Non-Basic Project Environmental Effects Evaluation

INSTRUCTIONS:
After concluding that an authority must make an environmental effects determination (see Step 1 of the Guidance document[1]), posting the Notice of Intent on the Registry[2] (see Step 2 of the Guidance document) and determining the project classifies as a "non-basic project" (see Step 3 of the Guidance document), complete this form to document the analysis. This template is meant to be used by authorities in determining whether the adverse environmental effects likely to be caused by a project are significant, as well as outlining the associated mitigation measures.

See Step 4b of the "Projects on Federal Lands and Outside Canada" Guidance document for additional help.

Section A: Project Identification

Project Title:	New Canada Post Ottawa Processing Centre
Project Start Date:	Site clearing and site preparation – March 2023
Project End Date:	Total Completion – September 2026
Project Location:	50 Leikin Drive, Ottawa, Ontario
Lead authority:	Canada Post Corporation
Contact Name:	Emily Payton
Contact Title:	Specialist, Real Estate, Environment & Sustainability
Telephone No.:	343-550-9041
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Other authority(ies):	National Capital Commission (NCC)
Other authority (ies) contact Information (if required):	Catherine Tardy-Laporte (catherine.tardy-laporte@ncc-ccn.ca)

Section B: Project Description and Description of the Environment

This section should include information that describe the project and its environment, which should include information on how the project was classified as a **non-basic** project.

Project Description:

In order to service the growing needs of Canadians, Canada Post Corporation is expanding its parcel processing centres in various locations across Canada, including Ottawa. The project consists of the construction of a new parcel processing facility at 50 Leikin Drive, Ottawa, Ontario on a newly acquired 9 hectares land parcel located within South Merivale Business Park light industrial subzone.

The new parcel processing facility is approximately 218,000 square feet, including 35,000 – 40,000 square feet of office space, and will incorporate state-of-the-art parcel processing technologies. Some of the environmental sustainability components that will be included in the project include the integration of the Canadian Green Building Council (CaGBC) Zero Carbon Building Design Standard, high efficiency heating/cooling, high performance envelope, and roof-mounted PV array. The project will also

integrate the latest accessibility guidelines/standards.

The proposed parking/docking facilities will take-up the rest of the 9 hectares land parcel with exception of an area inside the northern property boundary identified for potential future development. Docking facilities will include approximately 48 high docks, 87 parking stalls for 53' and 60' trailers and approximately 35 parking stalls for 5-ton trailers. The parking facilities will include approximately 500 employee parking stalls to accommodate the number of employees working at any one time. The parking will also include dedicated stalls for accessibility restrained drivers, visitors motorcycle and bicycle parking. Electric vehicle parking/charging stalls are also proposed within that area. The exterior portion of the site will be lighted and fenced.

The project schedule is separated in two main phases, the first one being site preparation in 2023 and the second one being the facility design and construction by a Design-Builder, from 2024 to 2026.The project geotechnical report from Wood/WSP dated December 2, 2022 recommends the removal of the upper 1-2 metres of soft clays across the entire site for constructing the building and pavement structure, to avoid long term settlement and cracking of the building slab, loading dock aprons and parking lot. The scope of work involves subexcavating the topsoil and the 1-2 m of soft clay and disposing off site, and replacing with imported granular structural fill which will be placed and compacted in 300 m lifts. This represents a volume of approximately 118,000 cubic meters of subexcavation/disposal and replacement with the same quantity of imported structural fill. Given these large volumes of earth movement, the site preparation is estimated to take 5-7 months, and is scheduled to start in mid-March with clearing of the vegetation to mitigate the risk of impact on wildlife, and then extend into early fall 2023, before the winter. The Design-Build contract is planned to be awarded in November 2023, with preliminary design over the winter, and the building construction start in the spring of 2024. In order to meet Canada Post's mandate of completing and opening the processing centre in early 2026, the Design-Builder must start the building foundations immediately in the spring of 2024. Therefore the 5-7 months of site preparation must be done in spring/summer/fall of 2023.

A draft landscaping plan for the exterior portion of the site has been prepared by CSW in January 2023 and is presented in appendix to this form. The proposed landscaping includes tree and shrubs planting as well as meadows, naturalized bioswales and 2 vernal ponds. One or two pedestrian paths from the building to the future City sidewalks along Leikin Dr and Bill Leathem Dr will be included, which will accommodate convenient access to the existing and future OC Transpo stops. A fence will be installed along the perimeter of the docking facilities portion of the site to separate it from the employee parking spaces, ensuring security of the facility and safety of the employees.

The project will include storm water storage and quality control to meet municipal requirements as per the attached Design Brief completed by JL Richards (January 2023).

Description of the Environment

Site Context:
The Site is located on the west side of Leikin Drive at the intersection of Bill Leatham Drive in the South Merivale Business Park in the City of Ottawa. The Site is currently undeveloped and unoccupied, and is located in an area of developing Mixed Industrial land uses in accordance with the City's Official Plan. The nearest major arterial route is Prince of Wales Drive to the east. The Site was used for agricultural purposes (growing fields) up until sometime between 1991 and 1999. The
Site appears to have been used as staging ground during development of surrounding properties including construction of the City of Ottawa's Davidson Heights Stormwater Management Facility to the south (also called Clarke Bellinger Environmental (Stormwater Management) Facility). Ground

disturbance activities and fill/stockpile storage on the Site is evident on many of the aerial photographs for the period 1991 to 2015. Based on aerial photography, the Site appears to have been mowed in 2019. No development is reported to have ever taken place at the Site except for an informal access road built to the centre of the site and the Site continues to be bound to the north by vacant land. Leikin Drive lies immediately east of the Site beyond which lies the Royal Canadian Mounted Police National Headquarters. Bill Leathem Drive lies to the south followed by lands zoned Light Industrial and the Clarke Bellinger Environmental (Stormwater Management) Facility which is connected to the Barrhaven Creek and surrounded by the Kennedy-Craig Forest and walking trail. Lumentum Holdings, a telecommunications equipment company, occupies the property to the west.

Land-use

The lands associated with the Site are designated as Mixed Industrial on Schedule B6 in the new Official Plan. The following uses are permitted in the Mixed Industrial designation:

a) Low-impact light industrial uses including light manufacturing, warehousing, distribution and storage;
c) Automotive sales and service, heavy equipment sales and service;
d) Trades and contractors such as carpenters, plumbers, electricians and heating, ventilation and air conditioning;
f) Major Office; and
g) Small-scale office that is typically less than 10,000 square metres.

Existing land uses in the vicinity of the Site include:

- Offices to the east side (Royal Canadian Mounted Police, ATTAIN CANADA, Codever);
- Offices to the west side (Lumentum);
- Warehouse to the southwest side (previously used as a Canada Post Depot and currently used by Enbridge);
- Undeveloped lands and agricultural lands to the north side, which also include a hydro transmission line corridor; and
- In construction: Salvation Army multi-purpose facility, and vacant lands zoned Light Industrial on the south side of Bill Leathem Dr, followed by the stormwater management facility, Barrhaven Creek, and Kennedy-Craig Forest, with residential land use further to the south.

In terms of future land use, three development applications were identified for the properties immediately to the north and northwest, south, and southwest of the Site. A brief description of these proposed developments are provided below:

- Address – 99 Bill Leathem, 2 Leikin, 20 Leikin (Source: (City of Ottawa, 2022))

The City of Ottawa received an application for Zoning By-law Amendment to permit warehouse and truck transport terminal as additional uses in the Light Industrial Subzone 9 (IL9) zone. The City also received an application for Site Plan Control which proposes to construct a 25,896 square metre light industrial facility.

- Address – 2 Bill Leathem Drive (Source: (OttWatch, 2020))

The proposed development is a new one-storey 1, 858m2 office with associated warehouse building and loading docks at the rear.

Existing ambient noise levels and identification of sensitive receptors

In addition to the existing ambient noise levels associated with vehicular circulation on Leikin Drive and

Bill Leatham Drive, the Ottawa Airport is located 3 km to the northeast of the Site (straight line distance). Schedule C14 of the new municipal Official Plan identifies various boundaries/zones, that present and use constraints due to aircraft noise. The review of the Schedule confirmed that the Site is located within Airport Operating Influence Zone associated with the Ottawa Airport. A Land Use Submission Form, including a Multiple Obstacle analysis, was submitted in December 2022 to Nav Canada and to Transport Canada, and are attached to this EEE as reference.

The Health Canada document titled "Guidance for Evaluating Human Health Impacts in Environmental Assessment: Noise" identifies the following as some of the common receptors that may have a heightened sensitivity to noise exposure: residences; commercial land-use (Retail stores, offices, research facilities and laboratories); daycare centres; hospitals; places of worship and cemeteries; schools; and seniors' residences. A project specific Noise Study is underway by Gradient Wind, a noise consultant, to meet City of Ottawa noise bylaws and standards, and is anticipated to be completed in the spring of 2023 for the City of Ottawa Site Plan submittal.

A review of aerial imagery and google streetview identified offices to the east and west sides of the Site. It is important to note that the actual buildings on the east side are located further away from the Site, and separated by parking lots, trees and roads. The separation distance between the office buildings to the east side and the eastern boundary of the Site is approximately 125 m. The office building to the west side is also located further away from the Site and is separated by a parking lot. The separation distance between the office building to the west side and the western boundary of the Site is approximately 50 m.

As previously indicated, the lands to the south of the Site include a multi-purpose facility located at 102 Bill Leathem Drive to be occupied by the Salvation Army, and phase 1 of its construction is foreseen to be completed in spring 2023[1]. The new Church Building and Community Ministry Centre will be a local hub with multi-purpose spaces, worship space, a gym, a commercial kitchen, and more. South of this facility and adjacent vacant lands zoned light industrial is the large stormwater management facility surrounded by the Kennedy-Craig Forest. Further, there are residential land uses located approximately 275 m to the south of the Site. The land uses north of the site are primarily agriculture.

The nearest school is located approximately 1 km to the south of the Site (straight-line distance). The nearest health care centre is located over 2.5km to the west of the Site.

Servicing Infrastructure

Water Supply Service
A review of City of Ottawa's Water and Wastewater Infrastructure online map indicates that there is an existing 375 mm diameter watermain within the Bill Leathem Drive right of way, and an existing 406 mm diameter watermain within the Leikin Drive right of way (City of Ottawa, 2021). There is also a valve with cap provided along Bill Leathem Drive to provide water connection to future development at the Site.

Sanitary Service
A review of City of Ottawa's Water and Wastewater Infrastructure online map indicates that there is an existing 305 mm diameter sanitary sewer within the Bill Leathem Drive right of way, and an existing 750 mm diameter sanitary sewer within the Leikin Drive right of way (City of Ottawa, 2021). There are also a number of sanitary manholes along the two roadways.

Storm Service
A review of City of Ottawa's Water and Wastewater Infrastructure online map indicates that there is an existing 1350 mm diameter storm sewer within the Bill Leathem Drive right of way, and an existing 1050 mm diameter storm sewer within the Leikin Drive right of way (City of Ottawa, 2021). There are also a number of storm manholes along the two roadways. The stormwater from both roads is captured by catch basin and directed to storm sewers, which eventually outlet into the Clarke Bellinger Environmental (Stormwater Management) Facility. This stormwater management facility provides quality control of stormwater prior to out-letting to Barrhaven Creek (Rideau Valley Conservation Authority, 2012; Rideau Valley Conservation Authority, 2015). Operation of the stormwater management facility moderates flow of stormwater from the upstream urban area to prevent accelerated erosion along Barrhaven Creek (Rideau Valley Conservation Authority, 2012). Stormwater management design will be implemented during the development of this property in accordance with the South Merivale Business Park stormwater management plan, and design review from the Rideau Valley Conservation Authority.

It is important to note that servicing concept for the South Merivale Business Park was previously completed and initial phases have been constructed (i.e., Leikin Drive, Bill Leathem Drive, Paragon Avenue). The servicing design information is provided in a report entitled "City of Nepean, South Merivale Business Park Phase II and III, Services Design Report" prepared by Novatech, dated June 23, 1992. In addition, the stormwater management strategy for the Merivale Business Park is outlined in the report titled "City of Nepean South Merivale Business Park Stormwater Management Report"; prepared by Novatech; revised dated December 3, 1991.

[1] Salvation Army Website. 2023. Consulted online: https://www.salvationarmybarrhaven.ca/building-project/

Navigation

The Site does not contain any navigable water bodies.

In terms of air navigation, due to proximity of the Macdonald-Cartier International Airport, Transport Canada and Nav Canada will need to review this project to ensure it doesn't interfere with a safe operation of the airport (potential creation of flight corridors obstacles). A Land Use Submission Form, including a Multiple Obstacle analysis, was submitted in December 2022 to Nav Canada and to Transport Canada (copy attached).

Archaeological Resources

As a component of the due diligence process of the Project, a confidential archaeological existing conditions memo was completed by WSP in October 2022 to determine the Site's archaeological potential. This memo was based on a desktop review of information sources.

The archaeological memo determined there are no registered archaeological sites within 300 m of the Site and no registered archaeological sites within a one-kilometre radius of the Site. Additionally, no previously completed archaeological reports were identified within a 50-metre radius of the Site. The absence of archaeological sites and reports does not indicate that the area was not occupied in the pre- and post-contact periods, rather it suggests that the area has not been comprehensively investigated. Review of historical atlases and other archival sources did not indicate post-contact structures or features within the Site.

Following completion of this desktop archaeological review, CPC reached out to Parks Canada to obtain guidance on federal archaeological processes and were referred to Ian Bagdley, Manager of Archaeology with the NCC, and he sent the following email on Nov. 10, 2022: "*As requested, we have reviewed the relevant documents required to determine the archaeological potential of the property located at 88 Leikin Drive. According to our analysis, this property has a low potential for pre-contact and historical archaeological resources. No archaeological investigation prior to the initiation of future development activities or monitoring of excavation work at the location is therefore recommended. This recommendation will be added the formal federal approval letter for any proposed development on the 88 Leikin Drive parcel as long as the property remains in federal jurisdiction".*

The NCC has approval authority for archaeology for all federal lands in the National Capital Region (per the Proponent's guide to the NCC FLUDTA process)

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Biophysical Conditions

In order to identify the potential for significant adverse biophysical effects, the first step was to establish baseline biophysical conditions for the Site. The baseline inventory was developed using various secondary sources, wildlife atlases, and databases for review. In addition, previously completed publicly available Environmental Impact Studies for adjacent properties were also reviewed and incorporated into the development of potentially representative baseline biophysical conditions of the Site. These studies were developed previously in support of future development that is being proposed on the properties adjacent to the Site. Information sources reviewed included:

- MNDMNRF Make a Map (Ministry of Northern Development, Mines, Natural Resources and Forestry, 2021);
- The Ontario Breeding Birds Second Atlas (2001 to 2005) (OBBA) (Cadman, Sutherland, Beck, Lepage, & Couturier, 2007);
- The Ontario Reptile and Amphibian Atlas (ORAA) (Ontario Nature, 2021);

- The Ontario Butterfly Atlas (OBA) (Toronto Entomologists' Association, 2022);
- iNaturalist 500 m buffer from the Site (iNaturalist, 2022);
- eBird 2km buffer from the Site (eBird, 2022);
- Federal aquatic SAR map (Fisheries and Oceans Canada, 2021);
- Species at risk public registry (Environment and Climate Change Canada, 2022);
- Species at risk in Ontario (Ministry of the Environment, Conservation and Parks, 2020);
- Rideau Valley Conservation Authority GeoPortal (Rideau Valley Conservation Authority, 2022);
- 102 Bill Leathem, The Salvation Army Barrhaven Church - Environmental Impact Statement (Muncaster Environmental Planning Inc, 2016);
- Environmental Impact Statement - Proposed Commercial Development - 2 Bill Leathem Drive Ottawa, Ontario (October 28, 2020) (GEMTEC, 2020);
- Leikin Lands (2 and 20 Leikin Drive and 99 Bill Leatham Drive), South Merivale Business Park, Nepean - Tree Conservation Report and Environmental Impact Statement (June 30, 2021) (Muncaster Environmental Planning Inc., 2021).

The Breeding Bird Atlas, Ontario Butterfly Atlas and Ontario Reptile and Amphibian Atlas utilize a provincial-wide 10 kilometre (km) x 10 km (100 km^2) square grid system whereby species recorded as occurring within a square can be generated. The Site overlaps with atlas square 18TVR41. Due to the large spatial extent of the records, the potential presence of the species within a given area should be interpreted cautiously. These lists are generated to identify species that may occur on the Site but are not necessarily confirmed on the Site in the absence of targeted field inventories.

The NHIC database allows for a more focused screening of natural environment information records, utilizing a 1 km x 1 km square grid system. Four NHIC squares were searched, 18VR4315, 18VR4316, 18VR4415 and 18VR4416.

Biophysical conditions for the Site are described in subsections below. The Project's potential effects on biophysical conditions and mitigation and other measures are identified in Section F of this form.

Areas of Natural and Scientific Interest (ANSI)
ANSI are areas of land and water containing natural landscapes or features that have been provincially identified as having life science or earth science values related to protection, scientific study or education. A review of MNDMNRF Make a Map indicates that there are no ANSIs on the Site (Ministry of Northern Development, Mines, Natural Resources and Forestry, 2021).

Watercourse and Wetlands
The closest watercourse feature is located approximately 120 m to the south of the site (Barrhaven Creek), well separated from the site by Bill Leatham Drive and individual vacant land development parcels. A small ditch was observed on Site during WSP November 2022 site visits, but it did not contain water at the time of fieldwork. It was heavily vegetated and appeared to be connected to a storm drain. Based on this ditch only being connected to a storm drain it has been determined that the ditch does not represent fish habitat.

Two site visits were completed by WSP in November 2022 to establish an understanding of Site's natural environment conditions (vegetation, habitat conditions, potential for Species at Risk and trees). The presence of three distinct meadow marshes as defined by the Ontario Ecological Land classification (ELC) were identified on site. Soil samples taken as part of other studies related to the project indicate that there are clays underlying the topsoil which are suspected to limit infiltration and create seasonal pooling

of surface water. The three marshes include some overlapping species, but overall include plants such as Reed Canary Grass, Fowl Meadow Grass, Cattails, Rushes, Bulrushes, Narrow-leaved Water Plantain, Red Osier Dogwood, Willows, etc. which all grow in moist soils. The preliminary limits of these seasonal marshes following the November 2022 site visits are presented within the January 12, 2023 *Technical Memorandum -Canada Post Corporation Ottawa Processing Centre (88 Leikin Drive): Natural Environment Summary* prepared by WSP and presented in an appendix to this form.

A detailed analysis of these wet areas functions is presented within the January 12, 2023 *Technical Memorandum - Canada Post Corporation Ottawa Processing Centre (88 Leikin Drive): Review of the Federal Policy on Wetland Conservation* prepared by WSP and presented in an appendix to this form. Following consultation with ECCC (see section C), it was agreed to assume that the following potential wetland functions were fulfilled to a certain degree by these wet areas present on site: water retention, wildlife habitat for waterfowl, migratory birds and amphibian breeding. Therefore, these areas can be defined as wetlands subject to the *Federal Policy on Wetlands Conservation* requirement of "no net loss of wetlands functions". As the property area and project space requirements doesn't allow for avoidance or partial conservation, an on-site compensation plan will be prepared and implemented for the loss of some potential low quality (marginal) and recent wetland functions. The uncertainty associated with potential wetland functions at the site was the trigger for an EEE and completion of Wetland Functions Analysis and an on-site compensation plan (rather than a mitigation measures form).

Wooded areas and trees
A review of MNDMNRF Make a Map (Ministry of Northern Development, Mines, Natural Resources and Forestry, 2021) as well as site visits completed by WSP and CIMA+ in November 2022 indicate that there are no wooded areas on the Site. Accordingly, there will not be any impact considerations in relation to the Wooded Areas designated as part of Natural Heritage System under the Official Plan.

Based on WSP's Tree Conservation Report (included as an Appendix to this EEE), there are 18 trees on Site with a dbh (diameter at breast height) over 10 cm and 3 tree groupings composed of immature/saplings trees. Their exact location is presented in the attached TCR. Trees 6 to 18 are located along Leikin Drive and were likely planted by the City of Ottawa during the construction of Leikin Drive. The concept landscape plan included as an Appendix to this EEE, shows the trees along Leikin Drive that are proposed to be retained during the development project.

Terrestrial Vegetation Communities
The majority of the Site has well established vegetation, but there is evidence that during years 2012 – 2015, most of the Site was heavily disturbed, likely bulldozed/stripped, and as a result the soil on the Site has been disturbed. The plant community has become established since this past disturbance; however, the ecosystem present on the site is still relatively young and thus does not contain a high diversity of species. An Ecological Land Classification (ELC) figure which provides an approximation of plant community and meadow marsh boundaries, and trees as well as site photos are provided in the January 12, 2023 *Technical Memorandum -Canada Post Corporation Ottawa Processing Centre (88 Leikin Drive): Natural Environment Summary* prepared by WSP and presented in an appendix to this EEE form. The boundaries outlined in this figure is preliminary due to the time of year and have not been confirmed during the growing season (spring and summer) for accuracy. However, ECCC has indicated that seasonal surveys are not required at this time for the project to proceed.

In addition to the marsh meadows previously described, the site contains upland meadows that are a mix of grasses and forbs such as Timothy, Smooth Brome, Wild Carrot, Parsnip, Asters (Symphyotrichum spp.), and Goldenrods (Solidago spp.).

Groundwater and soil quality

A review of the Ministry of the Environment, Conservation and Parks' Source Protection Information Atlas indicate that the Site is located in the Rideau Valley Source Protection Area, however, the Site is not located in any of the drinking water vulnerable areas (i.e., Significant Groundwater Recharge Areas; Highly Vulnerable Aquifers; surface water Intake Protection Zones; and Wellhead Protection Areas) (Ministry of the Environment, Conservation and Parks, 2022).

The Phase I ESA completed as part of the due diligence exercise associated with the acquisition of the site identified four Areas of Potential Environmental Concern (APECs) and a Phase II ESA was completed to address these APECs and to provide detailed data on the quality of soil and groundwater at the Site.

The Phase II ESA completed by Wood/WSP in September 2022 and provided in an appendix to this EEE form indicates that the subsurface conditions at the Site consisted of an organic rich topsoil successively underlain by fine grained Champlain Sea deposits consisting of clayey silt to silt clay. Interbedded grey to dark grey limestone and buff coloured sandstone bedrock were intersected at depths ranging from 19.00 metres below ground surface (mbgs) at borehole BH21-3 to 21.95 mbgs at BH21-5. Sandy cobble/boulder till was intersected beneath the clayey silt/silty clay and overlying the bedrock at boreholes BH21-3 and BH21-5at depths of 14.88 mbgs and 19.74 mbgs, respectively.

With the exception of test pit TP-1 excavated near the north end of the construction access road into the Site from Bill Leathem Drive, no evidence of fill or other deleterious materials was identified in any of the sampling locations at the Site. At TP-1, silty sand and gravel fill containing some cobbles and boulders was intersected to a depth of 1.1 m. Crushed/ground asphalt was also noted to be present in the granular material.

Groundwater was present at depths ranging from 0.90 mbgs (MW21-14) to 2.057 mbgs (MW21-11) and elevations between 87.92 masl at MW21-11 and 89.12 masl at MW21-13. Shallow groundwater within the silty clay/clayey silt is interpreted to flow in an outward radial pattern from the northwest corner of the Site. Beneath the west and central portion of the Site, groundwater flow is directed to the south whereas in the north portion of the Site groundwater flow is directed to the east. This pattern appears to be the result of a second area of outward radial flow interpreted on the east side of the Site at MW21-13 where the highest groundwater elevation was observed.

No odours or staining suggestive of petroleum hydrocarbon impacts were detected in any of the soil samples collected at the Site. With the exception of test pit TP-1 where a combustible organic vapour (COV) reading of 125 ppm was reported in sample SS-1, all COV and total organic vapour (TOV) headspace concentration measurements recorded in the soil samples collected at the Site were reported as 0 ppm.

No visible non-aqueous phase liquid (NAPL) was observed in either the soil or groundwater samples obtained from the Site. No measurable accumulations of floating (i.e., light [L]) or sinking (i.e., dense [D]) NAPL were detected in any of the monitoring wells installed at the Site. No evidence of hydrocarbon sheen or iridescence was noted during the monitoring well development and/or groundwater purging and sampling activities.

Soil impacts by PHC F3, F4 and F4G exceeding CWS-PHC, which are identical to their respective MECP Table 3 SCS, were reported in a single soil sample collected at test pit TP-1 excavated at the north end of the gravel access road that extends from Bill Leathem Drive into the Site. The PHC F3, F4 and F4G impacts are consistent with crushed asphalt observed in the fill material used to construct the access road. The

volume of roadbed material impacted by PHC is unknown but could be in excess of 300 m3 based on observations made at the Site and assuming similar PHC impacts over the length of the road.

Several metals were found to exceed CCME CSoQG and/or MECP Table 3 SCS. Chromium, hexavalent chromium and vanadium exceeded CCME CSoQG at 16, three and one sampling locations, respectively. Vanadium also exceeded the MECP Table 3 SCS at 16 locations. All sample reporting exceedances of CSoQG for chromium and hexavalent chromium met MECP Table 3 SCS.

Barium, cobalt and molybdenum were also noted to exceed MECP Table 1 SCS at 23, 10 and one sampling locations, respectively. These metals, along with chromium and vanadium, have been shown to occur at naturally elevated concentrations typically exceeding MECP Table 1 Background SCS in fine textured Champlain Sea deposits in the Ottawa region (Sterling et. al, 2018). Any excess soil generated at the Site containing vanadium at concentrations in excess of the MECP Table 3 SCS would be deemed contaminated and would thus require disposal at a licensed landfill unless it can be re-used at a property where it can be placed more than 1.5 m below grade. Site development initiatives will minimize the amount of excess soil that may be generated at the Site. A Soil Management Plan (SMP) was prepared by WSP in relation to the latest Excess Soil Management regulations, and is appended to this EEE form. The SMP will direct all earthworks activities on site, including groundwater management. CPC has engaged a full time Environmental Consultant to oversee the earthworks activities in accordance with the SMP and all applicable environmental legislation, starting with the site preparation work scheduled in spring-summer-fall 2023.

All groundwater samples collected at the Site met FIGQG and/or MECP Table 3 SCS.

Birds

Combining the ABBO, eBird, and NHIC lists resulted in 211 identified species of birds, including, five federally Threatened, one Endangered and six Special Concern. It is important to note that, such a large number of bird listing is due to the large spatial extent of the records available through the publicly available sources. These lists are generated to identify species that may occur on the Site but are not necessarily confirmed on the Site. Of these 211 bird species, a total of 13 species were identified as Endangered, Threatened or Special Concern bird species, as listed in the Ontario's Environmental Assessment Act and/or the federal Species at Risk Act. The SAR birds are listed in the table below.

The vegetation on the Site present conditions that may be suitable for foraging and/or nesting by only three (3) out of 13 SAR birds identified via background review, including Bobolink, Eastern Meadowlark and Common Nighthawk. Bobolink nest primarily in forage crops, hayfields, and associated pastures. Bobolink also occur in wet prairie, graminoid peatlands and abandoned fields dominated by tall grasses, no-till cropland, small-grain fields, reed beds and irrigated fields in arid regions. Eastern Meadowlarks nest in a variety of open grassy habitats, preferring native grasslands, pastures, and savannahs. Larger tracts of grassland are preferred. Breeding habitat of Common Nighthawk includes a huge variety of open habitats such as clearings, grasslands, open forests, crop fields, and urban areas.

Common Name	**Status under Ontario's Endangered Species Act**	**Status under Canada's Species at Risk Act**
Eastern Meadowlark	Threatened	Threatened
Chimney Swift	Threatened	Threatened
Bobolink	Threatened	Threatened
Bank Swallow	Threatened	Threatened

Barn Swallow	Threatened	Threatened
Red-headed Woodpecker	Special Concern	Endangered
Canada Warbler	Special Concern	Special Concern
Common Nighthawk	Special Concern	Special Concern
Eastern Wood-Pewee	Special Concern	Special Concern
Evening Grosbeak	Special Concern	Special Concern
Olive-sided Flycatcher	Special Concern	Special Concern
Rusty Blackbird	Special Concern	Special Concern
Golden Eagle	Endangered	Not at Risk

Field investigations completed as part of the Environmental Impact Statements in support of future development on properties to the north and northwest, south and southwest did not observe Eastern Meadowlark (Muncaster Environmental Planning Inc, 2016; GEMTEC, 2020; Muncaster Environmental Planning Inc., 2021). One male bobolink was observed and heard during the June 2021 survey on the property north of the Site, however, there was no evidence that the bird was nesting. There was no sign of Bobolink during two subsequent early morning bird surveys during the same month and it was conclude that the property to the north of the Site does not provide suitable nesting habitat for grassland Species at Risk (Muncaster Environmental Planning Inc., 2021).

During WSP November 2022 site visits, American crow, American goldfinch, mourning dove and red-tailed hawk were the bird's species observed on site. The Site, as well as the adjacent agricultural lands, are likely to be used by many other species in spring and summer.

Mammals

During WSP November 2022 site visits, meadow voles, white tailed deer tracks, coyote tracks and scat, racoon tracks, and a woodchuck burrow were observed on site. The Site, as well as the adjacent agricultural lands, are likely to be used by many other species in spring and summer.

Reptiles and Amphibians

A total of 20 species of amphibians and reptiles were reported in the ORAA and NHIC squares that encompass the Site. These include one federally Endangered (Blanding's Turtle), and two Special Concern (Northern Map Turtle and Snapping Turtle).

Blanding's Turtles are found in a variety of productive wetlands, occurring primarily in shallow-water habitats- shallow lakes, ponds, and wetlands with mucky bottoms. Snapping Turtles prefer slow-moving waters with a soft mud bottom and dense aquatic vegetation. Established populations are most often located in ponds, sloughs, shallow bays, or river edges and slow streams and wetlands.

Northern Map Turtle inhabits both lakes and rivers, showing a preference for slow moving currents, muddy bottoms, and abundant aquatic vegetation.

Environmental impact assessments completed in support of future development on properties to immediately to the north and northwest, south and southwest did not identify any turtles or their habitat on those properties (Muncaster Environmental Planning Inc, 2016; GEMTEC, 2020; Muncaster Environmental Planning Inc., 2021). The EIS completed for the property located to the south of the Site and north of the Clarke Bellinger Environmental (stormwater management) Facility, noted that there is potential for Blanding's Turtles to utilize the Clarke Bellinger Environmental Facility to the south, however, as there is no wetland habitat on the properties to the north, west or east, there is no

expectation that turtles may utilize the site to access adjacent lands. As such, it can be concluded that the Site does not provide suitable habitat for Blanding's Turtle as well as Northern Map Turtle and Snapping Turtle.

Due to the timing of WSP November site visits, it was not technically possible to observe reptile or amphibian on site.

Other Wildlife Species

Monarch Butterfly was identified through Butterfly Atlas as existing within the 10 kilometre (km) x 10 km (100 km2) square grid that encompass the Site. The Monarch butterfly (Danaus plexippus) is currently listed as a Special Concern, Schedule 1 SARA species. It is also ranked provincially as a species of Special Concern. This listing has been caused by the increasing destruction of their habitat due to logging activities, human disturbance and pesticide use. The Monarch habitat includes old field and meadow habitats with egg laying sites being dependent on the presence of Asclepias spp. The Site in the form of a meadow may contain habitat that supports Monarch egg laying.

The Site may also provide limited habitat for the Yellow-banded Bumble Bee, another species listed as Special Concern under Schedule 1 SARA species.

Due to the timing of WSP November site visits, it was not technically possible to observe either of these species on site.

Use the table below to include information for each phase of the project. The details included should be commensurate with the complexity and potential for environmental effects attached to each project phase. Keep the project phases in work sequence if possible. Add additional rows as required.

Project Phases	Project activities/components (core and ancillary)
Phase 1	Due Diligence Studies: January 2022 to April 2023
Phase 2	Preparation of Owner's Statement of Requirements: Sept 2022-May 2023
Phase 3	Site Plan Approval: May 2023 – March 2024
Phase 4	Site Clearing and Site Preparation: mid-March 2023 to October 2023. Tree cutting, vegetation removal and topsoil removal over the entire site will be completed before April 8 to prevent onsite nesting by migratory birds.
Phase 5	Design-Build Procurement: Jan 2023 – Nov 2023
Phase 6	Design: Dec 2023 – Fall 2024
Phase 7	Construction: March 2024 - 2026

Section C: Consultation

Provide a summary of any expert federal authority or any resources consulted, and any comments received during the public consultation period and how they were addressed.

Consultations Summary:

- Ian Badgley, the NCC Manager of Archaeology Program, has been consulted and confirmed that the site's archaeological potential is low and that no further archaeological investigation activity is required for this project. (November 10, 2022 email correspondence is included in the Appendix)
- ECCC (Paul Johanson, CWS, Senior Environmental Specialist) has been consulted and confirmed that:
  - The site is a potential nesting habitat for migratory birds and mitigation measures are required to ensure the project complies with *Migratory Birds Act* and its regulations;
  - The site is a potential habitat for the following species at risk protected under Schedule 1 of the *Species at Risk Act* (SARA): Bobolink, Eastern Meadowlark, Yellow-banded Bumble Bee and Monarch. Therefore, mitigation measures to protect these species individuals and residences are required to ensure the project complies with the Act. No critical habitat has legally been protected for any of these species as of January 2023;
  - ECCC data does not demonstrate the historic or actual presence on site of the Western Chorus Frog (Threatened species, Schedule 1, SARA), although its absence from the site hasn't been confirmed through proper spring surveys. ECCC recommended such surveys be completed if the project schedule allowed it, but does not require it to allow construction to start as planned in March 2023;
  - A constructed wetland is present on site. While the wetland ecological value is deemed low, it still provides 3 wetland functions (some water retention, wildlife habitat and potential species at risk habitat). Since the land area and project space requirements doesn't allow to avoid or minimize impact to the wetland, a compensation of those wetland functions is required to meet the Federal Policy on Wetland Conservation objectives of "no net loss of ecological wetland functions".

Minutes of the December 20, 2022 meeting with Paul Johanson of ECCC are included as an appendix to this EEE form.

A follow-up meeting took place on February 1, 2023 to discuss the proposed wetland functions compensation plan. During this meeting, it was indicated by ECCC that:

- The landscaping features provided in CSW draft landscaping plan of January 2023 (vernal ponds, meadows, shrub, forestation and bioswales) is a reasonable effort to address the Federal Policy on Wetland Conservation requirements to a "not net loss of wetland functions" on site. For example, it could provide standing water every year for waterfowl and amphibians if built appropriately.

  There would be no expectations from ECCC regarding monitoring by an environmental professional to ensure use of the landscaping features by targeted wildlife (Monarch, Yellow Banded Bumble Bee, amphibian and waterfowl). Rather, the expectation is that there will be a requirement in CPC's Facilities Management (FM) contract to maintain the landscaping features as presented on the draft landscaping plan to ensure their success.

<u>References documents provided with the EEE</u>

- Natural Environment Report
- Federal Wetland Policy Review
- Tree Conservation Report
- Concept Site Plan
- Concept Landscape Plan and Technical memo

- Stormwater Management Design Brief
- NCC Stormwater Management Form
- Soil Management Plan
- Phase 1 ESA Report
- Phase 2 ESA Report
- Hydrogeological Report
- Preliminary Transportation Impact Statement
- Ian Bagdely's email
- Minutes of Dec. 20 meeting with ECCC
- SAAC
- CPC Ottawa Processing Plant - General Design Overview
- Land Use Submission Form to Nav Canada and Transport Canada (incl Transport Canada approval)
- Site Preparation Contract Specifications

Section D: Consideration of Factors 84 (1)(a) to (d)of the IAA

Following each "Yes" or "No" response, please provide additional details such as any main concerns that have or have not been addressed*.

84(1)(a) – Does the project have the potential to have any adverse impacts on the rights of the Indigenous peoples of Canada recognized and affirmed by section 35 of the *Constitution Act, 1982*? *(Not considered for projects outside Canada)*
☐ Yes ☒No
** Please note any consultations undertaken with Indigenous peoples, issues raised, if any, and how they were addressed.* CPC's Northern and Indigenous Affairs team was consulted through internal process and it was determined that engagement would be done via the CIA Registry process.
84(1)(b) – Was Indigenous knowledge provided with respect to the project? *(Not considered for projects outside Canada)*
☐ Yes ☒No
84(1)(c) – Was community knowledge provided with respect to the project?
☐ Yes ☒No
84(1)(d) – Did the public provide feedback on the project?
Yes ☐ ☒No
The public comments period identified on the Canadian Impact Assessment Registry closed on February 6, 2023 for this project. No public feedback was received.

Section E: Identify Environmental Effects

Complete the following tables in order to identify the relevant potential adverse environmental effects and identify if they can be reduced through technically and economically feasible mitigation measures. Please note:

- Answers of "*Yes and can be reduced to a non-significant level through technically and economically feasible mitigation measures*" should be addressed in Section F.
- Answers of "*Yes but cannot be reduced to a non-significant level through technically and economically feasible mitigation measures*" would result in the project likely causing significant adverse environmental effects*.
    * If the project is likely to cause significant adverse environmental effects, the authority may not take any action or make any decision that would enable the project to proceed unless the Governor in Council (GIC) determines that those effects are justified in the circumstances under subsection 90(3) of the IAA.

Please refer to "*Environmental effects and project (section 81)*", in the "Context" section of the "Projects on Federal Lands and Outside Canada" Guidance document for additional information. Please also refer to Environment and Climate Change Canada's Application of the Strategic Assessment of Climate Change (SACC) to s. 82 and s. 83 tool and guidance for environmental effects related to GHG emissions.

Biophysical effects			
Does the project have the potential to:	**No**	**Yes, and can be reduced to a non-significant level through technically and economically feasible mitigation measures**	**Yes, but cannot be reduced to a non-significant level through technically and economically feasible mitigation measures**
Alter, disturb, or destroy vulnerable natural features?	☐	☒	☐
Release a polluting substance on or into the land, water or air?	☐	☒	☐
Alter landscape features (e.g. resource extraction, deforestation, clearing vegetation)?	☐	☒	☐
Affect birds, aquatic animals[3], and wildlife (flora and fauna), including species at risk and its critical habitat?	☐	☒	☐
Result in alteration of water level, quality, flow or management regime in a water body, or result in other important changes to surface or groundwater resources (including well water)?	☐	☒	☐

[3] Adapted from section [15] "Effects to Valued Components – Environment" of the Tailored Impact Statement Guidelines Template for Designated Projects Subject to the *Impact Assessment Act*.

Cause sensory disturbances, such as noise and/or vibrations?	☐	☒	☐
Result in GHG emissions or impacts on carbon sinks above the threshold suggested by the application of the SACC to s. 82 and s. 83 tool?	☐☒	☐	☐
Cause any other change to the environment on federal lands or incidental to a federal decision? If so, please describe:	☒	☐	☐

Impacts on Indigenous peoples			
Does the project have the potential to result in changes to the environment that may impact Indigenous peoples, including:	**No**	**Yes, and can be reduced to a non-significant level through technically and economically feasible mitigation measures**	**Yes, but cannot be reduced to a non-significant level through mitigation measures**
Social, economic, and health conditions, including community health specific to Indigenous peoples (e.g. impact to an Indigenous fishery resulting from a change in fish population)?	☒	☐	☐
Physical and cultural heritage	☒	☐	☐
Use of lands and resources for traditional purposes	☒	☐	☐
Any structure, site or thing that is of historical, archaeological, paleontological or architectural significance	☒	☐	☐
Any other impacts to Indigenous peoples. If so, please describe:	☒	☐	☐

Health conditions			
Does the project have the potential to result in changes to the environment that may affect health conditions? These changes could be on[4]:	**No**	**Yes, and can be reduced to a non-significant level through technically and economically feasible mitigation measures**	**Yes, but cannot be reduced to a non-significant level through technically**

[4] Adapted from section [16] "Effects to Valued Components – Human Health" of the Tailored Impact Statement Guidelines Template for Designated Projects Subject to the *Impact Assessment Act*.

			and economically feasible mitigation measures
Air quality	☐	☒	☐
Noise exposure and effects of vibration	☐	☒	☐
Current and future availability of country foods (traditional foods)	☒	☐	☐
Current and future availability of water for drinking, recreational and cultural uses	☒	☐	☐
Any other changes that could affect health conditions. If so, please describe:	☒	☐	☐

Social conditions			
Does the project have the potential to result in changes to the environment that may affect social conditions?[5]:	**No**	**Yes, and can be reduced to a non-significant level through technically and economically feasible mitigation measures**	**Yes, but cannot be reduced to a non-significant level through technically and economically feasible mitigation measures**
Services and infrastructure	☒	☐	☐
Land and resource use and recreation	☒	☐	☐
Navigation	☒	☐	☐
Community well-being	☒	☐	☐
Structures, sites, things of historical, archaeological, paleontological or architectural significance	☒	☐	☐
Other Traffic If so, please describe: Described in Section F below	☐	☒	☐

Economic conditions

[5] Adapted from section [17] "Effects to Valued Components – Social" of the Tailored Impact Statement Guidelines Template for Designated Projects Subject to the *Impact Assessment Act*.

Does the project have the potential to result in changes to the environment that may affect economic conditions?[6]:	**No**	**Yes, and can be reduced to a non-significant level through technically and economically feasible mitigation measures**	**Yes, but cannot be reduced to a non-significant level through technically and economically feasible mitigation measures**
Forestry and logging operations	☒	☐	☐
Commercial recreational and sport fishing, hunting, trapping	☒	☐	☐
Commercial outfitters	☒	☐	☐
Commercial recreation and tourism	☒	☐	☐
Agriculture, including predicted effects to livestock health and productivity	☒	☐	☐
Other If so, please describe:	☐	☐	☐

Section F: Technically and Economically Feasible Mitigation Measures

Complete the following table for potential environmental effects and any corresponding technically and economically feasible mitigation measures that the authority is satisfied will be implemented should the project proceed. The table should be replicated as needed for each adverse environmental effect identified in Section E.

Identify if the environmental effect(s) identified above relate(s) to biophysical effects (B), Indigenous peoples (IP) and/or health (H), social (S) or economic (E) conditions by checking the corresponding box for each effect.

Consult section 4.1 of the "Projects on Federal Lands and Outside Canada" Guidance document for help determining what constitutes environmental effects.

[6] Adapted from section [18] "Effects to Valued Components – Economic" of the Tailored Impact Statement Guidelines Template for Designated Projects Subject to the *Impact Assessment Act*.

Potential adverse environmental effect:	B	IP	H	S	E
Removal of terrestrial vegetation from the site	x				

Description of the potential effect:	Proposed mitigation measure description:
Vegetation present on site will be completely removed by machinery except for the trees planted along Leikin Drive. 9 out of 18 trees existing trees with a DBH larger than 10 cm will need to be removed.	- Integration of the Tree Conservation Report recommendations into the project plans and specifications. - Trees removed with a DBH larger than 10 cm to be compensated through proposed plantings following these ratios: 1:1 ratio for dead trees, 2:1 ratio for DBH between 10 cm and 30 cm and 3:1 ratio for large caliber trees. Since 2 of the removed trees have a diameter larger than 30 cm and the 7 others have a diameter smaller than 30 cm, it means at least 20 trees need to be planted as part of the landscaping plan. 80 new trees are currently proposed on CSW plan. - Plantings of indigenous trees, shrubs and herbaceous flora species as part of CSW landscaping plans presented in appendix. (higher quality vegetation than current condition (ie: canary grass invasive species)) - Landscaping activities to be completed following Canadian Landscape Standard Manual Second edition.

Magnitude of residual effects	Geographic extent of residual effects	Frequency of residual effects	Duration of residual effects	Reversibility of residual effects	Timing of residual effects
☒Low amount ☐ Medium amount ☐ High amount	☒Small area ☐ Medium area ☐ Large area	☒Rarely ☐ Often ☐ All the time	☐ Short periods ☐ Medium periods ☒Long periods	☐ High degree ☐ Medium degree ☒Low degree	☒Not dependant on timing ☐ Dependant on specific timing

Potential residual effects after the technical and economically feasible mitigation measures are considered
Unlikely to cause significant residual adverse effect considering context of suburban light industrial park and recent history of site and the project's proposed native landscaping plan. Conservation of some existing trees and densification of tree cover along the site perimeter will help protect the site from strong winds.
Monitoring to be established
Facilities Management (FM) contract will require maintenance of as—built landscape vegetation conditions. Need for further monitoring was discussed with ECCC who indicated no specialized surveys or monitoring is warranted beyond normal monitoring of FM contract fulfillment. Compensation trees planted will be guaranteed by Canada Post for 3 years.

Comments:	

Potential adverse environmental effect:	B	IP	H	S	E
Removal of terrestrial wildlife habitat from the site/Potential wildlife mortality	X				

Description of the potential effect:	Proposed mitigation measure description:
Vegetation present on site will be completely removed by machinery except for the trees planted along Leikin Drive. Removal of vegetation includes potential nesting and feeding habitat for following species at risk: Monarch, Yellow Banded Bumble Bee, Bobolink and Eastern Meadowlark.	- Plantings of indigenous trees, shrubs and herbaceous flora species as part of CSW landscaping plans presented in appendix. Plants species have been chosen to recreate some pollinators and birds nesting and feeding habitat. - Trees, vegetation and topsoil will be removed from the site prior to migratory birds nesting activities starts (i.e. vegetation to be removed prior to April 8 or after August 15) - Should any bird nesting activities be identified as present on site at any point in time, construction activities must stop immediately until a qualified environmental professional has assessed the situation and an environmental action plan is implemented to protect the nesting activities. - Install reptile and amphibian exclusion fencing at the construction site limit as soon as possible after snow melt (at the latest May 1) following Ontario Ministry of Environment, Conservation and Parks Guidance provide on their Reptile and amphibian exclusion fencing website. Regular monitoring of the fence will be completed to rescue individuals that could be trapped and to ensure maintenance. (https://www.ontario.ca/page/reptile-and-amphibian-exclusion-fencing) - Implementation of the City of Ottawa *Protocol for Wildlife Protection during Construction* (https://documents.ottawa.ca/en/files/protocol-wildlife-protection-during-construction)

Magnitude of residual effects	Geographic extent of residual effects	Frequency of residual effects	Duration of residual effects	Reversibility of residual effects	Timing of residual effects
☒Low amount ☐ Medium amount ☐ High amount	☒ Small area ☐ Medium area ☐ Large area	☒Rarely ☐ Often ☐ All the time	☐ Short periods ☐ Medium periods ☒Long periods	☐ High degree ☐ Medium degree ☒Low degree	☐ Not dependant on timing ☒Dependant on specific timing

Potential residual effects after the technical and economically feasible mitigation measures are considered

Unlikely to cause significant residual effects considering context of suburban industrial park and recent history of site disturbance and mitigation measures including early spring site clearing to avoid nest disturbance. Since the site preparation works will be ongoing throughout the whole 2023 nesting season, ground nesting activities would be deterred on site. Modified seasonal habitat provided in landscape plan. Potential loss of foraging area for medium size mammals (ex. coyote, deer)
Monitoring to be established
Facilities Management (FM) contract will require maintenance of as-built landscape vegetation conditions. Need for further monitoring was discussed with ECCC who indicated no specialized surveys or monitoring is warranted beyond normal monitoring of FM contract fulfillment.

Comments:	

Potential adverse environmental effect:	**B**	**IP**	**H**	**S**	**E**
Birds mortality - Operation	X				

Description of the potential effect:	**Proposed mitigation measure description:**
Construction of the new facility can create bird mortality through collisions with new building windows.	- Limit the quantity of windows on the new building - Implementation of the NCC Bird-Safe Design Guidelines

Magnitude of residual effects	**Geographic extent of residual effects**	**Frequency of residual effects**	**Duration of residual effects**	**Reversibility of residual effects**	**Timing of residual effects**
☒Low amount ☐ Medium amount ☐ High amount	☒Small area ☐ Medium area ☐ Large area	☒Rarely ☐ Often ☐ All the time	☐ Short periods ☐ Medium periods ☒Long periods	☐ High degree ☒Medium degree ☐ Low degree	☒Not dependant on timing ☐ Dependant on specific timing

Potential residual effects after the technical and economically feasible mitigation measures are considered
Unlikely to cause significant residual effects considering planned quantity of glazing on building.
Monitoring to be established
No formal monitoring activity required. Repetitive findings of dead birds at the same location will trigger the need for an analysis of the potential mortality cause with recommendation to address the issue.

Comments:	CPC to share building design plans with the NCC once available for confirmation of no significant residual adverse effects.

Potential adverse environmental effect:	**B**	**IP**	**H**	**S**	**E**
Deterioration of air, water and soil quality - Construction	X				

Description of the potential effect:	**Proposed mitigation measure description:**
Site preparation activities and facility construction can lead to fuel spills, soils erosion, surface water sedimentation and air pollution.	<u>Management of Contaminated Soils</u> - Implementation of all recommendations

This includes all activities related to the management of excavated soils and groundwater management.	included in WSP February 1 2023 Soil Management Plan (SMP) - Full-time site supervision and monitoring of all earthworks by the Owner's Environmental Consultant according to the SMP - No long-term stockpiles will be created during the site preparation activities - Monitoring wells will be protected during the site preparation works in 2023, and will later be decommissioned by the Design-Builder in 2024 according to applicable regulations. <u>Environmental Controls</u> - The Contractor responsible of the site preparation activities and the Design-Builder must submit an Environmental Protection Plan (EPP) for review by Owner's Representative at least 10 days before site mobilization, before commencing clearing activities or delivery of materials to site. - The EPP must include comprehensive overview of known or potential environmental issues to be addressed during construction. - The EPP must address topics at level of detail commensurate with environmental issue(s) and required construction tasks. - For the EPP, the Contractor shall provide a drawing indicating locations of proposed temporary excavations or embankments for haul roads, stream crossings, material storage areas, structures, sanitary facilities, and stockpiles of excess or spoil materials including methods to control runoff and to contain materials on site. - The EPP must include protection for existing monitoring wells at the site (see Site Plan). - The EPP must include a Spill Control Plan (SCP). The SCP must include procedures, instructions, and reports to be used in event of unforeseen spill of regulated substance, as prescribed in the Soil Management Plan (SMP). - The EPP must include a non-hazardous solid waste disposal plan identifying methods and locations for solid waste disposal including clearing debris. - The EPP must include an air pollution and dust control plan detailing provisions to assure that dust, debris, materials, and trash, are contained

	on project site. Control emissions from equipment and plant in accordance with local authorities' emission requirements. Cover or wet down dry materials and rubbish to prevent blowing dust and debris. Provide dust control for temporary roads. Adhere to requirements in the SMP. - The EPP must include a Contaminant Prevention Plan identifying potentially hazardous substances to be used on job site; intended actions to prevent introduction of such materials into air, water, or ground; and detailing provisions for compliance with Federal, Provincial, and Municipal laws and regulations for storage and handling of materials. Adhere to requirements in the SMP. - As per the SMP, the Contractor responsible of the site preparation activities and the Design-Builder must provide signed certificate from authorized disposal site with details of locations where materials are to be disposed. Include each disposal site and type of material, operator's name and type of license and criteria used by site to access suitability of material for disposal <u>Erosion and Sediment Control</u> - At least 10 days before site mobilization, The Contractor responsible of the site preparation activities and the Design-Builder must submit an Erosion and Sediment Control Plan (ESC) identifying type and location of erosion and sediment controls provided. Plan to include monitoring and reporting requirements to assure that control measures are in compliance with erosion and sediment control plan, Federal, Provincial, and Municipal laws and regulations, and the SMP. - The ESC must include measures to control disposal or runoff of water containing suspended materials or other harmful substances in accordance with local authority requirements. - The Contractor responsible of the site preparation activities and the Design-Builder must maintain ESC for the duration of the contract.

Magnitude of residual effects	Geographic extent of residual effects	Frequency of residual effects	Duration of residual effects	Reversibility of residual effects	Timing of residual effects
☒Low amount ☐ Medium amount ☐ High amount	☒ Small area ☐ Medium area ☐ Large area	☒ Rarely ☐ Often ☐ All the time	☒Short periods ☐ Medium periods ☐ Long periods	☒ High degree ☐ Medium degree ☐ Low degree	☒ Not dependant on timing ☐ Dependant on specific timing
Potential residual effects after the technical and economically feasible mitigation measures are considered					
Unlikely to cause significant residual adverse effects. Some erosion and sedimentation events may occur following intense rain/storm events					
Monitoring to be established					
The Owner has a full-time environmental consultant on site during all earthworks and site preparation activities, to ensure the SMP and excess soil regulations are followed by the contractors.					
Comments:	CPC to share Site Preparation Contractor SMP implementation strategy plan with NCC for confirmation of no significant residual adverse effects once available.				

Potential adverse environmental effect:	B	IP	H	S	E
Deterioration of watershed water quality/flood control - Operation	X			X	X

Description of the potential effect:	Proposed mitigation measure description:
Impermeabilization of the majority of the site surface through the construction of an asphalted parking lot can cause change in the watershed water quality and modify peak flow during rain/storm events.	- A site-specific Stormwater Management Plan is being prepared for approval by the City of Ottawa and Rideau Valley Conservation Authority as part of the municipal Site Plan Approval process - The site-specific Stormwater Management Plan will follow the City of Ottawa's overall stormwater management strategy of the industrial park, which uses the large stormwater management pond south of the Site - The site-specific Stormwater Management Plan will also reference the best management guidelines from the NCC Stormwater Management Manual dated Fall 2022 - Integration of the stormwater management requirements from the City's SPA approval, into the Design- Builder Contract.

Magnitude of residual effects	Geographic extent of residual effects	Frequency of residual effects	Duration of residual effects	Reversibility of residual effects	Timing of residual effects
☒Low amount ☐ Medium amount ☐ High amount	☒Small area ☐ Medium area ☐ Large area	☒Rarely ☐ Often ☐ All the time	☒Short periods ☐ Medium periods ☐ Long periods	☐ High degree ☐ Medium degree ☒Low degree	☒Not dependant on timing ☐ Dependant on specific timing
Potential residual effects after the technical and economically feasible mitigation measures are considered					
No residual effects are anticipated after implementation of the Stormwater management plan approved by the City of Ottawa and Rideau Valley Conservation Authority					
Monitoring to be established					
Comments:	Stormwater management design brief is included as appendix to this EEE. The Owner's civil engineer will inspect the completed stormwater management features, and issue a conformity letter to the Owner and the City.				

Potential adverse environmental effect:	B	IP	H	S	E
Change in ambient noise levels and Traffic Impacts - Construction and Operation	X		X		

Description of the potential effect:	Proposed mitigation measure description:
Site preparation activities and facility construction can temporarily increase ambient noise levels in and around the construction site including construction truck generated traffic. Operation of the new processing centre can increase ambient noise levels within and around the new processing centre and along trucking routes.	- Contractors will adhere to the City of Ottawa Noise Bylaw - A Noise Assessment Study is being completed for the City of Ottawa's Site Plan Approval process (anticipated to be complete by April 2023) - A Transportation Impact Assessment (TIA) is being completed for the City of Ottawa's Site Plan Approval process (anticipated to be complete by April 2023) - The Design-Builder will adhere to the City of Ottawa's SPA requirements on noise and traffic, as part of their contract. - The Site Preparation Contractor will submit a Traffic Control Plan to Owner's Representative before site preparation works can start.

Magnitude of residual effects	Geographic extent of residual effects	Frequency of residual effects	Duration of residual effects	Reversibility of residual effects	Timing of residual effects
☒Low amount ☐ Medium amount ☐ High amount	☐ Small area ☒Medium area ☐ Large area	☒Rarely ☐ Often All the time	☐ Short periods ☐ Medium periods ☒Long periods	☐ High degree ☐ Medium degree ☒Low degree	☒Not dependant on timing ☐ Dependant on specific timing

Potential residual effects after the technical and economically feasible mitigation measures are considered
No significant adverse residual effects are foreseen if the Noise Assessment Study and TIA meet City of Ottawa's Site Plan Approval process and the City's noise Bylaw.
Monitoring to be established

Comments:	CPC to share Noise Assessment Study with the NCC once available for confirmation of no significant residual adverse effects. The Noise Study will include the existing background noise levels prior to construction of the new processing centre. A preliminary TIA is presented in appendix to this EEE. The final TIA will be shared with the NCC for confirmation of no significant residual adverse effects.

Potential adverse environmental effect:	B	IP	H	S	E
Loss of wetlands functions	X				

Description of the potential effect:	Proposed mitigation measure description:
Removal of marginal wetland functions (related to stormwater storage and low-quality habitat) of the recent constructed seasonal wetlands through site	- Plantings of indigenous trees, shrubs and herbaceous flora species and creation of bioswales and vernal ponds as part of CSW

preparation activities	landscaping plans presented in appendix. Plants species have been chosen to recreate some pollinators and birds nesting and feeding habitat as well as some amphibian breeding ponds (vernal ponds). - Integration of the City of Ottawa's approved stormwater management design into the Design-Builder Contract.

Magnitude of residual effects	Geographic extent of residual effects	Frequency of residual effects	Duration of residual effects	Reversibility of residual effects	Timing of residual effects
☒Low amount ☐ Medium amount ☐ High amount	☒Small area ☐ Medium area ☐ Large area	☒Rarely ☐ Often ☐ All the time	☐ Short periods ☐ Medium periods ☒Long periods	☐ High degree ☐ Medium degree ☒Low degree	☒Not dependant on timing ☐ Dependant on specific timing

Potential residual effects after the technical and economically feasible mitigation measures are considered

Unlikely to cause significant residual effects considering on-site compensation plan including stormwater management design plans. Permanent loss of low-quality marginal wetlands compensated by creation and maintenance of new higher quality seasonal wetland habitats and onsite stormwater storage.

Monitoring to be established

Facilities Management (FM) contract will require maintenance of as—built landscape and vegetation conditions. Need for further monitoring was discussed with ECCC who indicated no specialized surveys or monitoring is warranted beyond normal monitoring of FM contract fulfillment.

Comments:	

Potential adverse environmental effect:	**B**	**IP**	**H**	**S**	**E**
Creation of Heat Island Effect	X		X		

Description of the potential effect:	**Proposed mitigation measure description:**
The creation of an asphalted parking lot and new building can contribute to the creation of Heat Island Effect	- Plantings of indigenous trees, shrubs and herbaceous flora species as part of CSW landscaping plans presented in appendix. - Canada Post's design requirements include a white roof, and white concrete dock aprons

Magnitude of residual effects	Geographic extent of residual effects	Frequency of residual effects	Duration of residual effects	Reversibility of residual effects	Timing of residual effects

☐Low amount ☒Medium amount ☐ High amount	☒Small area ☐ ☐Mediu m area ☐ Large area	☒Rarely ☐ Often ☐ All the time	☐ Short periods ☐ Medium periods ☒Long periods	☐ High degree ☒Medium degree ☐ Low degree	☒Not dependant on timing ☐ Dependant on specific timing

Potential residual effects after the technical and economically feasible mitigation measures are considered
Unlikely to cause significant residual effect. Some Heat Island Effects may result from the construction of the asphalt parking lot.
Monitoring to be established
Facilities Management (FM) contract will require maintenance of as-built landscape and vegetation conditions.
Comments:

Potential adverse environmental effect:	**B**	**IP**	**H**	**S**	**E**
Vulnerability to extreme weather events			X		X

Description of the potential effect:	**Proposed mitigation measure description:**
Damages to proposed building and associated infrastructures due to heavy rainfall, flooding, high winds; heatwaves and freeze-thaw	- Canada Post has a public commitment for all new facilities which targets CaGBC Zero Carbon Standard -Design Certification. - The project is guided by the following CPC reports and plans: - CPC's 2021 Sustainability report; https://www.canadapost-postescanada.ca/cpc/doc/en/aboutus/reports/corporate/sustainability-report-final-en.pdf - Canada Post Environmental Action Plan (https://www.canadapost-postescanada.ca/cpc/doc/en/aboutus/environmental-action-plan.pdf) - Canada Post 2021 Task Force on Climate Related Financial Disclosures (appendix) - The Design-Build project specifications will also reference the NCC Sustainable Development Best Practices, the Canada's Greening Government Strategy, Canada's Strategic Assessment of Climate Change, and City of Ottawa's High-Performance Development Standards Tier 1 - The new 2022 Ontario Building Code and the 2020 National Building Code include stricter design and construction requirements for the climate change and extreme weather events - The City of Ottawa and the NCC stormwater management design guidelines limits excessive

			flooding risks - The trees along Leikin and Bill Leathem will protect the site from strong winds		
Magnitude of residual effects	**Geographic extent of residual effects**	**Frequency of residual effects**	**Duration of residual effects**	**Reversibility of residual effects**	**Timing of residual effects**
☒Low amount ☐Medium amount ☐ High amount	☒Small area ☐ ☐Mediu m area ☐ Large area	☒Rarely ☐ Often ☐ All the time	☒Short periods ☐ Medium periods ☐Long periods	☒High degree ☐Medium degree ☐ Low degree	☐Not dependant on timing ☐ Dependant on specific timing
Potential residual effects after the technical and economically feasible mitigation measures are considered					
Unlikely to cause significant residual effect after the building is constructed in accordance with building codes and federal sustainability best practices.					
Monitoring to be established					
Canada Post Facilities Management will monitor the performance of the building and parking lot, and make adjustments as required.					
Comments:					

Potential adverse environmental effect:	**B**	**IP**	**H**	**S**	**E**
Lost or damage to known or potential archaeological resources		X		X	

Description of the potential effect:	**Proposed mitigation measure description:**
Incidental impact to archaeological resources	- If archaeological resources or human remains are discovered during construction work, all work at the location of concern must be suspended immediately and the NCC Heritage Program must be notified as soon as possible (Archaeology-Archeologie@ncc-ccn.ca). Work cannot resume at this location until the measures to protect these resources or these remains have been put in place. – this requirement has been added to the site preparation contract specifications

Magnitude of residual effects	**Geographic extent of residual effects**	**Frequency of residual effects**	**Duration of residual effects**	**Reversibility of residual effects**	**Timing of residual effects**

☒Low amount ☐Medium amount ☐ High amount	☒Small area ☐ ☐Mediu m area ☐ Large area	☒Rarely ☐ Often ☐ All the time	☒Short periods ☐ Medium periods ☐Long periods	☐ High degree ☐Medium degree ☒Low degree	☒Not dependant on timing ☐ Dependant on specific timing
Potential residual effects after the technical and economically feasible mitigation measures are considered					
Unlikely to cause significant effects due to low potential for archaeological resources being present on site.					
Monitoring to be established					
NCC archaeologist contact information to be included within the Contractor Manager's Contact List for this Project in case of incidental discovery.					
Comments:					

Potential adverse environmental effect:	**B**	**IP**	**H**	**S**	**E**
Changes to the environment that could impact under-represented groups				X	

Description of the potential effect:	**Proposed mitigation measure description:**
Potential effects to under-represented groups	- Implementation of CPC Statement of Requirements into Design-Build plans and specifications, including: Fully accessible and inclusive design and construction to meet AODA, latest CSA B651-18 standards, and Rick Hansen Foundation accessibility standards As outlined in Section 4.5 of the CPC-OPC General Design Review included in the Appendix, the Ottawa facility shall have Universal/Inclusive Design that recognizes the broad diversity of people who use these facilities

Magnitude of residual effects	**Geographic extent of residual effects**	**Frequency of residual effects**	**Duration of residual effects**	**Reversibility of residual effects**	**Timing of residual effects**
☒Low amount ☐Medium amount ☐ High amount	☒Small area ☐ ☐Mediu m area ☐ Large area	☒Rarely ☐ Often ☐ All the time	☒Short periods ☐ Medium periods ☐Long periods	☒High degree ☐Medium degree ☐Low degree	☒Not dependant on timing ☐ Dependant on specific timing
Potential residual effects after the technical and economically feasible mitigation measures are considered					
Unlikely to cause significant effects due to Design-Builder to meet CPC Statements of Requirements intentions.					
Monitoring to be established					

Comments:	CPC to share building design plans with the NCC once available for confirmation of no significant residual adverse effects.

Potential adverse environmental effect:	**B**	**IP**	**H**	**S**	**E**
Sustainability Considerations (active transportation and other sustainable transportation means, biodiversity and waste management)				X	

Description of the potential effect:	**Proposed mitigation measure description:**
- Lack of project sustainability with respect to commuter and operational transportation - Potential spread of invasive species - Generation of wastes during construction activities and operation of the new facility	- Regarding active transportation, as indicated in the CPC General Design Overview (appendix), the facility will be designed to reflect Canada Post's commitment to creating and maintaining a healthy and safe environment for all employees, visitors, and contractors. The site will include bicycle racks, EV charging stations (% EV charging for employee parking areas; infrastructure rough-ins for future charging of 5 ton truck EV), and easy pedestrian access to the city sidewalks and nearby bus stops. - Regarding sustainable transportation for CPC operations, as per CPC 2021 Sustainability Report and CPC Environmental Action Plan, CPC's objective to meet zero carbon targets include future upgraded fleet that incorporates low-carbon delivery and electric vehicles, commitment to engage top suppliers on SBTi. - Potential spread of Invasive Reed Canary Grass (*Phalaris arundinacea subsp. arundinacea*) will be managed through the integration in the site preparation specifications of the following two Ontario Plant Invasive Council Documents: i) *Invasive Reed Canary Grass (Phalaris arundinacea subsp. arundinacea) Best Management Practices in Ontario* (https://www.ontarioinvasiveplants.ca/wp-content/uploads/2016/06/OIPC_BMP_ReedCanaryGrass.pdf) and - ii) *Clean Equipment Protocol for Industry* (https://www.ontarioinvasiveplants.ca/wp-content/uploads/2016/07/Clean-Equipment-Protocol_June2016_D3_WEB-1.pdf) - All plants proposed within CSW landscaping plants are native to the Ottawa Valley area. - Waste minimization is mandated in the Design-Build project specifications. The construction of the facility shall aim to divert 90% by weight of construction and demolition waste, including monthly reporting on diversion. - Provide receptacles and bins for both recycling

			and waste management to meet CPC zero waste objectives for non-hazardous operational waste (as per CPC Environmental Action Plan) …….		
Magnitude of residual effects	**Geographic extent of residual effects**	**Frequency of residual effects**	**Duration of residual effects**	**Reversibility of residual effects**	**Timing of residual effects**
☒Low amount ☐Medium amount ☐ High amount	☒Small area ☐ ☐Mediu m area ☐ Large area	☒Rarely ☐ Often ☐ All the time	☒Short periods ☐ Medium periods ☐Long periods	☐ High degree ☒Medium degree ☐Low degree	☒Not dependant on timing ☐ Dependant on specific timing
Potential residual effects after the technical and economically feasible mitigation measures are considered					
Unlikely to cause significant residual effects after implementation of the above noted mitigation measures.					
Monitoring to be established					
Canada Post Facilities Management will monitor, and make adjustments as required					
Comments:					

Potential adverse environmental effect:	**B**	**IP**	**H**	**S**	**E**
Greenhouse Gas Emissions	X	X	X	X	X

Description of the potential effect:	**Proposed mitigation measure description:**
Greenhouse Gas Emission during construction and operation of the proposed new facility	- As indicated in the CPC General Design Overview (appendix), the building will be a CaGBC Zero Carbon Building (ZCB) and no fossil fuels will be used in base building heating systems - The building design will be consistent with Canada's Greening Government Strategy, including many features including: high performance building envelope, high efficiency heating & cooling system, sub-metering for all major electric and HVAC loads to measure and verify the facility's aggregate and individual energy consumption - To meet the CaGBC's ZCB Design certification standard, this project will include implementation of onsite solar photovoltaic power generation sufficient to provide a minimum of 5% of annual building energy requirements. Options for a larger solar PV array is also to be considered and will be subject to review by CPC. The building envelope, heating, cooling and, ventilation systems will be designed

			and optimized in the design process to be highly energy efficient. The electrical and mechanical systems shall use efficient technologies such as, day light harvesting, LED lighting, occupancy sensors, variable and demand control ventilation. - The Strategic Assessment of Climate Change (SACC) tool was completed and the project was determined to have emissions of less than 10kt/year which is deemed satisfactory.		
Magnitude of residual effects	**Geographic extent of residual effects**	**Frequency of residual effects**	**Duration of residual effects**	**Reversibility of residual effects**	**Timing of residual effects**
☒Low amount ☐Medium amount ☐ High amount	☒Small area ☐ ☐Mediu m area ☐ Large area	☒Rarely ☐ Often ☐ All the time	☒Short periods ☐ Medium periods ☐Long periods	☐ High degree ☒Medium degree ☐Low degree	☒Not dependant on timing ☐ Dependant on specific timing
Potential residual effects after the technical and economically feasible mitigation measures are considered					
Unlikely to cause significant residual effects after implementation of the above noted mitigation measures.					
Monitoring to be established					
Canada Post Facilities Management will monitor energy consumption using the submetering, and make adjustments as required					
Comments:					

Section G: Determination

Check the box that applies to the statement below in relation to the project identified in Section A of this form.

Taking into account the implementation of the technically and economically feasible mitigation measures outlined in Section F and the other section 84 factors under the IAA, outlined in Section D, this project is:

☒**Not likely** to cause significant adverse environmental effects (the authority can carry out the project, exercise a power, perform a duty or function, or provide financial assistance that could permit or enable the project to proceed.) – *Complete Section H*

☐ **Likely** to cause significant adverse environmental effects (the authority may choose not to make any decision or take any action that may permit or enable the project to be carried out; or refer the project to the GIC to determine whether the significant adverse environmental effects are justified in the circumstances under subsection 90(3) of the IAA.) – *Complete Section H*

Rationale:

Canada Post and the National Capital Commission have determined that the proposed project, the new Canada Post Processing Centre, Ottawa ON, is not likely to cause significant adverse environmental effects. This determination was based on a consideration of the following factors: 1. impacts on rights of Indigenous peoples, and Indigenous knowledge; 2. community knowledge; 3. comments received from the public, and 4. technically and economically feasible mitigation measures.

Canada Post and the National Capital Commission are satisfied that the carrying out of the project is not likely to cause significant adverse environmental effects given the identified mitigation measures. Therefore, the proponent Canada Post may carry out the project in whole or in part.

Section H: Signatures and Approval of Project Determination

Note: After making an environmental effect determination, authorities must post their Notice of Determination on the Registry no earlier than 30 days after posting their Notice of Intent (see Step 2 of the Guidance document). As outlined in the IAA, the Notice of Determination must also include information about any mitigation measures taken into account by an authority when making the determination (ss. 86(2)).Comments: Canada Post Corporation and the NCC have agreed that the project is not likely to cause significant adverse environmental effects and required mitigation measures described in this EEE are satisfactory for the first phase of the project involving the site preparation works in 2023. Where identified in this EEE, potential environmental effects and required mitigation measures will be reviewed again once the detailed drawings and specifications are available from the Design-Builder in 2024 for the second phase of the project.

Form completed by CIMA+:

Signature	First and last name	Date
Valérie E. Bédard	Valérie Bédard	2023/02/22

Form endorsed by Owner's Representative - Colliers:

Signature	First and last name	Date
Luc Fréchette	Luc Fréchette	2023/02/21 (yyyy/mm/dd)

Approved by Canada Post Corporation:

Signature	First and last name	Date
Digitally signed by Allison Rogers Date: 2023.02.22 11:51:55 -05'00'	Allison Rogers	2023/02/21 (yyyy/mm/dd)

Approved by Canada Post Corporation:

Signature	First and last name	Date
	Robert Loyst	2023/02/21 (yyyy/mm/dd)

Approved by National Capital Commission:

Signature	First and last name	Date
DocuSigned by: E6550B1456DE442...	Catherine Tardy Laporte	2023-Feb-23 (yyyy/mm/dd)