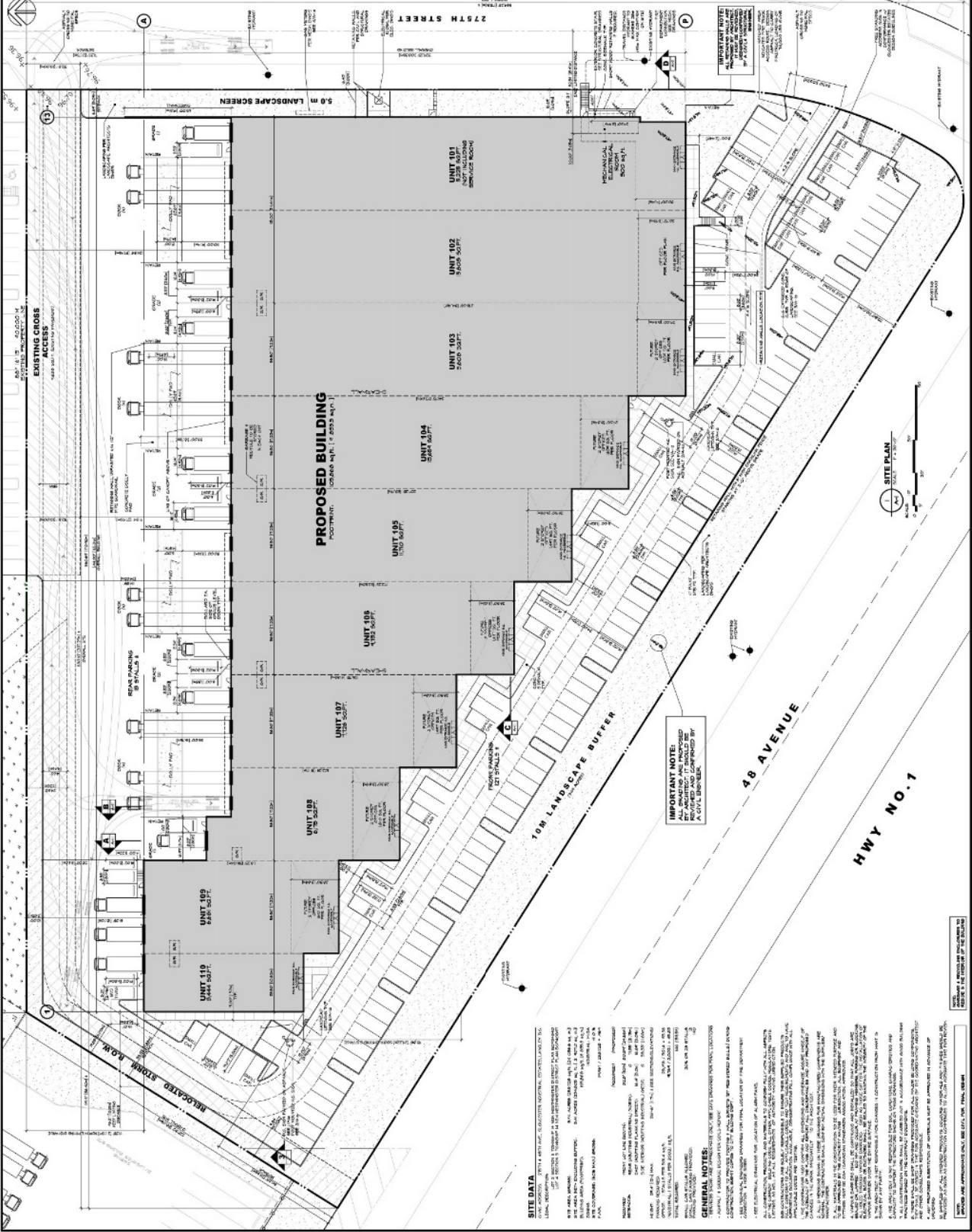
A November 24, 2017 Langley Environmental Partners Society (LEPS) letter states: "This channelized creek is actually one of the main branches of West Creek, draining upstream agricultural lands, as well as the highway. The creek is Class B or yellow coded according to the Township of Langley's Watercourse Classification map; yellow coded streams are significant source of food, nutrient or cool water to salmon populations downstream."

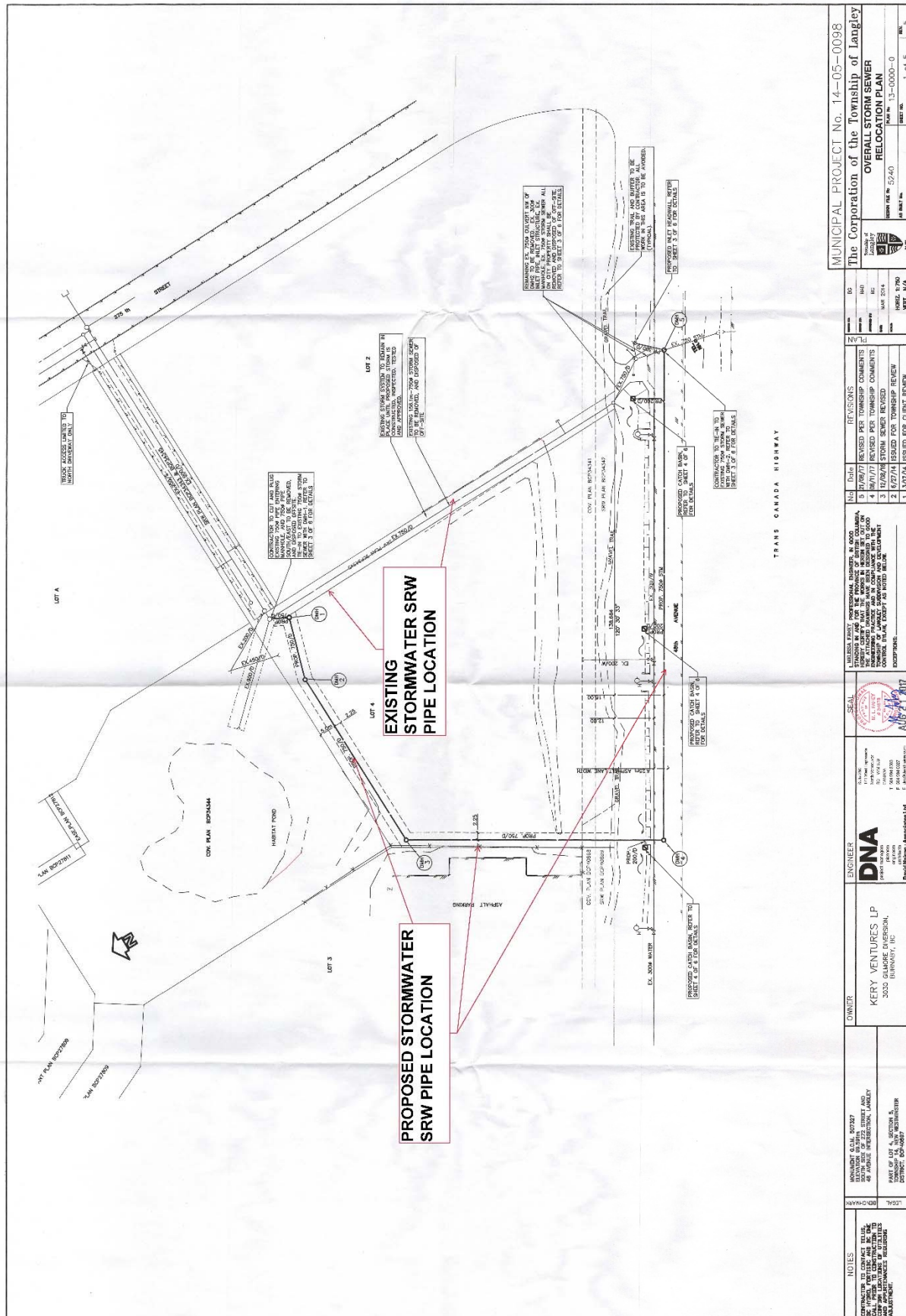
The watercourse identified in the LEPS letter was authorized for elimination by DFO pursuant to an August 27, 2000 DFO authorization (see attached) and eliminated between 2005 to 2008. Consistent with the authorization, the flows were piped with a SRW registered at that time. The pipe and associated SRW is proposed to be relocated as part of the subject application.

In addition, the proponents' Qualified Environmental Professional (QEP) has provided a letter (copy attached) stating: ***"In conclusion, we confirm that there is no stream on the subject property and that the Township is entirely within their jurisdiction to allow realignment of the storm sewer through the property."***

Attachment A	Aerial Site Photo
Attachment B	Site Plan
Attachment C	Civil Plan
Attachment D	SROW Relocation Plan
Attachment E	Restrictive Covenant non-disturbance area
Attachment F	November 24, 2017 Langley Environmental Partners Society (LEPS) letter
Attachment G	August 27, 2000 DFO authorization
Attachment H	Envirowest Consultants Inc. letter dated November 30, 2017











LANGLEY ENVIRONMENTAL PARTNERS SOCIETY

#201- 4839- 221 Street, Langley, B.C. Canada V3A 2P1 (604) 532.3511

Revenue Canada Charitable Number: 14057 9962 RR 0001

www.leps.bc.ca

November 24, 2017

RE: Development Permit Application No. 100890 (161884 Canada Inc. / Beedie Development Group / 4825 275 St.)

To: Mayor and Council;

We wish to alert you to information regarding the Class B creek that has been omitted from the development permit application No. 100890 (please refer to attached map). This application came before council on November 6. The application refers to the modification of "Statutory Right of Way BB184653 (Plan BCP 34343)" (page 2, item f., under "... *the following items will need to be finalized*") but does not note the stream classification.

We are concerned that the omission of this information could have adverse impacts to West Creek and upstream habitat.

This channelized creek is actually one of the main branches of West Creek, **draining upstream agricultural lands, as well as the highway**. The creek is **Class B or yellow coded** according to the Township of Langley's Watercourse Classification map; yellow coded streams are significant source of food, nutrient or cool water to salmon populations downstream. Yellow coded streams require a 20m setback from both banks (Township of Langley's Streamside Protection Regulation):

<https://webfiles.tol.ca/CommDev/Brochures/Streamside%20Protection%20&%20Enhancement%20Brochure.pdf>).

This creek enters a Class A or red coded (salmon bearing) stream only 160m downstream of this development permit area.

It is our hope that in sharing this information, the creek will be considered with due respect as a nutrient value stream and an important section of West Creek.

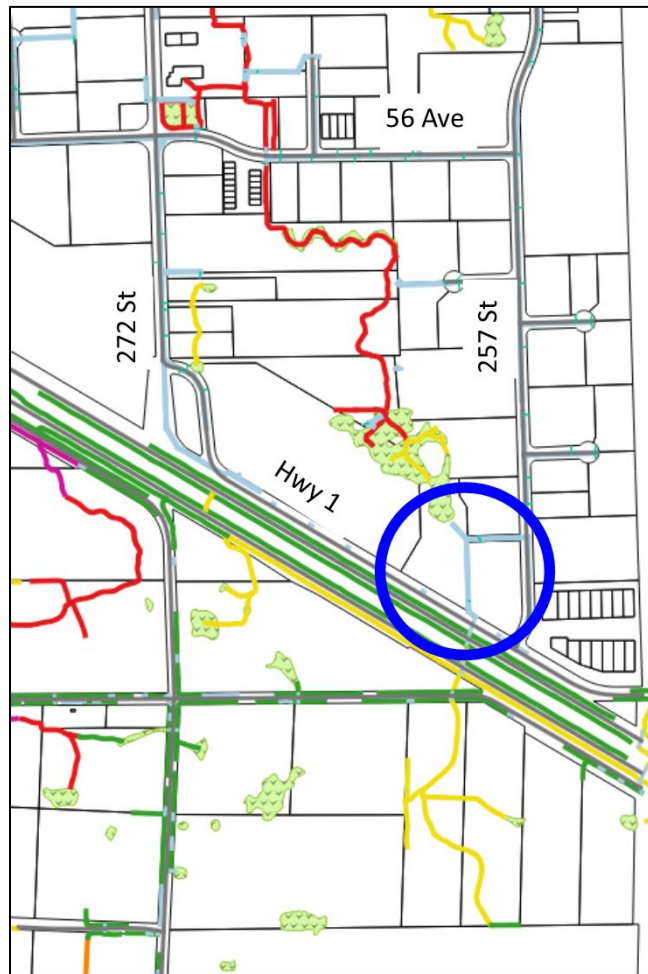
Sincerely,

A handwritten signature in blue ink, appearing to read 'Tracy Stobbe', is written over the word 'Sincerely,'.

Tracy Stobbe
Chair, LEPS Board of Directors

Encl. Stream details up and downstream of application property

Stream details up and downstream of application property:
(source: Township of Langley's online mapping system, Geosource)



Blue circle indicates the properties associated with this application, please note Class B stream south of Hwy 1 that flows under the highway and 48 Ave to these properties.

Attachment GPêches
et Océans**Authorization # 99-HPAC-PA2-000-000217**
MELP File #A2004880**AUTHORIZATION FOR WORKS OR UNDERTAKINGS AFFECTING FISH HABITAT**

Authorization issued to:

Name: 161884 Canada Inc.: Gloucester Industrial Estates (herein also referred to as "Gloucester")

Address: 310 - 1001 West Broadway, Vancouver, BC V6H 4B1

Contact: Mr. Dave Gormley

Telephone: (604) 856-3156

Facsimile No: (604) 856-3384

Location of Project:

Tributaries to West and Nathan creeks within the Gloucester Industrial Estates in Langley, generally encompassing lands north of the Trans-Canada Highway, west of the Langley-Abbotsford boundary, east of 264th Street and south of 60th Avenue.

Valid Authorization Period:

The valid authorization period for the harmful alteration associated with various land development activities is from 01 May, 2000 through 15 September, 2005.

As specified herein, this document only authorizes the destruction of the fish habitat and associated compensatory works until 15 September, 2005. If any phase of the project is not completed by that date, such that fish habitat may be affected, a new application pursuant to Section 35(2) of the Fisheries Act may be required. Should this Authorization expire without the works proceeding, and no alterations to the project design or DFO policy, legislation and/ or guidelines have occurred, an amendment for an extension to this authorization may be considered.

Description of Works or Undertakings:

The harmful alteration hereby authorized includes a number of undertakings which are listed below and numerically referenced to a plan of existing drainage (refer to ECL Drawing No. 467-02-11, Rev. 03, attached in Appendix A).

In the Northeast Quadrant of the development -

- Site 1. realignment and permanent elimination of riparian vegetation associated with the fisheries sensitive zone (i.e. relaxation of the setback boundary) adjacent to a watercourse;
- Site 2. elimination of a watercourse; and,
- Site 3. elimination of a ravine, elimination of a portion of a wetland, and permanent elimination of riparian vegetation associated with the fisheries sensitive zone (i.e. relaxation of the setback boundary) adjacent to a wetland.

In the Southeast Quadrant of the development -

- Site 8. elimination of a watercourse;
- Site 9. realignment of a watercourse;
- * Site 10. elimination of a watercourse; and,
- Site 23. elimination of 5 m of watercourse.

Site 10 is shown on the "Existing Drainage" map (see page 14). The "Ultimate Drainage" map (page 15) shows the watercourse no longer present.

In the Southwest Quadrant of the development -

- Site 11. elimination of a watercourse;
- Site 12. elimination of a watercourse;
- Site 13. elimination of a pond;
- Site 14. elimination of a pond;
- Site 15. elimination of a pond;
- Site 16. elimination of a pond and watercourse;
- Site 17. realignment of a watercourse;
- Site 18. elimination of a watercourse;
- Site 19. elimination of a pond and watercourse;
- Site 20. elimination of a pond;
- Site 21. elimination of riparian vegetation; and,
- Site 22. elimination of a watercourse.

These works are more specifically described in the following submissions and drawings:

Appendices:

- a). Appendix A: ECL Envirowest Consultants Limited (ECL) Drawing No. 467-02-11, Revision 03 entitled "Existing Drainage" dated May 2000, and ECL Dwg No. 467-02-12, Revision 05 entitled "Ultimate Drainage", dated May 2000;
- b). Appendix B: Habitat balance prepared by ECL;
- c). Appendix C: The application for Environmental Review submitted by ECL on behalf of

161884 Canada Inc., dated June 8, 1999;

- d). ✓ Appendix D: ECL Drawing Nos.:
- ✓ 467-06-01R (dated March 1999);
 - ✓ 467-02-09, Revision 00 (dated April 12, 1999);
 - ✓ 467-04-06, Revision 01 (dated August 27, 1998);
 - ✓ 467-02-08, Revision 01 (dated September 13, 1999);
 - ✓ 467-02-10A, Revision 01 (dated August 9, 1999);
 - ✓ 467-02-10B, Revision 01 (dated August 9, 1999);
 - ✓ 467-02-13, Revision 00 (dated May 8, 2000);
 - ✓ 467-02-14, Revision 00 (dated May 8, 2000);
 - ✓ 467-02-15, Revision 00 (dated May 8, 2000);
 - ✓ 467-02-16, Revision 00 (dated May 8, 2000);
 - ✓ 467-02-17, Revision 00 (dated May 8, 2000).
- e). Appendix E: Aplin & Martin Consultants Ltd. Drawing Nos. 96025SR-1, Revision 1; 96025SR-2, Revision 2; and 96025SR-3, Revision 2, all dated May 1997;
- f). Appendix F: Hunter Laird Engineering Ltd. Job No. 4518, Sheets 9 of 14 and 10 of 14, both Revision A and dated July 29, 1999.
- g). Appendix G: Copies of Letters of Credit totalling \$100,000.00 and the Letter of Credit Reduction Schedule;
- h). Appendix H: Copies of the restrictive covenant documents, registered in favour of the BC Ministry of Environment, Lands and Parks under Section 219 of the provincial Land Titles Act;
- i). Appendix I: Gloucester Industrial Estates 1998 Stormwater Management Plan: Final Report by Stantec Consulting Ltd.

Schedules:

Schedule A: DFO/ MELP Riparian Planting Guidelines.

Conditions of Authorization:

1. Gloucester confirms that all plans and specifications relating to this Authorization have been duly prepared and reviewed by appropriate professionals working on behalf of Gloucester. Gloucester acknowledges that it is solely responsible for all design, safety and workmanship aspects of all of the works associated with this Authorization.
2. Gloucester confirms that the location and general design of the works are to be consistent with the information provided to the agencies and that any material deviations from such designs must be reviewed and approved by all agencies having jurisdiction in this matter.
3. The conditions of this Authorization notwithstanding, DFO may at any time and at their

sole discretion, direct the Gloucester and/ or their agents and/ or contractors, to suspend or alter any work or activity associated with this project, to avoid or mitigate adverse impacts to fisheries resources. Further, DFO may at any time and at their sole discretion direct the Gloucester and/ or their agents and/ or their contractors, to carry out at the Gloucester's own expense any works or activities deemed necessary by DFO to avoid or mitigate adverse impacts to fisheries resources.

4. DFO must be notified of any future modifications to the existing drawings referred to in this Authorization and upon notification, may require plans and specifications to review and/ or approve prior to any work commencing.

Conditions that relate to works in or near watercourses:

5. Instream works may only be undertaken during the period between 01 August and 15 September of any year of this development. Any extensions to the work window will be considered on a case by case basis (season and weather dependent) and must have approval for extension from DFO and/ or MELP. An environmental monitor must be present full time during all instream works, unless otherwise agreed to by DFO and/ or MELP. The environmental monitor must have the authority to alter or halt works should they feel the works are detrimental to fisheries resources. Gloucester must provide a copy of the written authority, providing the name of the environmental monitor, contact number and a brief outline of relevant experience related to the proposed works to DFO, MELP and the Township.
6. All other works within the fisheries sensitive zones (i.e. setback areas) must be monitored daily during construction and during or following any storm event which may occur during the construction phase.
7. The environmental monitor must have experience in stream construction or restoration as well as sediment and erosion control.
8. All instream work must be undertaken and completed in isolation of flowing water. Generally, this is accomplished by diverting, enclosing or pumping the water around the work site. Flow to downstream portions of the stream must not be cut off at any time during construction. In addition, the point of discharge to the creek must be located immediately downstream of the work site.
9. Prior to commencement of instream works, an environmental consultant or other qualified professional who is acceptable to DFO and/ or MELP must conduct a fish and amphibian salvage in and around areas potentially affected by siltation or de-watering. Appropriate fish collection permits must be obtained prior to any instream works commencing. The consultant/monitor must ensure that the appropriate DFO and MELP staff have been contacted and are advised of the commencement of instream works.
10. Sediment and erosion control measures must be installed to the standards outlined in the BC Environment/DFO "Land Development Guidelines for the Protection of Aquatic Habitat". All work must be conducted in a manner that will prevent the release of sediment or sediment-laden water into any watercourse.

In this regard, a sediment, erosion and runoff control plan must be prepared by a qualified, trained professional and implemented prior to any site preparation works and/ or construction. These facilities must be maintained until the occupancy permit stage, or until no longer applicable to the site conditions. These facilities must be maintained and be working adequately to control discharges from the site.

11. All disturbed areas within the leavestrips should be hydro-seeded or covered to prevent surface erosion. If work is undertaken late in the growing season, normal seeding may not be effective in preventing surface erosion. In this regard, the entire disturbed area may require stabilization through hydro-seeding with heavy mulch or by installing geotextile seed mats.
12. All constructed streambank slopes must not exceed 2:1 slopes (horizontal: vertical). All constructed slopes must be covered with a minimum 6" topsoil to ensure a reasonable plant growth medium, and an appropriate native seed mixture and biodegradable geotextile or hydro-seed (if deemed necessary by a qualified professional) to ensure stability.
13. Riparian revegetation must be completed in accordance with the specified plans, attached in Appendix D. Any other disturbed areas within the leavestrip areas, which are not included in a specified revegetation plan, must be replanted in accordance with the DFO/ MELP guidelines for riparian revegetation, attached as Schedule A.
14. Machinery is not permitted to work within the wetted perimeter of the stream. All machinery on the site must be in good repair and free of excess oil and grease. No fuels lubricants, construction wastes or other deleterious substances may enter the watercourse at any time. Emergency spill kits must be kept on site and be readily accessible at all times in case of release of a deleterious substance to the environment. Any spill of reportable quantities must be immediately reported to the Provincial Emergency Program (24 hour phone line: 1-800-663-3456).
15. All construction materials, such as fill or riprap, must consist of inert materials. Rock used as riprap must be durable and suitably graded to resist movement by stream flow. Rock and/ or riprap placement must be completed so as to ensure their stability within the creek system.
16. Topsoil, debris from construction, concrete and/ or concrete leachate, overburden, soil, grout, oil, grease or any other substance deleterious to aquatic life must be disposed of or placed in a manner that will prevent their entry into any watercourse, ravine, floodplain, or storm sewer system.

In this regard, DFO notes that if any cast in place concrete works are to be undertaken, there may exist high potential for concrete and/ or concrete leachate to enter a watercourse. Concrete leachate is alkaline and highly toxic to fish and aquatic life and DFO requires that measures be taken to prevent any incidence of concrete from entering the watercourse. In case of emergency, a concrete buffer, such as CO₂, must be kept on site to mitigate any impacts from the escape of concrete. To ensure that no concrete or concrete leachate impacts downstream fish or fish habitat, DFO advises that the downstream pH be monitored regularly until completion of the works. If a significant change in pH is noted (i.e. pH below 5.0 or above 9.0), then emergency measures must

be implemented to neutralize pH levels. In addition, any concrete that does escape must be cleaned out of the channel immediately. All concrete work must be carried out during dry weather and low water conditions.

17. Any future stream crossings must be clear span bridges, bottomless arch culverts, or oversized culverts with a minimum 300-mm depth of gravels throughout, unless otherwise approved by DFO and MELP. Approval for stream crossings will be considered on a site by site basis.
18. ***The following personnel must be contacted and advised of any instream works or works within the fisheries sensitive zone (i.e. setback areas), a minimum of five (5) days in advance of the commencement of works.*** In addition, DFO and/ or MELP must be contacted for site inspection for any relocated or constructed watercourses prior to the release of water into newly constructed habitat:
 - a) The Fishery Officer in charge of the Fraser Valley West Field Office at tel: (604) 607-4160 or fax: (604) 607-4199;
 - b) The DFO Habitat Biologist for the Langley area at tel: (604) 666-6310 or fax: (604) 666-6627 (current contact Suzanne Thorpe); and,
 - c) The MELP Fish and Wildlife Habitat Protection Officer for the Langley area at tel: (604) 582-5239 or fax: (604) 930-7119 (current contact John Summers).
19. For any 'individual' project completed within the specified time period, the environmental monitor must submit three (3) copies of a 'summary' monitoring report to MELP and one (1) to this Department within 90 days of project completion.

As described herein, Site numbers 1 through 23 represent 'individual' projects, as do each of the compensatory sites A through D; however, the sites may be listed and detailed within the same monitor's report, if undertaken within the same calendar year. The monitor's report must indicate that the project has been completed and shall include the following:

 - a) a complete list of all outstanding or incomplete works for any 'project' as defined herein;
 - b) date-stamped photos of the site(s) before, during and after construction;
 - c) date-stamped photos of the site post-planting;
 - d) confirmation of compliance with the Authorization; and,
 - e) details of any difficulties encountered and how they were handled.
20. In the event of any significant incident(s) which may occur during works associated with this project (i.e. oil/ gas spill, slope failure, sediment or erosion control problem), the environmental consultant should notify both DFO and MELP representatives as soon as possible. All emergency-reporting procedures must be followed on an immediate basis. The environmental monitor should have an emergency call out procedure in place prior to the commencement of works.
21. The environmental monitor must post a readily visible sign identifying their company name and telephone number at the entrance(s) to the site.

22. ***A copy of this Authorization must be forwarded to all contractors and/or crew supervisors and must be present on the site while work is proceeding.***
23. ***It is understood that by proceeding with the works specified herein, the applicant's agent(s) and/ or contractor(s) and their work crews, shall have indicated an understanding of and agreement to the conditions within this Authorization, and that both DFO and MELP have the authority to inspect, and if necessary, stop any works that are not in compliance with the agreed to terms and conditions or if the agencies have fisheries related concerns.***

Conditions relating to stormwater management for development:

24. Design of the stormwater system shall be consistent with final approval of the document "Gloucester Industrial Estates Stormwater Management Plan: Final Report" by Stantec Consulting Ltd. (attached as Appendix I), currently under review. Detailed engineering design of the stormwater system must be reviewed and approved by DFO, MELP and the Township of Langley prior to site development.
25. Water treatment shall be provided for all areas not zoned or developed for industrial purposes as at May 1, 2000. Treatment will occur in first-flush treatment wetlands where feasible, while other areas will be treated by on-site oil-water separators. Envirowest Drawing No. 467-02-13 indicates treatment type for all lands within Gloucester Estates. Envirowest Drawing Nos. 467-02-14, 467-02-15, 467-02-16 and 467-02-17 provide details for first-flush treatment wetlands.
26. Stormwater from most of the Gloucester Estates development will be detained in two large detention features to be located within the golf course. Properties downstream, or outside of the catchments of these two areas must provide onsite detention that meets or surpasses the specifications outlined in the "Land Development Guidelines for the Protection of Aquatic Habitats".
27. Stormwater outfalls must be set back at least three (3) metres from the streambank and at an angle of approximately 45 degrees to the direction of stream flow. The outfall channel should be armoured with clean angular rock or other type of energy dissipater and stream bank stabilization, as approved by MELP.

Conditions relating to the Restrictive Covenant/ Leavestrip Area:

28. All leavestrip areas shown on ECL Drawing No. 467-02-12 will be protected by a restrictive covenant to be registered against the title of the property(ies) affected under Section 219 of the Land Titles Act, as per the requirements of MELP. All leavestrips are to be left in a totally undisturbed, naturally vegetated state in perpetuity. The covenant boundary must be surveyed by a registered BC Land Surveyor and a permanent fence must be constructed at the covenant boundary between development areas and the covenant areas prior to the commencement of any site development, unless otherwise agreed to by MELP.
29. After the compensatory habitat is functioning as intended, Gloucester shall not carry on any work or undertaking that will adversely disturb or impact the compensatory habitat,

Appendix A

and it will take all reasonable steps to ensure that the compensatory habitat is not disturbed by others, so long as Gloucester is associated with Gloucester Industrial Estates.

30. Buildings must be set back a minimum of one and one-half (1.5) metres from the restrictive covenant boundary, except to the north of the railway tracks where buildings are to be setback a minimum of five (5.0) metres from the restrictive covenant boundary.

Conditions that relate to all mitigatory and compensatory habitats:

31. The compensatory habitats shall consist of a number of features which are listed below and numerically referenced to a plan of ultimate drainage (refer to ECL Drawing No. 467-02-12, Revision 03, attached in Appendix A). These works are also described in the Habitat Balance (Appendix B). Design drawings are referenced for each project on the ultimate drainage plan.

In the Northeast Quadrant of the development -

Compensatory Site A, located at or near Site 1:

- Enhancement of an existing watercourse, including partial realignment, wetland/pond creation and riparian enhancement (refer to ECL Drawing No. 467-06-01R, dated March 1999). This watercourse discharges to the existing roadside ditch at 60th Avenue, subsequently flowing in a culvert under 60th Avenue.
- Native shrubs shall include a mix of species (minimum size #2 pot) including snowberry, red elderberry, salmonberry, red-flower currant, pussy willow, red-osier dogwood and thimbleberry (no species to consist of more than 20 percent of the total). Live stakes shall be planted at a density of 5 stakes per square metre.
- Large woody debris (tree, log and rootwad) placement will be undertaken as directed by the environmental consultant. All large woody debris will be placed in such a manner so as to ensure that they are appropriately keyed into the sides of banks or are otherwise stable. Rootwads should be placed so that the gnarly portions of the root mass are below the wetted perimeter of the creek/ pond area, thus providing maximum refuge cover for juvenile salmonids. Trees and logs must have a minimum diameter of 350 mm; rootwads a minimum diameter of 2.0 metres.
- Marsh planting in the northeast quadrant of the development will be undertaken as per the specifications indicated on ECL Drawing 467-02-10A (species list). All wetland planting will meet the minimum density criteria of 4 plants per square metre. Marsh planting may be undertaken early in the spring planting season post construction, provided that appropriate sediment control measures are undertaken throughout the winter season to prevent downstream sedimentation from such areas. Marsh planting must be completed by April 30, the end of the spring planting season.

In the Southeast Quadrant of the development -

Compensatory Site B, located at or near Site 9:

- Re-alignment of a watercourse, including development of pools (each with two rootwads) at 30 metre intervals, boulder complexing (minimum 6 boulders per 30 metre interval), and riparian enhancement (refer to ECL Drawing No. 467-02-09, Revision 00, dated April 12, 1999, and Hunter Laird Engineering Ltd. Job No. 4518, Sheets 9 of 14 and 10 of 14, both Revision A and dated July 29, 1999).
- A 1 metre wide strip on each side of the channel/pools is to be live-staked with a combination of red-osier dogwood and willow at a density of 5 stakes per square metre. Densities for trees and shrubs shall be one per five square metres and one per one square metre, respectively. Trees shall be increased in number to ten percent of total plants. Salvaged plant material may be used as an alternative to nursery stock, provided that it meets the required success rate.
- Rip rap is to be deleted from the side slopes of the pools; refer to ECL Dwg. #467-02-09.
- Boulder and boulder cluster placement will be undertaken as per the direction of the environmental consultant. Boulder complexing should be undertaken to provide fish habitat, direct flow, promote flushing, prevent infilling and to ensure bank stabilization, where necessary. Boulders must be appropriately keyed into the sides of banks and placed to ensure they are stable. Boulder diameter may be varied, depending on stream cross-section and gradient, but must average 400mm.

In the Southwest Quadrant of the development -

Compensatory Site C, located at or near Site 11:

- Pond/wetland creation north of Gloucester Way within the lands designated as future golf course (refer to ECL Drawings 467-02-10A and 467-02-10B).
- Wetland plants shall be planted at a density of four plants per square metre and trees and shrubs at densities one per five square metres and one per one square metre, respectively.
- The configuration of the constructed habitat may be revised subject to advance notification to DFO and completion of a similar or greater amount of habitat.
- Large woody debris placement should provide a minimum average of 25% cover in pools/ wetland using either gnarly rootwads and/ or whole tree sections.

Compensatory Site D, located at or near Site 17:

- Re-alignment of a watercourse south of Gloucester Way (refer to Aplin & Martin Consultants Ltd. Drawing Nos. 96025SR-1, Revision 1; 96025SR-2, Revision 2; and 96025SR-3, Revision 2). The portion adjacent to Gloucester Way is to be located within a 15-metre wide corridor; habitat details for this portion are shown in ECL Drawing No. 467-04-06, Revision 01. Habitat details for the remaining portions are shown in ECL Drawing No. 467-02-08, Revision 01. The north-south portion is to be constructed with a corridor width of 25 metres. Wherever possible, existing trees and

shrubs are to be retained along the margins of the new watercourse. Where existing vegetation is disturbed it will be re-planted in accordance with the specifications on ECL Drawing No. 467-02-08, Rev 01, and as detailed further herein.

- Deflector logs, aeration logs and rootwads shall each be installed in the channel at 10 metre intervals. Boulder clusters, each comprised of a minimum of four boulders of a minimum diameter of 400mm, are to be installed at 5 metre intervals.
- A one metre wide strip on each side of the channel is to be live-staked with a combination of red-osier dogwood and willow at a density of 5 stakes per square metre. Densities for trees and shrubs shall be one per five square metres and one per one square metre, respectively. Salvaged plant material may be used as an alternative to nursery stock.
- View/ access points around the constructed wetland/ pond areas at the "golf course" will be constructed so that access into and around the watercourse is discouraged. If access is or becomes problematic (i.e. interferes with the success of any aspect of the constructed habitat), additional measures may be required to prevent human encroachment into such areas (i.e. low fencing).

Conditions that relate to the monitoring/ evaluation program:

32. For each component of the overall habitat compensation plan, Gloucester shall carry out a monitoring program (the "Monitoring Program") which will extend for five (5) years post-construction and will include the following:
- a) if a project only involves disturbance(s) to, or removal of, riparian revegetation, a brief report describing plant survivorship and including photos is required yearly to three (3) years post-planting.
 - b) an assessment of the physical stability (see details of b) below) of any newly constructed works must be conducted a minimum of two (2) times during the first winter, in November/ December and February/ March. Any non-compliance issues or other problems with any aspect of the functioning of newly constructed habitat or that may have a negative impact to fisheries resources (e.g. erosion, slope failures) must be reported to both DFO and MELP within five (5) working days post-inspection and remediation measures implemented immediately, as approved by DFO and/ or MELP;
 - c) an annual photographic (date stamped) assessment of the compensation habitat and physical stability of the works, noting any changes in the function of the habitat for five (5) years post-construction. The assessment should also include looking for any evidence of erosion, slumping, tension cracks, movement of instream structures, bed material changes, sediment or debris accumulation and sediment transport changes. If gravels have been placed instream, an estimation of gravel depth, noting any changes, should be conducted each time the site is visited;
 - d) an annual assessment of the planted riparian vegetation for three (3) years post planting. Plant survival must be at least 80% for ground cover, forbs and shrubs

and 100% for trees for the duration of the monitoring program. Should this survivorship not be achieved, additional planting is required to be undertaken immediately during the planting season of, or immediately following, the assessment;

- e) measurements of water temperature, pH, dissolved oxygen, and rough estimate of water flow should be recorded each time the site is visited for monitoring;
- f) for relocated and/ or constructed watercourses and ponds, fish sampling must be undertaken using baited minnow traps, or an acceptable alternative sampling method, a minimum of once annually during the time of year that will maximize potential to determine fish presence;
- g) for relocated and/ or constructed watercourses and ponds, assessment of in-stream aquatic invertebrate populations must be undertaken a minimum of once annually during the 2nd (second) and 5th (fifth) years of the five (5) year monitoring program and during the time of year that will yield maximum diversity and quantity of invertebrate species (usually during the late spring/ early summer). Sampling should be conducted in riffle-type habitats at a minimum of three (3) locations (upper, middle and lower stream reach) if the stream section is 15 meters in length or longer; at a minimum of one (1) location if the stream section is less than 15 meters in length. Invertebrates collected are to be counted and identified to the Family level. Data from the invertebrate assessment shall be submitted in the monitor's report.
- h) the Monitoring Program shall be conducted by a qualified biologist, or other professional who has experience in this area, and who is acceptable to DFO;
- i) the provision to DFO of the annual results of the Monitoring Program in a written report, including an as built plan (where applicable), and any other relevant documents and photographs, by the first of December of each year of the Monitoring Program;
- j) the fifth years monitoring report for any project shall provide the results of the final year's monitoring and shall summarize the findings of the five years of annual monitoring. The final report will provide a functional assessment of the performance of the compensatory habitat and will include photographs of the constructed compensatory works;
- k) should any deficiencies in the compensatory habitat be identified by Gloucester, the environmental monitor, any agents or contractors working on behalf of Gloucester, DFO and/ or MELP, the parties shall notify one another in a timely manner. Any identified deficiencies with regard to the form or functioning of the compensatory habitat must be addressed in a timely manner and communicated in writing to DFO and/ or MELP, and resolved as per their direction.
- l) should the clauses in 33 b) or c) be enacted, an additional annual and final monitoring report will be required in the two years following its enactment.

33. The compensatory habitat will be deemed to functioning as intended if, in the opinion of

DFO,

- the habitat is physically stable;
- it functions as designed,
- riparian vegetation has achieved the targeted survivorship;
- that there is sufficient aquatic invertebrate production to function to provide, in the opinion of DFO, sufficient food and nutrients to downstream habitats; and,
- where fish accessible habitat has been constructed, the site functions to provide accessible habitat for salmonids.

Following the initial monitoring period, and any extensions thereof, DFO will assess the success of the compensatory habitat and determine whether or not it is functioning as intended, and choose the appropriate course of action as outlined below:

- a) the compensatory habitat is functioning as intended and will be self-sustaining without further major remedial work. The Monitoring Program will be terminated; or
 - b) the compensatory habitat is not functioning as intended. Gloucester shall extend the Monitoring Program, including remedial work, for a minimum of an additional two years to allow more time for the habitat to become adequately established;
 - c) the compensatory habitat is not functioning as intended and further remedial work is not likely to rectify the situation. Gloucester shall then carry out alternative compensatory works of similar habitat value within the same watershed and requiring an additional monitoring period.
34. Gloucester shall ensure that the compensatory habitat is functioning as intended for the lifetime of Gloucester Industrial Estates. If at any time Gloucester becomes aware that the compensatory habitat is not functioning as intended Gloucester shall carry out any works which are necessary to enable the compensatory habitat to function as designed. If Gloucester transfers its interest in Gloucester Industrial Estates, and the transferee assumes the obligations of this Authorization in a form satisfactory to DFO, Gloucester shall thereafter be relieved of these obligations.
35. Gloucester has delivered to DFO two Letters of Credit totalling \$100,000. These Letters of Credit are to be reduced in accordance with the Letter of Credit Reduction Schedule (refer to Appendix G).
36. If the conditions of this Authorization are not met, DFO may draw upon the letters of credit to ensure that the agreed upon terms and conditions of this Authorization are duly carried out.

The holder of this authorization is hereby authorized under the authority of section 35(2) of the Fisheries Act, R.S.C., 1985, c.F.14, to carry out the work or undertaking described herein.

This authorization is valid only with respect to fish habitat and for no other purposes. It does not purport to release the applicant from any obligation to obtain permission form or to comply with the requirements of any other regulatory agencies.

Failure to comply with any condition of this authorization may result in charges under the Fisheries Act.

This authorization form should be held on site and work crews should be made familiar with the conditions attached.

Date of issuance: August 29, 2000

Approved by:



Dale Paterson

Title: Area Chief, Fraser River Division Habitat Unit
Habitat and Enhancement Branch

161884 Canada Inc. (Gloucester) acknowledges that Fisheries and Oceans Canada has consulted with it regarding the terms of this Authorization, and confirms that it has reviewed and understands the terms of this Authorization, and it will comply with them.

Executed by an authorized signatory of
161884 Canada Inc. on the 24th day
day of August, 2000 in the presence of:

Witness (signature)


Name (print):

Title (print):

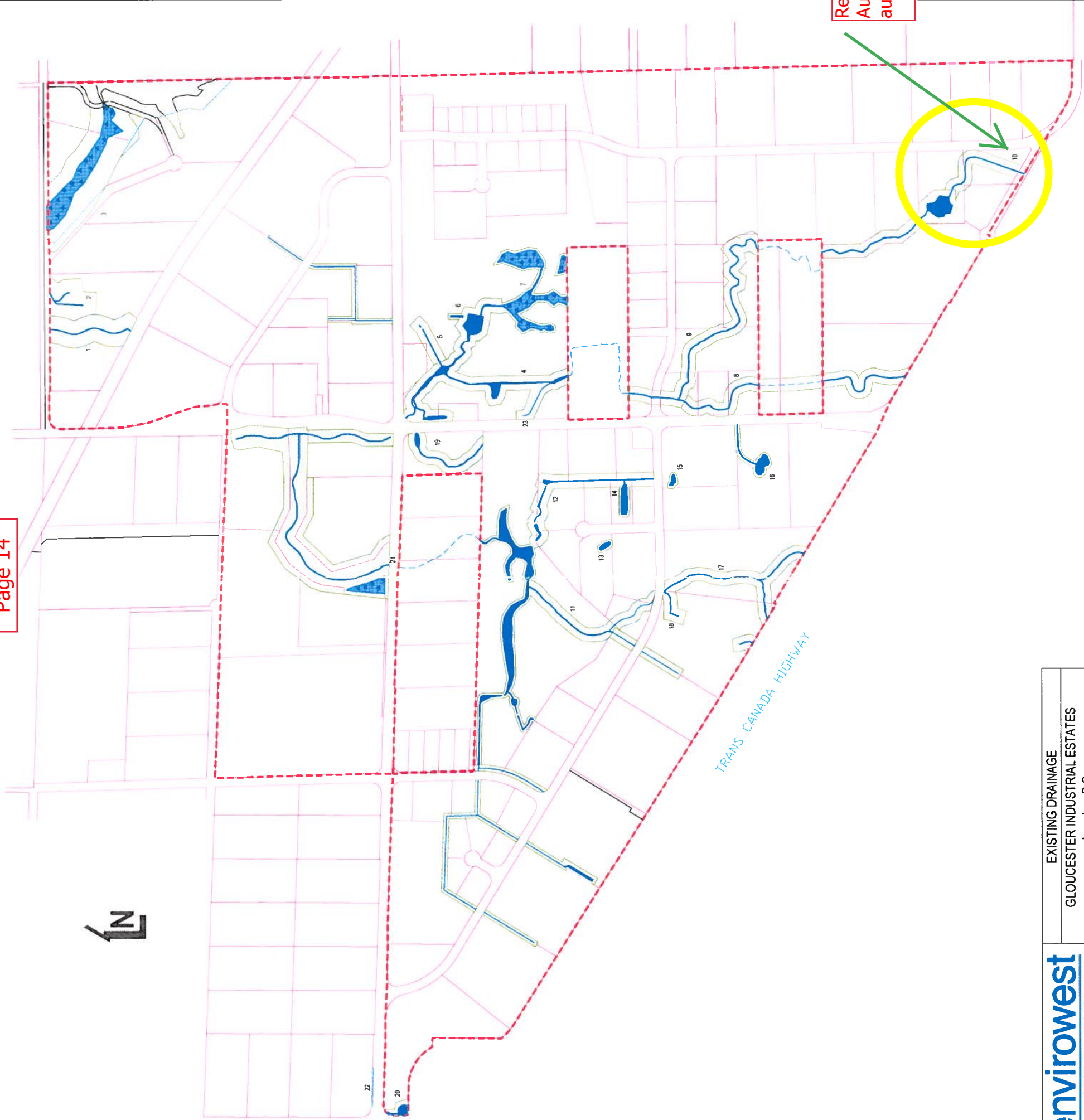
161884 Canada Inc. (Gloucester)

Per: 

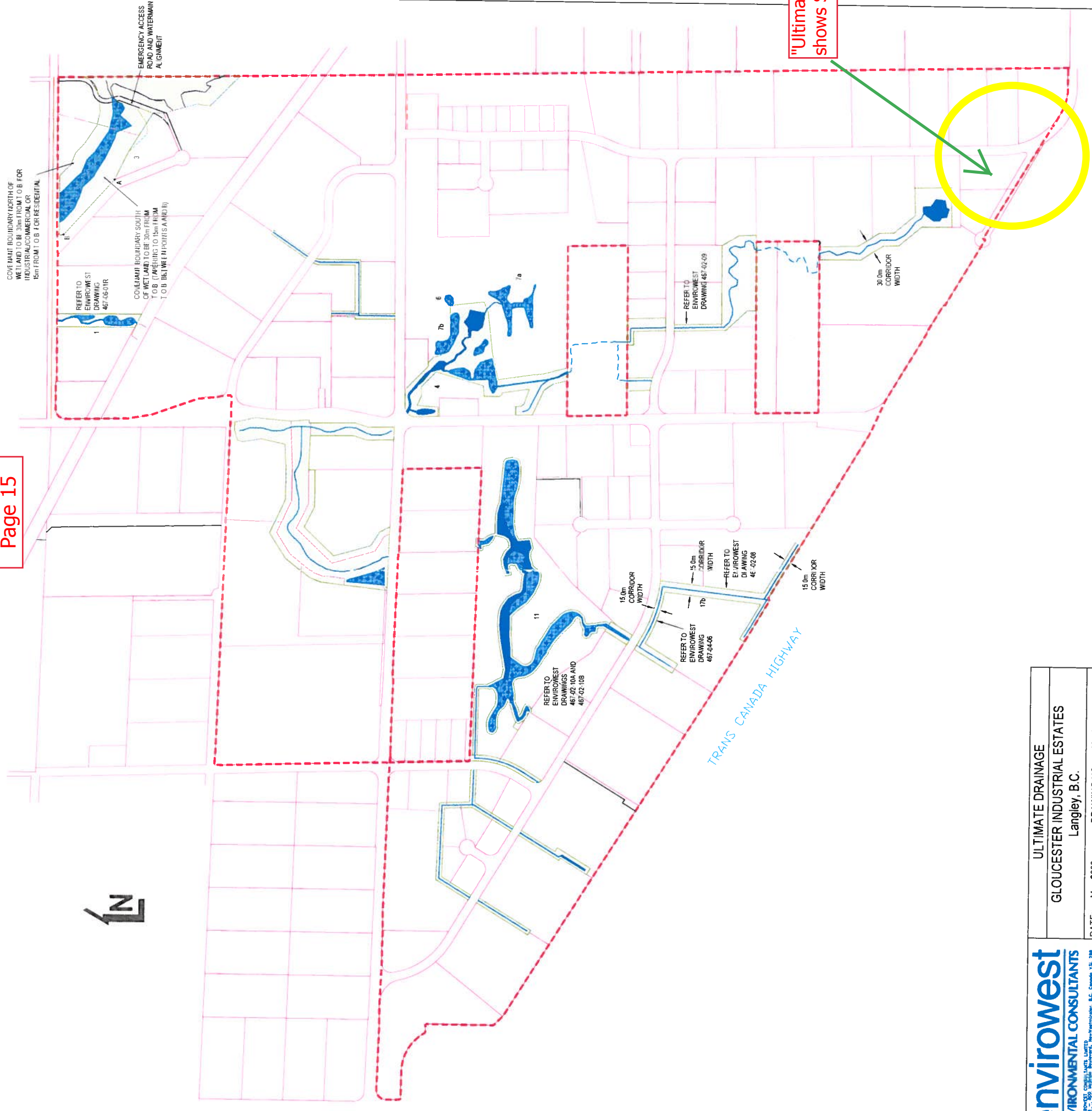
Authorized signatory

MATTHEW McKEETHNIE
Name (print)

PRESIDENT
Title (print)



Referring to Page 2 of DFO
Authorization this is "Site 10"
authorized for elimination



"Ultimate Drainage" maps shows Site 10 eliminated



November 30, 2017

TOWNSHIP OF LANGLEY

20338 – 65 Avenue
Langley, BC
V2Y 3J1

Attention: Mr. Ramin Seifi, P.Eng., M.C.I.P.
General Manager
Engineering and Community Development

Dear Mr. Seifi,

RE: DEVELOPMENT PERMIT APPLICATION 100890
4825 – 275 STREET, LANGLEY - WATERCOURSE MAPPING CONCERN

We have reviewed the November 24, 2017 letter from the Langley Environmental Partners Society (LEPS). This letter is addressed to the Township of Langley Mayor and Council and is intended to bring to their attention an apparent omission of information regarding a watercourse on the subject property. The development permit application makes reference to the proposed modification of a statutory right-of-way (RoW) through the property. We were in attendance at the Council meeting on November 27, 2017 when this matter was raised and discussed.

The LEPS letter makes reference to a channelized stream that is a main branch of West Creek. While not explicitly stated in the letter, the assertion made by LEPS is that this stream flows through the subject property as an open channel. The letter indicates the stream is Class B habitat and that such streams require setbacks of 20 metres on each side. An attachment to the LEPS letter, citing the Township's Geosource web-map, is referenced in support of the Class B designation.

As you may be aware, Envirowest has been involved with environmental planning at Gloucester Industrial Estates since the early 1990s. We are extremely familiar with the watercourses of the area and in particular, the drainage system at the subject site. Relevant information is summarized below.

In 2000, Fisheries and Oceans Canada (DFO) issued an Authorization agreement to 161884 Canada Inc. (Gloucester) allowing the alteration of watercourses throughout the business park, subject to provision of compensatory habitats. Maps appended to the Authorization identified streams that existed when the agreement was executed (Existing Drainage) and streams that would ultimately exist at complete build-out of the industrial park (Ultimate Drainage).

Envirowest Drawing No. 655-55-01 (Attachment A) shows relevant portions of the two drawings. The map depicting existing drainage identified a stream flowing across the subject property. The map depicting ultimate drainage shows no stream on the subject property.

Aerial photography available on the Geosource web-map shows the subject site as generally undisturbed in 2005. The 2008 aerial image shows the property as cleared of vegetation with a roadway and storm sewer extending westward from 275 Street; the stream still exists at this point in time. The 2010 aerial image shows the property as almost completely filled and the stream completely eliminated. Storm sewers were installed to convey runoff from the south side of the property (including stormwater from Highway 1, local roads and lands south the highway) to a habitat pond at the north end of the property. The habitat pond is protected by a non-disturbance covenant registered on the title of the property. Storm sewers were installed through the property, within RoWs registered on the legal title of the property, in favour of the Township of Langley.

The Geosource map attached to the LEPS letter is consistent with the drainage condition described above. Blue lines on the map attached to the LEPS letter denote storm sewers conveying drainage across the site. This map does not show Class B stream habitat on the subject property; it correctly shows that no stream exists.

In allowing the enclosure of this stream in a storm sewer, the DFO Authorization acknowledged that fish habitat could be (and subsequently has been) eliminated from the property and that DFO would no longer have any interest in the property as habitat. The DFO Authorization ensured that replacement habitat would be (and subsequently has been) constructed elsewhere within the business park. Once the stream was diverted into the storm sewer, and a RoW was registered over the sewer corridor, all authority over this section of the drainage system transferred to the Township of Langley.

Storm sewers are not considered to be fish habitat (even in cases where fish migrate through them) and setbacks do not apply. Senior environmental agencies have no role in the modification of storm sewers within their RoWs, including realignment of sewers in modified RoWs. Approvals are required from these agencies only when proposed works affect the inlets and outlets (i.e. where they connect to open streams); such works are not proposed by the development permit application.

The proposed works involve replacement of a section of the existing storm sewer with a new storm sewer on a different alignment, accommodating a building that had not been designed when the sewer was first installed. The new sewer will connect to an existing manhole at one end, and will connect at a new manhole at the other end. No work is proposed near open stream habitat. Notwithstanding, the work has been carefully planned and will be monitored to ensure that indirect impacts to downstream habitat do not occur.

In conclusion, we confirm that there is no stream on the subject property and that the Township of Langley is entirely within their jurisdiction to allow the realignment of the storm sewer

through the property. The works will be closely monitored to ensure no indirect impacts to downstream habitat.

Please call me should this require clarification.

Your truly,
ENVIROWEST CONSULTANTS INC.

A handwritten signature in black ink, reading "I Whyte". The signature is written in a cursive, flowing style.

Ian W. Whyte, P.Ag.
Senior Project Manager

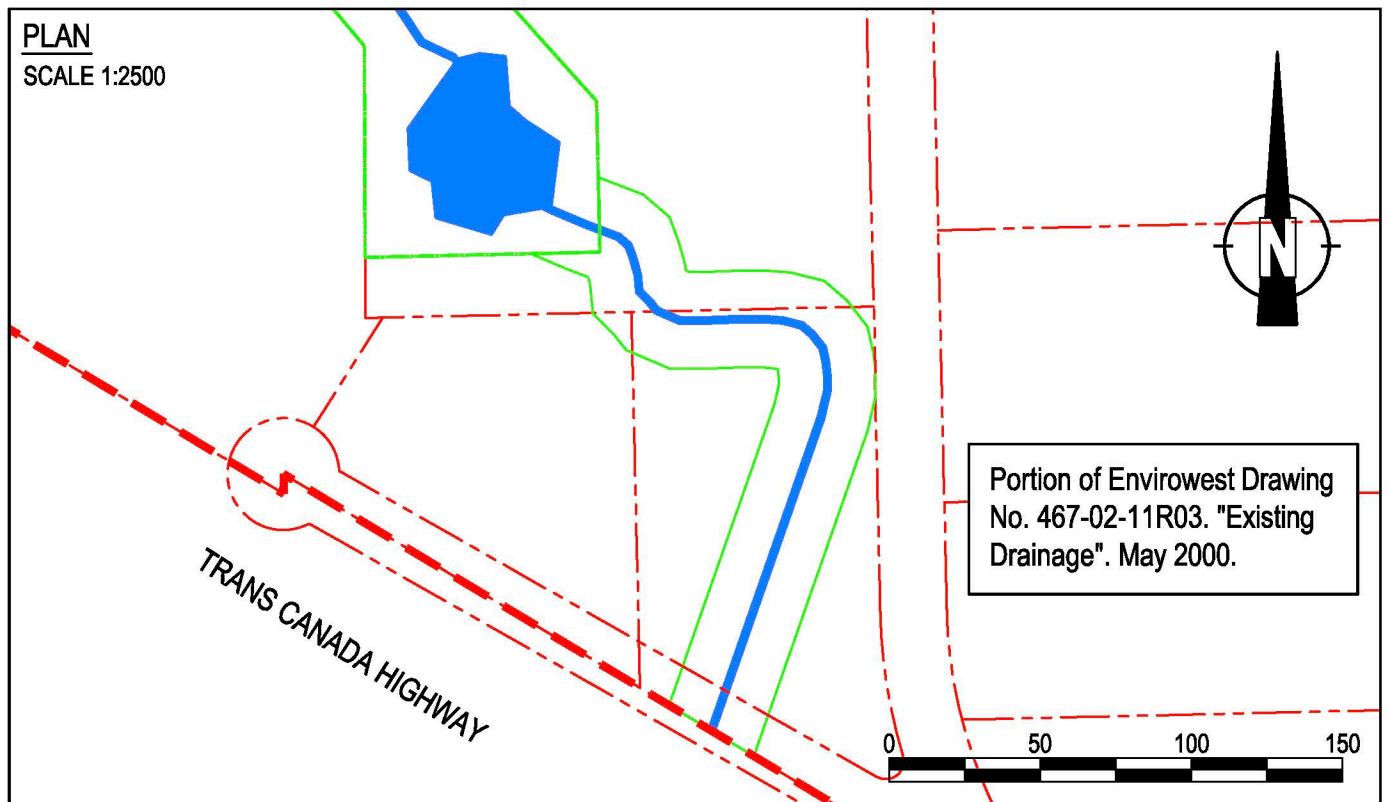
IWW
attach.

ATTACHMENT A

**ENVIROWEST DRAWING No. 655-55-01
DFO APPROVED DRAINAGE PLANS**

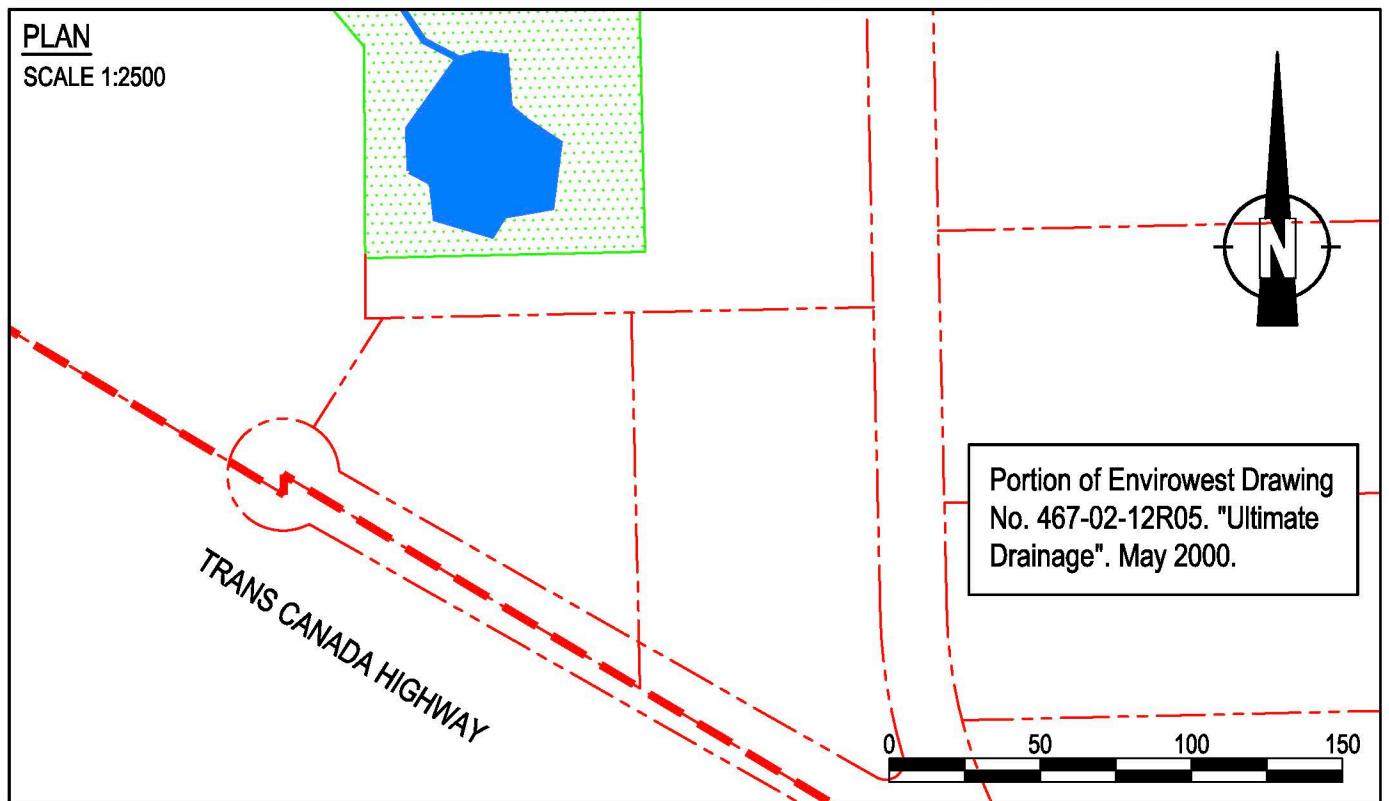
PLAN

SCALE 1:2500



PLAN

SCALE 1:2500



REFERENCE DRAWINGS

1. Drawing No. 467-02-11. Rev.03. "Existing Drainage". May 2000. Envirowest Consultants Inc.
2. Drawing No. 467-02-12. Rev.05. "Ultimate Drainage". May 2000. Envirowest Consultants Inc.

BEEDIE DEVELOPMENT GROUP
Burnaby, BC

GLOUCESTER INDUSTRIAL ESTATES
Langley, BC



envirowest consultants inc.

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Port Coquitlam, British Columbia
Canada V3C 6M2
office: 604-944-0502
facsimile: 604-944-0507

www.envirowest.ca

DFO - APPROVED DRAINAGE PLANS

DESIGN: JWW	DRAWN: SCM	CHECKED: JWW	REVISION: 00	REVISION DATE:
As Shown				DRAWING NUMBER:
DATE: November 30, 2017				655-55-01