PHOENIX
ENVIRONMENTAL SERVICES LTD. 505 – 1755 WEST BROADWAY, VANCOUVER, B.C. V6J 4S5 Tel: (604) 689-3888

July 28, 2023

Harpreet S. Nahal
101A - 3100 30th Avenue
Vernon, BC
V1T 2C2

Dear Mr. Nahal:

Re: Environmental Impact Assessment (EIA) – Proposed Residential Development, Vernon Springs, 1607 43rd Avenue, Vernon, B.C.

Phoenix Environmental Services Ltd. (Phoenix) has prepared this Environmental Impact Assessment (EIA) report regarding the proposed multi-family residential development of the property situated at 1607 43rd Avenue (the Site) in the City of Vernon, BC. The proposed development comprises two (2) low-rise apartment buildings with a mix of 3-storey and 4-storey buildings over underground parkades as well as exterior surface parking areas. Refer to the Location Map presented in Appendix A showing the location of the Site within the City of Vernon.

The proposed development appears to be an urban infill project. The Site is a remnant portion of a residential development complex that was partially developed in the late 1990's and there is an existing road with water and sewer utilities servicing extending through the middle of the Site. There are existing apartment buildings from the previous development to the southeast with the civic address of 1607 43rd Ave. and northeast of the Site with the civic address of 4308 Pleasant Valley Road. Much of the Site has been disturbed as a result of previous development activities including excavations for building foundations that did not get built. The Site contains forested habitat areas and a small pond that are protected by restrictive covenants registered during the prior development of the existing multi-family buildings at 4308 Pleasant Valley Road and the existing road through the middle of the Site. Under the City of Vernon's Environmental Management Areas (EMA) Strategy, there is a mapped EMA polygon encompassing the Site and parts of the adjacent lands designated as Medium Conservation Value (yellow-coded) shown on the City's web map – North Okanagan Map

This EIA is prepared with reference to the City of Vernon Environmental Management Areas Strategy and related guidelines for environmental assessment and impact mitigation. This report provides a summary of existing environmental conditions of the Site such as vegetation communities, stream and aquatic habitats, and wildlife habitats at the Site, including Federally- and Provincially listed Species at Risk. This report also describes the proposed development concept for the Site and provides an assessment of potential environmental impacts and recommends associated mitigation measures.

1 INTRODUCTION

The City of Vernon has founded its Environmental Management Areas (EMA) Strategy on Sensitive Ecosystem Inventory (SEI) mapping for the Vernon vicinity and surrounding areas. An EMA Strategy Map has identified ecosystem areas of low, moderate, and high sensitivity that correspond with the existing development pattern, slope conditions and sensitive ecosystem areas. Accounting for available

background information and ecological data, mapped ecosystem sensitive polygons, and the development history of the City, the EMA Strategy has identified three Development Districts that cover all land use areas within the City. The Site is located within Development District 2 – Neighbourhood District (DD 2). As mentioned, a Moderate sensitivity polygon (yellow polygon) has been mapped at the subject Site. Moderate sensitivity polygons influence development to a lesser degree than areas mapped as High sensitivity polygons (red polygons) for which greater degrees of development restriction and environmental management requirements are applied to proposed developments. Moderate sensitive polygon areas require that development proposals respond to property specific conditions and the presence or absence of key natural and habitat features. Land use alterations, changes to permitted uses and citing of all proposed land uses are required to undertake conservation, protection, and mitigation planning. Most of the areas surrounding the Site have been mapped by the City as Low (green) ecological sensitivity. This EIA has been conducted in order to address the conservation and protection needs at the Site commensurate with Moderate conservation values that have been identified for the Site through the EMA Strategy, while also meeting City objectives for reasonable development potential of the Site and vicinity.

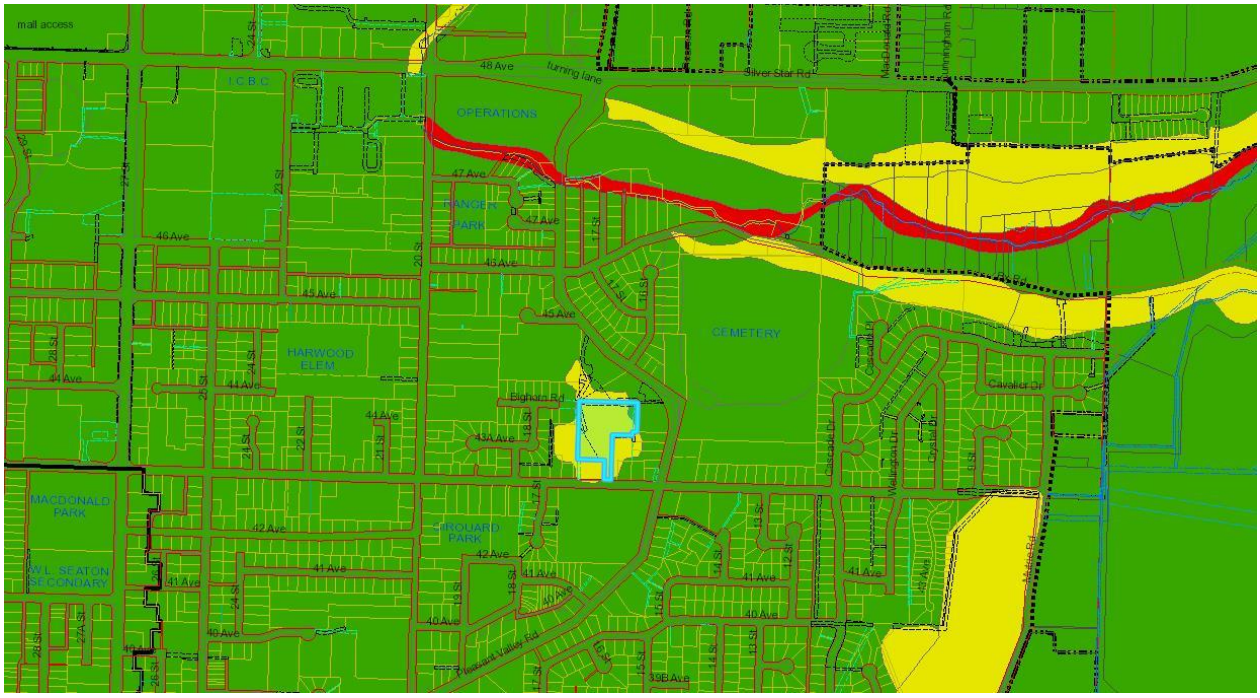


Figure 1: Location of the Site in Vernon and mapped EMA Polygons at and nearby the Site

This report provides a bio-physical inventory of the Site including a description of topographic and geologic features, vegetation communities, watercourses, wildlife and wildlife habitat, and potential occurrence of Species at Risk. This report also describes the measures incorporated into the proposed plan to provide aquatic and terrestrial habitat conservation, protection of key environmental features, and the mitigation measures to be taken toward environmentally sound construction methods and development at the Site. In addition to identifying project-specific habitat conservation and protection for the proposed development, this EIA includes a conceptual plan for stormwater management best practices associated with the proposed development.

2 PROJECT DESCRIPTION

A proposed residential development plan for the Site, referred to as Vernon Springs, has been prepared in 2021 by Bluegreen Architecture Inc. (Bluegreen). The proposed multi-family residential development entails construction of two low-rise apartment buildings. Building A along the west side of the existing access road at the Site will comprise a single concrete parkade podium with two 3-storey wood frame apartment buildings above containing 63 apartment units with a mix of 1- bedroom and 2-bedroom units. Building B along the east side of existing access road will comprise a 4-storey apartment building above a concrete parkade containing 56 apartment units with a mix of 1- bedroom, 1 bedroom & den and 2 bedroom units. In addition to underground parking in the parkades, there will be surface parking areas for autos and bicycles. Refer to the architectural drawings for the proposed development at the Site presented in Appendix B for addition details.

The Site and existing access road contain water, storm sewer and sanitary sewer utilities to which the proposed apartment complex will connect. Existing storm sewers extend along the access road, the east edge of the northeast portion of the Site, and diagonally from the access road to the southwest corner of the Site where the on-Site storm sewer extends south along a right of way and ties into the storm sewer along 43rd Avenue. Existing sanitary sewer extends along the north side of the existing apartment building adjacent to the Site, across the access road to the mid-area of the Site and then extends northwest along a sanitary right of way to connect with sanitary sewer along adjacent Bighorn Road at the northwest corn of the Site. There is another sanitary sewer that extends along the north edge of the Site to Bighorn Road.

A Conceptual Landscape Design has been prepared for the proposed development in 2021 by Outland Design Landscape Architecture. The landscape plan will provide a variety of deciduous trees, shrubs and ground cover around the proposed buildings and along the access road, as well as several turf areas. Refer to the landscape plan presented in Appendix B for more details.

3 METHODS

The methodology for this Environmental Impact Assessment (EIA) has included use of existing information resources, mapping, and reports, as well as field reconnaissance, to assess key environmental attributes on and around the Site. Phoenix consulted resources including City of Vernon web map (North Okanagan Map), Surficial Geology mapping, Sensitive Ecosystems Inventory (SEI) mapping, fish, wildlife and ecological databases through iMap BC and the Conservation Data Centre. Phoenix also has referenced a site-specific geotechnical assessment report prepared in October 2020 by Ecora Engineering & Resource Group Ltd. (Ecora).

A Phoenix biologist conducted a field assessment of the Site on April 17, 2023, during warm dry weather following snow melt. The vegetation communities, aquatic habitat and wildlife sign and activity were recorded throughout the Site during the field assessment in April 2023

4 SITE DESCRIPTION

~1.12ha

The Site is approximately 11 hectares (11,188 m^2) in size according to the architecture drawings (Appendix B). The legal description for the Site is Lot B, Plan KAP59453, Section 2, Township 8, Osoyoos Division Yale District, except Plan KAS1926 (PH I to V). The parcel identifier (PID) is 023-806-940. The civic address assigned to the Site by the City is 1607 43rd Avenue.

A survey plan prepared for the Site by Russell Shortt Land Surveyors is included in the Bluegreen architectural drawing set presented in Appendix B. The survey plan includes topographic contours for the Site. The survey plan also shows the existing access road, several manholes, existing rights of way corridors at the Site, and an areas within and adjacent to the Site covered by Restrictive Covenant.

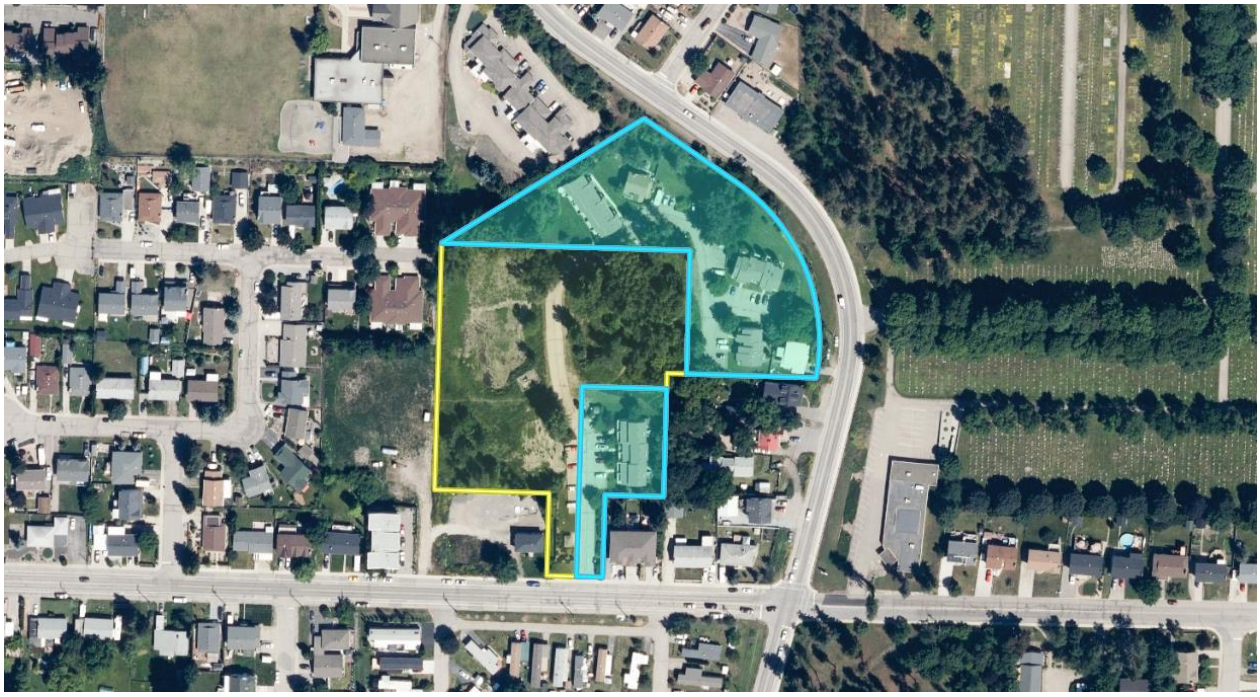


Figure 2: Aerial imagery of the Site in Vernon (yellow outline) and existing adjoining development (blue outline)

As shown in the 2022 aerial imagery of the Site in Figure 2, as well as the Location Map in Appendix A, the Site is mostly vacant except for the access road and existing surface parking for the adjacent apartment building to the southeast. The adjacent apartment building to the southeast (blue outline) also has a civic address of 1607 43rd Avenue. There are adjoining buildings to the north and northeast of the Site that have a civic address of 4308 Pleasant Valley Road.

The areas adjacent to the Site largely comprise residential land uses with a cemetery across Pleasant Valley Rd. to the east of the Site and Girouard Park to the southwest across 43rd Avenue.

5 TOPOGRAPHY AND GEOLOGY

The Site generally slopes to the west as does the surrounding area to the east. There is a prominent westward embankment along the northeast corner of the Site adjacent to 4308 Pleasant Valley Road. Otherwise, the Site is relatively flat. As shown on the survey plan (Appendix B), the Site is in a minor depression to the north of 43rd Ave. and to the south of the adjacent apartment building at 4308 Pleasant Valley Road. Also, there are two areas of former excavations along the west side of the access road with relatively steep side-slopes and flat bottoms as shown on the survey plan. A small circular pond with steeps side slopes is located in the southwest corner of the Site.

Surficial geology mapping by the Geological Survey of Canada (Vernon, Map 1392A) shows that native soils in the vicinity of the Site are classified as Fraser Glaciation Kamloops Drift comprising lacustrine deposits (Lv). Lacustrine deposits comprise silt with minor clay and sand which are typically deposited in a thin veneer and follow the underlying topography (generally less than 10 feet thick).

Site-specific soil features have been described in the 2020 Ecora Geotechnical Assessment report for the Site. The geotechnical assessment entailed a combination of cone penetration testing (CPT), dynamic cone penetration testing (DCPT), boreholes, and installation of two (2) groundwater monitoring wells. Soil types encountered by the geotechnical site investigations across the Site consisted of:

- Fill (Sand & Gravel) comprising dense sand and gravel with varying amounts of silt and cobbles to a depth of 3.4 m below ground level (mbgl) primarily under the existing access road at the Site; underlain by
- Lacustrine Deposits (Clay/Silt) comprising very soft to compact silts and clays, with varying amounts of sands and gravels. The silts and clays were encountered directly at the surface to a maximum depth of 6.1 mbgl on the western and eastern side of the Site; underlain by
- Glaciofluvial Deposits (Sand) comprising dense to very dense sands, with varying amounts of silts and gravels extending to the maximum depth of exploration at 10.7 mbgl. The geotechnical report has noted that heaving sands were encountered at depths between 8.2 - 9.8 mbgl.

Standpipe (2) groundwater monitoring wells revealed that the depth to water (water table surface) ranged between 1.05 – 1.4 mbgl.

The Ecora geotechnical assessment has generally characterized native soils (excluding existing fill soils) at the Site as very soft to compact silts and clays with low permeability and a high water table. Low seismic and liquification hazards are present at the Site. Proposed building foundations will require ground improvement measures such as preloading, piling, or other options identified in the geotechnical assessment report.

6 STREAMS AND WATERCOURSES

A stream is any watercourse of natural or artificial origin that provides fish habitat. This includes rivers, creeks, ditches, ponds, lakes, springs and wetlands connected by surface flow to a waterbody that provides fish habitat, as defined in the BC Riparian Areas Protection Regulation (RAPR). Fish habitat includes streams supporting populations of fish; and also streams that lack fish presence but contribute water flow, food, and nutrients to fish bearing streams. Fish have been defined as all life stages of salmonids (e.g., coho, chum), game fish (e.g., sturgeon, bass, crayfish), and regionally significant fish. Under 2019 amendments to the Canada Fisheries Act, the definition of fish has been expanded to include all fish species, including crustaceans and marine mammals.

Based on field observations and mapping databases (e.g. City web map, iMap BC), there are not any creeks or ditches on the Site. During the April 2023 field assessment, a short ditch with standing water around an open manhole filled with water was observed on the adjacent property to the southwest of the Site at 1609 43rd Avenue. There is also a small pocket cattail marsh at the southwest corner of 1609 43rd Ave. adjacent to the Site. The adjacent cattail marsh appeared to be isolated and unconnected to any drainage features.

There is a small pond at the southwest corner of the Site which has been retained and protected by an existing Restrictive Covenant. The small pond was observed on April 17, 2023 to contain shallow, standing water with tree and shrub vegetation in and around the pond and grassed side slopes to the pond top of bank. Refer to the Site Photos presented in Appendix C. The City web map for storm sewer infrastructure shows that there is a stormwater pipe at the south edge of the pond that is connected to a storm sewer in 43rd Ave. and an extensive storm sewer network beyond. There is no indication that there is a surface flow connection of the pond to another water feature that may be fish habitat. As such, the small pond at the Site has been determined to be an isolated wetland. While the isolated pond wetland meets the definition of a "stream" under the BC Water Sustainability Act (WSA), it is not a fish habitat nor a "stream" as defined under the BC Riparian Areas Protection Regulation (RAPR) because it is an unconnected isolated wetland. Therefore, streamside setbacks or streamside protection and enhancement areas (SPEA) do not apply to the isolated pond wetland at the Site. However, the isolated pond wetland is protected under the WSA.

The closest fish-bearing stream to the Site is B.X. Creek around 380 m distant to the north of the Site. B.X. Creek (Watershed Code 310-939400-08200) has recorded populations of rainbow trout, brook trout, sucker, carp, prickly sculpin, and burbot (BC Habitat Wizard) and drains to Swan Lake. The Riparian Assessment Area (RAA) of B.X. Creek (30 m) does not intersect the Site. There are no other fish habitats nearby the Site based on databases and field observations of the vicinity of the Site.

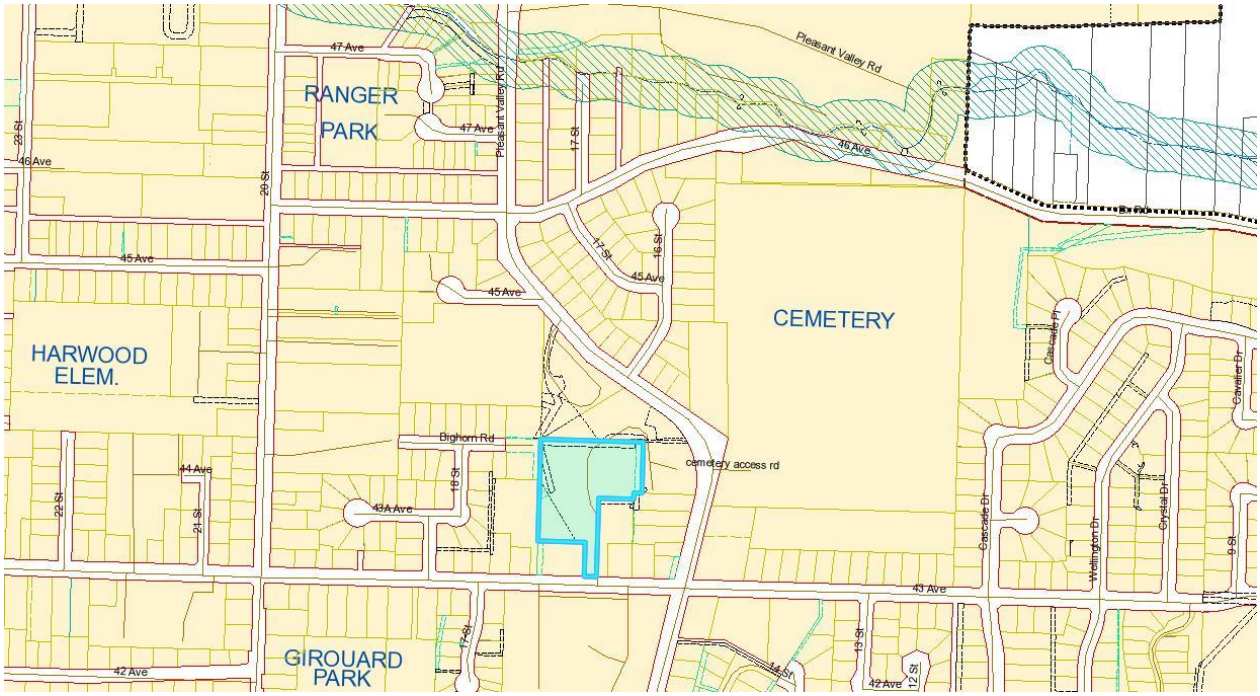


Figure 3: The natural stream, BX Creek, located north of the Site showing the Riparian Assessment Area along the stream.

7 VEGETATION COMMUNITIES

The Site is located within the Okanagan Very Dry Hot Interior Douglas-fir Variant (IDFxh1), as described by the Biogeoclimatic Ecosystem Classification (BEC) system developed for the Province of British

Columbia and as indicated by the Sensitive Ecosystems Inventory (SEI) - Vernon Commonage, 2005. The Vernon Commonage SEI study area is located within the Southern Interior Ecoprovince, the northern extension of the Columbia Basin and lies within the North Okanagan Basin Ecosection. The Vernon Commonage SEI is bounded at the north by the urban area of the City of Vernon.

The following vegetation communities have been identified within and adjacent to the Site where existing urban development has not already occurred. Refer to the Habitat Map in Appendix A showing general habitat types found at the Site.

7.1 Deciduous Forest

The deciduous forest at the northeast area of the Site and adjacent to the north of the Site is dominated by black cottonwood (*Populus balsamnifera trichocarpa*), willow (*Salix. sp*.) and trembling aspen (*Populus tremuloides*) with scattered maple, birch and ornamental trees. The shrub layer is dominated by red-osier dogwood (*Cornus stolonifera*) and rose (Rosa.sp.). Due to the early spring timing of the field visit (e.g. prior to leaf out), shrub and tree species identification has been limited.

7.2 Pond Wetland

There is a small pond at the southwest corner of the Site. The pond was observed to contain shallow standing water during the April 2023 field assessment. The pond is a type of wetland and is an isolated wetland as discussed in section 6 of this report. There are cottonwood and willow trees and shrubs vegetating the margins of the pond with grasses covering the side slopes and areas surrounding the pond.

7.3 Disturbed Vegetation Type

The remainder of the Site has been disturbed by previous site clearing and grading for residential development that did not proceed. The disturbed areas of the Site are predominantly mowed grass.

Remnant excavations for building foundations that were not built are within the disturbed vegetation type as shown on the Habitat Map in Appendix A. The excavation areas are extensively lined with crushed (~3-4 in.) rock. The largest of the excavations near the northwest corner of the Site also has accumulations of silts between the rocks with small pockets of standing water observed in the lowest northwest and southeast corners. While appearing to be regularly mowed, there is bulrush (cattail) and sedge vegetation within the base of the excavation in the largest excavation to the northwest side of the Site. The side slopes of the excavations primarily consist of mowed grasses. The southern excavation is predominantly exposed crush rock along its base. A small pool of standing water and area of cattails extends to the southwest of the excavation along the south edge of the Site adjacent to 1609 43rd Avenue. The area west of the southern excavation is within the Restrictive Covenant area that also encompasses the pond wetland.

7.4 Rare Plant Communities

Existing conservation database mapping (CDC, iMap BC) has identified two rare plant communities for the Site that are no longer present as a result of subsequent residential development preparations at the Site and multi-family residential development at the adjoining areas to the northeast and southeast of the Site.

There is a large polygon for a Typha latifolia (Common Cattail) Marsh that has been mapped (iMapBC) as covering the Site and adjacent properties. Refer to the polygon outlined in blue presented in Appendix B. The approximate outline of the Common Cattail Marsh is also outlined in green on the Habitat Map in Appendix A. This mapped polygon closely resembles the polygon mapped on the Vernon web map for the EMA Strategy Moderate Sensitivity (yellow) polygon shown on Figure 1.

The Typha latifolia (Common Cattail) Marsh (Occurrence ID 12945) is identified as a BC Blue-Listed Ecological Community. The Conservation Data Centre (CDC) record indicates that the Cattail Marsh community was first observed in 1994, and last observed in 2013. This wetland element occurrence is based on Terrestrial Ecosystem Mapping and has been confirmed by one field inspection. The element occurrence occupies an estimated 5.4% (0.24 ha) of the area shown. Annual and seasonal fluctuations in water levels results in changes to the vegetation over time. The CDC record indicates that the vegetation and ecological community on this site may have changed since mapping or field sampling.

The CDC also has mapped the occurrence of a Cut-leaved water parsnip (*Berula erecta*) ecological community at the Site. Cut-leaved water parsnip is a semi-aquatic perennial wetland plant, found in marshy areas and along streams in the Okanagan Valley. It is widespread across its entire range, has high fire tolerance, low drought tolerance, may be toxic to livestock and is adapted to both fine and medium-textured soils. The disturbed conditions at the Site are unlikely to support the presence of Cut-leaved water parsnip within the Site.

There is a Red-listed Ecological Community along B.X. Creek East of Swan Lake (Occurrence ID 10474) identified as a Populus trichocarpa / Symphoricarpos albus - Rosa spp. ecological community. The mapped polygon for the Populus trichocarpa / Symphoricarpos albus - Rosa spp. (black cottonwood/common snowberry/ rose) ecological community closely corresponds to the City's EMA Strategy High Sensitivity (red) polygon about 350 m north of the Site (refer to Figure 1).

There is a Schoenoplectus acutus Deep Marsh (hard-stemmed bulrush Deep Marsh) BC Blue-Listed Ecological Community (Occurrence ID 12486) recorded for Bate Creek 0.4 south of the City of Vernon.

8 WILDLIFE

8.1 Wildlife and Wildlife Habitats

The forested areas within the Site are likely used for movement and foraging by a variety of mammal species (*e.g.,* deer, raccoon, bats), as well as by songbirds, woodpeckers and raptors. Local residents at Bighorn Rd. interviewed during the April 2023 field assessment indicated that barred owl have been observed within the deciduous forest in the Restrictive Covenant area adjoining the Site to the north, as well as deer and racoon.

The CDC has a mapped occurrence for the Red-listed American Badger (*Taxidea taxus*) that extends into the Site; however, this is a large area-wide occurrence throughout the Okanagan Valley. The Site does not offer suitable habitat for American Badger given its extensively urbanized setting and disturbed vegetation communities.

Wildlife species observed at the Site during the April 17, 2023 field assessment included:

- American Robin (*Turdus migratorius)*
- Dark-eyed Junco (*Junco hyemalis)*
- Wren *(sp?)*
- Mourning Dove (*Zenaida macroura*)
- Northern flicker (*Colaptes auratus*)
- Mallard (*Anas platyrhynchos*)
- Eastern Gray Squirrel (*Sciurus carolinensis)*

A stick nest that is likely used by American crow (*Corvus brachyrhynchos*) was observed in a cottonwood tree near the northeast corner of the Site. No raptor nests were observed in or around the Site.

9 IMPACT ASSESSMENT

The primary environmental features on the Site include the deciduous forest in the northeastern part of the Site and the pond wetland in the southwest corner. The pond wetland and adjacent forest bordering the north side of the Site have been set aside for protection through restrictive covenants registered when surrounding multi-family buildings were developed in the parcels adjoining the Site. Most of the Site has been previously disturbed and remains actively mowed. An existing, serviced access road bisects the Site. Two prominent areas of excavations constructed when adjoining multi-family residential buildings were developed occupy much of the area of the Site west of the road through the Site. Several sewers also cross through the Site.

The proposed multi-family residential development entails construction of two low-rise apartment buildings. Building A along the west side of the existing access road at the Site will comprise a single concrete parkade podium with two 3-storey wood frame apartment buildings above containing 63 apartment units. The proposed Building A will occupy most of the existing excavated areas on the west side of the existing road through the Site. Building B along the east side of existing access road will comprise a 4-storey apartment building above a concrete parkade containing 56 apartment units. The location of Building B is mostly a deciduous forest.

There are not any fish habitats at the Site that would be impacted by the proposed multi-family residential development at the Site. The isolated (unconnected) pond wetland, already protected by restrictive covenant, will be retained.

The loss of the deciduous forest in the northeast part of the Site will be the primary environmental impact associated with the proposed multi-family residential development. The loss of forest will result in reduced habitat availability for birds, small mammals, and deer. The deciduous forest that will be lost is small and fragmented within the surrounding extensively urbanized area of Vernon.

The mapped occurrence of a common cattail marsh ecological community has previously been affected by existing development alterations at and around the Site. Small pockets pf cattail remain nearby the Site and adjacent to the protected pond wetland.

The environmental impacts associated with the proposed multi-family residential development of the Site are expected to be minimal. No sensitive habitats of conservation concern will be lost or affected by the proposed development.

The environmental impacts associated with the proposed multi-family residential development of the Site can be mitigated and partially offset by tree planting included with the proposed landscape plan (refer Appendix B). The environmental impacts can also be partially offset by providing replacement forest and expanded wetland habitat described in the first three recommendations that follow.

The following mitigation measures are recommended for incorporation into the project design and construction:

1. The triangular Restrictive Covenant (RC) area containing the pond wetland should be planted with native trees and shrubs to enhance side slopes of the pond wetland and adjacent areas of the RC area around the protected pond wetland. Adding ponderosa pine or similar coniferous native species as well as native birch and aspen trees should be considered to increase diversity and increase overall tree canopy coverage within the RC area.

2. The filled and mowed grass area between the pond wetland and the south Site boundary should be re-graded to lower the elevation within this area of the RC area, as well as within the area north of the pond wetland within the RC area. Following re-grading, planting of native trees and shrubs would occur.

3. The proposed turfed area along the west side of the proposed Building A and west boundary of the Site should be replaced with a broad (e.g. 3-m wide) swale extending from the northwest corner of the Site to the existing pond wetland to which on-site roof leaders and landscaped area drainage can be directed. The swale should contain two or three rock berms spaced along its length to temporarily store water drained to the swale and the base of the swale should be planted with cattails to form a linear cattail marsh. The western edge of the swale area should be planted with trees and shrubs to provide a vegetated border along the west side of the Site as per the Conceptual Landscape Plan. The proposed swale/ linear marsh should continue through into the RC area and connect and drain to the pond wetland.

4. All land clearing and tree removal should be timed to avoid the songbird breeding window (April 1 to August 31). If tree removal and land clearing activities cannot avoid this construction timing window, then nesting bird surveys will need to be conducted to ensure compliance with the B.C. *Wildlife Act* and the Canada Migratory Birds Regulation.

5. Erosion and sediment control (ESC) facilities should be installed and maintained during construction of the proposed low-rise apartment buildings. Given the silty, lacustrine native soils at the Site and accounting for spatial limitations, collection, and pre-treatment of stormwater runoff during construction may need to include storage tanks, flocculant treatment, and pH adjustment for any concrete leachate entering the stormwater collection system for the ESC facilities. All exposed soils should be stabilized with dense straw and seed mix after final grading. Temporary stockpiles should be covered with poly-sheeting. Temporary exposed soil areas should be stabilized with dense straw. Inlet protection devices should be installed in all on-site and nearby by off-site catch basins until the project is substantially complete, including topsoil placement and landscaping.

CLOSURE

It is hoped that this Environmental Impact Assessment has adequately described environmental features at the Site, the proposed residential development plan for the existing Site, probable impacts associated with the planned development, and measures to address potential impacts and provide habitat enhancement to offset forest losses at the Site.

Please contact us if you require any clarification or additional information regarding this report.

Sincerely,
Phoenix Environmental Services Ltd.

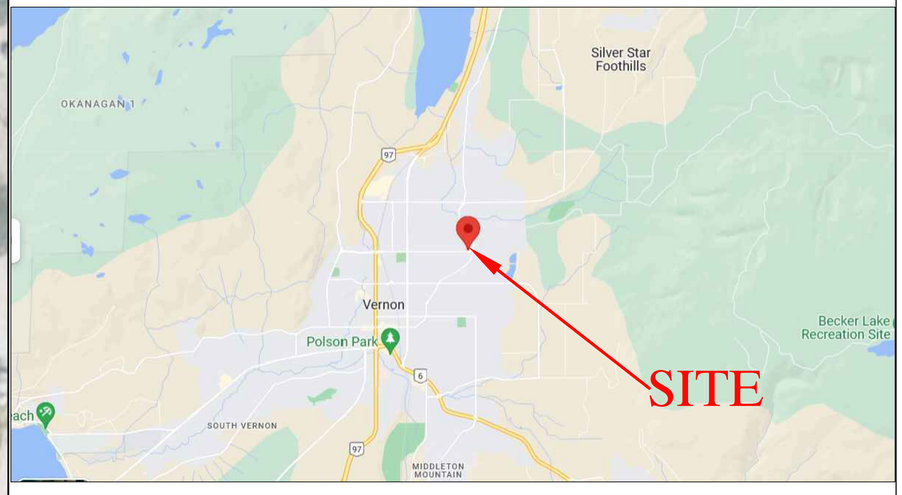
Ken Lambertsen, R.P.Bio.
Principal

Enclosures: Appendix A – Location Map, Habitat Map, CDC Occurrence Map
Appendix B – Architectural Plans, Conceptual Landscape Plan
Appendix C – Site Photos

APPENDIX A

Location Map
Habitat Map
CDC Occurrence Map

SITE BOUNDARY (1607 43rd Avenue, Vernon, BC)



SITE LOCATION MAP

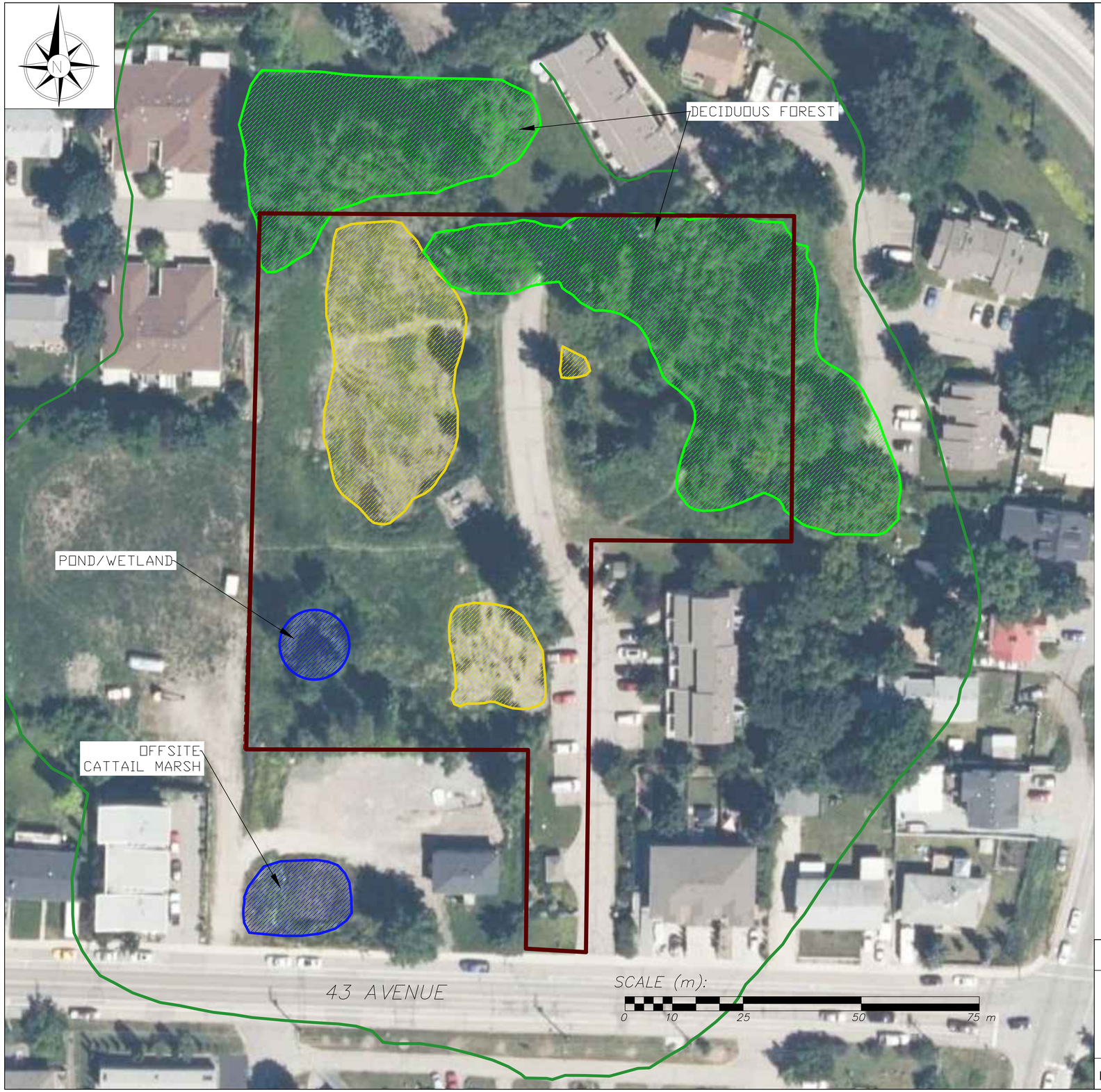
HARPREET NAHAL

Environmental Impact Assessment

1607 43rd Avenue, Vernon, BC

PHOENIX
ENVIRONMENTAL SERVICES LTD.
505 - 1755 W. Broadway, Vancouver V6J 4S5
tel. 604.689.3888

DATE: JULY 2023	DRAWN BY: NL/EL	SCALE: AS SHOWN	DWG: 1607_43Ave Vernon_EIAmaps.dwg



LEGEND:

SITE BOUNDARY

DECIDUOUS FOREST

POND, WETLAND / CATTAIL MARSH

EXCAVATED AREAS WITH ANGULAR ROCK BASE

CDC MAPPED OCCURRENCE POLYGON COMMON CATTAIL MARSH

HABITAT MAP

HARPREET NAHAL
Environmental Impact Assessment
1607 43rd Avenue, Vernon, BC

PHOENIX
ENVIRONMENTAL SERVICES LTD.
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tel. 604.689.3888

DATE: JULY.28. 2023	DRAWN BY: NL/EL	SCALE: AS SHOWN	DWG: 1607_43Ave Vernon_ElAmaps.dwg

BRITISH COLUMBIA

iMapBC Mapping

Legend

Water Licence Points of Div
Water Sources

STATUS

- Active Application
- Active Application and Licence
- Active Licence

Water Sustainability Act App
Section 10 and 11 Locations

APPROVAL_STATUS

- Other
- Current
- Expired
- Refused
- Unknown

Distribution - Bird Colony Lo

0 0.10 0.20 km

1: 5,000

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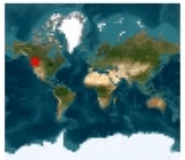
CAUTION: Maps obtained using this site are not designed to assist in navigation. These maps may be generalized and may not reflect current conditions. Uncharted hazards may exist. DO NOT USE THESE MAPS FOR NAVIGATIONAL PURPOSES.

Datum: NAD83

Projection: WGS_1984_Web_Mercator_Auxiliary_Sphere

Key Map of British Columbia



APPENDIX B

Architectural Plans

Conceptual Landscape Plan

Please refer to "Attachment - 2" in the report titled
"Zoning Application for 1607 43rd Avenue" dated November 29, 2023

APPENDIX C

Site Photos

	
Photo 1: View of the pond wetland looking south	Photo 2: Forest in RC area north of the Site looking northeast
	
Photo 3: View of existing excavation at NW area of the Site looking north	Photo 4: View of existing excavation at NW area of the Site looking south
	
Photo 5: View of the southern excavation west of the ex. Road looking south	Photo 6: View of isolated marsh between pond wetland and south boundary of the Site

Photo 7: View of small excavation area at the NE area of the Site and adjacent forest

Photo 8: View of forest at the NE part of the Site where Building B will be situated

Photo 9: Existing manholes near middle west area of the Site

Photo 10: View of existing road and development northeast of the Site

Photo 11: View of stick nest to the NE of the Site adjacent to existing multi-family buildings

Photo 12: Existing road through the Site looking south from the north edge of the Site