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File: 123220971

Date: November 1, 2017

Reference: Wildlife Assessment—2401 Burnside Road, Victoria, British Columbia

INTRODUCTION

Stantec Consulting Ltd. (Stantec) was retained by BC Transit to undertake a wildlife and wildlife habitat assessment to identify potential constraints to developing a Handy Dart facility (the Project) at 2401 Burnside Road (the study area), View Royal, British Columbia (BC). The habitat assessment was based on a desktop review of publicly available data sources and literature. Study area conditions were verified by a reconnaissance-level site visit, conducted concurrently with a tree inventory assessment on September 28 and 29, 2017.

The study area consists of the south parcel of the property located at 2401 Burnside Road, View Royal, BC, to the borders of public roads and the banks of Craigflower Creek (Figure 1). This memo summarizes the results of the habitat assessment and recommendations regarding constraints to Project development. Results of the tree inventory assessment, archaeological overview assessment and riparian areas assessment were submitted to BC Transit under separate cover.

REGULATORY SETTING

There are several pieces of federal and provincial legislation and regulations applicable to the Project.

The *Migratory Birds Convention Act* (MBCA) and Migratory Birds Regulation prohibit the possession, disturbance, or destruction of migratory birds, their occupied nests, or eggs. The deposition of harmful substances into waters or areas frequented by migratory birds are also prohibited by the MBCA.

The *Species at Risk Act* (SARA) prohibits the capture, possession, harm, harassment, or destruction of a species listed on Schedule 1 as Threatened, Endangered, or Extirpated. Also prohibited are the destruction or damage of a residence of wildlife listed on Schedule 1 as Threatened or Endangered, or Extirpated (if there are plans to reintroduce the species).

The BC *Wildlife Act* prohibits the injury or killing of wildlife unless authorized by permit, as well as the possession, disturbance, destruction, or injury of a bird, its occupied nest, or eggs. The nests of bald eagle, great blue heron, osprey are protected year-round, regardless of the nest's occupancy status.

Development of the study area may also be subject to development permits issued by the Town of View Royal. The Official Community Plan (Bylaw No. 811, View Royal 2011; View Royal 2012) defines Development Permit (DP) Areas and details additional development permit application information

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requirements for these areas. Bylaw No. 695 is the Tree Protection Bylaw (View Royal 2009), and describes requirements relating to the alteration of trees (see also Stantec's *Tree Inventory Assessment and Permit Requirements* report, submitted to BC Transit on October 30, 2017).

METHODS

Desktop Review

Prior to field reconnaissance, Stantec completed a review of the Town of View Royal's Development Permit application information requirements, including a review of iMapBC (BC CDC 2017a) and Habitat Wizard (BC MOE 2017) to identify known locations of provincially Red- or Blue-listed or federally designated wildlife species at risk. The BC Conservation Data Centre (BC CDC) Species and Ecosystems Explorer database was also searched to determine whether or not species at risk have the potential to occur within the study area (BC CDC 2017b).

Field Reconnaissance

The goals of the reconnaissance-level site visit were to identify the presence of supporting habitat for wildlife species at risk, wildlife habitat features (e.g., bird nests protected under the BC *Wildlife Act*), and wildlife movement corridors on the property. The site visit took place on September 28 and 29, 2017.

RESULTS

Desktop Review

One of the objectives of the habitat assessment was to document site conditions to meet the requirements of the DP Application. DP Applications in the Town of View Royal must describe any: significant native and protected trees, riparian areas, red- and blue-listed wildlife species, wildlife habitat and wildlife corridors. For each environmental value above affected by the Project, the Application must describe whether the preservation or enhancement of any of those environmental features has been incorporated into project design. The Town of View Royal has indicated that timelines for approval of Applications typically range from one to several months depending on the complexity of the Application and the need for additional information.

The study area is located partially within a Natural Watercourse and Shoreline Areas DP Area as defined by the Schedule Q of the Town of View Royal's Official Community Plan Bylaw No. 811 (Town of View Royal 2012). The Natural Watercourse and Shoreline Areas DP Area includes all land within 30 metres of the natural boundary of streams and similar watercourses or within 30 metres of the top-of-bank of a ravine containing a watercourse, in each case as defined in the Riparian Areas Regulation. Craighlower Creek is the natural watercourse associated with this DP Area (Figure 1).

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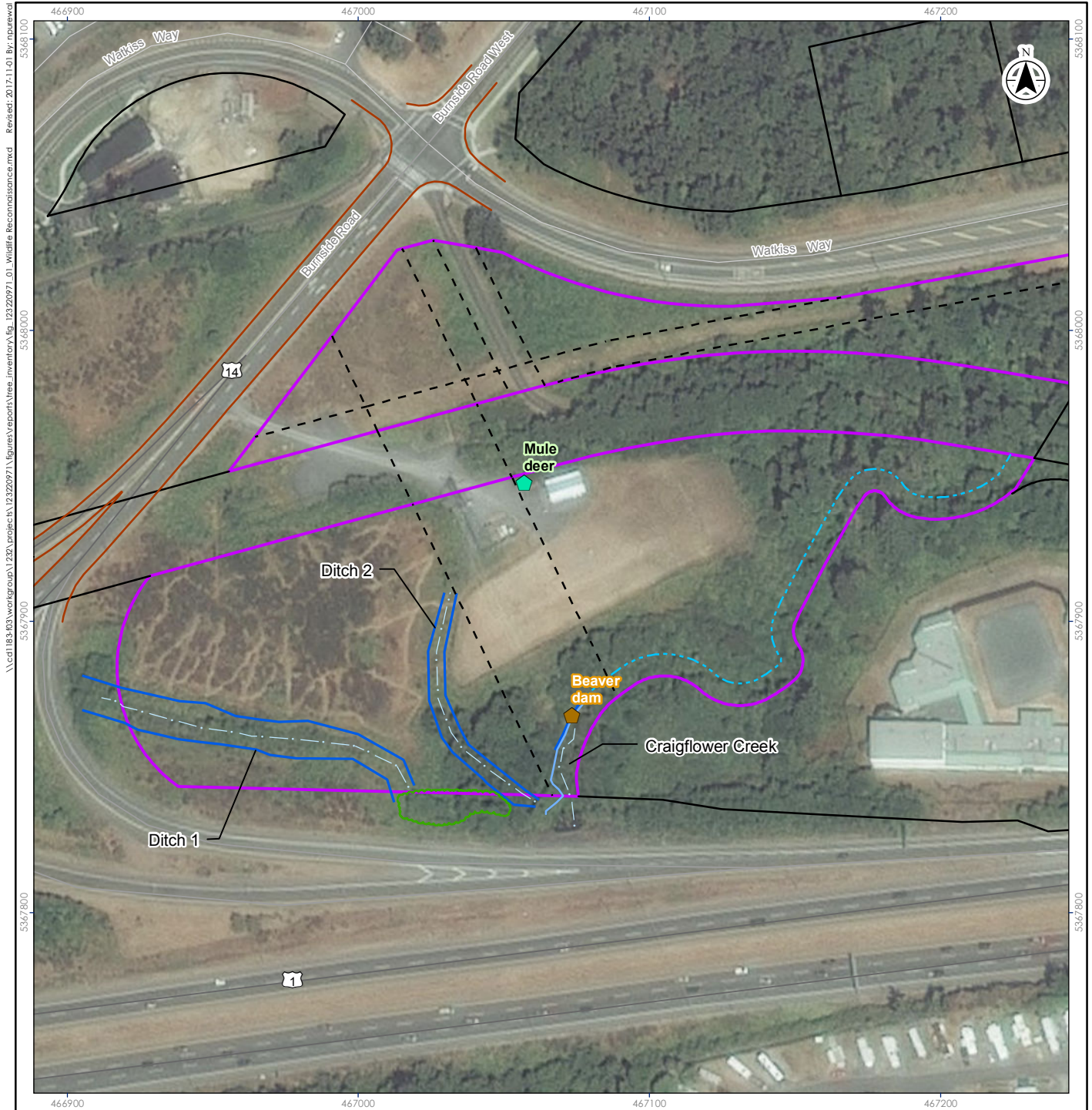
No occurrence records of rare plants, provincially-listed ecosystems, invasive species, or wildlife species at risk were identified within the study area through use of iMapBC, or Habitat Wizard. There is one secured CDC occurrence that overlaps with the study area; further information on the element record has been requested of the BC CDC but has not been provided at this time.

Field Reconnaissance

The study area consists of an archery range characterized by manicured lawn, located in the centre of the property, a riparian fringe bordering Craigflower Creek along the south-east side of the property, as well as two smaller, man-made drainage ditches which exit into a wetland area before draining into Craigflower Creek (Figure 1). The ditch along the south portion of the property (Ditch 1) is lined by rip rap and the ditch in the middle of the property, running north to the edge of the archery range (Ditch 2) consists of a distinct channel with reed canary grass (*Phalaris arundinace*). The riparian areas bordering Craigflower Creek consist primarily of young to mature deciduous trees, including red alder (*Alnus rubra*), balsam poplar (*Populus balsamifera*), and common hawthorn (*Crataegus monogyna*), with a dense shrubby understory. The riparian fringe around both ditches and Craigflower Creek is overgrown with Himalayan blackberry (*Rubus armeniacus*) in many areas. To the west of the archery range is a shrubby, mounded area which is heavily overgrown with Himalayan blackberry. Mature coniferous forest is located to the northeast of the archery range.

Observations of wildlife species or wildlife sign (e.g., forage, tracks, scat, or trails) included mule deer (*Odocoileus hemionus*) (Photo 1) observed in the archery range parking lot, mule deer scat on trails on the mounded area to the west of the archery range, a small beaver (*Castor canadensis*) dam (Photo 2) and beaver sign (i.e., a chewed tree) along Craigflower Creek, as well as red-breasted sapsucker (*Sphyrapicus ruber*) feeding sign on two trees. No federally- or provincially-listed species at risk were observed.

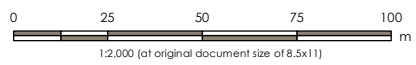
The riparian fringe and wetland, shrubby upland areas, and forest canopy and understory provides forage, nesting, staging, and cover habitat for resident and migratory birds. The larger conifers provide suitable habitat for stick nests, however none were observed during the field reconnaissance. Both man-made drainage ditches as well as the small wetland contain standing water during some parts of the year and may provide suitable habitat for amphibian breeding, foraging, and overwintering. No amphibians were detected during the field reconnaissance.



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- Cadastral Parcels
- Edge of Road
- High Water Mark
- High Water Mark - Assumed
- Right-of-Way
- Top of Bank
- Watercourse Centreline
- Wetland
- Beaver dam
- Mule deer
- Property Boundary



Project Location: Victoria, British Columbia
 Project Number: 123220971
 Prepared by: NPUREWAL 20171030
 Discipline Review by: MONEILL 20171030
 GIS Review by: RCOATTA 20171030

Client/Project: BC Transit Property Assessment

Figure No. **1**
 Title: **Wildlife Reconnaissance**

Notes
 1. Coordinate System: UTM Z10
 2. Data Source: DataBC, Government of British Columbia; Natural Resources Canada
 3. This document is provided by BC Transit for use by the intended recipient only. This information is confidential and proprietary to BC Transit and is not to be provided to any other recipient without the written consent of BC Transit.

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RECOMMENDATIONS

Key environmental constraints to development include the presence of high value wildlife habitat in the riparian areas and wetland adjacent to Craigflower Creek (within the Natural Watercourse and Shoreline Areas DP Area) and the mature forest in the northeast corner of the study area. Project design should preserve these habitat features to the extent feasible. Positioning the construction footprint outside of the Natural Watercourse and Shoreline Areas DP would have the added benefit of reducing information requirements during the Application process.

The study area includes potential foraging, breeding, and cover habitat for resident and migratory birds (including raptors) as well as amphibians and large or small mammals. Although no provincially- or federally-listed species were detected, Project specific mitigation measures should include a description of measures necessary for adhering to applicable legislation (i.e., *Migratory Birds Convention Act, BC Wildlife Act*) and best industry practices to limit or avoid adverse effects on wildlife. Measures should include specific mitigation measures to align Project construction with least-risk timing windows for breeding birds and amphibians, and to address pre-clearing and pre-construction surveys for breeding birds, amphibians, and beaver.

Specific industry practices include:

- Avoidance Guidelines – Reducing Risk to Migratory Birds (ECCC 2017a)
- General Nesting Periods of Migratory Birds in Canada (ECCC 2017b)
- Develop with Care 2014: Guidelines for Urban and Rural Land Development in British Columbia (BC MOE 2014a)
- Guidelines for Raptor Conservation during Urban and Rural Land Development in British Columbia (BC MOE 2013)
- Guidelines for Amphibian and Reptile Conservation during Urban and Rural Land Development in British Columbia (MOE 2014b)
- Best Management Practices for Amphibian and Reptile Salvages in British Columbia (BC MFLNRO 2016)

CLOSURE

We trust the information provided within this technical memo is sufficient for your current purposes. If you have any questions, please contact the undersigned.

Regards,

STANTEC CONSULTING LTD.



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PHOTO ATTACHMENTS



Photo 1 Mule deer in archery range parking lot, September 29, 2017

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Photo 2 Small beaver dam across Craigflower Creek, September 29, 2017