Chasm Solar and Energy Storage Project

Initial Project Description

Chasm BC Solar Project Limited Partnership

RECURRENT ENERGY
A subsidiary of Canadian Solar

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Executive Summary

The purpose of this Initial Project Description (IPD) is to provide general information on the proposed Chasm Solar and Energy Storage Project ("the Project") to the British Columbia Environmental Assessment Office ("BC EAO") and Communities of Interest, including Indigenous nations, to determine the requirements for review of the Project under the BC *Environmental Assessment Act* ("BC EAA"). The IPD was prepared using the guidance provided in the BC EAO's Early Engagement Policy document (BC EAO, 2019). In addition, the IPD and the Early Engagement Plan (Appendix 3) are used to initiate the Early Engagement Phase of the BC environmental assessment (EA) process. The documents will be posted on the BC EAO's Environmental Assessment Project Information Centre (EPIC) website and will be available for review by Indigenous nations and other Communities of Interest to provide information about the Project, facilitate engagement, and feedback received will be used to support the development of a Detailed Project Description (DPD). The DPD will provide additional details about the Project to inform the Environmental Assessment Readiness Decision. Following the Readiness Decision if approved, the Process Planning Phase will determine the scope, methods, and information requirements for the EA and further engagement approach with Indigenous nations and Communities of Interest.

Project Description

Chasm BC Solar Project Limited Partnership ("Chasm Solar") proposes to develop the Project for the purposes of producing clean renewable solar energy in the Cariboo region of Central Interior British Columbia (BC). Chasm Solar is a subsidiary of Recurrent Energy. Chasm Solar has an Agreement-in-Principle with High Bar First Nation, whose designated representative will form part of the Project team. This is a new project and Chasm Solar proposes to construct, operate, and maintain the Project. The Project is anticipated to include approximately 100 megawatts of alternating current (AC) power (MWac) generation capacity and would consist of installation of solar photo-voltaic (PV) modules, battery storage system, overhead transmission lines to connect the solar array to an existing BC Hydro transmission line, and upgrades to existing or construction of access roads. The current proposed Project area is approximately 205 hectares (ha). The Project is currently at the design level and components are currently being evaluated and will be informed by the engagement and EA processes.

The Project life will include three main phases: construction (anticipated to last approximately one year), operations and maintenance (estimated to have an operational life of 40 years), and decommissioning and reclamation.

Project Location

Chasm Solar respectfully acknowledges the proposed Project is located within the traditional territory of the Secwépemc Nation peoples. The Project is located on Crown land approximately 10 km north of Clinton and 55 km south of 100 Mile House, BC, within the boundaries of the Thompson-Nicola Regional District (TNRD) (Figure 1 of the IPD). The

Project area is in Electoral Area E, "Bonaparte Plateau" of the TNRD. The closest community is the Village of Clinton (population 568; Statistics Canada, 2021), located approximately 10 km south of the Project area and the Village of Cache Creek (population 969; Statistics Canada, 2021) located approximately 45 km south of the Project area. The District of 100 Mile House is the largest population centre near the Project area (approximately 55 km north), with a population of 1,928 (Statistics Canada, 2021).

The proposed Project layout area occurs west of Highway 97. The Project area can be accessed from the south via Big Bar Road, travelling west from Highway 97. Some parts of the Project area have been previously logged, and several deactivated and unmaintained forest service roads (FSRs) exist within the Project footprint. In addition, an old airstrip (deactivated) is north of Birg Bar Road and south of the Project area. There is an abandoned sawmill site previously operated by West Fraser Timber situated east of the Project area. To the extent practicable, existing access roads will be used and may be upgraded if necessary to enable their use for construction and potentially during typical maintenance and operation activities. Public access to the FSRs by the general public will not be hindered by the Project.

Regulatory Framework and Purpose

It is anticipated the Project will be subject to review under the BC EAA. In accordance with Part 4(12) and Table 7 of the *Reviewable Projects Regulation* (BC Reg. 67/2020), proposed electricity projects are reviewable under the BC EAA if it is a new power plant with a total nameplate capacity of greater than 50 MW, which is the requirement for a reviewable project as per the BC EAA *Reviewable Projects Regulation*. Potentially relevant provincial and federal acts and regulations and permits, approvals, and authorizations which could potentially be required for the Project are discussed in Section 4.0 of the IPD. The purpose of the Project includes:

- Generation of a low-cost and greenhouse gas (GHG)-free, reliable, clean and renewable power source to help increase energy security by increasing the diversity of BC's energy supply mix by adding solar to the current hydro dominated supply, especially during drought conditions.
- Help BC meet its climate goals and commitments including GHG reduction goals.
- Advance the BC government's reconciliation objectives with Indigenous nations by creating economic and employment opportunities for regional Indigenous nations and rural communities.
- Supporting BC Hydro's June 15, 2023 news release that states the intent to procure new sources of renewable and emission-free electricity to power BC. Electricity demand is expected to increase by 15% between now and 2030, the news release states.

The Project rationale is compliant with the BC *Clean Energy Act*, which among other things, specifies that the Province of BC is to achieve electricity self-sufficiency with the goal of generating at least 93% of the electricity in BC from clean or renewable resources

and build the infrastructure necessary to transmit that electricity. The BC *Clean Energy Act* further states that power development should encourage economic development and the creation and retention of jobs and foster the development of Indigenous nations and rural communities through the use and development of clean or renewable resources. CleanBC is the BC government's plan to lower climate-changing emissions by 40% by 2030. CleanBC includes a wide range of actions to reduce emissions, build a cleaner economy, and prepare for impacts of climate change. Being a clean energy project, the Project will be in alignment with several of the initiatives included in the CleanBC plan.

The summer peaking energy profile of the proposed Project will help the BC system cope with summer drought conditions. Recent BC extreme drought is creating water flow constraints for many small and large hydroelectric generation plants. In addition, the summer seasonal peaking profile of solar generation is complementary to the winter seasonal peaking profiles of hydro and wind power, enhancing the energy security of BC. A battery energy storage system (BESS) can extend power deliveries into dark hours to help serve evening peak loads or for emergency use. When AC is connected, the BESS can charge from the BC grid during next day high load hours, including the extreme winter loads experienced by BC Hydro.

Project Components

The current proposed boundaries of the Project area are shown on Figure 2 of the IPD. The layout areas will be enclosed by fencelines which are represented by the boundaries on Figure 2. The total Project area within the boundaries is approximately 205 ha (area of disturbance). Design of and siting of Project components are in the preliminary design stages and will be further refined as the Project is developed. Further, Chasm Solar will gather and incorporate feedback received on the information, including Project components, provided in the IPD during the Early Engagement Phase. The Project is expected to include approximately 100 MWac generation capacity (subject to results of the BC Hydro Interconnection Study). While components are subject to change through the Project design and engagement process, it is currently expected that the system may utilize some or all the following onsite and offsite components:

- The installation of a system of solar PV modules. Each module has the potential of generating approximately 695 Watt Peak (Wp) with a total Project rated AC capacity of approximately 100 MWac. The PV modules are mounted above ground on a steel single-axis tracking system array supported by steel piles, or similar alternatives, driven into the ground. The automatic tracking system slowly tilts the module array from east to west to follow the daily solar path and achieve maximum solar exposure on module faces.
- Electrical collection conductor lines connect the modules in series. Each array in turn is connected to one of the inverter transformers which are rated at 4.2 MWac each.

- The inverters convert direct current (DC) power to AC and transfer the power optionally to either or both the Project BESS or the Project power conversion station and substation. The Project battery storage system may be optionally charged and discharged in either DC or AC power, depending on final design and configuration. Excess power generated by the Project module arrays in DC current during peak daily hours is clipped by the inverters and sent to the energy storage battery, improving the real time energy profile constantly feeding the BC system while storing excess energy for later discharge to serve peak evening or nighttime load hours.
- The Project power conversion station and substation (proposed to be co-located in an area approximately 100 m x 100 m) converts power from 34.5 kilo volt (kV) to 230 kV and connects the Project to the existing BC transmission system by overhead feeder conductors tapped into 230 kV transmission lines located on the Project site. Clean electricity generated by the Project in daylight hours, or discharged by the Project storage battery in dark hours, is then injected into the BC transmission system.

Additional Project components and infrastructure could include the following:

- Overhead and underground electrical cables and fibre optic cables (length unknown at this time);
- Transmission right of way (ROW) – based on current Project assumptions, anticipated footprint of the permanent transmission ROW will be approximately 250 m in length by 40 m in width (area of the ROW is not accounted for in the estimated 205 ha of the "Project area");
- High or Medium voltage transmission line(s) to connect the Project to the BC Hydro 230 kV transmission corridor which is located approximately 250 m west of the Project area (point of interconnection [POI]) to be confirmed.;
- Existing access roads will be used to the maximum extent practicable and upgraded as needed. Upgrades to existing access roads, onsite connector roads and water crossings, and the development of new access roads, onsite connector roads, and water crossings to Project-related components;
- A permanent building (and parking area), for storage of Project spare components and office space for operations staff;
- Project fencing for safety and security;
- Permanent solar meteorological sensors;
- Offsite operations centre;
- Potential fireguard around the layout area;
- Facility lighting for safety and security; and
- Temporary construction laydown areas for Project components and parking, temporary buildings, and associated facilities.

There are no other dependent projects that are needed for the proposed Project to proceed. The Project is a single and complete project with a single construction phase and no other dependent projects. Layout of Project components are considered preliminary at this stage. Configuration could change based on results of engagement and feedback obtained during the Early Engagement phase and results of further studies during the EA phase.

Existing Environment

Previous and current use of the Project area includes forestry activity with cutblocks and active and deactivated forestry management access roads. Cutblocks have been replanted in some areas and plantation trees, mainly dense Lodgepole Pine (*Pinus contorta*), are at various stages of growth. Other uses within the vicinity of the Project area include cattle grazing, recreational use for off-road vehicle use, cross country skiing, hiking, and hunting. Project area administrative and physiographic settings are provided in Table 1. Additional information about the biophysical and socio-economic conditions of the Project area are provided in Section 6.0 and 7.0 of the IPD.

Table 1. Project Area administrative and physiographic setting

Classification	***Description***
Administrative Boundary	
Natural Resource Region	Cariboo
Natural Resource District	100 Mile House
Ministry of Forest Region	Cariboo (western section) Thompson (eastern section)
Major Watershed	Thompson River
Watershed Group	Bonaparte River
Regional District	Thompson-Nicola Regional District
Health Authority Health Service Delivery Area Community Health Service Area/Local Health Area	Interior Health Authority Thompson Cariboo Shuswap 100 Mile House (northern section) South Cariboo (southwest section)
Nearest Municipality	Village of Clinton, BC (10 km) Village of Cache Creek, BC (45 km) District of 100 Mile House, BC (55 km)
Nearest Town or Hamlet	Community of 70 Mile House, BC (17 km)
UTM	10U 613557E 5671282N
Ecosystem Classification	
Ecodomain	Humid Temperate
Ecodivision	Humid Continental Highlands
Ecoprovince	Central Interior
Ecoregion	Fraser Plateau
Ecosection	Cariboo Basin
Biogeoclimatic Zone Subzone Variant	Interior Douglas Fir (IDF) Dry Cool (dk) Fraser (3)
Elevation Range (m)	1050 - 1190

*Source: iMapBC (Province of BC, 2023)

The biogeoclimatic ecosystem classification (BEC) of the Project area is Interior Douglas-fir, within the Dry Cool subzone and Fraser variant (IDFdk3) (Province of BC, 2023). The IDF

is characterized by warm, dry summers, cool winters, and a long growing season. Open to closed, mature forests containing Douglas fir (*Pseudotsuga menziesii*) covers much of the IDF overstory. Lodgepole Pine is a common pioneer species following fire or disturbance at upper elevations. Trembling Aspen (*Populus tremuloides*) is a distributed seral species throughout the zone. The shrub layer generally contains Birch-leaved Spirea (*Spiraea betulifolia*) and Soopolallie (*Shepherdia canadensis*). The herb layer contains Pinegrass (*Calamagrostis rubescens*), Twinflower (*Linnaea borealis*), Heart-leaved Arnica (*Arnica cordifolia*), and Kinnikinic (*Arctostaphylos uva-ursi*), and Showy Aster (*Aster conspicuous*), are common understory shrubs (Meidinger, et. al. 1991).

The mapped watercourses in the vicinity of the Project area consist of a network of unnamed drainages, many likely ephemeral, which collect runoff from the surrounding terrain. The gazetted watercourses which occur outside of the Project area are tributaries to the Bonaparte River system. The mapped watercourses in the vicinity of the Project area have likely been altered or redirected into culverts at road crossings. Further assessments of watercourses will be conducted during the environmental assessment.

Indigenous Interests

Chasm Solar respectfully acknowledges the Project area is within the traditional territory of the Secwépemc nation peoples. The Project area is located within the Cariboo region of the Central Interior BC, within proximity to potentially interested Indigenous nations. Indigenous nations who have been contacted about the Project during the pre-early engagement phase are discussed in Section 5.0 of the IPD.

Chasm Solar is committed to meaningful engagement with Indigenous nations throughout the EA process and the life of the Project. Chasm Solar has identified Indigenous nations who have a potential interest in the Project area or are potentially impacted by Project activities. Chasm Solar has begun reaching out to identified Indigenous nations and is committed to building relationships to understand Indigenous interests in the Project area. The proposed approach to engagement and a summary of communications and engagement with Indigenous nations to date is described in Section 5.0 of the IPD and Appendix 3: Early Engagement Plan. Should other Indigenous nations express an Indigenous interest in the Project during the Early Engagement Phase and are identified by BC EAO or self-identification, Chasm Solar will tailor future engagement to include them.

Potential Project Effects to the Biophysical and Socio-Economic Environment

An overview of potential Project effects to the biophysical and socio-economic environment, based on current design of the Project, are presented in Section 8.0 of the IPD. Solar projects and solar PV technologies and power plants do not produce air emissions or GHG emissions while in operation. Solar projects offer an alternative to generation of power from other energy sources, including fossil fuels, and reduce emissions of carbon dioxide and other GHGs. There are potential environmental and socio-economic effects which could occur from the construction, operations and

maintenance, and decommissioning of the Project. The Project is in the initial design stage and the potential effects of the Project will be further assessed as part of the EA Application process. Potential Project effects and potential mitigation measures are provided in Table 13 of the IPD. The EA will also address specific mitigation measures and plans to avoid, minimize, and mitigate potential effects.

Closing

Through sharing this IPD with BC EAO and Communities of Interest, including Indigenous nations, Chasm Solar is providing an early design-stage overview of the Project. The IPD has been prepared to determine the requirements for review of the Project under the BC EAA and to initiate the Early Engagement Phase of the EA process. The IPD was prepared using the guidance provided in the BC EAO's Early Engagement Policy document (BC EAO, 2019). The IPD has been prepared early in the design process prior to finalization of all Project components and layout to allow for feedback received during the Early Engagement Phase to be considered. In addition, the IPD and the Early Engagement Plan (Appendix 3) are used to initiate the Early Engagement Phase of the BC EA process. The documents will be available for review by Indigenous nations and Communities of Interest to facilitate engagement. At the conclusion of the Early Engagement Phase, BC EAO will provide Chasm Solar with a Summary of Engagement which will be used to support the development of a DPD. The DPD will present a more detailed and refined Project design based on progression of design and considerations of input received during the Early Engagement Phase.

List of Abbreviations and Units

Abbreviation	*Definition*
AC	Alternating current
AIA	Archeological Impact Assessment
AOA	Archeological Overview Assessment
BC	British Columbia
BC CDC	British Columbia Conservation Data Centre
BC EAA	British Columbia *Environmental Assessment Act*
BC EAO	British Columbia Environmental Assessment Office
BC EMLCI	British Columbia Ministry of Energy, Mines and Low Carbon Innovation
BC MFLNRORD	British Columbia Ministry of Forests, Lands, Natural Resource Operations and Rural Development
BC MOE	British Columbia Ministry of Environment
BC MOFOR	British Columbia Ministry of Forests
BCUC	British Columbia Utilities Commission
BC WLRS	British Columbia Ministry of Water, Land and Resource Stewardship
BEC	Biogeoclimatic Ecosystem Classification
BESS	Battery energy storage system
BMP	Best management practice
CCLUP	Cariboo Chilcotin Land Use Plan
Chasm Solar	Chasm BC Solar Project Limited Partnership
COSEWIC	Committee on the Status of Endangered Wildlife in Canada
DC	Direct current
DFO	Fisheries and Oceans Canada
DPD	Detailed Project Description
EA	Environmental Assessment
EMA	*Environmental Management Act*
FRPA	*Forest and Range Practices Act*
FSR	Forest Service Road
GHG	Greenhouse Gas
GHI	Global horizontal irradiance
ha	hectare
HFR	Heritage Field Reconnaissance
IDF	Interior Douglas Fir
IH	Interior Health
IPD	Initial Project Description
kV	kilovolt
LEH	limited entry hunting
MW	Megawatt
MWac	megawatts of AC power
MWp	megawatts-peak
MWh	Megawatt-hours
NDT	Natural Disturbance Type

Abbreviation	***Definition***
NStQ	Northern Secwépemc te Qelmúcw
OGMA	Old Growth Management Area
PFR	Preliminary Field Reconnaissance
POI	Point of interconnection
Project	Chasm Solar and Energy Storage Project
PV	Photo-voltaic
RAAD	Remote Access to Archaeological Data
RISC	Resources Inventory Standards Committee
ROW	Right of way
SARA	*Species at Risk Act*
SCADA	Supervisory control and data acquisition
TNRD	Thompson-Nicola Regional District
UNDRIP	United Nations Declaration on the Rights of Indigenous Peoples
UWR	Ungulate Winter Range
VC	Valued Component
VLI	Visual landscape inventory
Wp	Watts peak
WSA	*Water Sustainability Act*
WSC	Watershed Code

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1.0 Introduction and Purpose

1.1 Introduction

Chasm BC Solar Project Limited Partnership ("Chasm Solar") proposes to develop the Chasm Solar and Energy Storage Project (the "Project") for the purposes of producing clean renewable solar energy in the Cariboo region of Central Interior British Columbia (BC). Chasm Solar proposes to construct, operate, and maintain the Project. The Project is anticipated to include approximately 100 megawatts of alternating current (AC) power (MWac) generation capacity and would consist of installation of solar photo-voltaic (PV) modules, battery storage system, overhead transmission lines to connect the solar array to an existing BC Hydro transmission line, and upgrades to existing or construction of access roads. The current proposed Project area is approximately 205 hectares (ha).

1.2 Purpose

The purpose of this Initial Project Description (IPD) is to provide general information on the proposed Project to the British Columbia Environmental Assessment Office ("BC EAO") and Communities of Interest, including Indigenous nations, to understand the Project and provide feedback to Chasm Solar. It has also been prepared to determine the requirements for review of the Project under the BC *Environmental Assessment Act* ("BC EAA") and to initiate the environmental assessment process. The IPD was prepared using the guidance provided in the BC EAO's Early Engagement Policy document (BC EAO, 2019). The IPD has been prepared early in the design process prior to finalization of all Project components and layout to allow for feedback. In addition, the IPD and the Early Engagement Plan (Appendix 3) are used to initiate the Early Engagement Phase of the BC environmental assessment process. The documents will be available for review by Indigenous nations and other Communities of Interest including organizations, interest groups, the public, government and regulatory agencies, and other stakeholders to facilitate engagement. Feedback received during the Early Engagement Phase will be used to support the development of a Detailed Project Description (DPD) to inform the Environmental Assessment Readiness Decision.

2.0 Proponent Information

2.1 Key Proponent Contacts

Chasm BC Solar Project Limited Partnership ("Chasm Solar") proposes to develop, construct, and operate the Chasm Solar and Energy Storage Project (the "Project") for the purposes of producing clean renewable solar energy in the Cariboo region of Central Interior BC. Chasm Solar is a subsidiary of Recurrent Energy. Chasm Solar has an Agreement-in-Principle with the High Bar First Nation, whose designated representative will form part of the Chasm Solar Project team.

Chasm BC Solar Project Limited Partnership contact information:

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98 San Jacinto Blvd. Suite 750
Austin, TX 78701

Attention: Mr. David Marieno; Manager – Development
Email: chasmsolar@recurrentenergy.com

Attention: Mr. Riley Griffin; Manager - Permitting
Email: chasmsolar@recurrentenergy.com
Phone: 226-821-1045

2.2 Environmental Consultant Information

Chasm Solar retained Triton Environmental Consultants Ltd. ("Triton") to prepare the IPD and provide support during the Early Engagement Phase for the Project.

Triton contact information:

Triton Environmental Consultants Ltd.
#1- 4600 29th Street
Vernon, BC
V1T 5B9

Attention: Ms. Kellen Smith; Project Manager
Email: chasm.engagement@triton-env.com

3.0 General Project Information

3.1 Project Sector and Type

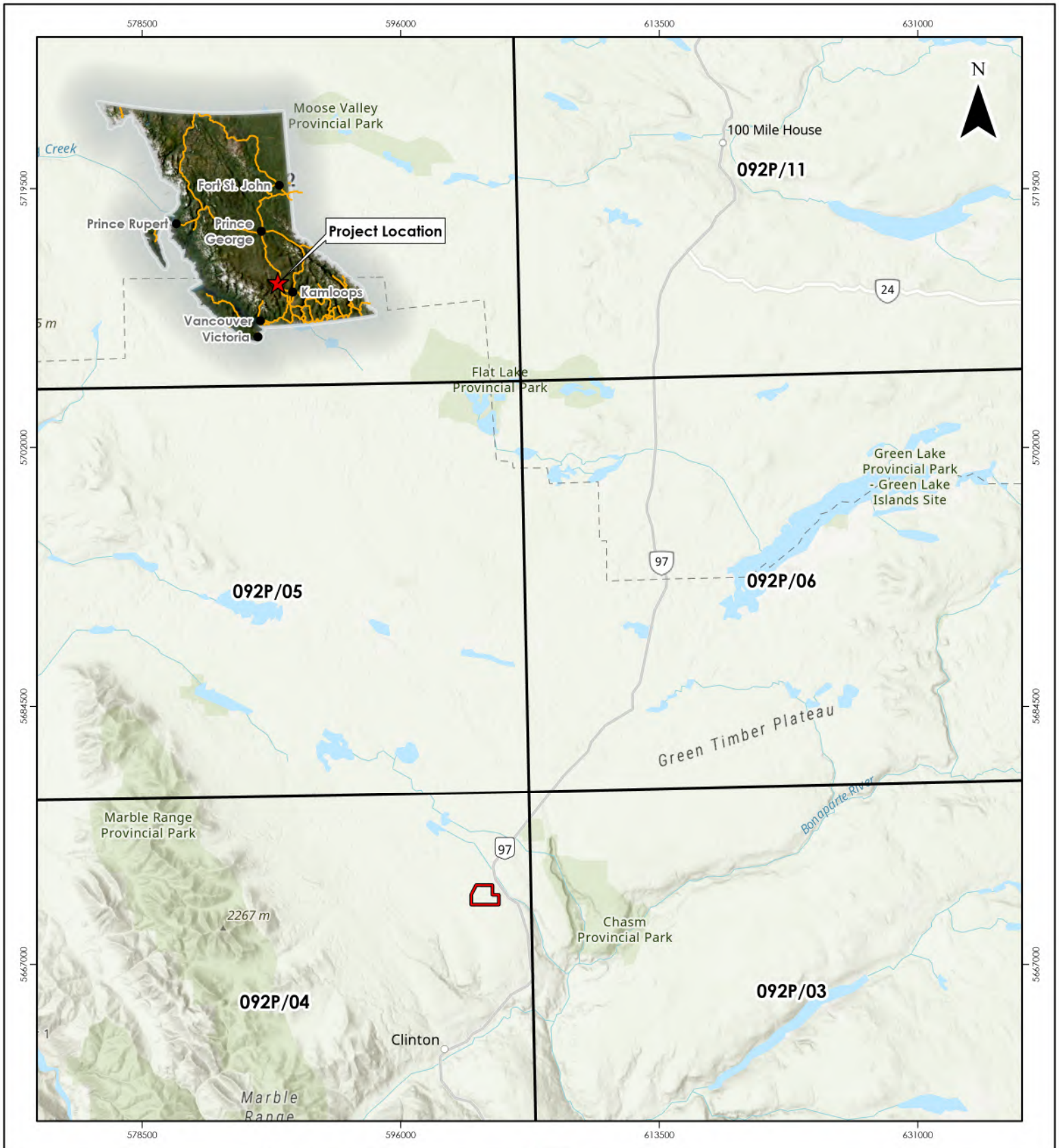
The Project sector is clean power generation using solar PV modules. PV panels convert light to electrical energy via the photovoltaic effect. The Project will also include a battery energy storage system (BESS).

3.2 Project Location

Chasm Solar respectfully acknowledges the proposed Project is located within the traditional territory of the Secwépemc Nation peoples. The Project is located on Crown land in the Central Interior of BC approximately 10 km north of Clinton and 55 km south of 100 Mile House, BC, within the boundaries of the Thompson-Nicola Regional District (TNRD) (Figure 1). More specifically, the "Project area" is within the boundaries of a BC Crown land Solar Investigative Licence and Licence of Occupation (BC Investigative License 516729, File No. 5407953) which provides Chasm Solar the opportunity to undertake necessary studies to determine the engineering, technical, economic, and environmental viability of the Project (Figure 1). The land area within the boundaries of the Licence of Occupation tenure area is approximately 3,125 ha. The current proposed layout and development area currently being studied by Chasm Solar (or "Project area") consists of approximately 205 ha which represents roughly 7% of the Investigative Licence tenured area.

3.2.1 Access

The proposed Project layout area occurs west of Highway 97. The Project area can be accessed from the south via Big Bar Road, travelling west from Highway 97. Some parts of the area have been previously logged, and several deactivated and unmaintained forest service roads (FSRs) exist within the Project footprint. In addition, there is an abandoned sawmill site previously operated by West Fraser Timber situated east of the Project area. To the extent practicable, existing access roads will be used and may be upgraded if necessary to enable their use for construction and potentially during typical maintenance and operation activities. Reasonable and safe access to the Project site will be required for the construction, operations and maintenance, and decommissioning phases of the Project. Existing conditions of FSRs, trails, or other access routes may not be suitable for reasonable and safe delivery of construction equipment and materials. The Project will assess access routes to access the site and will determine if the preferred access route will require upgrades or improvements. Public access to the FSRs by the general public will not be hindered by the Project.



Chasm Solar and Energy Storage Project

Figure 1.
General Project Location

Sources and Disclaimer

1. Base map Source: Esri Base Maps
2. Base Data Source: BC Data Catalogue (https://catalogue.data.gov.bc.ca)
3. Disclaimer: This map is a visual aid only to be used together with the accompanying report, including and incorporating any disclaimer contained therein. This map has been prepared to illustrate the results of Triton Environmental Consultants Ltd. work, and is not intended to be used for navigational purposes. Information displayed on this map is based, in whole or in part, on geographic information that may have been provided by third parties, including government data. Triton Environmental Consultants Ltd. disclaims (without limiting the generality of the foregoing) all responsibility for the accuracy of any such third party information, regardless of the source.

Prepared By: GF | **Reviewed By:** SH

Project Location

Project No: 11567
Date: May 03, 2023
Revision No: 02
Projection: UTM Zone 10 (NAD 1983)

km
0 3 6 9
Scale: 1:350,000

TRITON Environmental Consultants

File Path: G:\1.0 Projects\11567-Canadian Solar Chasm Solar\11567-Canadian Solar Chasm Solar.aprx

3.3 Project Purpose and Rationale

The purpose of the Project includes:

- Generation of a low-cost and greenhouse gas (GHG)-free, reliable, clean and renewable power source to help increase energy security by increasing the diversity of BC's energy supply mix by adding solar to the current hydro-dominated system, especially during drought conditions.
- Help BC meet its climate goals and commitments including GHG reduction goals.
- Advance the BC government's reconciliation objectives with Indigenous nations by creating economic and employment opportunities for regional Indigenous nations and rural communities.
- Supporting BC Hydro's June 15, 2023 news release that states the intent to procure new sources of renewable and emission-free electricity to power BC. Electricity demand is expected to increase by 15% between now and 2030, the news release states.

The Project rationale is compliant with the BC *Clean Energy Act*, which among other things, specifies that the province is to achieve electricity self-sufficiency with the goal of generating at least 93% of the electricity in BC from clean or renewable resources and build the infrastructure necessary to transmit that electricity. The BC *Clean Energy Act* further states that power development should encourage economic development and the creation and retention of jobs and foster the development of Indigenous nations and rural communities through the use and development of clean or renewable resources.

3.4 Potential Project Benefits

Potential benefits of the Project include, but are not limited to, the following:

- Solar uniquely provides diversity of supply to the BC system in the event of drought conditions which may impact hydro generation, which currently produces 85% of BC's electricity.
- The Project will provide economic benefits to Indigenous nations including equity ownership opportunities, employment and training opportunities, and procurements opportunities.
- The Project will assist BC's plans to increase electrification and meet climate commitments including generating at least 93% of electricity from clean or renewable sources and creating jobs to foster development of Indigenous nations and rural communities through the use and development of clean energy.
- The Project represents a significant investment in new BC clean energy infrastructure for the benefit of all British Columbians.
- The Project could provide proof of BC Hydro's expectation that "*utility-scale batteries can provide short-term storage and shift output from renewables (such as solar power) into periods with more demand.*" The Project responds directly to BC Hydro's Integrated Resource Plan Signposts Update where it states: "*Advance*

utility-scale batteries to enable BC Hydro to achieve approximately 50 MW of additional capacity as early as F2027 and up to 500 MW of additional capacity by F2030."

- The Project and its BESS will allow electricity to be made available every day of the year, in contrast to generation projects powered by intermittent resources such as wind and hydroelectric power generation.
- The Project and its BESS will supply dependable clean electricity to the BC system in both daylight and dark hours to serve electricity demand for residential and industrial users in the region, including mining and the compression and pumping of pipeline fuels.
- The Project's solar and BESS will extend the Project's solar daylight electricity generation hours and provide power for use during dark hours or for emergency purposes.
- Solar power is summer peaking and will provide the BC system with complementary generation to that provided by winter peaking wind power projects. Solar generation in late summer can also mitigate late summer drought constraints that impact some hydro generation plants.
- The Project will improve the reliability of local electricity service in the event of potential disruptions of transmission lines from wildfires, floods, landslides, and other natural disasters.
- The Project provides an optimal use of the disturbed land to assist BC to meet its climate goals.
- The Project will create construction jobs and long-term career opportunities in clean energy.
- The Project will pay Crown land lease payments and will contribute to the regional and provincial tax base.
- The Project will have a low visual profile and no discernible sound emissions outside of the Project boundaries.

The summer peaking energy profile of the proposed Project will help the BC system cope with summer drought conditions. Recent BC extreme drought is creating water flow constraints for many small and large hydroelectric generation plants. In addition, the summer seasonal peaking profile of solar generation is complementary to the winter seasonal peaking profiles of wind power, enhancing the energy security of BC. A BESS can extend power deliveries into dark hours to help serve evening peak loads or for emergency use. When AC is connected, the BESS can discharge into the BC grid during next day high load hours, including the extreme winter loads experienced by BC Hydro.

Further, the solar Project if built could provide Project ownership and other economic and capacity building benefits and opportunities to Indigenous nations. Additional opportunities could include potential employment or procurement opportunities during construction, operation and maintenance, and decommissioning and reclamation phases of the Project. Those opportunities will be greater defined through the

engagement process. The Project may provide a setting for research opportunities in clean technology and energy storage technologies to Central Interior technical and educational institutions. Economically, the Project will provide employment, contractor supply services, and stimulation of local businesses. It will also provide government revenues in the form of regional district, provincial, and federal taxes and other benefits.

3.5 Project Status

3.5.1 Project History

This is a new project and there are no previous proposals for the project. The Project was first proposed by BC corporation and solar power developer Sunfield Energy Inc. ("Sunfield") in 2018 as a potential utility-scale solar development site. An application was submitted to FrontCounterBC on June 19, 2019 for a solar Investigative License to undertake feasibility studies in the area. After a period of consultation and review for land use conflicts, the Ministry of Forests, Lands, Natural Resource Operations and Rural Development (MFLNRORD), notified Sunfield the application was accepted for processing, and posted development plans and maps for public comment and referral notices for comment to impacted Indigenous nations, Regional Districts, and other stakeholders. Early information on the proposed Project was provided to the High Bar First Nation, the Stswecem'c Xget'tem First Nation, and the Whispering Pines/Clinton Indian Band.

At the end of the public comment and referral processes, MFLNRORD approved an Investigative Licence on December 8, 2020. The Investigative Licence Tenure has since been assigned to and assumed by the Chasm BC Solar Project Limited Partnership.

3.5.2 Existing Permits or Tenures

BC Investigative License No.: 516729. The Investigative Licence area includes unsurveyed Crown land in the vicinity of District Lot 4719, Lillooet District. The area within the boundaries of the Investigative Licence is approximately 3125.858 ha. The total Project footprint or "Project area" (area that will be disturbed from the proposed layout of infrastructure) will be less than the investigative area. At this time, the proposed Project area is approximately 205 ha, or 7% of the overall investigative area. An accurate calculation of the total footprint will be finalized during the design phases and based on results of the engagement and EA processes.

3.6 Project Components and Related/Dependant Projects

The current proposed boundaries of the Project area are shown on Figure 2. The layout areas will be enclosed by fencelines which are represented by the boundaries on Figure 2. The total Project area within the boundaries is approximately 205 ha (area of disturbance). Design of and siting of Project components are in the preliminary design stages and will be further refined as the Project is developed. Further, Chasm Solar will gather and incorporate feedback received on the information, including Project components, provided in the IPD. The Project is expected to include approximately 100

MWac generation capacity (subject to results of the BC Hydro Interconnection study). While components are subject to change through the Project design and engagement process, it is currently expected that the system may utilize some or all the following onsite and offsite components:

- The installation of a system of solar PV modules. Each module has the potential of generating approximately 695 Watt Peak (Wp) with a total Project rated AC capacity of approximately 100 MWac. The PV modules are mounted above ground on a steel single-axis tracking system array supported by steel piles, or similar alternatives, driven into the ground. The automatic tracking system slowly tilts the module array from east to west to follow the daily solar path and achieve maximum solar exposure on module faces.
- Electrical collection conductor lines connect the modules in series. Each array in turn is connected to one of the inverter transformers which are rated at 4.2 MWac.
- The inverters convert direct current (DC) power to AC and transfer the power optionally to either or both the Project BESS or the Project power conversion station and substation. The Project battery storage system may be optionally charged and discharged in either DC or AC power, depending on final design and configuration. Excess power generated by the Project module arrays in DC current during peak daily hours is clipped by the inverters and sent to the energy storage battery, improving the real time energy profile constantly feeding the BC system while storing excess energy for later discharge to serve peak evening or nighttime load hours.
- The Project power conversion station and substation (proposed to be co-located in an area approximately 100 m x 100 m) converts power from 34.5 kilo volt (kV) to 230 kV and connects the Project to the existing BC transmission system by overhead feeder conductors tapped into 230 kV transmission lines located on the Project site. Clean electricity generated by the Project in daylight hours, or discharged by the Project storage battery in dark hours, is then injected into the BC transmission system.

Additional Project components and infrastructure could include the following:

- Overhead and underground electrical cables and fibre optic cables (length unknown at this time);
- Transmission right of way (ROW) – based on current Project assumptions, anticipated footprint of the permanent transmission ROW will be approximately 250 m in length by 40 m in width (area of the ROW is not accounted for in the estimated 205 ha of the "Project area");
- High or Medium voltage transmission line(s) to connect the Project to the BC Hydro 230 kV transmission corridor which is located approximately 250 m west of the Project area (point of interconnection [POI]) to be confirmed;
- Existing access roads will be used to the maximum extent practicable and upgraded as needed. Upgrades to existing access roads, onsite connector roads

and water crossings, and the development of new access roads, onsite connector roads, and water crossings to Project-related components;

- A permanent building (and parking area), for storage of Project spare components and office space for operations staff;
- Project fencing for safety and security;
- Permanent solar meteorological sensors;
- Potential fireguard around the layout area;
- Facility lighting for safety and security; and
- Temporary construction laydown areas for Project components and parking, , temporary buildings, and associated facilities.

There are no other dependent projects that are needed for the proposed Project to proceed. The Project is a single and complete project with a single construction phase and no other dependent projects. Layout of Project components are considered preliminary at this stage. Configuration could change based on results of engagement and feedback obtained during the Early Engagement phase and results of further studies during the environmental assessment.

Typical installation of PV modules.

Typical solar array and BESS.

3.6.1 Construction Materials and Transport

Construction equipment, materials, and supplies are anticipated to be transported to site by truck and tractor trailers from local regional centers. The preferred access to the Project area would be via Highway 97 and onto High Bar Rd

The Project will assess potential impacts to public roads and road upgrades, as is appropriate, to facilitate the safe and efficient delivery of equipment and materials to site. This may include, but not limited to, geotechnical investigations of the roads to determine their suitability to accept deliveries, or to determine the extent of road upgrades required to make them suitable. These efforts are anticipated to occur prior, or one of the first steps in, the detailed design so that the results can be incorporated into the final Project design.

It is anticipated that construction contractors and the Project owner will collaborate so that deliveries are done safely and efficiently. Initial collaborations will occur as the Project advances to the detailed design and construction contracting phase.

3.7 Project Alternatives

3.7.1 Site Selection

Chasm Solar considered multiple potential sites for development of a solar field in the Central Interior region of BC. The Project area, among other criteria, was selected based on existing land use and characteristics and to minimize potential impacts to the environment. Additional selection criteria used to select the Project area as a potential solar site included:

- The location within BC's highest solar irradiance zone within the Central Interior region;
- The relatively flat topography within complex and elevated terrains;
- The general lack of material shading from terrains to the east, west, and south;
- The accessibility to the site and proximity to transmission infrastructure;
- The current use of the area as Crown land and its disturbed state from activities in the area (e.g., cutblocks, FSRs, etc.);
- The proximity of the Project to growing electric loads; and
- Confirmation of commercial global horizontal irradiance (GHI) values by long term satellite observation showing the site to have similar GHI values to Alberta solar projects proposed or under construction.

The Project is in the design stage and design, or siting constraints of Project components are not entirely understood at this time. Additional alternative analysis for siting of infrastructure within the overall Project area will be conducted during the engagement process for inclusion with the DPD and further during the environmental assessment process. Chasm Solar will seek to further understand existing conditions of the Project

area including the biophysical, socio-economic, and human environment and culturally sensitives areas to evaluate and determine the best available technological and engineering alternatives to employ during all phases of the Project. Initial analyses of the Project site indicate that it is a suitable location for a solar project from a technical and economic feasibility standpoint. The site is in an area of relatively good solar irradiance and the topography will allow for the successful technical execution of all Project phases. Chasm Solar will evaluate available technological means and best management practices during design and siting of Project infrastructure to avoid, minimize, and mitigate for unavoidable Project impacts. A full alternative analysis will be conducted during the EA phase to avoid significant features or sensitive areas.

At this time, the proposed Project area is approximately 7% of the total area within the Investigative License. If it is constructive to do so, the Project footprint could be adjusted within the existing Investigative License to avoid or mitigate potential impacts. Further, the Project has yet to reach the detailed design stage and so the locations of permanent infrastructure (i.e.: access roads, solar arrays, inverters, etc.) do have some flexibility when it comes to siting. Further investigation and site specific detail is required prior to making any adjustment.

Solar panels will be secured to a ballast that "tracks" the sun. The ballast will rotate, from east to west, to achieve maximum solar energy electricity generation. As a result, there is limited to no flexibility in adjusting the orientation of solar arrays or how the ballast rotates to track the sun.

Chasm BC Solar Limited Project Partnership was formed for the sole purpose of developing a solar energy generation and battery energy storage system project. Further, the proposed Project will assist BC Hydro in achieving its goal outlined in the June 15, 2023 news release. The news release states their intent to procure new sources of renewable and emission-free electricity to power BC.

3.7.2 No-Build Alternative

The no-build alternative assumes the Project will not be built. This alternative serves as a baseline for comparison with the other Project alternatives. It is assumed the Project area would remain in similar condition to the current state. The no-build alternative does not eliminate the potential for use of the site by others.

3.7.3 Transmission Route Alternatives

The Project will connect to an existing BC Hydro 230 kV transmission line located approximately 250 m west of the Project area. The target POI is approximately 250 m west of the Project area. Potential transmission routes and the POI are currently being considered by Chasm Solar to connect the Project to the BC Hydro transmission line. Potential routes require further study taking into consideration feasibility from engineering, environmental, and economic perspectives, as well as input received during the Early Engagement Phase. The suitability of the POI area at the BC Hydro transmission line will also be taken into consideration.

3.8 Project Phases and Activities

The Project includes three main phases: construction, operations and maintenance, and decommissioning.

3.8.1 Construction

Construction of the Project is proposed to begin in Q4 2026 and last for approximately one year, ending with Project commissioning in Q4 2027. Construction will not begin until all necessary permits and approvals have been received. Construction is anticipated to support approximately 160 construction jobs. The only known seasonal timing constraints on construction of the Project are those related to potential pre-construction best management practices (e.g., avoiding clearing vegetation during nesting season, adhering to instream timing windows) and any pauses in construction due to inclement weather. Construction activities will include:

- Vegetation clearing and site preparation;
- Access road upgrading and construction if necessary;
- Vegetation clearing and site preparation for the lay down areas and storage activities;
- Construction of surface and storm water management and erosion control measures, including drainage ditches;
- Construction of foundation and pile driving structure supports;
- Installation of solar modules on structure supports;
- Trenching and placement of underground collector cables;
- Construction of utility ROW and overhead transmission line;
- Construction of substation and operations centre; and
- Project commissioning including acceptance and performance testing.

3.8.2 Operations and Maintenance

The operational phase of the Project will include the operation of the solar modules and BESS(s) for the transfer and storage of energy and maintenance of infrastructure. The Project is expected to operate for 40 years. Long term operations and maintenance of the Project are anticipated to support approximately four full time technicians.

3.8.3 Decommissioning

The Project is expected to operate for 40 years. Decommissioning is proposed to occur over a one year period at the end of the 40 year useful life of the Project. A reclamation plan would be developed prior to Project decommissioning. Decommissioning and reclamation could potentially include decommissioning of the facility and infrastructure, decommissioning and reclamation of roads, removal of watercourse crossing structures, restoration of riparian areas, and re-vegetation of affected areas with appropriate

vegetation species. Following decommissioning, site reclamation, including the potential establishment of permanent vegetation on the Project site, will be as per applicable regulations and agreements and will be incorporated into the construction execution (e.g., Construction Environmental Management Plan, or similar).

3.9 Water Use

Water requirements will vary during the construction, operations and maintenance, and decommissioning phases of the Project. During construction water will be used for dust suppression as necessary on dirt FSRs, stockpiles, and disturbed or exposed work areas, and the irrigation of establishing vegetation, as necessary. Water will be used during operation and maintenance activities to support cleaning activities as well as potential onsite plumbing and septic as necessary. The source of water has not been determined at this time. Water could potentially be trucked in and stored onsite in tanks, groundwater wells could be drilled to access water, or water could be drawn from a source in the Project area. Any necessary permits for water use would be acquired prior to use.

4.0 Legislative and Regulatory Framework

This section of the IPD includes a discussion of thresholds for an EA under the BC EAA, relevant provincial and federal acts and regulations, permits and approvals that could potentially be required for the Project, and how the Project aligns with other applicable government policies and strategies.

4.1 Regulatory Context

4.1.1 BC Environmental Assessment Act

According to Part 4(12) and Table 7 of the *Reviewable Projects Regulation* (BC Reg. 67/2020), proposed electricity projects are reviewable under the BC EAA if:

- It is a new power plant with a total nameplate capacity of greater than 50 MW, which is the requirement for a reviewable project as per the BC EAA Reviewable Projects Regulation

It is anticipated Chasm Solar will be required to prepare an Application for an EA Certificate (Application) for submission to the BC EAO. The Application will be reviewed by Communities of Interest including Indigenous nations; local, provincial, and federal regulatory agencies; local governments, and public stakeholders including tenure holders. The Application will include a detailed description of baseline conditions and Valued Components (VCs) in the Project area, an assessment of likely adverse environmental effects, identification of applicable mitigation and compensation measures, and a description of regulatory agency, Indigenous nations, and stakeholder engagement programs and their outcomes.

4.1.2 Canada Impact Assessment Act

The federal *Impact Assessment Act* (SC2019, c.28, s.1) outlines a process for assessing potential impacts on major projects and projects carried out on lands within federal jurisdiction, lands outside of Canada, or on types of activities considered designated projects. It is anticipated the Project will not require review under the federal *Impact Assessment Act* for the following reasons:

- The Project is proposed on BC Crown land and is not on lands within federal jurisdiction or lands outside of Canada.
- Solar facilities do not meet the definition of a "designated project" in Section 2 of the *Impact Assessment Act* as they are not listed as a "designated physical activity" in accordance with the *Physical Activities Regulations* (SOR/2019-285), pursuant to sections 109 and 188 of the *Impact Assessment Act.*

4.2 Relevant Provincial and Federal Acts/Regulations

Several provincial and federal legislative acts and regulations could potentially be applicable to construction activities to be carried out during the duration of the Project and are provided in Table 1 and detailed in the following sections.

Table 1. Relevant environmental legislation

Provincial	*Federal*
Environmental Assessment Act	*Species at Risk Act*
Water Sustainability Act	*Migratory Bird Convention Act*
Wildlife Act	*Fisheries Act*
Weed Control Act	
Environmental Management Act	
Heritage Conservation Act	
Clean Energy Act	
Forest and Range Practices Act	
Land Act	
Utilities Commission Act	
Drinking Water Protection Act	
Public Health Act	

4.3 Provincial Acts and Regulations

4.3.1 Water Sustainability Act

The BC *Water Sustainability Act* (WSA) (2016) is a provincial statute which established a framework for managing water and water resources in British Columbia. Under Section 11 of the WSA, any proposed changes in and about a stream can only take place after a Change Approval or Notification has been submitted and approved by the Ministry of Water, Lands and Resource Stewardship (WLRS). The habitat officer in each region sets the terms and conditions for work in and about a stream in accordance with Section 44 of the WSA. Instream works in each region is generally restricted to specific times of year when work may be carried out with the lowest risk to fish species, or general timing windows. Section 10 of the WSA lays out requirements for diversion and use of water from a stream or aquifer.

4.3.2 Wildlife Act

The BC *Wildlife Act* (1996) provides for the conservation and management of wildlife and wildlife habitats and protects most vertebrate animals from direct harm or harassment except as allowed by regulation. Section 34 of the *Wildlife Act* prohibits possessing, taking, or destroying a bird or its egg or a nest when the nest is occupied by a bird or its eggs or the nest (occupied or otherwise) of an eagle, Peregrine Falcon (*Falco peregrinus*), Gyrfalcon (*Falco rusticolus*), Osprey (*Pandion haliaetus*), heron, or Burrowing Owl (*Athene cunicularia*). Section 29 of the *Wildlife Act* prohibits the capture of wildlife. Wildlife salvage, or removal of wildlife from a project area for protection, requires a salvage permit under the *Wildlife Act*.

4.3.3 Weed Control Act

The BC *Weed Control Act* (1996) designates a list of invasive plants as "noxious weeds" and legislates property owners, private companies, utility companies, regional districts and municipalities, and provincial government agencies or anyone in possession of land to control and manage these species. The *Weed Control Act* currently designates 40 plant species as noxious within all regions of the province.

4.3.4 Environmental Management Act

The BC *Environmental Management Act* (EMA) (2003) regulates industrial and municipal waste discharge, pollution, hazardous waste, and contaminated site remediation. It provides a framework for authorization to introduce wastes into the environment, while protecting public health and the environment. The Spill Reporting Regulations of the EMA establish a protocol for reporting the unauthorized release of substances into the environment and details reportable amounts for certain substances.

4.3.5 Heritage Conservation Act

The purpose of the BC *Heritage Conservation Act* (1996) is to encourage and facilitate the protection and conservation of heritage property in BC. The minister develops and maintains the Provincial heritage register and records Provincial heritage sites and objects including sites and objects of cultural value to Indigenous peoples, paleontological resources (fossils), and historical places. Archeological sites refer to places with physical evidence of human occupation or use, with a focus on sites that are protected under the *Heritage Conservation Act*.

4.3.6 Clean Energy Act

The BC *Clean Energy Act* (2010) outlines BC's provincial energy objectives to achieve electricity self-sufficiency by providing a framework to meet specified emissions-reduction targets by creating incentives for the reduction of GHG emissions through the implementation of various measures.

4.3.7 Forest and Range Practices Act

The BC *Forest and Range Practices Act* (FRPA) (2002) governs forest and range activities on public lands in BC during forest planning, road building, timber harvesting, reforestation, and livestock grazing activities. Formal legal establishment of ungulate winter range (UWR) and associated objectives were established under the FRPA.

4.3.8 Land Act

The BC *Land Act* (1996) is the primary article of legislation that is used by the government of BC to convey land to the public for community, industrial, and business use. The act allows for granting of land and the issuance of Crown land tenure in the form of leases, licences, permits, and rights-of-way.

4.3.9 Utilities Commission Act

The BC *Utilities Commission Act* (1996) governs the British Columbia Utilities Commission (BCUC). The BCUC is an independent agency of the Government of BC which is responsible for regulating rates and standards of BC's natural gas and electricity utilities.

4.3.10 Drinking Water Protection Act

The BC *Drinking Water Protection Act* (2001) and the Drinking Water Protection Regulation covers all water systems other than single-family dwellings and systems excluded from the regulation. The act sets out certain requirements for drinking water operators and supplies to ensure provision of safe drinking water to users. The act helps ensure people of BC have safe and potable drinking water.

4.3.11 Public Health Act

The BC *Public Health Act* (2009) supports dealing with current and emerging public health issues. The *Public Health Act* works in connection with the *Drinking Water Protection Act*.

4.4 Federal Acts and Regulations

4.4.1 Fisheries Act

The *Fisheries Act* (2019) provides protection for fish, fish habitat, and water quality and is administered by the Department of Fisheries and Oceans (DFO) and Environment and Climate Change Canada. Section 35 of the Act prohibits serious harm (death of fish or any permanent alteration to, or destruction of, fish habitat) to fish unless Authorized by DFO. Fish habitat includes spawning grounds and nursery, rearing, food supply, and migration areas on which fish depend directly or indirectly to carry out life processes. A Request for Review under the *Fisheries Act* could be required if any proposed works do not follow DFO's standards and code of practice and have the potential to harm fish or fish habitat.

4.4.2 Species at Risk Act

The *Species at Risk Act* (2002) SARA) prohibits the killing, harming, harassing, capturing, or taking of species at risk, or damaging or destroying the residence of one or more individuals; or destruction of critical habitat of a listed species. Critical habitat is generally defined as habitat required for the survival or recovery of a listed species or population. Environment and Climate Change Canada (ECCC) defines and maintains critical habitat areas. SARA established the Committee on the Status of Endangered Wildlife in Canada (COSEWIC) as an independent body of experts responsible for assessing and identifying species at risk.

4.4.3 Migratory Birds Convention Act

The *Migratory Birds Convention Act* (1994) restricts the disturbance or destruction of migratory birds and their nests, eggs, and shelters, except in accordance with a permit.

As previously mentioned, provincial general least risk windows for bird species are designed to avoid the nesting period, which is considered April 15 to August 30 for most species in the Cariboo Region (ECCC, 2023).

4.5 Potential Permits, Approvals, and Authorizations

A summary of key permits, approvals, or authorizations which could potentially be required for the Project as currently understood is provided in Table 2. Additional permits, approvals, or authorizations could be required by government agencies, local governments, or Indigenous nations and additional information on requirements will be sought during the engagement phase. Chasm Solar will consult with regulatory agencies, regional districts, and Indigenous nations to identify requirements and prepare applications for submission. Chasm Solar will develop a Permitting Plan in collaboration with the relevant agencies which will be submitted as part of the DPD for the Project.

Table 2. Potential permits, approvals, or authorizations

Regulatory Agency	*Related Act/Regulation*	*Project Component or Activity*	*Permit, Approval, Authorization*	*Trigger*
Archeology Branch	*Heritage Conservation Act*	Alteration, recovery, or destruction of archeological sites, heritage resources or sites, or paleontological resources.	Heritage Inspection Permit, Site Alteration Permits	Archaeological inventories prior to site disturbance
Ministry of Water, Land and Resource Stewardship (MWLRS)	*Water Sustainability Act*	Works in or in proximity to a watercourse.	Changes In and About a Stream Notification or Approval	Proposed works that occur in or in proximity to a watercourse (e.g., installation of culverts or watercourse crossings).
	Water Sustainability Act	Water for construction, operations, and maintenance activities.	Water licence	Diversion, storage, or use of specific quantities of water for one or more water use purposes.
Ministry of Forests (MOF)	*Land Act*	Use and occupation of Crown land. Use of roads on Crown land.	General Area Licence of Occupation Road Use Permits	Primary authorization to occupy Crown land. Authorization to use public roads.
	Wildlife Act	Works in or in proximity to wildlife habitat	General Wildlife Permit	Permit for sampling for or salvage of individuals if works are proposed in proximity to wildlife habitat

Regulatory Agency	***Related Act/Regulation***	***Project Component or Activity***	***Permit, Approval, Authorization***	***Trigger***
		(e.g., amphibian habitat).		and any wildlife (e.g., amphibians) that require relocation prior to works.
	Forest Act *Land Act* *Licence to Cut Regulation*	Timber/vegetation clearing during construction or maintenance.	Occupant Licence to Cut	Clearing of timber prior to installation of solar modules and access road maintenance/construction.
Ministry of Transportation and Infrastructure (MOTI)	*Transportation Act*	Upgrades or construction of new access roads	Industrial Access Permit	Permit for use of or construction of new roads that join onto roads controlled by MOTI if applicable.
Ministry of Environment and Climate Change Strategy	*Environmental Management Act*	Generation of any waste during construction or operations (e.g., domestic waste)	Waste Discharge Permit	Disposal of office and onsite waste (e.g., domestic waste)
Interior Health	*Drinking Water Protection Act*	Onsite drinking water system (if required)	Source approval and Permit to Operate	Installation and use of a drinking water system.
	Public Health Act	Onsite sewerage system (if required)	Permit in compliance with the Sewerage System Regulation	Onsite sewer system if required.
Fisheries and Oceans Canada (DFO)	*Fisheries Act*	Works in or around fishery habitat.	Request for Project Review	Works near water which do not follow DFO's standards and codes of practice.

4.6 Land Use Plans

4.6.1 Cariboo Chilcotin Land Use Plan

The Cariboo Chilcotin Land Use Plan (CCLUP) was announced by the BC government in 1994 and establishes the long-term balance of environment and economy in the Cariboo-Chilcotin region including the 100 Mile House, Quesnel, and Cariboo-Chilcotin Natural Resource Districts.

4.6.2 Zoning

Lands associated with the Project area are zoned RL–1 (Rural Zone) under the TNRD Zoning Bylaw No. 2400. Principal uses permitted in RL-1 include single family dwellings,

agricultural or horticultural use, forestry practice use, processing of aggregate materials, and open land recreation. The Project area is not used for agricultural purposes and the Project area is not within the Agricultural Land Reserve. Zoning may need to be amended as a solar PV power generation facility is likely a new land use in the TNRD. Zoning requirements or potential permits from TNRD will be determined through discussions about the Project with TNRD.

4.6.3 Old Growth Management Areas

A search of the provincial iMapBC online database was conducted to identify Old Growth Management Areas (OGMAs) that overlap with the Project area (Province of BC, 2023). OGMAs are areas that are recommended for legal designation to maintain existing old forest and retain associated values such as wildlife and cultural uses (Province of BC, 2023). The Project area does not overlap with any legal OGMAs. Eight legal Old OGMAs (Provincial IDs CAR_RCA_8584, CAR_RCA_8607, CAR_RCA_8610, CAR_CRA_8601, CAR_RCA_8599, CAR_RCA_8585, CAR_RCA_8615, CAR_RCA_8591) are in the vicinity (within 2 km) of the Project area.

4.6.4 Old Growth Deferral Areas

BC MOF is working in partnership with Indigenous nations to defer logging activity within 2.6 million hectares of BC most at-risk old growth forests (BC MOF, 2023). There are old growth mapped areas within and around the Project area (see Section **Error! Reference s ource not found.**).

4.7 Indigenous Nations Agreements, Protocols, and Policies

Agreements that will potentially facilitate meaningful engagement between the Government of BC and Indigenous nations and other policies include the following:

- High Bar Forest Consultation and Revenue Sharing Amendment Agreement – 2022.
- Neskonlith Forest Consultation and Revenue Sharing Agreement – 2019.
- Stswecem'c Xget'tem First Nation Umbrella Agreement – 2022.
- Canoe Creek (Stswecem'c Xget'tem) Incremental Treaty Agreement – 2016.
- Stswecem'c Xget'tem Forest and Range Consultation and Revenue Sharing Agreement – 2023.
- Whispering Pines Forest Consultation and Revenue Sharing Agreement – 2021.
- NStQ Yecweminul'ecw Land and Resource G2G Amending Agreement – 2021.
- NStQ Yecweminul'ecw Government-to Government Agreement – 2018.

Additional protocols, permits, or policies could be shared with Chasm Solar during the Early Engagement Phase.

4.8 Government of BC Policies and Strategies

The following sections identify relevant government policies and strategies. No relevant government policies and/or strategies that the Project may not be compatible with have been identified.

4.8.1 Thompson-Nicola Regional District Regional Growth Strategy (Bylaw 2409)

The TNRD Regional Growth Strategy (Bylaw 2409) (TNRD, 2013) provides a framework for a cooperative strategy for achieving a sustainable future for the region. The strategy encourages the development of clean energy projects subject to public consultation.

4.8.2 Environmental Mitigation Policy for BC

The provincial Environmental Mitigation Policy and supporting procedures including those outlined in the Procedures for Mitigating Impacts on Environmental Values (BC MOE, 2014) provide processes for making well-informed decisions about how to use or develop BC's natural resources. This policy will be used as a guideline to develop project-specific mitigation measures that will be contained in the Environmental Management Plans developed for the Project.

4.8.3 CleanBC

CleanBC is the government's plan to lower climate-changing emissions by 40% by 2030. CleanBC includes a wide range of actions to reduce emissions, build a cleaner economy, and prepare for impacts of climate change. Being a clean energy project, the Project will be in alignment with several of the initiatives included in the CleanBC plan including, but not limited to, the following:

- Implement a 100% Clean Electricity Delivery Standard for the BC Hydro grid.
- Advance the BC government's reconciliation objectives with Indigenous nations by creating economic and employment opportunities for regional Indigenous nations and rural communities; and
- Create economic opportunities for regional Indigenous nations and rural communities in BC's low carbon energy sector.

CleanBC has published the following strategies which incorporated input from people throughout the province, including Indigenous leaders and climate experts.

4.8.3.1 Climate Preparedness and Adaptation Strategy

BC's Climate Preparedness and Adaptation Strategy outlines a broad range of actions for 2022 – 2025 to address climate impacts and build resilience in BC. The strategy strengthens BC's capacity to respond to sudden events such as wildfires, floods, and heatwaves, while also preparing for and responding to changes that happen more slowly due to climate change. It addresses foundational needs for data, training, and capacity, and presents targeted actions that support Indigenous nations, communities, local governments, businesses, and industry.

4.8.3.2 CleanBC Roadmap to 2030

The CleanBC Roadmap to 2030 provides BC's approach to meeting the targets and transforming markets toward clean solutions. It sets out key areas of BC's economy that generate emissions or can create solutions, assesses progress in developing and deploying low- and zero carbon technologies, and sets out pathways to support innovation in sectors where low-carbon solutions are emerging.

Further, the Premier of BC laid out priorities to the Minister of Energy, Mines and Low Carbon Innovation in a mandate letter dated December 7, 2022. The Project will align and support the following objectives identified in the mandate letter:

- A sustainable, clean, secure, and fair economy that builds a clean economy that address BC's obligations to combat climate change by driving down emissions.
- Deliver on the CleanBC Roadmap to 2030 policies and programs to help ensure legislated GHG goals.

BC's plan to work with BC Hydro to implement its Electrification Plan and to ensure the province is well positioned to electrify BC's economy, including options for Indigenous partnerships in clean energy projects.

5.0 Indigenous Nation Interests

5.1 Indigenous Nations and Community Interests

The Project area is located within the Cariboo region of the Central Interior BC, within proximity to potentially interested Indigenous nations. The Project area is within the traditional territory of the Secwépemc nations peoples. The Project area is on Crown land and does not overlap with *Indian Act* reserve lands, lands subject to a Treaty, or lands subject to a land claim agreement.

Chasm Solar is committed to meaningful engagement with Indigenous nations throughout the regulatory process and the life of the Project. Chasm Solar has identified the Indigenous nations listed in the following sections as potentially impacted by Project activities. Chasm Solar generated this list by using the provincial Consultative Areas database (Province of BC, 2023a) and preliminary feedback from the BC EAO. The proposed approach to engagement and a summary of communications and engagement with Indigenous nations to date is described in Appendix 3: Early Engagement Plan. Should other Indigenous nations express an Indigenous interest during the Early Engagement Phase and are identified by BC EAO or self identification, Chasm Solar will tailor future engagement to include them.

5.1.1 Secwépemc Nation

The Secwépemc Nation is composed of 17 bands within the south central part of British Columbia. The Secwépemc Nation traditional territory covers a large area that spans the Thompson and Shuswap districts, ranging from the Chilcotin Plateau in the east, the Cariboo Plateau in the southeast, through the Thompson region, southeast to include the Shuswap and Columbia Valley Region. Indigenous nations identified for engagement on the Project include High Bar First Nation, Neskonlith Indian Band, Stswecem'c Xget'tem First Nation, Whispering Pines/Clinton Indian Band, and the Northern Shuswap Tribal Council.

5.1.1.1 High Bar First Nation

High Bar First Nation is an Indigenous government and Secwépemc (Shuswap) nation located in the Caribou region of the Central Interior of BC. High Bar First Nation is not affiliated with a tribal council or association and creates their own governance and decision-making rules to protect and enhance cultural integrity, social harmony and economic stability for the Nation.

5.1.1.2 Neskonlith Indian Band

Neskonlith Indian Band reserve lands are comprised of three land parcels totalling 2,811.2 ha of reserve land, centred approximately 130 km southeast of the Project area (INAC, 2023b) along the South Thompson River just below Little Shuswap Lake near Chase, BC. Neskonlith Indian Band is part of the Shuswap Nation Tribal Council.

5.1.1.3 Stswecem'c Xget'tem First Nation

Stswecem'c Xget'tem First Nation reserve lands are comprised of twelve land parcels totalling 5,582.8 ha of reserve land centred approximately 63 km northwest of the Project area (INAC, 2023c). Stswecem'c Xget'tem First Nation is a northern Secwépemc First Nation government located approximately 85 km southwest of Williams Lake and 58 km northwest of Clinton, BC comprised of Stswecem'c (Canoe Creek) and Xget'tem (Dog Creek) communities (Stswecem'c Xget'tem, 2023).

5.1.1.4 Whispering Pines/Clinton Indian Band

Whispering Pines/Clinton Indian Band reserve lands are comprised of three land parcels totalling 565.2 ha of reserve land. Clinton IR No. 1 is approximately 10 km from the Project area (INAC, 2023d) and 35 km north of Kamloops, BC. The Whispering Pines/Clinton Indian Band are known as the Pelltiq't People and are part of the Shuswap Nation Tribal Council (Whispering Pines/Clinton Indian Band, 2023).

5.1.1.5 Northern Shuswap Tribal Council

The Northern Secwépemc te Qelmúcw (NStQ), or Shuswap people of the north, are an Interior Salish people with traditional territory that extended from the Rocky Mountains in the east, south towards Cache Creek and Lillooet, west to Alexis Creek and north to Quesnel. The land is called Secwépemcúlécw (Northern Shuswap Tribal Council, 2023). The Northern Shuswap Tribal Council includes four autonomous NStQ nations; Stswecem'c Xget'tem First Nation, Williams Lake First Nation, Canim Lake Band (Tsq'escen'), and Xatśūll First Nation. The Northern Shuswap Tribal Council is negotiating with BC and Canada in the BC treaty process on behalf of its four member bands.

5.2 Communication and Engagement to Date

Communications and pre-early engagement with Indigenous nations to date is provided in Table 3 – 7 of the Early Engagement Plan (Appendix 3). A summary of communications and engagement with Indigenous nations to date include the following:

- Information about the Investigative Licence application and Chasm Solar Feasibility Study was shared via phone calls, emails, and meetings with Indigenous nations in March and February 2020.
- Chasm Solar provided Indigenous nations identified for engagement with a Project introduction letter via email in March 2023 which introduced Chasm Solar, the Project, and provided Project contact information (see Table 3 – 7; Appendix 3).
- Chasm Solar has provided virtual and in-person Project information meetings with Indigenous nations that have requested them (see Table 3 – 7; Appendix 3). Additional meetings will be held as requested.
- A site visit was conducted to the site in July 2023 (see Table 3 – 7; Appendix 3 for attending Indigenous nations).

- Chasm Solar followed up on the Project introduction letter with Indigenous nations via email and phone calls in May and June 2023.
- Chasm Solar shared the DRAFT IPD and Early Engagement Plan with Indigenous nations and requested feedback in August and September 2023.
- Communications are ongoing (see Table 3 – 7; Appendix 3).

Chasm Solar will seek to further understand the interests of Indigenous nations during the Early Engagement Phase. Chasm Solar understands BC EAO will provide a Summary of Engagement document which will include a list of Participating Indigenous Nations and feedback received following the Early Engagement Phase. Chasm Solar will use the feedback and work with Indigenous nations to inform the DPD accordingly.

5.3 Indigenous Interests

Indigenous interests or concerns about the Project or in the Project area that have been raised to Chasm Solar by Indigenous nations or groups during pre-early engagement activities identified in Section 5.2 are summarized in Table 3. These are provided in general terms and details on locations have not been provided.

Chasm Solar is seeking additional information from Indigenous nations that are currently being engaged or will be engaged with and additional information on potential Project interactions and impacts on Indigenous interests will be identified through further engagement. The Early Engagement Plan (Appendix 3) provides additional information about Indigenous nations potentially affected by or potentially having a potential interest in the Project and sets out the Project's engagement plan with Indigenous nations throughout the Project.

Table 3. Indigenous interests related to the Project

Indigenous Interest	*Potential Issue or Concern Raised*	*Response/Potential Mitigations*
Indigenous Rights and Title	An area of land directly north of the Project area is proposed for Reserve Land designation through treaty negotiations between Northern Shuswap Tribal Council and the Province of BC.	Chasm Solar will continue engagement to understand potential Project interactions with potential land designation parcels throughout the current treaty negotiations.
Economic opportunities and capacity building	Chasm Solar heard Indigenous nations are interested in economic and capacity building opportunities related to the Project including construction jobs, procurements opportunities, etc.	Chasm Solar is committed to providing economic and capacity building opportunities to Indigenous nations.
Potential impacts to wildlife and wildlife habitat	Chasm Solar heard American Badger occur in area and mapped critical habitat overlaps the Project area. Fishers also have potential to occur in the Project area and Indigenous nations are involved in fisher monitoring programs.	Proposed American Badger critical habitat discussed in Section 6.3.6 and shown on Figure 2. Chasm Solar will continue discussions about design components and

Indigenous Interest	*Potential Issue or Concern Raised*	*Response/Potential Mitigations*
	Sheep populations in the area have been historically impacted by habitat loss and disease. Ongoing efforts by Indigenous nations to monitor sheep populations in the Bonaparte Plateau. Chasm Solar heard concerns fencing of solar facility will have impacts to wildlife migration through the Project area.	potential impacts to wildlife and wildlife habitat through early engagement. Consider mitigation measures including incorporating wildlife corridors into Project design to allow for movement through the Project area. Prepare management plans including best management practices during appropriate phases of the Project. Potential mitigation measures provided in Table 13. Project Environmental Assessment will include further assessments of wildlife and wildlife habitat in the Project area.
Potential fire risk	Chasm Solar heard concerns the area is prone to fires and Project could increase fire risk. Trees in the Project area have been impacted by pine beetles and other diseases and there is a large amount of dry, fallen trees and dry underbrush which could provide fuel for fires.	Continue discussions about design components, including fire guards or other fire mitigations, during Early Engagement Phase and environmental assessment process. Implement best management practices to protect the surrounding area from fires within the facility and protect the facility from wildfires that start outside of the facility. Potential mitigation measures provided in Table 13.
Archeological and heritage resources, cultural resources	Chasm Solar heard concerns about potential impacts to archaeological resources in the Project area during construction of Project components. Project may require a Preliminary Field Reconnaissance (PFR) prior to ground disturbance. Indigenous nations are	Chams Solar is committed to working with Indigenous nations to gather further information including conducting site visits, Preliminary Field Reconnaissance (PFR), conducting appropriate archeological studies including

Indigenous Interest	Potential Issue or Concern Raised	Response/Potential Mitigations
	interested in conducting and participating in PFRs.	Archeology Overview Assessments (AOA) and Archaeological Impact Assessments (AIA) prior to development.
Water quality	Chasm Solar heard concerns about potential impacts to water quality of watercourses and potential water use. Potential impacts to downstream and upstream drainage basins.	Continue discussions about design components that could impact water quality through early engagement. Prepare management plans and implement best management practices during appropriate phases of the Project. Potential mitigation measures provided in Table 13. The Project Environmental Assessment will include further assessments of watercourses and baseline conditions in the Project area and potential interactions with watercourses from the Project.

5.4 Incorporating Indigenous Knowledge

Chasm Solar acknowledges Indigenous peoples have a long and close relationship with the land and can provide knowledge about the local environment. The BC EAO Guide to Indigenous Knowledge in Environmental Assessments (BC EAO, 2020) provides guidance to environmental assessment participants to support the inclusion of Indigenous Knowledge in the EA process in accordance with guiding principles and requirements for confidentiality. The Government of BC recognizes inclusion of Indigenous Knowledge in the EA process is an important component in supporting the reconciliation objectives of the BC EAA including supporting the implementation of the United Nations Declaration on the Rights of Indigenous Peoples (UNDRIP, 2007) and provides Indigenous decision-makers and Participants with greater knowledge and understanding of the environment where a project is proposed, potential impacts of a project, and the significance of those impacts on Indigenous nations and communities.

Chasm Solar recognizes that Indigenous Knowledge informs the knowledge and experience of Indigenous participants in the EA process and can provide meaningful input as to how to conduct an environmental assessment, how to evaluate impacts, and how decisions are made by Indigenous nations. Building and maintaining relationships

and open dialogue to ensure environmental assessments are effectively informed by Indigenous Knowledge spans all phases of conducting an environmental assessment.

Chasm Solar recognizes in addition to the guidelines provided by BC EAO, Indigenous nations will have their own governance, rights, protocols, guidelines, policies and practices regarding sharing or using their knowledge. Chasm Solar will continue to engage with Indigenous nations to learn more about the same through leadership, community representatives chosen by the nation, and knowledge holders (as appropriate and determined by the Indigenous nation), with the view of its application in the EA process. Chasm Solar will work with Indigenous nations and knowledge holders collaboratively to learn how Indigenous knowledge is considered in the EA process.

Chasm Solar will seek to understand and respect Indigenous governance, rights, protocols, policies, and practices when requesting access to Indigenous Knowledge and gaining permission to use Indigenous Knowledge. Chasm Solar will continue to work with Indigenous nations and knowledge holders to:

- Determine the community protocols and expectations regarding the conduct of Indigenous Knowledge studies to determine how the research is to be conducted and how information will be used;
- Work with the Indigenous nations and their designated representative to determine how permission will be obtained from a participating Indigenous nation or knowledge holders;
- Identify how and what Indigenous Knowledge may be useful for Project design, EA process, impact prediction and mitigation;
- Determine expectations for handling, sharing, and incorporating Indigenous Knowledge studies; and
- Identify possibilities for scoping the study in a manner that may also contribute to broader goals and priorities of the Indigenous nation.

Chasm Solar will continue to engage participating Indigenous nations and decision makers to identify knowledge holders as applicable through the Early Engagement Phase by regularly sharing information, what they have learned, and considering feedback to shape the development of the DPD.

6.0 Biophysical and Socio-Economic Environment

This section includes a general description of existing biological and socio-economic or human environmental conditions in the Project area. Further engagement with the BC EAO, Indigenous nations, regulatory agencies, and other Communities of Interest will be required to determine appropriate Valued Components (VCs) and assessment methodology for potential environmental assessment work. Additional details on VCs and potential assessment methodology will be gathered during the Early Engagement Phase and preliminary VCs will be provided in the DPD.

6.1 Assessment Methodology

6.1.1 Desktop Constraints Analysis

A desktop background review of potential environmental constraints within the Project area was performed for aquatic and terrestrial resources using provincial and federal government databases and mapping tools, as well as relevant literature, previous studies and assessments of the Project area, and other data pertaining to wildlife and environmentally sensitive features that may be present in the Project area. The background review included searches for known occurrences of rare and/or endangered species and ecosystems within the Project area, designated wildlife critical habitats, and a search of ecosystems, plants, and wildlife species at risk that have the potential to occur in the vicinity of the Project area, as well as available fisheries information. Databases and reports utilized in the background review and constraints analysis included the following:

- DataBC iMapBC mapping tool (Province of BC, 2023);
- BC Conservation Data Centre's (CDC) BC Species and Ecosystems Explorer and CDC iMap mapping tool (CDC, 2023);
- Habitat Wizard mapping tool (Province of BC, 2023b); and
- BC Integrated Land and Resource Registry (ILRR) online database (Province of BC, 2023c).

6.1.2 Site Visits

Preliminary site visits to the Project area were conducted by Triton biologists on June 7, 2023 and July 24, 2023. Triton was accompanied by representatives from High Bar First Nation, Whispering Pines/Clinton Indian Band, and Stswecem'x Xget'tem First Nation during the site visit on July 24, 2023. The site visits were focused on capturing a general overview of the Project area noting presence of wildlife or wildlife habitat features (mammals, birds, amphibians) and vegetation species. Detailed field studies and surveys will be completed during the environmental assessment.

6.1.3 Historical and Current Use of the Project Area

Previous and current use of the Project area includes forestry activity with cutblocks and active and deactivated forestry management access roads. Cutblocks have been

replanted in some areas and plantation trees (dominated by Lodgepole Pine [*Pinus Contorta*]) are at various stages of growth. An old airstrip (deactivated) is north of Big Bar Road and south of the proposed Project area. Current uses within the vicinity of the Project area include recreational use for off-road vehicle use, hunting, and hiking. A network of cross country ski trails (Big Bar Cross Country Ski Trails) are maintained in the vicinity of Big Bar Road. Chasm Provincial Park and Ecological Reserve occurs east of the Project area and Highway 97, which offer hiking, cycling, lakes and marshes with wildlife viewing opportunities, hunting, horseback riding and day use picnic areas.

6.2 Project Area

Table 4 outlines the Project area administrative and physiographic setting.

Table 4. Project area administrative and physiographic setting*

Classification	*Description*
Administrative Boundary	
Natural Resource Region	Cariboo
Natural Resource District	100 Mile House
Ministry of Forest Region	Cariboo (western section) Thompson (eastern section)
Major Watershed	Thompson River
Watershed Group	Bonaparte River
Regional District	Thompson-Nicola Regional District
Health Authority Health Service Delivery Area Community Health Service Area/Local Health Area	Interior Health Authority Thompson Cariboo Shuswap 100 Mile House (northern section) South Cariboo (southwest section)
Nearest Municipality	Village of Clinton, BC (10 km) Village of Cache Creek, BC (45 km) District of 100 Mile House, BC (55 km)
Nearest Town or Hamlet	Community of 70 Mile House, BC (17 km)
UTM	10U 613557E 5671282N
Ecosystem Classification	
Ecodomain	Humid Temperate
Ecodivision	Humid Continental Highlands
Ecoprovince	Central Interior
Ecoregion	Fraser Plateau
Ecosection	Cariboo Basin
Biogeoclimatic Zone Subzone Variant	Interior Douglas Fir (IDF) Dry Cool (dk) Fraser (3)
Elevation Range (m)	1050 - 1190

*Source: iMapBC (Province of BC, 2023)

6.3 Terrestrial Resources

6.3.1 Biogeoclimatic Ecosystem Classification and Vegetation

The biogeoclimatic ecosystem classification (BEC) of the Project area is Interior Douglas-fir, within the Dry Cool subzone and Fraser variant (IDFdk3) (Province of BC, 2023). The IDF is characterized by warm, dry summers, cool winters, and a long growing season. Open

to closed, mature forests containing Douglas fir (*Pseudotsuga menziesii*) covers much of the IDF overstory. Lodgepole Pine is a common pioneer species following fire or disturbance at upper elevations. Trembling Aspen (*Populus tremuloides*) is a distributed seral species throughout the zone. The shrub layer generally contains Birch-leaved Spirea (*Spiraea betulifolia*) and Soopolallie (*Shepherdia canadensis*). The herb layer contains Pinegrass (*Calamagrostis rubescens*), Twinflower (*Linnaea borealis*), Heart-leaved Arnica (*Arnica cordifolia*), and Kinnikinic (*Arctostaphylos uva-ursi*), and Showy Aster (*Aster conspicuous*), are common understory shrubs (Meidinger, et. al. 1991). The Project area is in the Natural Disturbance Type (NDT) Class 4 (NDT4). NDT4 ecosystems are characterized by frequent stand-maintaining fires (Province of BC, 2023).

6.3.2 Wildlife and Wildlife Habitat

The IDF zone has a wide range of habitat niches for a variety of wildlife species due to elevation, topographic variation, and diversity of overstory and understory vegetation. Forested areas of the IDF zone provide habitat and foraging opportunities for large mammals including Black Bear (Ursus americanus) and ungulates including Moose (*Alces alces*) and Elk (*Cervus canadensis*). Forests of the IDF zone also provide winter range requirements for Mule Deer (*Odocoileus hemionus*) including old-growth Douglas-fir stands for forage and snow interception (Meidinger, et. al. 1991). Forests in the IDF zone also support a diverse compliment of birds that feed on conifer seeds, bark-insects, and small mammals. Older trees provide cavity and nesting opportunities for a variety of birds (Meidinger, et. al. 1991).

6.3.3 Rare and Endangered Wildlife

Species at risk information is available from provincial and federal sources (Table 5). Provincially, BC MOE maintains information on the BC Species and Ecosystems Explorer for species in the province (CDC, 2023). Data on known species at risk occurrences are available through the BC Conservation Data Centre (BC CDC) (CDC, 2023). Federally, the Committee on the Status of Endangered Wildlife in Canada (COSEWIC) was established under Section 14 of the Species at Risk Act (SARA) and ranks species. Schedule 1 of SARA provides the list of species at risk. SARA typically only applies to federal land and only aquatic species as defined by the federal *Fisheries Act* and migratory birds listed under the federal *Migratory Bird Act* are protected under SARA on private or provincially owned lands.

Table 5. Definitions of conservation status classifications

Regulation	*Status*	*Definition*
COSEWIC (federal)	Endangered (E)	A species facing imminent extirpation or extinction.
	Threatened (T)	A species that is likely to become endangered if nothing is done to reverse the factors leading to its extirpation or extinction.
	Special Concern (SC)	A species that may become threatened or endangered because of a combination of biological characteristics and identified threats.
BC CDC (provincial)	Red-listed	Species, subspecies, or ecological communities considered to be Extirpated, Endangered, or Threatened.

Regulation	*Status*	*Definition*
	Blue-listed	Species, subspecies, or ecological communities considered to be of Special Concern (formerly Vulnerable).
	Yellow	Species or subspecies that is apparently secure and not at risk of extinction.

6.3.4 Wildlife Species at Risk

The Project area has the potential to provide important foraging, breeding, nesting, and travel corridor habitat for rare and endangered wildlife. The CDC database was used to prepare a list of red- and blue-listed wildlife species which could potentially occur within the Project area. The list was compiled by filtering the tool's database to search for occurrences in the 100 Mile House Natural Resource District, IDFdk3 BEC Zone, Subzone, and Variant, and further refined to conifer forest – dry, mixed forest (deciduous/coniferous mix) habitat types. Based on the results of the query, 50 provincially-listed or at-risk wildlife species have the potential to occur within or in proximity to the Project area (CDC, 2023). The full results of the query are provided in Table 1 of Appendix 2. Species with high or moderate potential to occur based on preliminary results of background information and field visits are provided in Table 6. Additional species of interest, including species of risk, could be identified during engagement with Indigenous nations and communities and will be incorporated into additional field studies. The potential for species to occur within the Project area will be further refined following additional field survey programs conducted during the EA process.

6.3.5 Known Occurrences of Wildlife Species-at-Risk

The CDC database and mapping tool was accessed to identify known occurrences of wildlife species at risk (an area of land and/or water where a species or ecosystem is known to occur) within and in proximity (within 5 km) to the Project area. An occurrence of American Badger (*Taxidea taxus*) overlaps with the Project area (Occurrence No. 11263). An Occurrence of Western Bumblebee was identified within approximately 2 km of the Project Area (Occurrence No. 16015) (CDC, 2023).

American Badger Occurrence # 11263; Shape ID 83206

The American Badger is a provincially red-listed species and is listed as an Endangered species under COSEWIC and SARA (CDC, 2023). The occurrence of American Badger overlaps with the Project area and extends north to Williams Lake, east to Hansen Lake, and to south of Clinton, BC (Figure 2).

Western Bumble Bee Occurrence #16015; Shape ID 126833

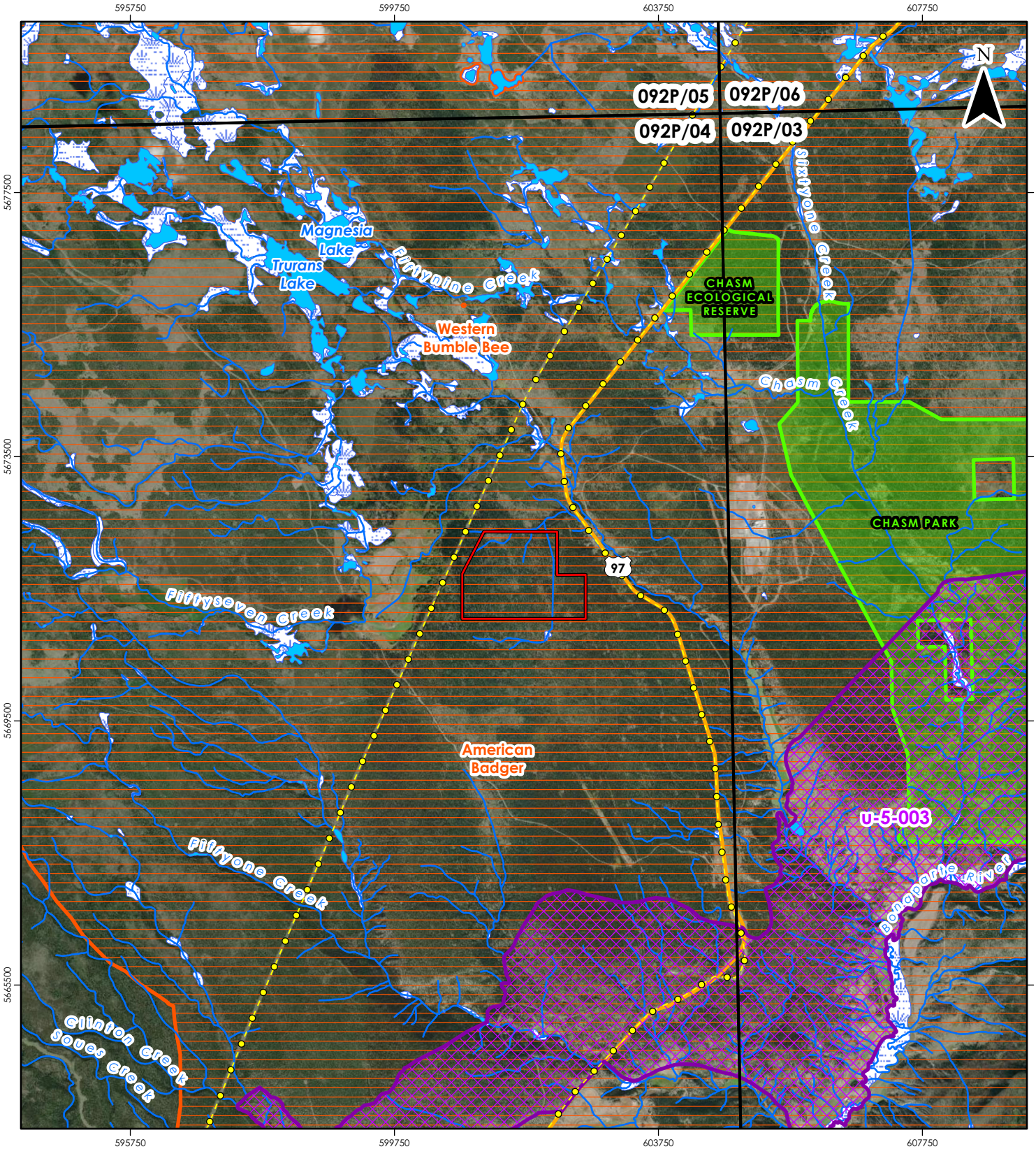
The Western Bumble Bee (*Bombus occidentalis*) is a provincially Blue-listed species and is listed as a Threatened species under COSEWIC and is not SARA listed. The Western Bumble Bee was recorded at Eleven Mile Creek, next to Meadow Lake Road, west of Highway 97, north of Clinton BC, and approximately 2 km north of the Project area. The

Table 6. Species-at-risk with potential to occur around the Project area*

Common Name	Scientific Name	BC Status	SARA Status	COSEWIC Status	Potential to Occur	Rationale**
Mammals						
American Badger	*Taxidea taxus*	Red	1-E	E	Moderate-High	Occur in the Okanagan, Similkameen, Thompson, and Nicola valleys typically in grassland, shrub-steppe, and open stands of Ponderosa Pine and Douglas-fir. Elevational range is 400 to 1500 m, and occasionally up to 2400 m.
Hoary Bat	*Lasiurus cinereus*	Blue	Not listed	Not listed	Moderate	Associated with a variety of forested and grassland habitats in the province. Its elevational range is from sea level to 1250 metres.
Little Brown Myotis	*Myotis lucifigus*	Blue	1-E	E	Moderate	Exploits a wide range of habitats, from arid grassland and Ponderosa Pine forest to humid coastal forest and northern boreal forest.
Townsend's Big-eared Bat	*Corynorhinus townsendii*	Blue	Not listed	Not listed	Moderate	Occurs in the arid grasslands, coniferous and deciduous forests in the interior of BC. Elevation ranges from sea level to 1070 m, although most occurrences are at lower elevations. Elevation could be a limiting factor.
Birds						
Barn Swallow	*Hirundo rustica*	Blue	1-T	SC	Moderate	Frequently occurs near water. Nests in barns or other buildings, under bridges, in caves or cliff crevices, or on vertical surface close to ceiling (structures not present).
Evening Grosbeaks	*Coccothraustes vespertinus*	Yellow	1-SC	SC	Moderate	Evening Grosbeak is found in British Columbia from sea level to high mountainous forest (i.e., up to 1950 m).
Flammulated Owl	*Psiloscops flammeolus*	Blue	1-SC	SC	Moderate	Restricted to old, dry and higher elevation Douglas-fir and Ponderosa pine forest zones in BC.
Great Blue Heron, *herodias* subspecies	*Ardea Herodias herodias*	Blue	Not listed	Not listed	Moderate	Potential to use the Project area for foraging or roosting.
Lewis's Woodpecker	*Melanerpes lewis*	Blue	1-T	T	Moderate	Typically occur at low elevations in south-central BC. Breeds in open forested areas with grassy understory

Common Name	Scientific Name	BC Status	SARA Status	COSEWIC Status	Potential to Occur	Rationale**
						and riparian Cottonwood stands at low elevations. Could be limited by elevation.
Olive-sided Flycatcher	*Contopus cooperi*	Blue	1-T	SC	Moderate	Widely distributed throughout BC. Potential to use riparian coniferous stands. Occurs in coniferous or mixed deciduous/coniferous forests.
Western Screech-Owl, *macfarlanei* subspecies	*Megascops kennicotti macfarlanei*	Blue	1-T	T	Moderate	Restricted to moist woodlands along streams and lakes.
Williamson's Sapsucker	*Sphyrapicus thyroideus*	Blue	1-E	E	Moderate	The majority of the breeding records have been in, or within 200 m of, Western Larch forests at elevations of 1000 to1400 m. A smaller proportion of breeding adults may be found in Ponderosa Pine forests and Trembling Aspen groves adjacent to Ponderosa Pine or Western Larch forests, generally at elevations of 800 to 1100 m.
Yellow-billed Cuckoo	*Coccyzus americanus*	Red	Not listed	Not listed	High	Observations near Clinton Creek and Three Mile Lake near Clinton. Breeds in open woodlands with clearings and low, dense, scrubby vegetation, often associated with permanent watercourses.
Amphibians and Reptiles						
Western Skink	*Plestiodon skitonianus*	Blue	1-SC	SC	Moderate	Found across southern BC in a wide range of habitats – dry woodland, grassland, creeks, and in forest clearings.
Western Toad	*Anaxyrus boreas*	Yellow	1-SC	SC	High	Occurs from the Rocky Mountains to the Pacific Coast, from sea level to 3660 m in a wide range of habitats.
Invertebrates						
Mormon Fritillary, *erinna* subspecies	*Speyeria mormonia erinna*	Red	Not listed	Not listed	Moderate	Ranges throughout BC.

*Search Criteria: Ecosystem Realm-Groups: Forest OR Mineral Wetland Group OR Peatland Group OR Ecosystem Classes: Spring-seepage Class (Hs) OR Vernal Pool Class (Hv) OR Rock Outcrop Class (Ro) OR Cliff Class (Rc) AND BC Conservation Status: Red (Extirpated, Endangered, or Threatened) OR Blue (Special Concern) AND Distribution: Native OR Endemic (Yes, Probable, or Breeding) OR Probable Endemic AND 'Natural Resource (NR) Districts':100 Mile House Natural Resource District AND BGC Zone, Subzone, Variant, Phase: IDFdk3



Chasm Solar and Energy Storage Project

Figure 2.
Wildlife Occurrences and Habitat Areas

Sources and Disclaimer

1. Base map Source: Esri Base Maps
2. Base Data Source: BC Data Catalogue (https://catalogue.data.gov.bc.ca)
3. Disclaimer: This map is a visual aid only to be used together with the accompanying report, including and incorporating any disclaimer contained therein. This map has been prepared to illustrate the results of Triton Environmental Consultants Ltd. work, and is not intended to be used for navigational purposes. Information displayed on this map is based, in whole or in part, on geographic information that may have been provided by third parties, including government data. Triton Environmental Consultants Ltd. disclaims (without limiting the generality of the foregoing) all responsibility for the accuracy of any such third party information, regardless of the source.

Prepared By: GF | **Reviewed By:** SH

- Highway
- Transmission Line
- Watercourse
- Park
- Project Area
- Waterbody
- Wetland

Wildlife Occurences and Habitat Areas

- Species and Ecosystems at Risk
- Ungulate Winter Range

Project No: 11567
Date: Sep 26, 2023
Revision No: 03
Projection: UTM Zone 10 (NAD 1983)

0 750 1,500 2,250 m

Scale: 1:80,000

TRITON Environmental Consultants

File Path: G:\1.0 Projects\11567-Canadian Solar Chasm Solar\11567-Canadian Solar Chasm Solar.aprx

habitat was described as woodland needleleaf herbaceous grassland (CDC, 2023) (Figure 2).

6.3.6 Critical Habitat

The CDC database and mapping tool was accessed to identify critical habitat of wildlife species at risk and in proximity (within 5 km) to the Project area. The Project is situated within proposed critical habitat for American Badger (*Taxidea taxus*), *jeffersonii* subspecies (Critical habitat ID No. 97490 and 93553) (CDC, 2023).

American Badger, jeffersonii subspecies Critical Habitat – ID # 97490 and 93553

The Recovery Strategy for the American Badger *jeffersonii* subspecies is currently in the public comment period (ECCC, 2021). As part of the recovery strategy, several proposed "core" (necessary to support feeding, foraging, and denning functions) and "safe movement" (necessary to support movement activities to sustain all other life functions) critical habitat polygons for American Badger have been identified. One "core" and one "safe movement" proposed critical habitat polygons overlap with the western portion of the Project area and occur within 5 km of the Project area (CDC, 2023) (Figure 2). These polygons are based on species observation, habitat features, and modelling of habitat. Badgers occur within the drier parts of the Kootenays, Southern Interior, and Central Interior regions of BC. American Badgers are generally found at low elevations in dry regions (Bunchgrass, Ponderosa Pine, and Interior Douglas-fir ecosystems) within native or non-native grasslands, open forests of Douglas-fir or Ponderosa Pine, and disturbed sites such as roadsides and agricultural fields. However, American Badgers have also been documented using cutblocks, burns, and mixed early-seral forests, and require with suitable soils for digging and an abundance of prey species such as ground squirrels and marmots (ECCC, 2021).

6.3.7 Ungulate Winter Range

Ungulate winter range (UWR) is defined as an area that contains habitat necessary to meet the winter habitat requirements of an ungulate species. UWR include landscapes to which ungulates move in response to snow accumulation and contains habitat that is necessary to meet the winter habitat requirements of an ungulate species, as interpreted by the MOE regional staff from scientific and management literature (BC MOE, 2021). Legal establishment of UWR and associated objectives are managed under the *Forest and Range Practices Act*. Mapped Mule Deer UWR (UWR No. u-5-003) occurs approximately 3 km east of the Project area (Province of BC, 2023) (Figure 2).

6.3.8 Old Growth Forest

There are polygons within and around the Project Footprint that have been mapped as Priority Big-treed Older Mature Forest (one polygon overlaps the southeast corner of the Project area), and Priority Big-treed Old Growth (two polygons do not overlap the Project area; occur northwest of the Project area), in the provincial 2020 Old Growth Strategic Review. Big-treed Old growth is the highest priority category recommended for deferral of development because it is at highest risk of irreversible damage in the near future (Old

Growth Technical Advisory Panel, 2020; Province of BC, 2023). These areas have not been officially established by the government as "designated areas" under Part 13 of the Forest Act.

6.3.9 Vegetation Species-at-Risk

The CDC database was used to prepare a list of blue- and red-listed vascular and non-vascular plant species which could potentially occur within the Project area. The list was compiled by filtering the tool's database to search for occurrences in the 100 Mile House Natural Resource District, IDFdk BEC Zone and Subzone, and further refined to conifer forest – dry, mixed forest (deciduous/coniferous mix) habitat types. Based on the results of the query, three provincially rare or at-risk plant species were identified (CDC, 2023), of which one (Whitebark Pine [*Pinus albicaulis*]) is unlikely to occur based on elevation of Project area. The results of the query are provided in Table 7.

Table 7. Vegetation species-at-risk with potential to occur in and around the Project area*

Common Name	*Scientific Name*	*BC Status*	*SARA Status*	*COSEWIC Status*
Cascade Rockcress	*Boechera cascadensis*	Blue	-	-
Heart-leaved Springbeauty	*Claytonia cordifolia*	Blue	-	-
Whitebark Pine	*Pinus albicaulis*	Blue	1-E (2012)	E

*Search Criteria: Plants AND BC Conservation Status: Red (Extirpated, Endangered, or Threatened) OR Blue (Special Concern) AND Distribution: Native OR Endemic (Yes, Probable, or Breeding) OR Probable Endemic AND 'Natural Resource (NR) Districts':100 Mile House Natural Resource District AND Habitat Subtypes: Conifer Forest – Dry; Mixed Forest (deciduous/coniferous mix) AND BGC Zone, Subzone: IDFdk

6.3.10 Known Occurrences of Vegetation Species-at-Risk

The CDC database and mapping tool was accessed to identify known occurrences of vegetation species at risk within and in proximity (within 5 km) to the Project area. There are no known occurrences of terrestrial vegetation species at risk within or in proximity to the Project area (CDC, 2023).

6.3.11 Ecological Communities at Risk

Ecological communities at risk are of concern because of their limited distribution on the landscape and sensitivity to disturbance. The CDC database was used to prepare a list of blue- and red-listed ecological communities which could potentially occur within the Project area. The list was compiled by filtering the tool's database to search for 100 Mile House Natural Resource District, IDFdk3 BEC Zone, Subzone and Variant (CDC, 2023). Based on the results of the query, four provincially ecological communities of concern were identified (Table 8). The list will be further refined based on the results of additional field surveys conducted during the EA phase.

Table 8. Ecological communities at risk with potential to occur in and around the project area*

Common Name	*Scientific Name*	*BC Status*
Slender Sedge / Common Hook-moss	*Carex lasiocarpa / Drepanocladus aduncus*	Blue

Common Name	Scientific Name	BC Status
Douglas-fir / Red-stemmed Feathermoss - Step Moss	*Pseudotsuga menziesii / Pleurozium schreberi - Hylocomium splendens*	Blue
MacCalla's Willow / Beaked Sedge	*Salix maccalliana / Carex utriculata*	Blue
Hard-stemmed Bulrush Deep Marsh	*Schoenoplectus acutus* Deep Marsh	Blue

*Search Criteria: Ecosystem Realm-Groups: Forest OR Mineral Wetland Group OR Peatland Group OR Ecosystem Classes: Spring-seepage Class (Hs) OR Vernal Pool Class (Hv) OR Rock Outcrop Class (Ro) OR Cliff Class (Rc) AND BC Conservation Status: Red (Extirpated, Endangered, or Threatened) OR Blue (Special Concern) AND Distribution: Native OR Endemic (Yes, Probable, or Breeding) OR Probable Endemic AND 'Natural Resource (NR) Districts':100 Mile House Natural Resource District AND BGC Zone, Subzone, Variant, Phase: IDFdk3

6.4 Aquatic Resources

6.4.1 Watercourses and Fish and Fish Habitat

General descriptions of mapped watercourses within the Project area and gazetted watercourses in the surrounding area are provided in Table 9 (Province of BC, 2023b). The mapped watercourses are shown on Figure 3 (Map Labels correspond with watercourses in Table 9).

Table 9. Mapped Watercourses in the vicinity of the Project area*

Mapped Watercourses in Vicinity of the Project Area			
Watercourse and Map Label	***Position related to Project Area***	***Watershed Code (WSC)***	***Comments***
Unnamed Creek Map Label: A	Overlaps the northwest portion of Project area	No WSC	Tributary of Fiftyseven Creek. No fish or stream information available. 1st order
Unnamed Creek Map Label: B	Overlaps the northwest portion of Project area	No WSC	Tributary of Fiftyseven Creek. No fish or stream information available. 1st order
Unnamed Creek Map Label: C	Overlaps the northwest portion of Project area	No WSC	Tributary of Fiftyseven Creek. No fish or stream information available. 1st order
Unnamed Creek Map Label: D	Outside of Project area. Approximately 325 m south of southern portion of Project area.	No WSC	No fish or stream information available. Connectivity to mapped wetland (Map label E). 2nd order
Unnamed Wetland Map Label: E	Outside of Project area. Approximately 325 m south of southern portion of Project area.	No WSC	No fish or stream information available. Connectivity to mapped stream (Map label D).
Unnamed Creek Map Label: F	Outside of Project area. Approximately 2 km south of southern extent of Project area.	No WSC	Tributary of Watercourse 120-506800-34500-10900-1860. No fish or stream information available.

Mapped Watercourses in Vicinity of the Project Area			
Watercourse and Map Label	**Position related to Project Area**	**Watershed Code (WSC)**	**Comments**
Unnamed Creek Map Label: G	Outside of Project area. Approximately 5 km south of Project area.	120-506800-34500-10900-1860	No fish information available. Tributary to Fiftyone Creek that flows south of Project area.
Gazetted Watercourses Surrounding the Project Area			
Watercourse and Map Label	**Position related to Project Area**	**Watershed Code (WSC)**	**Comments**
Fiftyseven Creek Map Label: H	Outside of Project area. Approximately 600 m east and west of Project area. Intersects middle of Project area, east of Highway 97	120-506800-38200	4th order stream. Associated with Bonaparte River Watershed. Contains Brook Trout and Rainbow Trout.
Fiftyone Creek Map Label: I	Approximately 5 km south of the southern portion of Project area.	120-506800-34500-10900	Tributary of Clinton Creek. Known to contain Brook Trout and Rainbow Trout.
Bonaparte River Map Label: J	Approximately 7 km southeast of the Project area	120-506800	6th order stream, tributary of the Thompson River. Contains many salmonid and coarse fish species (Table 10).

Fiftyseven Creek

Fiftyseven Creek (WSC: 120-506800-38200) (Figure 3, Map Label M) is a fourth order stream and occurs approximately 725 m north and northeast of the Project area and flows south to the Bonaparte River. The watercourse is known to contain Brook Trout (*Salvelinus fontinalis*) and Rainbow Trout (*Oncorhynchus mykiss*) (Province of BC, 2023b). Several unnamed tributaries of Fiftyseven Creek are mapped within the Project area.

Fiftyone Creek

Fiftyone Creek (WSC: 120-506800-34500-10900 (Figure 3, Map Label I) is situated approximately 5 km south of the western portion of the Project area, and it flows southeast into Clinton Creek, which is a tributary of the Bonaparte River. Fiftyone Creek is a third order stream known to contain Brook trout and Rainbow Trout (Province of BC, 2023b).

Bonaparte River

All watercourses within and in proximity to the Project area are part of the Bonaparte River watershed. The Bonaparte River (Figure 3, Map Label J) is approximately 7 km southeast of the Project area. It is a sixth order stream, is approximately 150 km long, and is a tributary of the Thompson River. Table 10 outlines fish known to inhabit the Bonaparte River (Table 10).

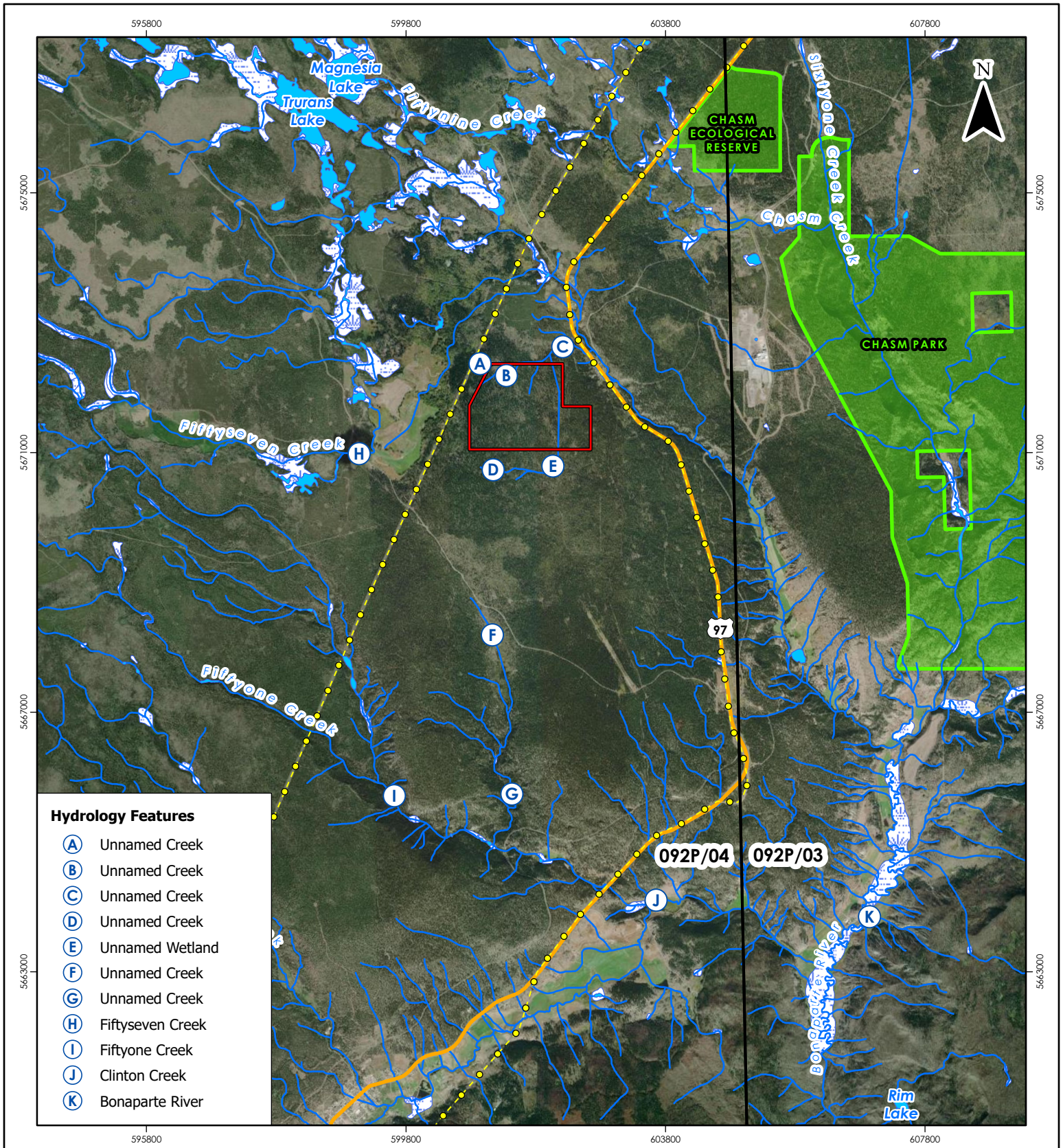
Table 10. Fish species known to occur in the Bonaparte River*

Common Name	*Scientific name*	*Last Known Observation Date*	*BC Status*	*SARA Status*	*COSEWIC Status*
Bridgelip Sucker	*Catostomus columbianus*	01-Jan-98	Yellow	-	-
Brook Trout	*Salvelinus fontinalis*	01-Jan-80	Exotic	-	-
Bull trout	*Salvelinus confluentus*	01-Jan-00	Blue	-	SC
Chinook Salmon	*Oncorhynchus tshawytscha*	01-Feb-99	-	-	E/T/SC/DD/NAR
Coho Salmon	*Oncorhynchus kisutch*	01-Jan-04	-	-	-
Cutthroat Trout	*Oncorhynchus clarkii*	01-Feb-99	-	-	-
Kokanee	*Oncorhynchus nerka*	01-Jan-94	-	-	-
Lake Chub	*Couesius plumbeus*	01-Jan-98	Yellow	-	-
Largescale Sucker	*Catostomus macrocheilus*	01-Jan-95	Yellow	-	-
Leopard Dace	*Rhinichthys falcatus*	01-Jan-98	Yellow		Not at risk
Longnose Dace	Rhinichthys cataractae	01-Jan-98	Yellow	-	-
Longnose Sucker	*Catostomus catostomus*	01-Jan-98	Yellow	-	-
Mountain Whitefish	*Prosopium williamsoni*	01-Jan-95	Yellow		-
Northern Pikeminnow	*Ptychocheilus oregonensis*	01-Jan-98	Yellow	-	-
Peamouth Chub	*Mylocheilus caurinus*	01-Jan-99	-	-	-
Pink Salmon	*Oncorhynchus gorbuscha*	01-Jan-98	-	-	-
Rainbow Trout	*Oncorhynchus mykiss*	15-Aug-07	Yellow	-	-
Redside Shiner	*Richardsonius balteatus*	01-Jan-98	Yellow	-	-
Sockeye Salmon	*Oncorhynchus nerka*	01-Jan-98	-		SC
Steelhead	*Oncorhynchus mykiss*	01-Jan-98	Red	-	E
Sucker (general)	*Catostomus* sp.	01-Jan-95	-	-	-

*Source: HabitatWizard (Province of BC, 2023c)

6.4.2 Wetlands

No mapped wetlands overlap the Project area. A mapped wetland (Watercourse "E"; Table 9 and Figure 3) occurs approximately 200 m south of the Project area. There are many small lakes and wetlands in the Central Interior of BC. Wetland habitats provide wildlife and biodiversity values that are increased compared with surrounding habitats, support various life stages of amphibians, and provide food and shelter for other wildlife, including species of concern. Wetland surveys will be conducted during the EA phase.



Chasm Solar and Energy Storage Project

Figure 3.
Mapped Watercourses

Sources and Disclaimer

1. Base map Source: Esri Base Maps
2. Base Data Source: BC Data Catalogue (https://catalogue.data.gov.bc.ca)
3. Disclaimer: This map is a visual aid only to be used together with the accompanying report, including and incorporating any disclaimer contained therein. This map has been prepared to illustrate the results of Triton Environmental Consultants Ltd. work, and is not intended to be used for navigational purposes. Information displayed on this map is based, in whole or in part, on geographic information that may have been provided by third parties, including government data. Triton Environmental Consultants Ltd. disclaims (without limiting the generality of the foregoing) all responsibility for the accuracy of any such third party information, regardless of the source.

Prepared By: GF | **Reviewed By:** SH

Highway | Park | Wetland
Transmission Line | Project Area
Watercourse | Waterbody

Project No: 11567
Date: Sep 26, 2023
Revision No: 03
Projection: UTM Zone 10 (NAD 1983)

0 750 1,500 2,250 m
Scale: 1:80,000

TRITON Environmental Consultants

File Path: G:\1.0 Projects\11567-Canadian Solar Chasm Solar\11567-Canadian Solar Chasm Solar.aprx

6.5 Socio-Economic Environment

6.5.1 Local Communities and Population

The Project area is located on Crown land in a fairly remote region within the boundaries of the TNRD (population 132,663). The TNRD is a regional government that consists of ten electoral areas in the rural and unincorporated areas outside of BC municipalities. The Project area is in Electoral Area E, "Bonaparte Plateau" of the TNRD. The closest community is the Village of Clinton (population 568; Statistics Canada, 2021), located approximately 10 km south of the Project area. The Village of Clinton was founded during the boom of the Cariboo Gold Rush, approximately 150 years ago. Today, Clinton offers a number of recreational opportunities including horse-back riding, hiking, fishing, and other outdoor activities (Village of Clinton, 2023). The Village of Cache Creek (population 969; Statistics Canada, 2021) is approximately 45 km south of the Project area. Cache Creek is a historic transportation junction located at the intersection of the Trans Canada Highway No. 1 and highway 97. The District of 100 Mile House is the largest population centre near the Project area (approximately 55 km north), with a population of 1,928 (Statistics Canada, 2021). It was originally one of the main stopping points along the Cariboo Gold Rush Trail. Today he local economy is driven by tourism, forestry, agriculture, and business services (District of 100 Mile House, 2023). The Community of 70 Mile House (population information is unavailable) is approximately 20 km north of the Project area.

6.5.2 Land Use Setting

A search of the provincial ILRR online database was conducted to determine BC *Land Act* tenures and rights and interests that overlap or are within close proximity to the Project area (Province of BC, 2023c). A summary of existing permits, tenures, and interests that overlap or are within close proximity to the Project area is provided below:

- Forestry cutblocks and cutting permits;
- Special use Permit (100 Mile House Natural resource Region Miscellaneous Forest use);
- Recreation - Big Bar Cross Country ski trail network;
- Trapline Areas (one overlaps the Project area and two are in close proximity);
- Guide Outfitter Area (one overlaps with the Project area and two are in close proximity);
- Grazing Licence (overlaps the Project area);
- *Land Act* Sec. 17 Designated Use Area (directly north of the Project area); and
- Mineral tenures.

The Project area is located within the Thompson Region Wildlife Resource Management Unit, within the Bonaparte Game Management Zone. The eastern portion of the Project area is located within Unit 3-30, and the western portion is located within Unit 3-31 (Province of BC, 2023). Limited entry hunting (LEH) permits are available for antlerless Mule

Deer, and hunting for other mammals and upland game birds is permitted within Management Units 3-30 and 3-31. Two trapline tenures are in the vicinity of the Project area, one overlaps with the Project area. Three guide outfitter areas are in the vicinity and one overlaps with the Project area. Engagement with these stakeholders will occur as required during the engagement process. Additional information regarding current and planned engagement with tenure holders is provided in the Early Engagement Plan (Appendix 3).

6.5.3 Parks and Protected Areas

No provincial, federal, regional, or municipal parks or protected areas overlap with the Project area. Chasm Provincial Park occurs east of Highway 97 and is approximately 3.5 km east of the Project area, and Chasm Ecological Reserve is situated approximately 3.5 km northeast of the Project area. Both areas are operated and managed by BC Parks. Chasm Provincial Park is a day-use park which provides recreational opportunities including hiking, nature viewing and photography opportunities, horseback riding, and hunting. The park serves to conserve Ponderosa Pine forests at the upper limit of their range, and contains diverse habitats, including uplands, marshes and lakes, as well as the unique chasm and esker formed by melting glaciers over 10,000 years ago (BC Parks, 2023). The Project would not hinder access to or use of any parks or protected area in the vicinity of the Project area. The Project would likely not be visible from the access roads to the provincial parks and recreation sites or from Chasm Provincial Park or the Chasm Ecological Reserve.

6.5.4 Visual Resources

The Province of BC maintains a visual landscape inventory (VLI) which maps the visible topography from public-use areas such as communities, recreational areas, highways, and waterways. Further, the *Forest and Range Practices Act* governs forest activities on public lands in BC for identified resource values, including the management of visual and scenic quality. The most visible and sensitive landscapes are typically steep, forested slopes exposed to many viewers and the least sensitive landscapes are typically low in relief, more remote, and with fewer viewers or viewing opportunities. "Scenic Areas" are legally designated areas that are subject to visual quality objectives to limit some activities that have a noticeable impact on the land. It is expected that activities attempt to be consistent with the visual quality objective (Province of BC, 2023d). The Project area does not overlap with any Scenic Areas as identified with the VLI. A Scenic Areas occurs approximately 500 m east of the Project area. It is likely associated with an area that is visible from Highway 97. A Scenic Area occurs approximately 300 m north of the Project area and is also adjacent to Highway 97.

6.6 Archaeological Resources

No publicly available information about archaeological resources has been identified to date. Chasm Solar will submit an Archaeological Information Request to the BC Archaeology Branch and will work with Indigenous nations and groups to perform Preliminary Field Reconnaissance (PFR) and Heritage Field Reconnaissance (HFR) as

required. Based on the results of desktop reviews and the PFRs, Chasm Solar will work with a Qualified Archaeologist to conduct Archaeological Overview Assessments (AOAs) to identify known archaeological sites and traditional use areas to identify and assess potential of an area to contain unrecorded archaeological sites. Archaeology Impact Assessments (AIAs) will be conducted as required and with necessary permits issued by the BC Archaeology Branch (e.g., Heritage Inspection Permit or Site Alteration Permit) under the authority of the *Heritage Conservation Act* to establish presence or absence of archeological sites including subsurface investigations and artifact collection. The results of the AOA and AIA will be incorporated into the final design of the Project with the intent to avoid disturbance or mitigate potential Project effects to identified archaeological resources and sites.

6.7 Human Health

Traditional land use and Indigenous Knowledge may apply as it relates to country foods that are important to Indigenous nations for nutritional, medicinal, cultural, ceremonial, and spiritual purposes.

7.0 Preliminary Site Visits

Preliminary site visits to the Project area were conducted on June 7, 2023 and July 24, 2023, to provide a general overview of the baseline conditions of the Project area. Triton was accompanied by representatives from High Bar First Nation, Whispering Pines/Clinton Indian Band, and Stswecem'x Xget'tem First Nation during the site visit on July 24, 2023. Photographs taken during the site visits are provide in Appendix 1. Detailed field assessments will be conducted in accordance with appropriate guidelines and standards, including the Resources Information Standards Committee (RISC) standards as applicable, for natural resource inventories during the EA process.

7.1 Wildlife

Wildlife observed and signs of wildlife (e.g., prints, scat, habitat features) during the initial site visits are provided in Table 11. Additional wildlife surveys during various seasons will be conducted during the EA process.

Table 11. Wildlife and signs of wildlife noted during initial site visits

Common Name	Scientific Name	Comments
Mammals		
Chipmunk	*Eutamias minimus*	Individuals observed
Columbia Ground Squirrel	*Urocitellus columbianus*	Individuals and sign (burrows) observed
Moose	*Alces alces*	Signs – scat
Birds		
Black-capped Chickadee	*Poecile atricapillus*	-
Dark-eyed Junco	*Junco hyemalis*	-

7.2 Vegetation

The Project area occurs on a flat area between an existing transmission ROW and Highway 97. The area and is very dry. The majority of the Project area has been historically cleared for logging purposes. The Project area consists of areas that have been replanted with dense Lodgepole Pine at various growth stages. Trees in the Project area have been impacted by pine beetles and other diseases and there is a large amount of dry, fallen trees and dense dry underbrush. Vegetation species observed onsite during the initial field surveys are provided in Table 12. Additional vegetation surveys during appropriate times of year (growing season when flowering species are in bloom) will be conducted during the EA process.

Table 12. Vegetation noted during the initial site visits

Common Name	Scientific Name	Comments
Tree Species		
Douglas-fir	*Pseudotsuga menziesii*	-
Lodgepole Pine	*Pinus contorta*	Dense Lodgepole Pine plantation trees at various stages of growth.
Mountain Alder	*Alnus tenuifolia*	Associated with historically wetter areas.
Trembling Aspen	*Populus tremuloides*	-

Common Name	Scientific Name	Comments
Willow spp.	*Salix spp.*	Associated with historically wetter areas.
Shrubs and Herbaceous Species		
Fireweed	*Chamerion angustifolium*	-
Kinnikinic	*Arctostaphylos uva-ursi*	-
Labrador Tea	*Rhododendron groenlandicum*	-
Pine Grass	*Calamagrostis rubescens*	-
Rocky Mountain Juniper	*Juniperous scopulorum*	-
Rose spp.	*Rosa* spp.	-
Silky Lupine	*Lupinus sericeus*	-
Soopolallie	*Shepherdia canadensis*	*Also known as Soapberry.*
Strawberry	*Fragaria virginiana*	-
Twinflower	*Linnaea borealis*	-
Yarrow	*Achillea millefolium*	-

7.3 Watercourses

The mapped watercourses which occur within and in the vicinity of the current layout area were visited during the preliminary site visit including Watercourse "D", "E", and "C" (Figure 3). There was no evidence of watercourses in the field at these locations and likely the tributaries in the vicinity of the Project area have been historically altered by forestry and other activities in the area. No evidence of a watercourse channel or crossing structure of Watercourse "C" was observed at the mapped crossing location of Highway (Figure 3) indicating Watercourses "A", "B" and "C" do not have connectivity to Fiftyseven Creek further downstream. Additional watercourse assessments will be conducted during the EA process to determine fish presence or absence as well as stream classification and potential downstream connection to fish-bearing streams.

7.4 Wetlands

Several mapped wetlands occur in the vicinity of the Project area. Watercourse "E" on Figure 3 is a mapped wetland. There were indicators that this area was historically a wetland (open, low area dominated by dry grass species with Trembling Aspen and Willow spp. on the periphery), but has since dried up. There was no indication of an inlet or outlet water source in this area. Additional wetland assessments will be conducted in the entire Project area during the EA process.

8.0 Potential Environmental and Socio-Economic Effects

This section provides an overview of potential environmental and socio-economic effects of solar projects in general and the Project. Solar projects offer an alternative to generation of power from fossil fuels and reduce emissions of carbon dioxide and other GHGs. There are potential environmental and socio-economic effects which could potentially occur from the construction, operations and maintenance, and decommissioning of the Project. The Project is in the initial design stage and the potential effects of the Project will be further assessed as part of the EA Application process. The EA will also address mitigation measures and plans to avoid, minimize, and mitigate potential effects.

8.1 Project Footprint

The total Project area (area of disturbance from the current proposed layout of solar arrays) is approximately 205 ha. The proposed ROW and POI is not included in this area of disturbance. The area of disturbance is considered preliminary and could potentially change based on feedback received during the Early Engagement Phase and EA processes.

8.2 Cumulative Effects

The BC Cumulative Effects Framework defines cumulative effects as changes to economic, environmental, and social values caused by the combined effects of present, past, and reasonably foreseeable actives or events (Province of BC, 2021). Historic human activities in the Fraser and Thompson Valleys have had an influence on the ecosystems and natural environment of the area. Forestry activities have occurred within the area and have influenced the surrounding landscape through removal of old growth and mature trees and the construction of forestry roads which allow access to the area for other commercial and recreational uses. The site of the former West Fraser Timber Co. Chasm Sawmill is approximately 5 km east of the Project area and shut down operations in 2019. Wildfires, including the Elephant Hill wildfire in 2017 which burned nearly 1,920 square kilometers of land in the BC Interior, have impacted the forests and communities in the surrounding area. Pine beetles and other diseases have impacted trees in the area and there is a large amount of dry, fallen trees and dry underbrush which could provide fuel for fires. Other uses and influences on the environment in the area include construction and maintenance of power line ROWs, pipelines, railways, highways (Project area is immediately west of Highway 97), and altering existing land uses through development in the surrounding communities. Cumulative effects will be considered further during the EA process.

8.2.1 Effects of the Environment on the Project

Environmental factors including climate change or natural hazards could lead to environmental effects on the Project's physical infrastructure. Warmer and dryer climate conditions in the summer could lead to more frequent wildfires in the region. Higher precipitation, especially during winter months, could lead to increased flooding and

other hydrological changes. Natural hazard events including wildfires and extreme weather events could interact with Project components and operations.

As previously discussed, the Project provides an opportunity to generate low-cost GHG-free, reliable, and renewable power source. The summer peaking energy profile of the proposed Project could help the BC system cope with summer drought conditions. Recent BC extreme drought is creating water flow constraints for many small and large hydroelectric generation plants. In addition, the summer seasonal peaking profile of solar generation is complementary to the winter seasonal peaking profiles of hydro and wind power, enhancing the energy security of BC. Potential effects posed by climate change and natural hazards will be further assessed further during the Project design phases and the EA process.

8.3 Potential Project Effects

Activities that have the potential to adversely affect the environment are largely associated with erosion and sediment generation during clearing and grubbing of vegetation and grading works. Erosion and sedimentation have the potential to affect downstream fish and fish habitat as well as disrupt wildlife species due to physical disturbance, habitat alteration, or destruction. The scope of the Project work that has the potential to impact the environment during construction, routine operations and maintenance, and decommissioning includes, but is not limited to:

Construction:

- Clearing, grubbing, and removal of vegetation for construction of Project infrastructure;
- Clearing, grubbing, and removal of vegetation for construction of the transmission line ROW and installation of transmission line poles;
- Erosion and sediment generation during site grading;
- Noise and sensory impacts (vibrations) from mobile construction equipment;
- Noise and sensory impacts (vibrations) from pile driving during installation of solar arrays;
- Potential impacts to watercourses and riparian vegetation or watercourse crossings during potential road upgrading works;
- Introduction of invasive or noxious weeds from construction equipment or materials brought in from off-site;
- Roadway and drainage excavation and construction;
- Air quality impacts from combustible emissions from construction equipment;
- Improper waste handling and disposal and potential human-wildlife interactions; and
- Fuel spills from equipment or improper handling of fuels or other deleterious substances.

Operations and maintenance:

- Clearing of vegetation during operations and maintenance of the Project;
- Clearing of vegetation during maintenance of transmission ROW;
- Noise and sensory impacts from equipment and vibrations from mobile equipment;
- Disruptions to wildlife movement (e.g., alteration or impediment) caused by fencing of solar infrastructure;
- Introduction of invasive or noxious weeds from construction equipment or materials brought in from off-site;
- Potential erosion and sediment generation from runoff while washing solar panels;
- Potential impacts to watercourses and riparian vegetation or watercourse crossings during road maintenance works;
- Air quality impacts from combustible emissions from construction equipment;
- Improper waste handling and disposal and potential human-wildlife interactions; and
- Fuel spills from equipment or improper handling of fuels or other deleterious substances.

Decommissioning:

- Potential erosion and sedimentation during site grading;
- Noise and sensory impacts from construction equipment and vibrations from mobile equipment;
- Potential impacts to watercourses and riparian vegetation or watercourse crossings during decommissioning works;
- Introduction of invasive or noxious weeds from construction equipment or materials brought in from off-site;
- Air quality impacts from combustible emissions from construction equipment;
- Improper waste handling and disposal and potential human-wildlife interactions;
- Improper disposal of facility infrastructure causing impacts to surrounding environment; and
- Fuel spills from equipment or improper handling of fuels or other deleterious substances.

8.3.1 Potential Effects to Terrestrial Resources

8.3.1.1 Wildlife and Wildlife Habitat

The Project area provides habitat for a range of wildlife. Activities that have the potential to adversely affect the environment are largely associated with clearing vegetation and

potential erosion and sediment generation during clearing and grubbing of vegetation and grading works. These activities have the potential to disrupt wildlife species due to physical disturbance, habitat alteration, or destruction. Potential effects to wildlife and wildlife habitat during the construction, operations and maintenance, and decommissioning phases include:

- Potential loss of habitat due to clearing, grubbing, and removal of vegetation during clearing and grubbing of trees to provide a footprint for the PV solar modules and additional Project infrastructure;
- Potential loss of habitat due to removal of vegetation during clearing and grubbing of trees to upgrading existing access roads or clear new access roads as required and transporting equipment and infrastructure to the Project area;
- Potential loss of habitat from clearing and grubbing of vegetation for construction of the transmission line ROW and installation of transmission line poles and maintenance of transmission line ROW;
- Noise and sensory disturbance from construction equipment and vibrations from mobile equipment during construction, operations and maintenance, and decommissioning of the facility;
- Sensory disturbance from facility lighting during operations and maintenance phase;
- Accidental mortality of wildlife due to equipment and increased traffic on access roads and in the Project area during construction, operations and maintenance, and decommissioning phases;
- Direct loss or change in the quality and quantity of vegetation and wildlife habitat;
- Direct and indirect habitat loss from removal of vegetation and development of large-scale facilities including edge effects and habitat isolation;
- Habitat fragmentation from roads and layouts;
- Impacts to wetlands located within or in proximity to the Project area;
- Potential impacts from poor management of waste (e.g., garbage or food waste) and other attractants that could lead to human-wildlife conflicts during construction, operations and maintenance, and decommissioning phases;
- Displacement of individuals; and
- Disruption of wildlife movement and existing wildlife corridors in the Project area and regional landscape.

Avian Resources

Vegetation including grasses, shrubs, and trees in the Project area provide nesting and foraging habitat for birds. The proposed works will result in the clearing and grubbing of trees and taller vegetation to allow for installation of the solar array infrastructure and there will be the potential for loss of foraging and nesting habitat. Provincial general least risk windows for bird species are designed to avoid the nesting period, which is

considered April 15 to August 30 for most species in the Cariboo Region (ECCC, 2023). This can pose a seasonal timing restriction for construction, operations and maintenance, and decommissioning and conducting clearing and grubbing outside of nesting periods is a potential mitigation measure to implement during construction.

Other potential effects from solar projects include the possibility of collisions with PV equipment and transmission lines and electrocution from the substation and distribution lines. Although not well understood, utility-scale PV facilities may attract migrating waterfowl and shorebirds through a phenomenon known as "lake effect" whereby migrating birds perceive the reflective surfaces of solar arrays as water features and attempt to land on the panels (Multiagency Avian-Solar Collaborative Working Group, 2016). A recent study found limited evidence of attraction of aquatic birds to PV solar facilities in a variety of habitats (desert/scrub, grassland, or agricultural environments). The study found no evidence of landing, circling, or approaching the panels (Kosciuch, 2021).

8.3.1.2 Potential Effects to Vegetation Resources

Clearing and grubbing of trees and stumps in the Project area would be required during construction. Low-profile vegetation, including grasses and other herbaceous species, would be retained to the extent practicable and incorporated into the Project layout to provide protection against potential erosion issues. Disturbed areas would be re-seeded as soon as practicable with a native grass and flowering herbaceous species seed mix. Vegetation including grasses and other herbaceous species would be maintained at a low profile during the operations and maintenance phases. These species would provide foraging habitat for avian species and pollinators.

8.3.2 Potential Effects to Aquatic Resources

Several mapped watercourses occur in the vicinity of the Project area. Activities that have the potential to adversely affect the aquatic environment are largely associated with erosion and sediment generation during clearing and grubbing of vegetation and grading works and maintenance work on access roads that interact with watercourses. Erosion and sedimentation have the potential to affect downstream fish and fish habitat. To the maximum extent practical, aquatic resources including watercourses or waterbodies (e.g., permanent streams, ephemeral watercourses, and wetlands) will be avoided by the Project footprint. Potential effects to aquatic resources during the construction, operations and maintenance, and decommissioning phases include:

- Potential for runoff and sedimentation during vegetation clearing and grading activities;
- Potential impacts to water quality from water used during operations (e.g., cleaning panels);
- Potential for runoff and sedimentation during access road upgrades or construction;
- Direct loss of riparian and wetland habitats affecting quality of fish habitat;

- Downstream impacts to fish-bearing streams;
- Potential impacts to riparian vegetation and habitat during upgrades of existing access roads or construction of new roads (e.g., repairs or installation of watercourse crossing structures such as culverts); and
- Potential impacts to changes to flows or storage to nearly watercourses from water extraction.

The habitat officer in each region sets the terms and conditions for works in and about a stream in accordance with Section 44 of the WSA. Instream works in each region is generally restricted to general timing windows, or specific times of year when work may be carried out with the lowest risk to fish species. This can pose a seasonal timing restriction and a potential mitigation measure for instream works will include conducting instream works during construction, operations and maintenance, and decommissioning of the Project during identified least risk timing windows.

8.4 Project Emissions, Discharges, and Waste

Project air emissions and release of GHGs are expected to vary by stage. During the construction and decommissioning phases, air emissions and release of GHGs would come from the combustion of fossil fuels from construction equipment. The number, type, and size of equipment required during the construction, operation and maintenance, and decommissioning phases of the Project are still to be determined. Requirements on the type and size of equipment during construction and decommissioning phases are not known at this time and an accurate estimate of direct emissions from construction equipment will be revised as the Project design progresses. Sound emissions during construction, operations and maintenance, and decommissioning phases would be from construction equipment, including pile driving structure supports, during construction. An accurate estimate of direct emissions to land, air, and water, including GHG emissions, will be refined as Project development and design advances.

During operations and maintenance, the Project would generate electricity without GHG or water emissions. Solar PV technologies and power plants do not produce air pollution or GHG emissions while in operation. Solar can have positive and indirect effects on the environment when solar energy replaces or reduces the use of other energy sources that potentially have larger impacts, including release of GHG emissions. GHG emissions during operations and maintenance would be limited to the occasional use of equipment to replace faulty equipment or perform other routine maintenance activities. There would be no sound emissions which would be discernable by receptors outside of the Project fenced perimeter during the operations phase. During operations and maintenance of the Project sound emissions would be limited to the occasional use of equipment during routine maintenance activities.

Types of waste that could potentially be generated by the Project include:

- Hazardous and non-hazardous waste (e.g., domestic waste from the site office, vehicle, and equipment maintenance wastes);

- Sewage; and
- Contaminated soil (in the event of spills or leaks from equipment working onsite during construction and maintenance).

Waste would be removed from site and disposed of in an approved disposal site in accordance with any applicable local, provincial, or federal regulatory requirements.

8.5 Potential Effects to Land Use and Visual Aesthetics

The construction and operation of the Project will limit the use of the Project area for other land uses. There is potential for disruption or loss of land use for other commercial (e.g., forestry, timber harvesting, mining, trapping, grazing) and non-commercial (e.g., recreational uses) activities. Additional indirect impacts to hunting could occur because of loss of wildlife habitat or use of the Project area during the construction, operations and maintenance, and decommissioning phases.

Solar projects have a low visual profile in comparison to other generation technologies such as large hydro dams and wind power projects. There is potential for disturbance to visual aesthetics due to removal of vegetation during construction of solar infrastructure. Low-profile vegetation including grasses would be retained to the extent practicable and incorporated into the layout to provide protection against potential erosion issues. Disturbed areas would be re-seeded as soon as practicable with native grass and flowering plant species seeds. Vegetation would be maintained at a low profile during the operations and maintenance phases. The Project is sited in a location where it will have little or no visual impact to Highway 97 or Big Bar Road due to the remote location of the Project. The Project will potentially be visible during the construction, operation and maintenance, and decommissioning phases from commercial and recreational users of the FSRs in the area. The Project may also have indirect effects to cultural and recreation values that are related to the enjoyment of scenic values of the area.

8.6 Potential Effects to Archaeological Resources

Clearing and grubbing, land clearing, grading, and earthworks have the potential to remove or damage archeological resources in areas which contain or with significant potential to contain an archaeological site protected under the *Heritage Conservation Act*. An Archaeological Information Request will be submitted to the BC Archaeology Branch and AOAs and AIAs will be completed as part of the Project and a Chance Find Procedure will be prepared and implemented during construction.

8.7 Potential Socioeconomic Effects and Labour Force

The Project provides an opportunity for employment opportunities and local revenue generation for surrounding communities, including Indigenous nation communities and businesses. The West Fraser Timber Co. Chasm Sawmill permanently shut down operations in 2019. The Chasm Sawmill employed 176 people at the time of the shut down with the majority of the workforce based out of Clinton, BC (CBC, 2019). The site of the former mill is approximately 5 km east of the Project area. During the construction phase, the Project

is expected to provide up to 160 construction jobs sourced generally from the BC Central Interior region including those supplied by contractors from Indigenous nations and communities. Up to four full time operations and maintenance technicians would be required following Project commissioning. Accommodation and support for workers is available in local communities and commercial hotels and motels located in the nearby centres of Clinton (10 km), Cache Creek (55 km), and Kamloops (114 km). Kamloops has supported (e.g., provided accommodations and services) for several large-scale construction projects and sectors (e.g., pipeline, mining, forestry) in recent history.

An Employment Plan will be developed as the Project advances in design. To the extent possible, the Project will include and maximize local resources and provide employment opportunities to local Indigenous nations and local rural communities during the construction, operations and maintenance, and decommissioning process.

8.8 Potential Effects to Public and Environmental Safety

No worker safety issues with respect to malfunction or accidents associated with the Project have been raised with Chasm Solar from any Indigenous nations, members of the public, or other stakeholders to date. Further, Chasm Solar is not aware of any special risks or hazards with respect to the construction, operation, or decommissioning of the Project when such activities are carried out in compliance with worker safety and other regulations, policies, and safety practices which will be used in Project construction and operations. Regardless, as with any Project of this magnitude, there is the risk of injury or death to workers or contractors as a result of unintended accidents involving vehicles, machinery, or Project infrastructure. During ongoing operations, there is also the risk of unintended and accidental injury or death of workers or members of the public involving the mishandling of high voltage equipment in a manner inconsistent with regulation, training, and operational protocols set out by the Project owner or operator. Other risks include electrical faults or arcs leading to fire risk incidents, oil spills from transformer leaks, and hydrogen off gassing and related fire risk from the BESS. Chasm Solar heard from Indigenous nations the area is prone to wildfires and there would be concern about the facility causing or being impacted by a wildfire (Table 3).

Given the early stage of the Project design and of the EA and permitting processes of the Project, potential for accidents and malfunctions to occur during construction or operations will be assessed further during the engagement and EA processes. Further assessments will include potential affects on the biophysical and human environment and include project-specific mitigation measures and management plans including emergency response procedures and training programs to address events related to accidents and malfunctions during construction, such as spills or unauthorized releases. Additional mitigation measures including installing fencing and signage to notify the public and land users of the risks and prevent entry into the facility, incorporate BMPs for dust control, and consider fireguards or other measures to protect the public and infrastructure from potential fires from within or outside of the Project area.

During the construction phase of the Project, contractors will be required to comply with a site specific health and safety plan. While the Project is not at this stage yet, it is anticipated that the plan will address worker safety issues (i.e.: personal protective equipment, mechanical equipment operation, WHMIS, etc.), interactions with the public, interactions with wildlife, include an emergency response procedure etc.

During the operations phase of the Project, it is anticipated that the site will be equipped with a supervisory control and data acquisition (SCADA) system. The SCADA system monitors and analyzes equipment operating parameters in real time. The SCADA allows the Project operator to set alerts so that the operator can be made aware of abnormal operating conditions.

There are two categories of potentially possible incidents or malfunctions that could occur during the construction and operations of the Project. They are as follows:

1) Unlikely to occur; Potentially high magnitude impact
    a. Fire originating from within the site
    b. Major oil leak (i.e.: full capacity leak from main power transformer)
    c. Recordable health and safety incident (i.e.: an incident that by law is to be reported to WorkSafeBC)
2) Could occur; Potentially low magnitude impact
    a. Minor oil leaks (any mechanical equipment)
    b. Sediment laden water discharge from site
    c. Trash accumulation during construction
    d. Minor worker first aid (i.e.: an incident that occurs, but is not required by law to be reported to the WorkSafeBC)

Further, Chasm Solar will prepare environmental management plans and implement mitigations (i.e.: site specific health and safety plan, SCADA system, routine maintenance, routine equipment inspections, etc.) to prevent or minimize low and high magnitude events from occurring. Additional potential mitigation measures are provided in Table 13.

8.9 Further Studies

Chasm Solar is conducting various technical and economic feasibility studies related to the Project. Engagement and information sharing activities are underway with various Indigenous nations and other Communities of Interest. Preliminary environmental inventories including initial desktop review and preliminary site visits have been conducted to support the IPD. Additional baseline surveys will be conducted in accordance with the RISC standards for natural resource inventories and will be further defined in the DPD. Valued Components (VCs) will be selected based on the results of baseline studies, input from engagement activities with Indigenous nations and Communities of Interest, and government agencies. Where available, Chasm Solar will

seek input on baseline studies and will incorporate Indigenous knowledge, traditional land and resource use information, and additional environmental or heritage values of the Project area as provided by Indigenous nations. Archeological resource inventories will be conducted as needed including AOAs and AIAs.

8.10 Potential Management Plans and Mitigation Measures

Table 13 provides a summary of potential Project effects and potential mitigations. Project-specific Environmental Management Plans will be prepared prior to construction and during subsequent phases of the Project (e.g., operations, maintenance, and decommissioning). The Environmental Management Plans will include specific management plans which would provide mitigation measures, guidelines, and best management practices to implement during construction, operation and maintenance, and decommissioning of the Project to help the Project meet requirements of necessary legislation, regulations, policies, and permit terms and conditions and to reduce the potential effects on the biological and socio-economic or human environmental VCs. The provincial Environmental Mitigation Policy and Procedures for Mitigation Impacts on Environmental Values (MOE, 2014) will be fused as a guideline to develop Project-specific mitigation measures that will be contained in management plans, and the selection of mitigation measures will be based upon practicability and regulatory requirements. Potentially applicable management plans could include, but not be limited to, the following:

- Construction Environmental Management Plan
- Air Quality and Dust Management Plan
- Erosion and Sediment Control Plan
- Wildlife Management Plan
- Spill Contingency and Emergency Response Plan
- Clearing and Grubbing Plan
- Access Management Plan
- Archaeological and Chance Find Management Plan
- Operations Environmental Management Plan
- Reclamation and Closure Plan

Table 13. Potential project effects and potential mitigations

Environmental Component	*Potential Project Effect*	*Potential Mitigations*
Biological components		
Wildlife and wildlife habitat, terrestrial resources	• Direct loss or change in quality or quantity of habitat through clearing (removal of vegetation and surface grading) or displacement during construction and operation/maintenance phases. • Loss of vegetation during Project operations and maintenance. • Barrier effects – disrupt wildlife movement and/or migrations by acting as a barrier. • Habitat degradation due to changes in hydrology and water availability and quality. • Disruption caused by noise or light pollution (e.g., dust, light, noise, and vibration) during construction, operations and maintenance (facility lighting), and decommissioning of the Project. • Introduction of invasive or noxious weed species during construction and operations (movement of people and equipment through Project area). • Habitat alteration due to changes in microclimatic effects of solar panels (shadow effects could alter species composition) during the operation and maintenance phases. • Mortality due to increased equipment and vehicle traffic during all Project phases. • Noise and sensory impacts from equipment and vibrations from mobile equipment during operations and maintenance and decommissioning and removal of Project infrastructure.	• Prepare Environmental Management Plans which would include best management practices (BMPs) and operational controls to implement during construction, operations and maintenance, and decommissioning to minimize potential impacts. • Prepare and implement appropriate management plans and practices for ecosystems and species. • Minimize clearing and grubbing or disturbance to maximum extent practicable. • Site infrastructure to avoid or minimize interaction with sensitive and at-risk species or habitat. • Lighting will be minimized to extent practicable and used where needed for safety and security. • Identify and consider potential BMPs such as planning construction activities to avoid sensitive periods for wildlife (e.g., nesting period for migratory birds). • Retain wildlife trees where possible. • Implement speed limits on Project roads and communicate to Project personnel through orientation and signage. • Implement buffers or avoidance zones around sensitive features (e.g., important nesting or foraging areas for particular species). • Fence the layout areas to prevent wildlife from entering the facility and interacting with Project components. Leave corridors between the fenced layout areas to allow for continued movement through the surrounding area.

Environmental Component	***Potential Project Effect***	***Potential Mitigations***
	• Potential wildlife-human interactions due to poor waste management and storage. • Potential impacts to amphibians in small pocket wetlands and ephemeral ponds.	• Develop and implement a waste management plan to property manage waste and other attractants.
Avian resources	• Injury or mortality due to collisions with solar panels and/or transmission lines. • Loss of nesting habitat due to loss of large trees and shrubs during construction phase. • "Lake effect" – potential for arrays of solar panels to attract water birds confuse the panels with large waterbodies and collide with them causing injury or death.	• Prepare and implement appropriate management plans and practices for ecosystems and species. • Implement buffers or avoidance zones around sensitive features (e.g., important nesting or foraging areas for particular species). • Maintain existing low-growing vegetation (grasses and herbaceous species) during the construction phase. Reseed disturbed areas with a native seed mix to maintain low-profile vegetation under the solar arrays during operations and maintenance phase. Prepare reclamation plans which will include replanting and restoration plans following Project decommissioning.
Aquatic resources, fish and fish habitat	• Potential for runoff and sedimentation during vegetation clearing and grading activities. • Direct loss of riparian and wetland habitats affecting quality of fish habitat. • Potential impacts to watercourses and/or riparian vegetation if watercourse crossings require upgrades or installation. • Potential impacts to flow needs of watercourses or downstream watercourses if water is utilized during construction, operations and maintenance, or decommissioning of the Project.	• Prepare and implement appropriate management plans and practices for ecosystems and species. • Incorporate BMPs for erosion and sediment control and spill prevention and control into the Environmental Management Plans. • Implement buffers or avoidance zones around sensitive features (e.g., watercourses and wetlands or important breeding or foraging areas for particular species). • Adhere to regional timing windows for instream works. • Obtain necessary permits for any instream works and adhere to terms and conditions of permits. • Obtain necessary permits for water use and account for flow needs of watercourses in the vicinity of the

Environmental Component	***Potential Project Effect***	***Potential Mitigations***
		Project area and adhere to permit terms and conditions.
Human Environment		
Indigenous interests Traditional land and resource use of the Project area	• Exercising Indigenous rights and traditional land and resource use of the Project area and surrounding lands. • Potential to impact use of the Project area for traditional and resource use including the harvesting of traditional plants for food, medicinal, or ceremonial purposes. Potential impacts to presence, quantity, quality of resources used for traditional purposes. • Potential to impact or prevent access to traditional hunting or fishing areas.	• Project will consider the rights and interests of Indigenous nations and peoples. • Consider and incorporate Indigenous Knowledge and traditional land and resource use in Project planning as deemed appropriate. • Continued engagement and communication with participating Indigenous nations to identify additional Indigenous interests and potential mitigation measures to protect interests (e.g. incorporating traditional plants into reclamation plans, avoiding sensitive areas through siting of infrastructure, or providing corridors between layout areas to allow for continued use of the area by wildlife and users of the land). • Implement potential mitigations as discussed for potential impacts from noise, dust, water quality, wildlife and wildlife habitat, etc.
Archaeological and Heritage Resources	• Potential impacts (damage or loss) to archaeological and heritage resources due to logging, land clearing, grading, or pile driving.	• Conduct appropriate field surveys (e.g., HFRs and PFRs) to identify areas of high potential for archaeological and heritage resources. • Acquire proper permits and conduct appropriate archeological assessments and studies (e.g., AOAs and AIAs). • Develop and implement chance find procedures.
Land use	• Potential for loss or disruption of use or access for other land users including commercial (e.g., forestry, guide outfitting, trapping, mining, grazing) and non-commercial (recreational trails) users.	• Design Project components to allow for continued travel through and use of the surrounding area via main FSRs.

Environmental Component	***Potential Project Effect***	***Potential Mitigations***
	• Changes in traffic patterns or amount on nearby highways or access roads (FSRs). • Potential for users to utilize other areas for activities. • Potential impacts to access for traditional and current uses and harvesting activities (e.g., gathering of traditional plants, hunting, trapping, fishing).	• Constructive early engagement with stakeholders and land users.
Visual aesthetics	• Visual disturbance from removal of vegetation, alteration of landscape, and installation of built features (e.g., solar arrays, battery storage facility, transmission lines, etc.). • Indirect effects to cultural, recreational, and commercial values that are related to enjoyment of scenic values.	• Implement design and maintenance BMPs to address potential visual effects. • Vegetation screening to mitigate visual disturbance.
Economy and socio-community	• Employment, income, local revenue generation. • Changes to and/or maintenance of community and individual health and well-being. • Effects that specifically impact sub-groups within the region, including Indigenous peoples, women, low income, under or unemployed, disable, seniors, and vulnerable groups.	• Consider local employment policies and planning. • Consider local procurement of goods and services. • Consider local skills inventory, training, and skills development programs. • Consider targeted initiatives to address effects to specific sub-groups. • Develop Employment Plans.
Human health and safety	• Risks to public and worker safety from interaction with Project infrastructure. • Worker and public health and safety. • Potential risks to workers from working in a remote location. • Increased dust concentrations from increased use of FSRs and access roads and disturbed surfaces during construction, operations and maintenance, or decommissioning phases. • Potential for Project interaction from wildfires in the area. • Potential risks to human safety including electrical faults or arcs leading to electrocution or fire risk incidents.	• Develop and implement training programs and protocols. • Install fencing and signage to notify the public and land users of risks and prevent entry into facility. • Incorporate BMPs for dust control into management plans. • Consider BMPs such as fireguards to protect the public and infrastructure from potential fires from within or outside of the Project area.

Environmental Component	***Potential Project Effect***	***Potential Mitigations***
Physical Environment		
Geology and soils	• Loss of surface soil or changes to soil profile due to vegetation removal. • Changes to soil quality.	• Implement BMPs for soil erosion control. • Implement a closure and reclamation plan which incorporates soil salvage plans.
Air quality, GHG emissions, noise, and vibration	• Dust emissions during construction and equipment operation can result in increases in particulate matter concentrations which can affect human health and dust deposition to vegetation, country foods, and waterbodies. • Combustion emissions from equipment during construction, operations and routine maintenance, and decommissioning can result in increases in concentrations of contaminants. • Noise and vibrations from equipment or pile support installation during construction, operations and routine maintenance, and decommissioning.	• Incorporate BMPs for dust control into management plans. • Ensure equipment is operated efficiently and limit idling when not in use. • Consider use of alternative technologies to reduce air emissions. • During operations and maintenance, the Project would generate electricity without GHG or water emissions. Solar PV technologies and power plants do not produce air pollution or GHG emissions while in operation.

9.0 Preliminary Project Schedule

Table 14 provides an overview of the preliminary Project schedule. This schedule assumes positive regulatory decisions and is subject to change.

Table 14. Preliminary Project schedule

Task Description	*Expected Timing*
Pre-Early Engagement with Indigenous nations and Communities of Interest about the Project prior to filing the IPD and Early Engagement Plan including Project emails, phone calls, and Project information meetings.	Q1 2023 – ongoing
Share DRAFT IPD with Indigenous nations for comment and feedback.	Q3 2023
Submit the IPD and Early Engagement Plan to BC EAO in fulfilment of requirements of BC EAA.	Q3 2023
BC EAO formal acceptance of IPD and Early Engagement Plan. IPD posted on EPIC site and begin the 90-day Early Engagement Phase.	Q4 2023
Provide notice (letters, emails, phone calls) to Indigenous nations and other Communities of Interest including tenure holders and local governments of IPD publication. Invite comments and feedback during the 30-day public comment period.	Following acceptance of the IPD and start of the Early Engagement Phase.
Continue engagement with Communities of Interest including Indigenous nations during the Early Engagement Phase including Project emails, phone calls, and meetings. Provide Project information, review the IPD and invite feedback, and provide Project updates in virtual or in-person meetings requested by Indigenous nations or other Communities of Interest.	During the Early Engagement Phase
Participate in Technical Advisory Committee meetings to provide Project information to provincial and regulatory agency representatives and understand potential regulatory requirements.	During the Early Engagement Phase
BC EAO holds a 30-day public comment period.	During the Early Engagement Phase
Assist in planning and participate in BC EAO open houses and virtual information sessions. Participate in additional Project information sessions (in-person or virtual) as required.	During the Early Engagement Phase
Maintain a communication and engagement log to track comments and feedback received during pre-early engagement, the public comment period, and the Early Engagement Phase.	Ongoing and during the Early Engagement Phase
Indigenous nations notify BC EAO of intention to be a participating Indigenous nation on the Project.	Within 80 days of IPD publication
BC EAO provides the list of participating Indigenous nations and Summary of Engagement and direction on the DPD.	Q1 2024
Share DRAFT DPD with Indigenous nations for comment and feedback. Incorporate feedback into DPD.	Q1 2024

Task Description	***Expected Timing***
Prepare and submit DPD to BC EAO in fulfilment of requirement of BC EAA.	Q1 2024
If approved to proceed to an EA, BC EAO provides an EA Readiness Decision with determination of commencement of EA.	Q1 2024; EAO discretion
EA commencement and BC EAO conducts Process Planning.	Q2 2024; 120 days
Continue engagement with Indigenous nations, provincial and federal agencies, local government representatives, and other Communities of Interest during Process Planning. Public comment period held.	Ongoing during Process Planning
BC EAO provides Process Order.	Q2 2024; at completion of Process Planning
Prepare and submit regulatory applications	Ongoing during EA process
Prepare and submit DRAFT Environmental Assessment Certificate Application, seek input from Indigenous nations and EA participants.	180 days
Submit DRAFT Environmental Assessment Certificate Application following Notice Regarding Application	Q4 2024
Submit FINAL Environmental Assessment Certificate Application following EAO feedback and Notice Regarding Application	Q1 2025
Conduct effects assessment and prepare EA	Ongoing during EA process
Prepare DRAFT Assessment Report	Up to 150 days
BC EAO releases DRAFT Assessment Report and EA Certificate. Continue engagement with Indigenous nations and other Communities of Interest and public comment period.	Q4 2025
BC EAO releases a Certificate Decision and grants EA Certificate if approved	Q4 2025
Regulatory agency permit application decisions and prepare management plans	Q2 2026
Preconstruction activities and post certificate compliance and enforcement	Q4 2026
Project commissioning	Q4 2027; One year after start of construction
Project operation and maintenance	Q4 2067; 40 years
Project decommissioning	Q4 2068; One year

10.0 Closing

Through sharing this IPD with BC EAO and Communities of Interest, including Indigenous nations, Chasm Solar is providing an early design-stage overview of the Project. The IPD has been prepared to determine the requirements for review of the Project under the BC EAA and to initiate the environmental assessment process. The IPD was prepared using the guidance provided in the BC EAO's Early Engagement Policy document (BC EAO, 2019). The IPD has been prepared early in the design process prior to finalization of all Project components and layout to allow for feedback. The IPD and the Early Engagement Plan (Appendix 3) are used to initiate the Early Engagement Phase of the BC environmental assessment process. The documents will be available for review by Indigenous nations and Communities of Interest to facilitate engagement and will be used to support the development of a DPD. Following the 90-day Early Engagement Phase, BC EAO will issue a Summary of Engagement which will include comments and feedback received on the IPD. Feedback received will be used to inform the DPD which will present a more refined Project design based on progression of design and considerations of input received during the Early Engagement Phase.

11.0 References

[BC EAO] British Columbia Environmental Assessment Office. 2019. Early Engagement Policy. Available at: https://www2.gov.bc.ca/assets/gov/environment/natural-resource-stewardship/environmental-assessments/guidance-documents/2018-act/early_engagement_policy.pdf

BC EAO. 2020. Guide to Indigenous Knowledge in Environmental Assessments. Available at: https://www2.gov.bc.ca/assets/gov/environment/natural-resource-stewardship/environmental-assessments/guidance-documents/2018-act/guide_to_indigenous_knowledge_in_eas_v1_-_april_2020.pdf

[BC MOE] BC Ministry of Environment. 2014. Environmental Mitigation Policy for B.C. Accessed February 2023. Available at: https://www2.gov.bc.ca/gov/content/environment/natural-resource-stewardship/laws-policies-standards-guidance/environmental-guidance-and-policy/environmental-mitigation-policy

BC MOE. 2021. Ungulate Winter Ranges. Available at: https://www.env.gov.bc.ca/wld/frpa/uwr/index.html

[BC Parks] BC Parks. 2021. Information available at: http://bcparks.ca

[CBC] Canadian Broadcasting Company. June 17, 2019. West Fraser Closing 1 BC Mill, Cutting Shifts at Another. https://www.cbc.ca/news/canada/british-columbia/west-fraser-lumber-mill-closure-1.5179345

[CDC] British Columbia Conservation Data Center. 2023. BC Species and Ecosystems Explorer. Accessed March 2023. Available at: http://a100.gov.bc.ca/pub/eswp/

District of 100 Mile House. 2023. District of 100 Mile House web page. Available at: http://www.100milehouse.com/http://www.100milehouse.com/

[ECCC] Environment and Climate Change Canada. 2021. Recovery Strategy for the American Badger jeffersonii subspecies (*Taxidea taxus* jeffersonii) Western population and Eastern population in Canada [Proposed]. Species at Risk Act Recovery Strategy Series. Environment and Climate Change Canada, Ottawa. 2 parts, 20 pp. + 36 pp.

ECCC. 2023. General Nesting Periods of Migratory Birds. Nesting Calendars. Accessed June 2023. Available at: https://www.canada.ca/en/environment-climate-change/services/avoiding-harm-migratory-birds/general-nesting-periods/nesting-periods.html#_zoneA_calendar

High Bar First Nation. Accessed April 2023. Available at: https://www.highbarfirstnation.ca/

[INAC] Indigenous and Northern Affairs. 2023a. First Nations Profiles, High Bar. Accessed April 2023. Available at: https://fnp-ppn.aadnc-aandc.gc.ca/FNP/Main/Search/FNReserves.aspx?BAND_NUMBER=703&lang=eng

INAC. 2023b. First Nations Profiles, Neskonlith. Accessed April 2023. Available at: https://fnp-ppn.aadnc-aandc.gc.ca/FNP/Main/Search/FNReserves.aspx?BAND_NUMBER=690&lang=eng

INAC. 2023c. First Nations Profiles, Stswecem'c Xget'tem First Nation. Accessed April 2023. Available at: https://fnp-ppn.aadnc-aandc.gc.ca/fnp/Main/Search/FNReserves.aspx?BAND_NUMBER=723&lang=eng

INAC. 2023d. First Nations Profiles, Whispering Pines/Clinton. Accessed April 2023. Available at: https://fnp-ppn.aadnc-aandc.gc.ca/FNP/Main/Search/FNReserves.aspx?BAND_NUMBER=702&lang=eng

Kosciuch, Karl. Western EcoSystems Technology Inc. Wildlife Responses to PV Solar Energy Development. Presented at the Wildlife Society's 2021 annual conference.

Meidinger, Del and Pojar, Jim. 1991. Ecosystems of British Columbia. B.C. Ministry of Forests.

Multiagency Avian-Solar Collaborative Working Group, 2016. Avian-Solar Science Coordination Plan. Available at: https://blmsolar.anl.gov/program/avian-solar/docs/Final_Avian-Solar_Science_Coordination_Plan.pdf

Northern Shuswap Tribal Council. 2023. Access August 2023. Available at: https://nstq.ca/

[Province of BC] Province of British Columbia. 2021. Cumulative Effects Framework. Accessed June 2023. Available at: https://www2.gov.bc.ca/gov/content/environment/natural-resource-stewardship/cumulative-effects-framework/overview

Province of BC. 2023. DataBC iMapBC Mapping Tool. Available at: iMapBC - Province of British Columbia (gov.bc.ca)

Province of BC. 2023a. Contacts for First Nation Consultation Areas. Accessed February 2023. Available at: https://www2.gov.bc.ca/gov/content/data/geographic-data-services/land-use/contacts-for-first-nation-consultation-areas

Province of BC. 2023b. Habitat Wizard Mapping Tool. Accessed February 2023 at: https://maps.gov.bc.ca/ess/hm/habwiz/

Province of BC. 2023c. British Columbia Integrated Land and Resource Registry. 2023. Accessed February 2023. Available at: https://www2.gov.bc.ca/gov/content/data/geographic-data-services/land-use/integrated-land-resource-registry

Statistics Canada. 2021. Census of Population. Available at: https://www12.statcan.gc.ca/census-recensement/index-eng.cfm

Stswecem'c Xget'tem First Nation. Accessed April 2023. Available at: https://www.sxfn.ca/

[UNDRIP] United Nations Declaration on the Rights of Indigenous Peoples. 2007. Available at: https://www.un.org/development/desa/indigenouspeoples/declaration-on-the-rights-of-indigenous-peoples.html.

Village of Clinton. 2023. Village of Clinton Website. Available at: https://village.clinton.bc.ca/

Whispering Pines/Clinton Indian Band. Accessed April 2023. Available at: https://www.wpcib.com/

APPENDIX 1

PHOTOGRAPHS

Photograph 1. Overview of airstrip south of the Project area (June 7, 2023).

Photograph 2. View of access to Project area (maintained cross country/recreation vehicle trail (July 24, 2023).

Photograph 3. Overview of Project area (July 24, 2023).

Photograph 4. Overview of Project area (July 24, 2023).

Photograph 5. Overview of Project area. Note deadfall and downed trees (July 24, 2023).

Photograph 6. Overview of Project area (July 24, 2023).

Photograph 7. Overview of Project area (July 24, 2023).

Photograph 8. Overview of Project area (July 24, 2023).

Photograph 9. Overview of historic mapped wetland south of Project area (June 7, 2023).

Photograph 10. Overview of historic mapped wetland south of Project area (June 7, 2023).

Photograph 11. Overview of crossing of mapped watercourse "C" on east side of Highway 97. No indication of a watercourse or crossing structure (June 7, 2023).

APPENDIX 2

WILDLIFE SPECIES AT RISK

Table 1. Wildlife Species at risk*

Common Name	*Scientific Name*	*BC Status*	*SARA Status*	*COSEWIC Status*	*Potential to Occur*	*Rationale*
Mammals						
American Badger	*Taxidea taxus*	Red	1-E	E	Moderate-High	Occur in the Okanagan, Similkameen, Thompson, and Nicola valleys typically in grassland, shrub-steppe, and open stands of Ponderosa Pine and Douglas-fir. Elevational range is 400 to 1500 m, and occasionally up to 2400 m.
Bighorn Sheep	*Ovis canadensis*	Blue	Not listed	Not listed	Low	Suitable habitat including open areas with steep escape terrain are limited.
Fringed Myotis	*Myotis thysanodes*	Blue	3	DD	Low	Limited distribution in BC. Restricted to arid, low elevation valleys of the dry interior. Associated with arid grassland and forest habitat (Ponderosa Pine/Douglas fir forests). Its elevation range is 300 to 800 m.
Grizzly Bear	*Ursus arctos*	Blue	1-SC	SC	Low	Project area outside of Grizzly Bear range.
Hoary Bat	*Lasiurus cinereus*	Blue	Not listed	Not listed	Moderate	Associated with a variety of forested and grassland habitats in the province. Its elevational range is from sea level to 1250 metres.
Little Brown Myotis	*Myotis lucifigus*	Blue	1-E	E	Moderate	Exploits a wide range of habitats, from arid grassland and Ponderosa Pine forest to humid coastal forest and northern boreal forest.
Mountain Goat	*Oreamnos americanus*	Blue	Not listed	Not listed	Low	No alpine/sub-alpine habitat with steep escape terrain in Project area.
Northern Myotis	*Myotis septentrionalis*	Blue	1-E	E	Low	There are only three substantiated locality records for the province, including Hudson's Hope in the Peace River area, Mount Revelstoke National Park and the Revelstoke Dam. It might also occur in Glacier and Kootenay national parks.
Nutall's Cottontail	*Sylvilagus nuttallii*	Blue	1-SC	SC	Low	In BC associated with shrub-steppe with Antelope-Bush and Big Sage. Sagebrush and rocky outcrops are important habitat attributes.

Common Name	Scientific Name	BC Status	SARA Status	COSEWIC Status	Potential to Occur	Rationale
Spotted Bat	*Euderma maculatum*	Blue	1-SC	SC	Low	Low. Occurs in the southern Okanagan Valley to the Chilcotin River and Williams Lake region. Elevation range of 300 to 900 m with most occurrences below 500 m.
Townsend's Big-eared Bat	*Corynorhinus townsendii*	Blue	Not listed	Not listed	Moderate	Occurs in the arid grasslands, coniferous and deciduous forests in the interior of BC. Elevation ranges from sea level to 1070 m, although most occurrences are at lower elevations. Elevation could be a limiting factor.
Western Harvest Mouse	*Reithrodontomys megalotis*	Blue	1-SC	E	Low	Distribution in BC extends from Osoyoos Lake to Vernon in the Okanagan Valley and from Chopaka to Keremeos in the Similkameen Valley.
Western Small-footed Myotis	*Myotis ciliolabrum*	Blue	Not listed	Not listed	Low	Restricted to low elevation valleys in the dry interior of BC. In BC found at elevations of 300 – 850 m.
White-tailed Jackrabbit	*Lepus townsendii*	Red	Not listed	Not listed	Low	Mostly found in open grasslands and sagebrush plains. Considered extirpated from BC with last confirmed sighting in 1981.
Wolverine, *luscus* subspecies	*Gulo luscus*	Blue	1-SC	SC	Low	Distribution of Wolverines in British Columbia is not well known, although they occur widely and are reportedly relatively abundant in the northern two-thirds of the province.
Birds						
Band-tailed Pigeon	*Patagioenas fasciata*	Blue	1-SC	SC	Low	Occurs in costal regions of BC.
Barn Owl	*Tyto alba*	Red	1-T	T	Low	Core breeding range in BC is the lower Fraser River east to Hope. Recent records indicate populations may become established in the Okanagan Valley. Typically found in agricultural areas.
Barn Swallow	*Hirundo rustica*	Blue	1-T	SC	Moderate	Frequently occurs near water. Nests in barns or other buildings, under bridges, in caves or cliff crevices, or on vertical surface close to ceiling (structures not present).

Common Name	Scientific Name	BC Status	SARA Status	COSEWIC Status	Potential to Occur	Rationale
Canyon Wren	*Catherpes mexicanus*	Blue	Not listed	Not listed	Low	Very small range in BC with bulk of population restricted to the Okanagan Valley south of Naramata. Occasional records exist as far north as Kamloops and as far west as Hedley.
Evening Grosbeaks	*Coccothraustes vespertinus*	Yellow	1-SC	SC	Moderate	Evening Grosbeak is found in British Columbia from sea level to high mountainous forest (i.e., up to 1950 m).
Flammulated Owl	*Psiloscops flammeolus*	Blue	1-SC	SC	Moderate	Restricted to old, dry and higher elevation Douglas-fir and Ponderosa Pine forest zones in BC.
Gray Flycatcher	*Empidonax wrightii*	Blue	Not listed	Not listed	Low	Most associated with pinyon-juniper woodland. In BC exclusively uses open stands of small to medium ponderosa pine stands in extreme southern BC.
Great Blue Heron, *herodias* subspecies	*Ardea Herodias herodias*	Blue	Not listed	Not listed	Moderate	Potential to use the Project area for foraging or roosting.
Lewis's Woodpecker	*Melanerpes lewis*	Blue	1-T	T	Moderate	Typically occur at low elevations in south-central BC. Breeds in open forested areas with grassy understory and riparian Cottonwood stands at low elevations. Could be limited by elevation.
Olive-sided Flycatcher	*Contopus cooperi*	Blue	1-T	SC	Moderate	Widely distributed throughout BC. Potential to use riparian coniferous stands. Occurs in coniferous or mixed deciduous/coniferous forests.
Sharp-tailed Grouse, *columbianus* subspecies	*Tympanuchus phasianellus columbianus*	Blue	Not listed	Not listed	Low	Known to two areas in the south-central interior of British Columbia, associated with different habitat types. Populations in the southern part of their distribution (Thompson-Nicola region) are associated primarily with climax grassland ecosystems. Populations in the northern part of their distribution are associated primarily with sedge meadow complexes and large openings.

Common Name	Scientific Name	BC Status	SARA Status	COSEWIC Status	Potential to Occur	Rationale
						created by stand-replacing fires or harvesting, and to a lesser extent with climax grasslands adjacent to forested areas.
Spotted Owl	*Strix occidentalis*	Blue	1-SC	SC	Low	Limited range in BC. Restricted to the western Cascades, Coast Range east of the Capilano River, and south of Birkenhead Lake and Lillooet.
Swainson's Hawk	*Buteo swainsoni*	Red	Not listed	Not listed	Low	Breeds mainly in the Thompson-Okanagan Platea. Occurrences in the Douglas plateau.
Western Screech-Owl, *macfarlanei* subspecies	*Megascops kennicotti macfarlanei*	Blue	1-T	T	Moderate	Restricted to moist woodlands along streams and lakes.
White-headed Woodpecker	*Dryobates albolarvatus*	Red	1-E	E	Low	Has a restricted distribution, within a narrow belt of dry, pine-dominated mountains and valleys in extreme southern British Columbia. Breeding records from BC are confined to the southern Okanagan valley.
Williamson's Sapsucker	*Sphyrapicus thyroideus*	Blue	1-E	E	Moderate	The majority of the breeding records have been in, or within 200 m of, Western Larch forests at elevations of 1000 to1400 m. A smaller proportion of breeding adults may be found in Ponderosa Pine forests and Trembling Aspen groves adjacent to Ponderosa Pine or Western Larch forests, generally at elevations of 800 to 1100 m.
Yellow-billed Cuckoo	*Coccyzus americanus*	Red	Not listed	Not listed	High	Observations near Clinton Creek and three Mile Lake near Clinton. Breeds in open woodlands with clearings and low, dense, scrubby vegetation, often associated with permanent watercourses.
Yellow-breasted Chat	*Icteria virens*	Red	1-E	E	Low	Range mostly restricted to the southern Okanagan, Similkameen Valleys and the Kootenay area near the Pend d'Oreille River.
Amphibians and Reptiles						

Common Name	Scientific Name	BC Status	SARA Status	COSEWIC Status	Potential to Occur	Rationale
Desert Nightsnake	*Hypsiglena chlorophaea*	Red	1-E	E	Low	Generally restricted to dry, semi-arid, low elevation grasslands and valleys in southern BC.
Great Basin Spadefoot	*Spea intermontane*	Blue	1-T	T	Low	Typically occurs in sagebrush flats, semi-desert shrublands, pinyon-juniper woodland.
Northern Rubber Boa	*Charina bottae*	Yellow	1-SC	SC	Low	Occurs in mountainous regions and dry lowland areas often associated with rock outcrops, rock piles, rock bluffs, or talus slopes. In forested areas, snakes may be found in clearings, under or near rocks.
North American Racer	*Coluber constrictor*	Blue	1-SC	T	Low	Inhabit grassland and shrub-steppe ecosystems.
Western Skink	*Plestiodon skitonianus*	Blue	1-SC	SC	Moderate	Found across southern BC in a wide range of habitats – dry woodland, grassland, creeks, and in forest clearings.
Wester Toad	*Anaxyrus boreas*	Yellow	1-SC	SC	High	Occurs from the Rocky Mountains to the Pacific Coast, from sea level to 3660 m in a wide range of habitats.
Western Rattlesnake	*Crotalus oreganus*	Blue	1-T	T	Low	Generally restricted to dry, semi-arid, low elevation grasslands and valleys in southern BC. Denning sites tend to be at lower elevations in the hottest valleys of BC (i.e., Okanagan and Thompson).
Invertebrates						
Callused Vertigo	*Vertigo arthuri*	Blue	Not listed	Not listed	Low	Known locations are scattered in the Peace River area and the central interior. Only two known occurrences – Lillooet and Norwest of Farmington (above Kiskatinaw River).
Checkered Skipper	*Pyrgus communis*	Blue	Not listed	Not listed	Low	Species has a large range in BC; however, low number of occurrences and few locations within this range. Found in xeric habitats in the Okangan and Kootenays.

Common Name	Scientific Name	BC Status	SARA Status	COSEWIC Status	Potential to Occur	Rationale
Hoffman's Checkerspot	*Chlosyne hoffmanni*	Red	Not listed	Not listed	Low	Known to be found only in the Cascades and Sierras, from Manning Provincial Park, BC, south to the United States.
Jutta Arctic, *chermocki* subspecies	*Oeneis jutta chermocki*	Blue	Not listed	Not listed	Low	Species has a large range in BC; however, there are few records within the range. Known to occur in Lodgepole Pine forest clearings, forest edges, and in bogs.
Lilac-bordered Copper	*Lycaena nivalis*	Blue	Not listed	Not listed	Low	Occurs in the south Okanagan valley eastward to Grand Forks.
Mormon Fritillary, *erinna* subspecies	*Speyeria mormonia erinna*	Red	Not listed	Not listed	Moderate	Ranges throughout BC.
Nevada Skipper	*Hesperia nevada*	Blue	Not listed	Not listed	Low	Low. Grasslands species which occurs in xeric habitats of the Southern Interior.
Silver-spotted Skipper	*Epargyreus clarus*	Blue	Not listed	Not listed	Low	Resident of extreme southern Canada.

*Search Criteria: Ecosystem Realm-Groups: Forest OR Mineral Wetland Group OR Peatland Group OR Ecosystem Classes: Spring-seepage Class (Hs) OR Vernal Pool Class (Hv) OR Rock Outcrop Class (Ro) OR Cliff Class (Rc) AND BC Conservation Status: Red (Extirpated, Endangered, or Threatened) OR Blue (Special Concern) AND Distribution: Native OR Endemic (Yes, Probable, or Breeding) OR Probable Endemic AND 'Natural Resource (NR) Districts':100 Mile House Natural Resource District AND BGC Zone, Subzone, Variant, Phase: IDFdk3

APPENDIX 3

EARLY ENGAGEMENT PLAN

Chasm Solar and Energy Storage Project
Early Engagement Plan

Chasm BC Solar Project Limited Partnership

RECURRENT ENERGY
A subsidiary of Canadian Solar

98 San Jacinto Blvd.; Ste. 750, Austin, TX 78701 *chasmsolar@recurrentenergy.com*

CHOOSE FROM DROPDOWN

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List of Abbreviations and Units

Abbreviation	*Definition*
AC	Alternating current
Chasm Solar	Chasm BC Solar Project Limited Partnership
BC	British Columbia
BC EAA	British Columbia *Environmental Assessment Act*
BC EAO	British Columbia Environmental Assessment Office
BC MOE	British Columbia Ministry of Environment
BC MFLNRORD	British Columbia Ministry of Forests, Lands, Natural Resource Operations and Rural Development
BC MOF	British Columbia Ministry of Forests
BC WLRS	British Columbia Ministry of Water, Land and Resource Stewardship
DFO	Fisheries and Oceans Canada
DPD	Detailed Project Description
EA	Environmental Assessment
EPIC	EAO Project Information Centre
GBA+	Gender Based Analysis
GHG	Greenhouse Gas
ha	Hectare
HFR	Heritage Field Reconnaissance
IPD	Initial Project Description
IRLL	Integrated Land and Resource Registry
LEH	limited entry hunting
MWac	megawatts of AC power
NStQ	Northern Shuswap Tribal Council
PFR	Preliminary Field Reconnaissance
PV	Photo-voltaic
RAAD	Remote Access to Archaeological Data
ROW	Right of way
The Plan	Early Engagement Plan
The Project	Chasm Solar and Energy Storage Project
UNDRIP	United Nations Declaration on the Rights of Indigenous Peoples

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1.0 Introduction and Purpose

1.1 Introduction

Chasm BC Solar Project Limited Partnership ("Chasm Solar") proposes to develop the Chasm Solar and Energy Storage Project (the "Project") for the purposes of producing clean renewable solar energy in the Cariboo Region of the Central Interior of British Columbia (BC). Chasm Solar is a subsidiary of Recurrent Energy. Chasm Solar proposes to construct, operate, and maintain the Project. The Project is anticipated to include approximately 100 megawatts of alternating current (AC) power (MWac) generation capacity and would consist of installation of solar photo-voltaic (PV) modules, battery storage system, overhead transmission lines to connect the solar array to an existing BC Hydro transmission line, and access roads. The current proposed Project area is approximately 205 hectares (ha).

1.2 Purpose

The Early Engagement Plan ("the Plan") is included as an appendix to the Project Initial Project Description (IPD). The IPD and the Plan are used to initiate the Early Engagement Phase of the environmental assessment process with the British Columbia Environmental Assessment Office (BC EAO). The BC EAO Early Engagement Policy (2019) states, in part:

"…the early engagement phase establishes an important preparatory stage during which meaningful conversations can begin about a proposed project with the project proponent, Indigenous nations, the public, local governments, provincial, and federal government agencies, and other stakeholders to identify potential interests, issues and concerns early in the EA process…"

Chasm Solar understands that this early phase of engaging and listening to Indigenous nations and various parties is meant to set the foundation for the remainder of the process and assist in the learnings of the key issues and interests of those parties to better inform the development of the approved Detailed Project Description (DPD) as well as Project design, siting, and alternative approaches to developing the proposed Project. The IPD has been prepared early in the design process prior to finalization of all Project components and layout to allow for feedback.

Chasm Solar further understands that engagement in support of environmental assessment is a living and evolving process – initial project plans are made available for review and comment using a range of methods, and the resulting comments are used to further shape the project plan to address concerns and to plan further engagement activities. Therefore, this Plan is meant to be flexible throughout the environmental assessment process and the eventual life of the Project.

Chasm Solar anticipates that key Communities of Interest including Indigenous nations, members of the public, and other stakeholders may be identified for deeper engagement and others may not express an interest other than general Project updates. Specific meetings, the distribution of Project information packages, communications and

distribution of Project materials including community presentations may need to be added to the Plan as we move forward to assist with understanding of emerging issues thorough the environmental assessment process.

In accordance with the afore-mentioned policy, understandings and commitments, the Plan provides a brief overview of the proposed Project, identifies the Communities of Interest including Indigenous nations, local communities and public stakeholders potentially affected by the Project, and describes the early engagement and communications that has been conducted to develop the Plan and the IPD and the continuous methods Chasm Solar will employ during the Early Engagement period, from the IPD submission through to the DPD development and through the environmental assessment process.

2.0 Project Contact Information

2.1 Key Project Contacts

Chasm BC Solar Project Limited Partnership ("Chasm Solar") proposes to develop, construct, and operate the Chasm Solar and Energy Storage Project (the "Project") for the purposes of producing clean renewable solar energy in the Cariboo region of the BC Central Interior. Chasm Solar is a subsidiary of Recurrent Energy. Chasm Solar has an Agreement-in-Principle with the High Bar First Nation, whose designated representative will form part of the Chasm Solar Project team.

Chasm BC Solar Project Limited Partnership contact information:

Chasm BC Solar Project Limited Partnership
98 San Jacinto Blvd. Suite 750
Austin, TX 78701

Attention: Mr. David Marieno; Manager - Development
Email: chasmsolar@recurrentenergy.com

Attention: Mr. Riley Griffin; Manager - Permitting
Email: chasmsolar@recurrentenergy.com
Phone: 226-821-1045

Chasm Solar retained Triton Environmental Consultants Ltd. (Triton) to assist with preparation of the IPD and provide support during the Early Engagement Phase for the Project.

Triton contact information:

Triton Environmental Consultants Ltd.
#1- 4600 29th Street
Vernon, BC
V1T 5B9
URL: www.triton-env.com

Attention: Ms. Kellen Smith - Project Manager
Email: chasm.engagement@triton-env.com

Attention: Ms. Karen Baylis, - Director of Indigenous Relations
Email: chasm.engagement@triton-env.com

3.0 General Project Information

3.1 Project Sector and Type

The Project sector is clean power generation using solar PV modules. PV panels convert light to electrical energy via the photovoltaic effect. The Project will also include a battery energy storage system (BESS).

3.2 Project Location

The Project is located on BC Crown land in the Central Interior of BC approximately 10 km north of Clinton and 50 km south of 100 Mile House, BC directly west of Highway 97 within the boundaries of the Thompson-Nicola Regional District (Figure 1 of the IPD). More specifically, the "Project area" is within the boundaries of a BC Crown land Solar Investigative Licence and Licence of Occupation (BC Investigative License 516729, File No. 5407953) which provides Chasm Solar the opportunity to undertake necessary studies to determine the engineering, technical, economic, and environmental viability of the Project. The land area within the boundaries of the Investigative Licence tenure area is approximately 3,125 ha. The current proposed layout and development area currently being studied by Chasm Solar (or "Project area") consists of approximately 205 ha, which represents roughly 7% of the tenured area.

Chasm Solar respectfully acknowledges the proposed Project is located within the traditional territory of the Secwépemc Nation peoples and is within the consultative boundaries of several Indigenous communities and organizations as indicated in Table 2. Additional information on Indigenous nations with traditional territories that overlap with the Project and who potentially have an interest in the Project is provided in Section 5 of the Plan, including proximity to the Project area. Areas of interest or value to Indigenous nations will be drawn upon further during continued communication and engagement with Indigenous nations during the Early Engagement Phase.

3.3 Project Purpose and Rationale

This Project meets the criteria for review set out under the *Environmental Assessment Act* (2018). According to Part 4(12) and Table 7 of the Reviewable Projects Regulation (BC Reg. 67/2020), proposed electricity projects are reviewable under the BC EAA if they have a total nameplate capacity of greater than 50 MW. Chasm Solar submits the IPD and this Plan for consideration by the BC EAO to support the Early Engagement Phase of the environmental assessment process. The purpose of the Project includes:

- Generation of a low-cost and greenhouse gas (GHG)-free, reliable, clean and renewable power source to help increase energy security within the Central Interior region of BC;
- Help BC meet its climate goals and commitments including GHG reduction goals;
- Advance the BC government's reconciliation objectives with BC Indigenous nations by creating economic and employment opportunities for regional Indigenous nations and rural communities; and

- Supporting BC Hydro's June 15, 2023 news release that states the intent to procure new sources of renewable and emission-free electricity to power BC. Electricity demand is expected to increase by 15% between now and 2030, the news release states.

The Project rationale is compliant with the BC *Clean Energy Act* (2010), which among other things, specifies that the Province is to achieve electricity self-sufficiency with the goal of generating at least 93% of the electricity in BC from clean or renewable resources and build the infrastructure necessary to transmit that electricity. The BC *Clean Energy Act* further states that power development should encourage economic development and the creation and retention of jobs and foster the development of Indigenous nations and rural communities through the use and development of clean or renewable resources.

Additional Project details and information including potential Project benefits, historic and current Project status, potential project components and infrastructure, phases, biophysical and socioeconomic settings of the Project area, and Project location maps are provided in the Project IPD.

3.4 Communities of Interest

Chasm Solar recognizes identifying Communities of Interest and ensuring they have an opportunity to participate in a meaningful manner that is practical for them is a valuable part of meaningful engagement. Chasm Solar has identified the following initial Communities of Interest:

- Indigenous nations with a potential interest in the Project area;
- Members of the public and stakeholders including residents of nearby communities, tenure holders in the Project area, business groups, and public interest groups;
- Members of vulnerable or under-represented groups (e.g., ethnic minorities, elderly, young, members of the disability community, unemployed, and visually or hearing impaired); and
- Local governments and federal and provincial government agencies.

4.0 General Engagement Methods

4.1 Overview

The purpose of Chasm Solar's engagement for the Project is to ensure that Indigenous nations and other Communities of Interest including local governments, provincial and federal governments, the public and other interested parties are informed about the Project, have access to information, and are encouraged to provide feedback during the Early Engagement Phase and Environmental Assessment process. Early engagement will be through the contacts identified for each of the Indigenous nations and groups, public stakeholders, and provincial, federal, and local government representatives and agencies and other interested parties. Continual coordination with each of the Indigenous nations with a potential interest in the Project or Project area or who are potentially affected by the Project, will be necessary to determine how and at what level of engagement they want to be engaged. Chasm Solar proposes the following outline of the method and frequency of engagement with each Indigenous nation and various public and stakeholder groups (Table 1). The frequency of engagement will be dependent on how each Indigenous nation prefers to be engaged and will consider individual nation's engagement policies and protocols. Project updates will be shared on a regular basis and in timely manner. Constraints such as capacity for in person meetings, location of meetings, weather, accessibility, schedules, etc. will be considered and engagement will be tailored accordingly.

The Indigenous nations and public stakeholders identified in Tables 2 and 9 include those that Chasm Solar has shared Project information with or engaged during pre-early engagement and the development of the IPD and the Plan along with those that Chasm Solar intends to engage with on a continuous basis where the nation has expressed an engagement interest.

Table 1. General methods of engagement

Groups	*Frequency*	*Method of Engagement*
Indigenous nations	As needed and regularly to provide Project updates and information.	Virtual or in-person Project discussion meetings with Chief and Council, relevant departments and band administration and community members. Project information and updates provided through emails, letters, phone calls, and referrals. Information sharing through Project website updates and marketing materials. A Project email address (chasmsolar@recurrentenergy.com) is available to receive Project inquiries and provide timely responses. Paper copies of Project documents, including the IPD, will be provided upon request.
General public and stakeholders	As needed and regularly to provide Project updates and information.	Project emails, phone calls, or in-person or virtual meetings depending on individual preference. Project information and updates provided through

Groups	*Frequency*	*Method of Engagement*
		emails, letters, and phone calls. Information sharing through Project website and marketing materials. A Project email address (chasmsolar@recurrentenergy.com) is available to receive inquiries and provide timely responses. Paper copies of Project documents, including the IPD, will be provided upon request.
Provincial and Federal regulatory agencies	As needed and regularly to report on regulatory milestones and provide Project updates and information.	Project emails, phone calls, or in-person or virtual meetings. Project information and updates provided through emails, letters, and phone calls. Information sharing through Project website.
Municipal and local government	As needed and regularly to provide Project updates and information.	Project emails, phone calls, or in-person or virtual meetings. Project information and updates provided through emails, letters, and phone calls. Information sharing through Project website.

4.2 Tracking and Addressing Feedback

Chasm Solar will continue to track and collect feedback received during the Early Engagement Phase in communication and engagement logs that record the dates of the engagement, correspondence and document exchanges, meeting attendees from each organization, and the feedback received in relation to the Project. The tracking record will also include Chasm Solar's responses and how issues raised will be addressed. These engagement logs will serve as a record of communication between Chasm Solar and groups identified for engagement, as well as any follow-up requirements, decisions, and commitments.

Input and feedback gathered during the Early Engagement Phase will be considered by Chasm Solar's project team and used to inform the Project, including its design and development and development of the DPD. Chasm Solar intends to proactively address questions and comments raised by Communities of Interest including Indigenous nations, the public, stakeholders, government agencies, and other affected groups through timely, open and respectful discussions.

The Plan and the IPD will be posted on the public Project website and the BC EAO Project Information Centre (EPIC) website with frequent updates by the Project team to incorporate updates based on learnings throughout the engagement process. Any updates to this Plan will be circulated via email by the project team to the key representative for each identified group in a timely and consistent manner.

5.0 Indigenous Nations Engagement

5.1 Overview

Chasm Solar is committed to working meaningfully with Indigenous nations who have an interest in the Project. As currently defined, the Project falls within the asserted traditional territory of the Secwépemc nation peoples and the consultative boundaries of several Indigenous communities (Table 2).

Chasm Solar recognizes the importance of respectfully engaging with Indigenous nations and communities throughout the development of the Project and the environmental assessment process. Chasm Solar has a history of building positive, collaborative, and sustainable relationships with Indigenous nations and communities who are affected by its project development efforts. In support of this commitment, Chasm Solar will meaningfully engage with indigenous communities to better understand traditional land and resource use; and explore opportunities for mutual benefit with Indigenous communities throughout the development of the Project.

With those commitments in mind, Chasm Solar will continue the dialogue with Indigenous nations and groups throughout the life of the project and during the environmental assessment process. Communication may include, but is not limited to:

- Identification of communication protocols, policies, and procedural requirements of each Indigenous nation;
- Identification of further informational and engagement requirements of each Indigenous nation;
- Development of a deep understanding of the unique connection to the past and future uses of the area potentially affected by the proposed Project; and
- Assurance that each Indigenous nation has all the information required about the Project to help inform them in their decision-making process.

Where appropriate and mutually agreed upon, Chasm Solar will enter into memorandums of understanding or other agreements with Indigenous nations and organizations to define the Project relationship, the preferred engagement and information-sharing protocols, and long-term goals beyond the review of the Project.

5.2 Indigenous Nations and Contacts

The Project area is located within the Cariboo region of the Central Interior BC, within proximity to potentially interested Indigenous nations. Chasm Solar respectfully acknowledges the Project area is within the traditional territory of the Secwépemc nation peoples. The Project area is on Crown land and does not overlap with *Indian Act* reserve lands, lands subject to a Treaty, or lands subject to a land claim agreement. A list of the Indigenous nations and organizations identified for engagement are summarized in Table 2, whose traditional territory overlaps with the Project area. Chasm Solar generated this list by using the provincial Consultative Areas Database (Province of BC, 2023a) and preliminary feedback from the BC EAO.

Table 2. List of Indigenous nations and contact information

Indigenous Groups	*Representatives and Contact Information*
High Bar First Nation	Chief and Council PO Box 458 Clinton, BC V0K 1K0
Neskonlith First Nation	Chief and Council 743 Chief Neskonlith Drive PO Box 318 Chase, BC V0E 1M0
Stswecem'c Xget'tem First Nation	Chief and Council General Delivery Dog Creek, BC V0L 1J0
Whispering Pines/Clinton Indian Band	Chief and Council 615 Whispering Pines Drive Kamloops, BC V2B 8S4
Northern Shuswap Tribal Council Society	17 First Avenue South Williams Lake, BC V2G 1H4 NStQ Portal: www.nstqconnect.com/referals

5.3 Indigenous Nations and Groups

5.3.1 Secwépemc Nation

The territory of the Secwépemc people is called Secwepemcúĺecw and stretches approximately 145,000 km^2 from the eastern Chilcotin Plateau and the Cariboo Plateau southeast through the Thompson Valley to Kamloops and Shuswap. It was originally inclusive of 32 recognized communities that have been categorized into 17 through the *Indian Act*. Indigenous nations identified for engagement on the Project include High Bar First Nation, Neskonlith First Nation, Stswecem'c Xget'tem First Nation, and Whispering Pines/Clinton Indian Band.

5.3.1.1 High Bar First Nation

High Bar First Nation is an Indigenous government and Secwépemc (Shuswap) nation located in the Caribou region of the Central Interior of BC. High Bar First Nation is not affiliated with a tribal council or association and creates their own governance and decision-making rules to protect and enhance cultural integrity, social harmony and economic stability for the Nation. High Bar First Nation and the Government of BC have the following agreements (Province of BC, 2023a):

- High Bar Forest Consultation and Revenue Sharing Amendment Agreement – 2022.

A summary of communications and engagement to date with High Bar First Nation is provided in Table 3.

Table 3. Summary of communications and engagement with High Bar First Nation

Date	*Activity/Type of Communication*	*Comments*
March 8, 2020	Community meeting and newsletter	Meeting held to share information about the Investigative Licence application and Chasm Solar Feasibility Study.
March 30, 2023	Email	Introduced Project through a Project introduction letter and map.
May 3, 2023	Email	DRAFT Chasm IPD and Early Engagement Plan shared with High Bar First Nation for review.
May 8, 2023	Email	Follow up email with Natural Resources Referrals.
May 26, 2023	Email	Comments on IPD and Early Engagement Plan received and incorporated into the DRAFT IPD
June 15, 2023	Virtual meeting	Meeting held with High Bar First Nation to review comments. Comments incorporated into IPD and Early Engagement Plan.
July 24, 2023	Site visit	Representatives attended a site visit to the Project area with Chasm Solar's environmental consultant.
August 22, 2023	Virtual meeting	Representative attended virtual meeting with Stswecem'c Xget'tem First Nation

5.3.1.2 Neskonlith Indian Band

Neskonlith Indian Band reserve lands are comprised of three land parcels totalling 2,811.2 ha of reserve land, centred approximately 130 km southeast of the Project area (INAC, 2023b) along the South Thompson River just below Little Shuswap Lake near Chase, BC. Neskonlith Indian Band is part of the Shuswap Nation Tribal Council. Neskonlith Indian Band and the Government of BC have the following agreements (Province of BC, 2023b):

- Neskonlith Forest Consultation and Revenue Sharing Agreement – 2019.

A summary of communications and engagement to date with Neskonlith Indian Band is provided in Table 4.

Table 4. Summary of communications and engagement with Nesklonlith Indian Band

Date	*Activity/Type of Communication*	*Comments*
March 30, 2023	Email	Introduced Project through a Project introduction letter and map.
March 30, 2023	Email	Chasm Solar informed NationsConnect is Neskonlith Indian Band's referrals portal Uploaded Project letter and information to NationsConnect.
May 8, 2023	Email	Follow up email sent and Project Location Package including maps and shapefiles provided.

Date	*Activity/Type of Communication*	*Comments*
June 29, 2023	Email	Follow up email sent.
August 3, 2023	Email	Resent the Project introduction letter and the Project Location Package.
September 11, 2023	Email	Follow up email sent and shared the DRAFT IPD and Early Engagement for comment.

5.3.1.3 Stswecem'c Xget'tem First Nation

Stswecem'c Xget'tem First Nation reserve lands are comprised of twelve land parcels totalling 5,880.4 ha of land centred approximately 63 km northwest of the Project area (INAC, 2023c). Stswecem'c Xget'tem First Nation is a northern Secwépemc First Nation government located approximately 85 km southwest of Williams Lake and 58 km northwest of Clinton, BC comprised of Stswecem'c (Canoe Creek) and Xget'tem (Dog Creek) communities (Stswecem'c Xget'tem, 2023). Northern Shuswap Tribal Council (Northern Secwépemc to Qelmucw [NStQ]) is negotiating with BC and Canada in the BC treaty process on behalf of its four member bands, including Stswecem'c Xget'tem First Nation. Stswecem'c Xget'tem First Nation and the Government of BC have the following agreements (Province of BC, 2023c):

- Stswecem'c Xget'tem First Nation Umbrella Agreement – 2022.
- Canoe Creek (Stswecem'c Xget'tem) Incremental Treaty Agreement – 2016.
- Stswecem'c Xget'tem Forest and Range Consultation and Revenue Sharing Agreement – 2023.

Other agreements:

- NStQ Yecweminul'ecw Land and Resource G2G Amending Agreement – 2021.
- NSTQ Yecweminul'ecw Government-to Government Agreement – 2018.

A summary of communications and engagement with Stswecem'c Xget'tem First Nation is provided in Table 5.

Table 5. Summary of communications and engagement with Stswecem'c Xget'tem First Nation

Date	*Activity/Type of Communication*	*Comments*
March 20, 2020	Meeting and newsletter	Meeting held to share information about the Investigative Licence application and Chasm Solar Feasibility Study.
March 30, 2023	Email	Introduced Project through an early notice letter and map.
May 8, 2023	Email	Follow up email sent and Project Location Package including maps and shapefiles provided.
May 12, 2023	Email	Requested Project introduction meeting with Chasm Solar.

Date	*Activity/Type of Communication*	*Comments*
July 12, 2023	Virtual meeting	Project introduction meeting held.
July 24, 2023	Site visit	Representatives attended a site visit to the Project area with Chasm Solar's environmental consultant.
August 3, 2023	Email	Shared the DRAFT Chasm IPD for review.
August 22, 2023	Virtual meeting	Review of DRAFT Chasm IPD with Stswecem'c Xget'tem First Nation Stewardship Department.
September 1, 2023	Email	Follow up communications about comments to DRAFT Chasm IPD.

5.3.1.4 Whispering Pines/Clinton Indian Band

Whispering Pines/Clinton Indian Band reserve lands are comprised of three land parcels totalling 565.2 ha of reserve land centred approximately 4.3 km from the Project area (INAC, 2023d) and 35 km north of Kamloops, BC. The Whispering Pines/Clinton Indian Band are known as the Pelltiq't People and are part of the Shuswap Nation Tribal Council (Whispering Pines/Clinton Indian Band, 2023). Whispering Pines/Clinton Indian Band and the Government of BC have the following agreements (Province of BC, 2023d):

- Whispering Pines Forest Consultation and Revenue Sharing Agreement – 2021.

A summary of communications and engagement with Whispering Pines/Clinton Indian Band to date is provided in Table 6.

Table 6. Summary of communications and engagement with Whispering Pines/Clinton Indian Band

Date	*Activity/Type of Communication*	*Comments*
March 20, 2020	Phone call and email	Shared information about the Investigative Licence application and Chasm Solar Feasibility Study.
March 30, 2023	Email	Introduced Project through an early notice letter and map.
May 1, 2023	Email	Project response provided.
May 8, 2023	Email	Follow up email sent and Project Location Package (.kmz, shapefiles, and Project location maps) provided.
May 10, 2023	Email	Consultation response received.
June 29, 2023	Email	Follow up about setting up Project introduction meeting.
July 18, 2023	Phone call	Discussion with Referrals Coordinator/Economic Development Team Lead about the Project and next steps.
July 24, 2023	Site visit	Representatives attended a site visit to the Project are with Chasm Solar's environmental consultant.
July 26, 2023	Virtual meeting	Project introduction meeting held.
August 3, 2023	Email	Shared the DRAFT Chasm IPD for review.

Date	*Activity/Type of Communication*	*Comments*
August 30, 2023	Email	Follow up communications about comments (if any) to DRAFT Chasm IPD and shared DRAFT Early Engagement Plan.

5.3.1.5 Northern Shuswap Tribal Council

The Northern Secwépemc te Qelmúcw (NStQ), or Shuswap people of the north, are an Interior Salish people with traditional territory that extended from the Rocky Mountains in the east, south towards Cache Creek and Lillooet, west to Alexis Creek and north to Quesnel. The land is called Secwépemcúlécw (Northern Shuswap Tribal Council, 2023). The Northern Shuswap Tribal Council includes four autonomous NStQ nations; Stswecem'c Xget'tem First Nation, Williams Lake First Nation, Canim Lake Band (Tsq'escen'), and Xatśūll First Nation. The Northern Shuswap Tribal Council is negotiating with BC and Canada in the BC treaty process on behalf of its four member bands. The Northern Shuswap Tribal Council and the Government of BC have the following agreements (Province of BC, 2023e):

- NStQ Yecweminul'ecw Land and Resource G2G Amending Agreement – 2021.
- NStQ Yecweminul'ecw Government-to Government Agreement – 2018.

A summary of communications and engagement with Northern Shuswap Tribal Council to date is provided in Table 7.

Table 7. Summary of communications and engagement with Northern Shuswap Tribal Council

Date	*Activity/Type of Communication*	*Comments*
August 17, 2023	Email	BC EAO identified Northern Shuswap Tribal Council as an Indigenous group that should be notified of the Project.
August 24, 2023	Email	Chasm Solar set up an account in NStQ Connect.
August 29, 2023	Email	NStQ account approved.
August 31, 2023	Project introduction via NStQ Connect	Completed referral form. Uploaded Project introduction letter, Project Location Package (.kmz, shapefiles, and Project location maps) and the DRAFT Chasm IPD and Early Engagement Plan to the NStQ Connect Referrals system.
August 31, 2023	Email	Received confirmation the referral was submitted via the NStQ Connect Referrals system.
September 26, 2023	NStQ Connect message	Message received in the NStQ Connect portal that the file is currently undergoing deeper consultation with Stswecem'x Xge'tem First Nation leadership.

5.4 Indigenous Nations Locations of Interest

Chasm Solar is seeking information from Indigenous nations that are currently being engaged or will engage with and additional information will be provided based on engagement. Potential Project interactions and impacts on Indigenous interests will be identified through further engagement.

5.5 Summary of Indigenous Nations Communication and Engagement

5.5.1 Project History

BC corporation and solar power developer Sunfield Energy Inc. (Sunfield) began engagement with Indigenous groups, government agencies, and community stakeholders in preparation of the process of the BC Crown land Investigative Licence and Licence of Occupation administered by the Ministry of Forests, Lands, Natural Resources and Rural Development (MFLNRORD). The application was submitted on June 19, 2019 which included the development plans and maps which were publicly posted online by MFLNRORD for Indigenous nations, stakeholder, and public comment. During that process various Indigenous nations and stakeholders were notified and invited to provide feedback and input to the regulatory process (see Table 3 – 7). Further, Sunfield provided early information on the proposed project to the High Bar First Nation, the Stswecem'c Xget'tem First Nation, and the Whispering Pines/Clinton Indian Band. Chasm Solar was granted BC Investigative Licence #516729, file no. 5407953 with a commencement date of December 8, 2020. The Investigative Licence Tenure has since been assigned to and assumed by the Chasm BC Solar Project Limited Partnership.

5.5.2 Communication and Engagement to Date

Communications and pre-early engagement with Indigenous nations to date is provided in Table 3 - 7. Communications to date include the following:

- Information about the Investigative Licence application and Chasm Solar Feasibility Study was shared via phone calls, emails, and meetings with Indigenous nations in March and February 2020.
- Chasm Solar provided Indigenous nations identified in Table 2 with a Project introduction letter via email in March 2023 which introduced Chasm Solar, the Project, and provided Project contact information (see Table 3 - 7).
- Chasm Solar has provided virtual and in-person Project information meetings with Indigenous nations that have requested them (see Table 3 – 7). Additional meetings will be held as requested.
- A site visit was conducted to the site in July 2023 (see Table 3 – 7 for attending Indigenous nations).
- Chasm Solar followed up on the Project introduction letter with Indigenous nations via email and phone calls in May and June 2023.
- Chasm Solar shared the DRAFT IPD and Early Engagement Plan with Indigenous nations in August and September 2023.

- Communications are ongoing (see Table 3 - 7).

Chasm Solar will seek to further understand the interests of Indigenous nations during the Early Engagement Phase. Chasm Solar understands BC EAO will provide a Summary of Engagement document which will include a list of Participating Indigenous Nations and feedback received following the Early Engagement Phase.

5.6 Interests and Issues Identified by Indigenous Nations

Indigenous interests or concerns about the Project or the Project area that have been raised to Chasm Solar by Indigenous nations or groups during pre-early engagement are summarized in Table 8. These are provided in general terms and details on locations have not been provided.

Chasm Solar is seeking additional information from Indigenous nations that are currently being engaged or will be engaged with and additional information on potential Project interactions and impacts on Indigenous interests will be identified through further engagement.

Table 8. Key issues raised by Indigenous nations

Indigenous interest	*Potential Issue or Concern Raised*	*Response/Potential Mitigations*
Indigenous Rights and Title	An area of land directly north of the Project area is proposed for Reserve Land designation through treaty negotiations between Northern Shuswap Tribal Council and the Province of BC.	Chasm Solar will continue engagement to understand potential Project interactions with potential land designation parcels throughout the current treaty negotiations.
Economic opportunities and capacity building	Chasm Solar heard Indigenous nations are interested in economic and capacity building opportunities related to the Project including construction jobs, procurements opportunities, etc.	Chasm Solar is committed to providing economic and capacity building opportunities to Indigenous nations.
Potential impacts to wildlife and wildlife habitat	Chasm Solar heard American Badger occur in area and mapped critical habitat overlaps the Project area. Fishers also have potential to occur in the Project area and Indigenous nations are involved in fisher monitoring programs. Sheep populations in the area have been historically impacted by habitat loss and disease. Ongoing efforts by Indigenous nations to monitor sheep populations in the Bonaparte Plateau.	Proposed American Badger critical habitat discussed in Section 6.3.6 and shown on Figure 2 of the IPD. Chasm Solar will continue discussions about design components and potential impacts to wildlife and wildlife habitat through early engagement. Consider mitigation measures including incorporating wildlife corridors into Project design to allow for movement through the Project area.

Indigenous interest	*Potential Issue or Concern Raised*	*Response/Potential Mitigations*
	Chasm Solar heard concerns fencing of solar facility will have impacts to wildlife migration through the Project area.	Prepare management plans including best management practices during appropriate phases of the Project. Potential mitigation measures provided in Table 13 of the IPD. Project Environmental Assessment will include further assessments of wildlife and wildlife habitat in the Project area.
Potential fire risk	Chasm Solar heard concerns the area is prone to fires and Project could increase fire risk. Trees in the Project area have been impacted by pine beetles and other diseases and there is a large amount of dry, fallen trees and dry underbrush which could provide fuel for fires.	Continue discussions about design components, including fire guards or other fire mitigations, during Early Engagement Phase and environmental assessment process. Implement best management practices to protect the surrounding area from fires within the facility and protect the facility from wildfires that start outside of the facility. Potential mitigation measures provided in Table 13 of the IPD.
Archeological and heritage resources, cultural resources	Chasm Solar heard concerns about potential impacts to archaeological resources in the Project area during construction of Project components. Project may require a Preliminary Field Reconnaissance (PFR) prior to ground disturbance. Indigenous nations are interested in conducting and participating in PFRs.	Chasm Solar is committed to working with Indigenous nations to gather further information including conducting site visits, Preliminary Field Reconnaissance (PFR), conducting appropriate archeological studies including Archeology Overview Assessments (AOA) and Archaeological Impact Assessments (AIA) prior to development.
Water quality	Chasm Solar heard concerns about potential impacts to water quality of watercourses and potential water use.	Continue discussions about design components that could

Indigenous interest	*Potential Issue or Concern Raised*	*Response/Potential Mitigations*
	Potential impacts to downstream and upstream drainage basins.	impact water quality through early engagement. Prepare management plans and implement best management practices during appropriate phases of the Project. Potential mitigation measures provided in Table 13 of the IPD. The Project Environmental Assessment will include further assessments of watercourses and baseline conditions in the Project area and potential interactions with watercourses from the Project.

Given the early stage of the Project design and of the environmental assessment and permitting processes of the Project, Project-specific mitigation measures are still in development. Table 13 of the IPD provides a summary of potential Project impacts and potential mitigations, including potential impacts to Indigenous interests. Specific management plans will be prepared prior to Project construction which would provide mitigation measures, guidelines, and best management practices that could be implemented during construction, operation and maintenance, decommissioning and reclamation of the Project to help the Project meet necessary legislation, regulations, and policies and to reduce the potential effects on the biological and human environmental components.

5.7 Planned Engagement with Indigenous Nations and Groups

Chasm Solar is continuing to undertake pre-early engagement activities on the Project and has prepared the Plan to ensure that key parties to the environmental assessment are identified early in the environmental assessment process and provide a common understanding of how each party will be engaged. Chasm Solar, working with BC EAO, will continue to understand the interests of each Indigenous nation to inform future engagement. BC EAO will provide a Summary of Engagement Document to Chasm Solar which will include a list of Participating Indigenous Nations and will also outline further engagement requirements. These will further inform future engagement and the Plan including:

- Confirms Chasm Solar's approach and support for transparent information-sharing early in, and throughout, the environmental assessment process.

- Outlines Chasm Solar's approach to continuously seek out information and feedback to inform development of the DPD, subsequent environmental assessment processes, and the Project.
- Provides the methods and activities proposed for engagement with Indigenous nations throughout Early Engagement.
- Outlines how engagement processes will be developed that consider how each Indigenous nation wants to be engaged with.

Based on our preliminary communications and pre-early engagement with Indigenous nations outlined in Table 3 - 7, Chasm Solar expects to undertake continued engagement activities identified below during the Early Engagement Phase. Said engagement activities will be coordinated with the BC EAO to ensure Indigenous nations are receiving the most current information about the Project and the environmental assessment process and are provided the opportunities to engage:

- Notify through a Project Update letter that the IPD has been filed and the Project is being reviewed under the terms of the BC EAA and discuss next steps.
- Continuous engagement with interested Indigenous nations during and beyond the BC EAO's review of the IPD and the Plan.
- Support BC EAO in the 30-day Public Comment Period on the IPD.
- Conduct in-person and virtual presentations to Indigenous nations with Project details and updates and continuous distribution of Project information to interested Indigenous nations.
- Continue to request ongoing feedback and input about the Project by follow up phone calls, email communications, correspondence, topic specific project materials and packages, in-person presentations (where possible), and video presentations with interested Indigenous nations.
- Develop additional engagement tools as requested or directed by Indigenous nations.
- Continuously track and populate tracking tools of communication and engagement activities, including dates and Indigenous nation attendance and comments.
- Track feedback received during Project information sharing or on the IPD in a tracking table with Chasm Solar's response to support the DPD.
- Incorporate relevant feedback into the DPD and supporting documents and address comments regarding Project and how, if applicable, feedback was incorporated into the Project's design.
- Share DRAFT DPD with Indigenous nations to provide an opportunity for Indigenous nations to review and confirm if feedback on the IDP was incorporated into the DPD appropriately.

Chasm Solar will continue to seek feedback on topics of interest, point-of-contacts, and identify group-specific consultation policies, protocols or preferences to better inform our engagement efforts, including confidentiality considerations.

5.8 Incorporating Indigenous Knowledge

Chasm Solar acknowledges Indigenous peoples have a long and close relationship with the land and can provide knowledge about the local environment. The BC EAO Guide to Indigenous Knowledge in Environmental Assessments (BC EAO, 2020) provides guidance to environmental assessment Participants to support the inclusion of Indigenous Knowledge in the EA process in accordance with guiding principles and requirements for confidentiality. The Government of BC recognizes inclusion of Indigenous Knowledge in the environmental assessment process is an important component in supporting the reconciliation objectives of the BC EAA including supporting the implementation of the United Nations Declaration on the Rights of Indigenous Peoples (UNDRIP, 2007) and provides Indigenous decision-makers and Participants with greater knowledge and understanding of the environment where a project is proposed, potential impacts of a project, and the significance of those impacts on Indigenous nations and communities.

Chasm Solar recognizes that Indigenous Knowledge informs the knowledge and experience of Indigenous participants in the EA and can provide meaningful input as to how to conduct an environmental assessment process, how to evaluate impacts, and how decisions are made by Indigenous nations. Building and maintaining relationships and open dialogue to ensure environmental assessments are effectively informed by Indigenous Knowledge spans all phases of conducting an environmental assessment.

Chasm Solar recognizes in addition to the guidelines provided by BC EAO, Indigenous nations will have their own governance, rights, protocols, guidelines, policies and practices regarding sharing or using their knowledge. Chasm Solar will continue to engage with Indigenous nations to learn more about the same through leadership, community representatives chosen by the nation, and knowledge holders (as appropriate and determined by the Indigenous nation), with the view of its application in the environmental assessment process. Chasm Solar will work with Indigenous nations and knowledge holders collaboratively to learn how Indigenous knowledge is considered in the environmental assessment process.

Chasm Solar will seek to understand and respect Indigenous governance, rights, protocols, policies, and practices when requesting access to Indigenous Knowledge and gaining permission to use Indigenous Knowledge. Chasm Solar will continue to work with Indigenous nations and knowledge holders to:

- Determine the community protocols and expectations regarding the conduct of Indigenous Knowledge studies to determine how the research is to be conducted and how information will be used;

- Work with the Indigenous nations and their designated representative to determine how permission will be obtained from a participating Indigenous nation or knowledge holders;
- Identify how and what Indigenous Knowledge may be useful for Project design, EA process, impact prediction and mitigation;
- Determine expectations for handling, sharing, and incorporating Indigenous Knowledge studies; and
- Identify possibilities for scoping the study in a manner that may also contribute to broader goals and priorities of the Indigenous nation.

Chasm Solar will continue to engage participating Indigenous nations and decision makers to identify knowledge holders as applicable through the Early Engagement Phase by regularly sharing information, what they have learned, and considering feedback to shape the development of the DPD.

6.0 Public and Stakeholder Engagement

6.1 Public and Stakeholder Engagement Objectives

Chasm Solar is seeking input from the public and stakeholders on the Project and potential interactions with their interests or activities in the Project area. The IPD provides information on potential Project benefits and potential socio-economic effects that are of potential interest to the general public and stakeholders. Chasm Solar's overall objective for public and stakeholder early engagement is to build relationships through transparent and responsive engagement throughout the Early Engagement Phase, the EA process, and the overall Project life with members of the public and stakeholders. As recommended by BC EAO, Chasm Solar will follow best practices for public and stakeholder engagement including:

- Ensure opportunities to engage on the Project are made apparent to the public via publicly accessible websites, local media, and/or other available and appropriate means;
- Conduct public engagement in a way that removes as many barriers to participation as possible and captures a diverse range of feedback;
- Tailor engagement to the needs of the community by asking the right questions to the right people to gain meaningful feedback;
- Help the public better understand how to provide useful feedback on the Project;
- Seek information from the public during the public comment and early engagement phase and incorporate local knowledge into the Project as applicable; and
- Show responsiveness to feedback by modifying project design, plans and/or studies and communicating results of these considerations.

6.2 List of Public Stakeholders

Public stakeholders include tenure holders and members of the general public who may be directly or indirectly affected by the Project. To ensure engagement is focused and relevant, Chasm Solar conducted a search of the BC Integrated Land and Resource Registry (ILRR) and other online databases and publicly available information sources and prepared a list of tenure holders and land users in the Project area who could be directly or indirectly affected by the Project. The list includes trappers, guide outfitters, grazing leases, and other tenure holders (Province of BC, 2023f) (Table 9). Contact information has been withheld for privacy reasons.

Table 9. List of identified tenure holders

Tenure or Permit Number	*Interest or Rationale*	*Status*
Guiding Certificate No: 510008	Guide outfitter area – overlaps the Project area	Identified; tenure holder name obtained and holder notified of Project
Guiding Certificate No: 510009	Guide outfitter area – 1 km west of the Project area	Identified; tenure holder name obtained and holder notified of Project

Tenure or Permit Number	*Interest or Rationale*	*Status*
Guiding Certificate No: 300715	Guide outfitter area – approximately 500 m east of the Project area	Identified; tenure holder name obtained and holder notified of Project
Trapline Area Identifier: TR0331T003; Trapline Area: 2754355	Trapline area - overlaps the Project area	Owner has not given permission to share contact information
Trapline Area Identifier: TR0331T006; Trapline Area: 2755523	Trapline area – approximately 1.3 km west of Project area	Identified; tenure holder name obtained and holder notified of Project
Trapline Area Identifier: TR0331T005; Trapline Area 2755539	Trapline area – approximately 1.3 km west of Project area	Identified; tenure holder name obtained and holder notified of Project
Surrogate ID: 2116678; Forest File ID: RAN078132	Grazing licence – overlaps the Project area	Identified; tenure holder name obtained and holder notified of Project
Location ID: 1202007	Forest Recreation Tenure – cross country ski trails	Identified; tenure holder name obtained and holder notified of Project

Chasm Solar recognizes additional members of the public and stakeholders could potentially be identified during the Early Engagement Phase.

6.3 Summary of Public and Stakeholder Engagement to Date

Pre-early engagement with tenure holders identified in Table 9 conducted to date is provided in Table 10. An initial list of potentially affected stakeholders and members of the public has been developed and will be confirmed with BC EAO during the start of the Early Engagement Phase. Additional members of the public and stakeholders including recreational and non-tenure land users, public interest groups, self-identified members of the public, businesses in the vicinity of the Project area, environmental groups, and community-based organizations will be added as they are identified. Chasm Solar will work with these groups to ensure the preferred method and frequency of engagement is identified and followed. Additional tenure holders identified will be contacted for awareness purposes of the Project.

Table 10. Summary of stakeholder engagement to date

Date	*Activity*
August 25, 2023	Project introduction letter and Project location map mailed.

6.4 Planned Public and Stakeholder Engagement

Following acceptance of the IPD and the Plan by the BC EAO, an announcement of the commencement of the Early Engagement Phase will be posted on BC EAO's EPIC website and in local media (e.g., local newspapers and news websites). The announcement will include a brief description of the Project, a map of the Project location, information about virtual and in-person open houses, and contact information for a Project representative. The IPD will be made accessible for public and stakeholder

review and comment during the Early Engagement Phase. Electronic copies of the IPD will be available on the BC EAO website shortly after it is accepted by the BC EAO. Following approval, a 30-day public comment period begins to identify interests, issues, and concerns with the Project that will assist Chasm Solar with further refining the Project in preparation for the DPD.

Members of the public and stakeholders will be instructed to provide comments online during the public comment periods through the BC EAO website. In addition, Chasm Solar will facilitate timely and effective access to Project information and incorporate interests and concerns which will be incorporated into the development of the DPD. Engagement activities and information will be tailored, as required and feasible, to ensure all interested parties, including members of identified underrepresented groups, can participate in a manner that is suitable to them and allows them to learn about the Project and provide input during the Early Engagement Phase and EA process. Chasm Solar will seek to identify and address to the extent practicable any barriers to engagement during the Early Engagement Phase. Examples of engagement methods include:

- Schedule meetings at various times of day recognizing different schedules and commitments;
- Record meetings and make available for viewing at any time;
- Provide Project materials for discussions led by a known group leader or trusted individual and provide feedback or comments to Chasm Solar;
- Provide Project materials in digital and non-digital (printed) forms;
- Utilize accessible meetings locations as feasible for in-person meetings;
- Facilitate one-on-one discussions with Project representatives if requested;
- Provide Project representative contact information and Project email for submission of questions outside of meetings; and
- Consider gender based analysis plus (GBA+) approaches during engagement.

Chasm Solar will provide notification of the Project to the tenure holders and other members of the public and stakeholders during the Early Engagement Phase of the Project. Notification will be provided through delivery of a Project email or letter with information about the Project and a link to the Project website. A follow-up phone call will be made, and in-person or virtual meetings will be held if additional information or desire for engagement is expressed by any member of the public or stakeholder. Public stakeholders can participate in the BC EAO virtual or in-person open houses. Additional Early Engagement activities will include the following:

- Update the Project website with information and engagement opportunities;
- Advertise public engagement opportunities with local media;
- Deliver a Project email or letter via regular mail with information about the Project, a link to the Project website, and any government resources for engagement; and

- Schedule virtual or in-person open houses to present and discuss the Project and allow for public and stakeholder feedback.

Chasm Solar understands the BC EAO could hold one or more meeting, workshop, community event, public open house, or information session during the Early Engagement Phase depending on the level of interest and potential effects of the Project. Chasm Solar will support the BC EAO during the Early Engagement Phase and will participate in open houses or information sessions as required and provide any presentation materials as needed. Chasm Solar will hold additional open houses or information sessions as requested and required. Feedback and comments received during the open houses or the public comment periods from members of the public and stakeholders will be recorded in a tracking table. Chasm Solar will provide a response to each comment and issue and the tracking tables will be included in the DPD.

7.0 Government Agency Engagement

7.1 Government Agency Engagement Objectives

Chasm Solar's overall objective for engagement with government agencies and regulators is to develop and maintain regulatory relationships through transparent and responsive engagement and information sharing throughout the Early Engagement Phase and the overall Project. Chasm Solar will proactively identify potential regulatory and permitting requirements during the Early Engagement Phase and the EA process to ensure a smooth process between EA and subsequent permitting should the Project be approved. Chasm Solar will follow BC EAO's best practices for engagement with provincial and federal government agencies and additional best practices including:

- Begin engagement during the Early Engagement Phase to understand capacity and information needs of provincial and federal agencies in the EA process;
- Ensure appropriate provincial and federal government agencies and subject matter experts are involved to help identify and address potential impacts from the Project;
- Provide timely access to Project information and responses to information requests;
- Work with appropriate regulators to identify and understand the Project regulatory requirements, interests, and concerns;
- Address interests and concerns and incorporate them into the development of the DPD;
- Identify required permits or approvals for the Project to be used during the development of a permitting plan as required during the EA process; and
- Reduce uncertainty during the EA process.

7.2 Regulatory Agencies

Table 11 provides a list of applicable government agencies which will be engaged with during the Early Engagement Phase. These agencies have been identified based on the relevant provincial and federal acts and regulations that could potentially be applicable to the Project or anticipated Project permits, approvals, and authorizations for the Project (see Section 4.0 of the IPD). Additional regulatory agencies could be identified by BC EAO during the Early Engagement Phase and the table will be updated accordingly.

Table 11. Key regulators and government agency contacts

Agency	*Representatives*	*Rationale*	*Status*
BC Environmental Assessment Office (BC EAO)	Stasia Ferbey, Project Assessment Director	Provincial regulatory agency for the Project environmental assessment process. Contacts at BC EAO for	Identified. Shared Project information and DRAFT IPD and Plan prior to formal filing.

Agency	*Representatives*	*Rationale*	*Status*
		Project discussions and BC EAO processes.	
BC Ministry of Forests (MOF) MOF - BC Archaeology Branch	Bev Wassenaar, Resource Authorization Specialist (MOF)	Discussions about potential Project interactions with Crown land use, forests, wildlife, and water and potential permit applications e.g., *Water Sustainability Act, Land Act,* or *Wildlife Act* permits).	Engaged during the Investigative licence application and renewal process.
	TBD	Discussions about potential Project interaction with archeological resources and sites	Will engage when as AOAs, AOIs, and other studies are required.
BC Ministry of Environment and Climate Change	TBD	Discussions about potential Project interaction with provincial parks and recreation sites around the Project area	TBD
BC Ministry of Transportation and Infrastructure (BC MOTI)	TBD	Discussions about potential interactions with the Project and roads administered by BC MOTI	TBD
BC Ministry of Indigenous Relations and Reconciliation (BC MIRR)	Bev Wassenaar	Discussions about how the Project relates to BC MIRR objectives or processes	Initial discussion about Indigenous nations engagement.
Interior Health	TBD	Discussions about how the Project relates to the *Drinking Water Act* and *Public Health Act*	

7.3 Planned Government Agency Engagement

Chasm Solar understands the BC EAO will facilitate notification to appropriate regulatory agency contacts and regulators could be part of the technical advisory committee

which will be formed during the Process Planning Phase. BC EAO will seek to identify appropriate technical advisors that will likely form the technical advisory committee during the Early Engagement Phase. During the Early Engagement Phase, Chasm Solar will work with the agencies to identify Project contacts and representatives and to determine capacity and information needs. Engagement will occur on a regular basis and Chasm Solar will convey information to regulators through a variety of methods of communication including emails, telephone calls, letters, Project status updates, and in-person or virtual meetings. Feedback on the IPD and any communications, comments, or issues with or raised by regulatory agencies during the Early Engagement Phase will be recorded in the tracking tables and included in the DPD. Comments and issues will be addressed in the tracking tables.

Chasm Solar is supportive of open and inclusive engagement with regulatory agencies during the Early Engagement Phase and the following activities could be undertaken as required:

- Maintain open information flow and communication with regulatory agency representatives to identify and/or address information needs and requests early in the process and respond in a timely manner;
- Facilitate a site visit to the Project area, if requested;
- Maintain a tracking table of all communications with regulators during the Early Engagement Phase which will be included with the DPD;
- Maintain a tracking table of all issues or concerns raised by regulatory agencies during the Early Engagement Phase which will be included with the DPD; and
- Keep meeting minutes for any formal meetings held with regulatory agencies.

8.0 Local Government Engagement

8.1 Local Government Engagement Objectives

Similar to government agency engagement, Chasm Solar's overall objective for engagement with local governments is to develop and maintain relationships through transparent and responsive engagement and information sharing throughout the Early Engagement Phase and the overall Project. The objectives will be achieved following BC EAO best practices for engagement with local governments including:

- Begin engagement during the Early Engagement Phase to understand capacity and information needs of local governments in the environmental assessment process;
- Ensure appropriate local government representatives are involved to help identify and address potential impacts from the Project on local communities;
- Provide timely access to Project information and responses to information requests;
- Work with appropriate local government contacts to identify and understand the Project interests, and concerns;
- Address interests and concerns and incorporate them into the development of the DPD;
- Identify relevant health authorities, emergency service providers and/or other local and regional service organizations; and
- Identify other members of the public, local businesses, non-tenure land users, and community organizations who could have interest in the Project.

8.2 Communities and Local Governments in the Project Area

The Project area is located on Crown land in a fairly remote region within the boundaries of the TNRD (population 132,663). The TNRD is a regional government that consists of ten electoral areas in the rural and unincorporated areas outside of BC municipalities. The Project area is in Electoral Area E, "Bonaparte Plateau" of the TNRD. The closest community is the Village of Clinton (population 650), located approximately 10 km south of the Project area (Village of Clinton, 2023). The Village of Clinton was founded during the boom of the Cariboo Gold Rush, approximately 150 years ago. Today, Clinton offers a number of recreational opportunities including horse-back riding, hiking, fishing and other outdoor activities. The Village of Cache Creek (population 969; Statistics Canada, 2021) is approximately 53 km south of the Project area. Cache Creek is a historic transportation junction located at the intersection of the Trans Canada Highway No. 1 and highway 97. The District of 100 Mile House is the largest population area near the Project area (approximately 55 km north), with a population of 1,928 (Statistics Canada, 2021). It was originally one of the main stopping points along the Cariboo Gold Rush Trail. Today he local economy is driven by tourism, forestry, agriculture, and business services (District of 100 Mile House, 2023). The Community of 70 Mile House (population information

is unavailable) is approximately 20 km north of the Project area. Table 12 provides key local government contacts.

Table 12. Key local government contacts

Organization	*Contact Name*	*Title*	*Rationale*
Thompson-Nicola Regional District	Jim Smith	Director – Electoral Area E	Key contact for regional district potentially affected by the Project
Thompson-Nicola Regional District	Scott Hildebrand	Chief Administrative Officer	Key contact for regional district potentially affected by the Project
Thompson-Nicola Regional District	Dan Wallace	Planner	Key contact for regional district to discuss current zoning and potential permit requirements.
Village of Clinton	Roland Stanke	Mayor	Key contact for municipality potentially affected by the Project
Village of Clinton	Brian Doddridge	Chief Administrative Officer	Key contact for municipality potentially affected by the Project
Village of Cache Creek	John Ranta	Mayor	Key contact for municipality potentially affected by the Project
Village of Cache Creek	Damian Couture	Chief Administrative Officer	Key contact for municipality potentially affected by the Project
District of 100 Mile House	Maureen Pinkney	Mayor	Key contact for municipality potentially affected by the Project
District of 100 Mile House	Tammy Boulanger	Chief Administrative Officer	Key contact for municipality potentially affected by the Project

Local government land use plans relevant to the Project area include:

- Lands associated with the Project area are zoned RL–1 (Rural Zone) under the Thompson-Nicola Regional District (TNRD) Zoning Bylaw No. 2400. Principal uses permitted in RL-1 include single family dwellings, agricultural or horticultural use, forestry practice use, processing of aggregate materials, and open land recreation. The Project area is not used for agricultural purposes and the Project area is not within the Agricultural Land Reserve. Requirements will be determined through discussions about the Project with TNRD.
- The TNRD Regional Growth Strategy (Bylaw 2409) (TNRD, 2013) provides a framework for a cooperative strategy for achieving a sustainable future for the region. The strategy encourages the development of clean energy projects subject to public consultation.

8.3 Summary of Local Government Engagement to Date

An initial list of potentially affected local communities including the regional district (TNRD) and communities (Clinton, Cache Creek, and 100 Mile House) has been developed and will be confirmed with BC EAO during the start of the Early Engagement Phase. Pre-early engagement with local government contacts identified in Table 12 conducted to date is provided in Table 13. No feedback from local government contacts has been received to date. Chasm Solar will work with local governments to ensure the preferred method and frequency of engagement is identified and followed.

Table 13. Summary of local government engagement to date

Date	*Activity*
September 21, 2023	Project introduction letter and Project location map mailed.

8.4 Planned Local Government Engagement

Chasm Solar will provide updates about the Project to local government contacts during the Early Engagement Phase of the Project. Notification of acceptance of the IPD will be provided through delivery a Project email with information about BC EAO's open house and virtual information sessions and contact information for a representative of Chasm Solar. A follow-up phone call will be made, and in-person or virtual meetings will be held if additional information or desire for engagement is expressed by any local government.

During the Early Engagement Phase, Chasm Solar will work with the local governments to identify Project contacts and representatives and to determine capacity and information needs. Chasm Solar will also seek information about landowners or communities in proximity to the Project area or any other local groups or organizations who should be engaged about the Project. Engagement will occur on a regular basis and Chasm Solar will convey information to local governments through a variety of methods of communication including emails, telephone calls, letters, Project status updates, and in-person or virtual meetings. Feedback on the IPD and any communications, comments, or issues with or raised by local governments during the Early Engagement Phase will be recorded in the tracking tables and feedback will be considered and incorporated in the DPD. Comments and issues will be addressed in the tracking tables.

Chasm Solar is supportive of open and inclusive engagement with local governments during the Early Engagement Phase and the following activities could be undertaken as required:

- Maintain open information flow and communication with regulatory agency representatives to identify and/or address information needs and requests in a timely manner;
- Facilitate a site visit to the Project area, if requested;
- Maintain a tracking table of all communications with local governments during the Early Engagement Phase which will be included with the DPD;

- Maintain a tracking table of all issues or concerns raised by local governments during the Early Engagement Phase which will be included with the DPD; and
- Keep meeting minutes for any formal meetings held with local governments.

9.0 Closing

Through sharing the IPD and the Plan with BC EAO and Communities of Interest, including Indigenous nations, Chasm Solar is providing an early design-stage overview of the Project and engagement methodology. The IPD has been prepared to determine the requirements for review of the Project under the BC EAA and to initiate the environmental assessment process. The IPD was prepared using the guidance provided in the BC EAO's Early Engagement Policy document (BC EAO, 2019). The IPD has been prepared early in the design process prior to finalization of all Project components and layout to allow for feedback. The IPD and the are used to initiate the Early Engagement Phase of the BC environmental assessment process. The documents will be available for review by Indigenous nations and Communities of Interest to facilitate engagement and will be used to support the development of a DPD. The DPD will present a more refined Project design based on progression of design and considerations of input received during the Early Engagement Phase.

Chasm Solar will maintain a communications and engagement log to track feedback and comments received during the Early Engagement Phase. The log will be updated continuously through the public comment period and Early Engagement Phase.

10.0 References

[BC EAO] British Columbia Environmental Assessment Office. 2019. Early Engagement Policy. Available at: https://www2.gov.bc.ca/assets/gov/environment/natural-resource-stewardship/environmental-assessments/guidance-documents/2018-act/early_engagement_policy.pdf

BC EAO. 2020. Guide to Indigenous Knowledge in Environmental Assessments. Available at: https://www2.gov.bc.ca/assets/gov/environment/natural-resource-stewardship/environmental-assessments/guidance-documents/2018-act/guide_to_indigenous_knowledge_in_eas_v1_-_april_2020.pdf

District of 100 Mile House. 2023. District of 100 Mile House web page. Available at: http://www.100milehouse.com/

High Bar First Nation. Accessed April 2023. Available at: https://www.highbarfirstnation.ca/

[INAC] Indigenous and Northern Affairs. 2023a. First Nations Profiles, High Bar. Accessed April 2023. Available at: https://fnp-ppn.aadnc-aandc.gc.ca/FNP/Main/Search/FNReserves.aspx?BAND_NUMBER=703&lang=eng

INAC. 2023b. First Nations Profiles, Neskonlith. Accessed April 2023. Available at: https://fnp-ppn.aadnc-aandc.gc.ca/FNP/Main/Search/FNReserves.aspx?BAND_NUMBER=690&lang=eng

INAC. 2023c. First Nations Profiles, Stswecem'c Xget'tem First Nation. Accessed April 2023. Available at: https://fnp-ppn.aadnc-aandc.gc.ca/fnp/Main/Search/FNReserves.aspx?BAND_NUMBER=723&lang=eng

INAC. 2023d. First Nations Profiles, Whispering Pines/Clinton. Accessed April 2023. Available at: https://fnp-ppn.aadnc-aandc.gc.ca/FNP/Main/Search/FNReserves.aspx?BAND_NUMBER=702&lang=eng

Northern Shuswap Tribal Council. 2023. Access August 2023. Available at: https://nstq.ca/

[Province of BC] Province of British Columbia. 2023. Contacts for First Nation Consultation Areas. Accessed February 2023. Available at: https://www2.gov.bc.ca/gov/content/data/geographic-data-services/land-use/contacts-for-first-nation-consultation-areas

Province of BC. 2023a. First Nations A – Z Listing. High Bar First Nation. Accessed May 2023. Available at: https://www2.gov.bc.ca/gov/content/environment/natural-

resource-stewardship/consulting-with-first-nations/first-nations-negotiations/first-nations-a-z-listing/high-bar-first-nation

Province of BC. 2023b. First Nations A – Z Listing. Neskonlith First Nation. Accessed May 2023. Available at: https://www2.gov.bc.ca/gov/content/environment/natural-resource-stewardship/consulting-with-first-nations/first-nations-negotiations/first-nations-a-z-listing/neskonlith-indian-band

Province of BC. 2023c. First Nations A – Z Listing. Stswecem'c Xget'tem First Nation. Accessed May 2023. Available at: https://www2.gov.bc.ca/gov/content/environment/natural-resource-stewardship/consulting-with-first-nations/first-nations-negotiations/first-nations-a-z-listing/canoe-creek-indian-band-stswecem-c-xgat-tem-first-nation

Province of BC. 2023d. First Nations A – Z Listing. Whispering Pines/Clinton Indian Band. Accessed May 2023. Available at: https://www2.gov.bc.ca/gov/content/environment/natural-resource-stewardship/consulting-with-first-nations/first-nations-negotiations/first-nations-a-z-listing/whispering-pines-clinton-indian-band

Province of BC. 2023e. First Nations A – Z Listing. Northern Shuswap Tribal Council. Accessed May 2023. Available at: https://www2.gov.bc.ca/gov/content/environment/natural-resource-stewardship/consulting-with-first-nations/first-nations-negotiations/first-nations-a-z-listing/northern-shuswap-tribal-council-northern-secwepemc-te-qelmucw

Province of BC. 2023f. British Columbia Integrated Land and Resource Registry. 2023. Accessed February 2023. Available at: https://www2.gov.bc.ca/gov/content/data/geographic-data-services/land-use/integrated-land-resource-registry

Stswecem'c Xget'tem First Nation. Accessed April 2023. Available at: https://www.sxfn.ca/

Statistics Canada. 2021. Census of Population. Available at: https://www12.statcan.gc.ca/census-recensement/index-eng.cfm

[UNDRIP] United Nations Declaration on the Rights of Indigenous Peoples. 2007. Available at: https://www.un.org/development/desa/indigenouspeoples/declaration-on-the-rights-of-indigenous-peoples.html.

Village of Clinton. 2023. Village of Clinton Website. Available at: https://village.clinton.bc.ca/

Whispering Pines/Clinton Indian Band. Accessed April 2023. Available at: https://wpcib.com