



**Lower Kootenay Band
Seven Nations Soaring Eagles Healing Centre
Phase 1 Environmental Site Assessment**



Prepared for:

Lower Kootenay Indian Band

830 Simon Rd

Creston BC V0B 1G2

Prepared by:

Masse Environmental Consultants Ltd.

812 Vernon Street

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September 24, 2018

Cover Photo: Aerial view of the Site (David Nairne & Associates Ltd. 2018)

EXECUTIVE SUMMARY

Masse Environmental Consultants Ltd. (Masse Environmental) was contracted by the Lower Kootenay Band (LKB) to conduct an environmental site assessment (ESA) on a on a rural residential lot located within the LKB Indian Reserve (Creston I.R. No. 1C) on West Creston Road near the community of West Creston, BC. The Stage 1 ESA was conducted to assess for actual and/ or potential environmental contamination on the property.

The Site is approximately 3 hectares (ha) and comprises a small corner of IR 1C. The current land use of the Site is residential and there is one single-family residence surrounded by pasture. Prior to construction of the residence in 1992, the Site was undeveloped and was regularly utilized as a camp spot by the Ktunaxa Nation.

Based on the information collected and observations made during the Stage 1 ESA, no evidence of actual and/or potential environmental contamination resulting from previous land use, property development, management and operation of the property, and offsite contaminant migration was observed. It is our opinion that no significant environmental risks or impairments are present on the subject site. No further environmental investigation is required at this time.

LIABILITY AND LIMITATIONS

This environmental site assessment was conducted on the dates presented; therefore, conditions and observations made at this period of time must be recognized as having a limited life. Should activities change or be introduced on the subject property which do not follow environmental best management practices, this report would be deemed invalid.

No sampling and analysis of soil, water, groundwater, air, wastes, or building materials were conducted as part of this study. Consequently, unknown, unidentified, and unforeseen property contamination may exist.

This report is intended to provide information relevant to actual and potential environmental contamination on the subject property based reasonably foreseeable risks, information gathered from reasonably ascertainable records, and a single site visit. Its accuracy relies upon the full disclosure of accurate information from all sources.

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1 INTRODUCTION

1.1 Scope of Work

Masse Environmental Consultants Ltd. (Masse Environmental) was contracted the Lower Kootenay Band (LKB) to conduct a Phase 1 environmental site assessment (ESA) on a on a rural residential lot, known locally as “Nick’s Garden Lot”. This lot is located within the LKB Indian Reserve (Creston I.R. No. 1C), on West Creston Road near the community of West Creston, BC. The LKB has proposed to develop this property into a cultural, land-based healing centre for Aboriginal adults recovering from alcohol and drug misuse/abuse or other dependencies. The current development proposal for the Seven Nations Soaring Eagles Healing Centre includes the construction of 711 m² of new buildings over an area of approximately 3 hectares (ha) in the southwest corner of IR 1C. This 3 ha corner of IR 1C will be referred to as the Site in the remainder of the report.

The purpose of the ESA is to meet the current proponent requirements for the Aboriginal Affairs and Northern Development Canada Environmental Review process for developments on First Nation Reserve Land. The ESA assesses the Site for actual and/or potential environmental contamination resulting from previous land use, property development, management and operation of the property, and offsite contaminant migration.

The scope of work for the ESA included the following tasks:

- Collecting information on the land-use and zoning for the Site and surrounding properties;
- Reviewing available reports to assess regional geology, soils, hydrology, hydrogeology, climate, and ecosystems associated with the Site;
- Reviewing the following historical records: aerial photographs, land titles, property records, historical archives, and government health records to assess historical usage of the Site and surrounding properties;
- Requesting an online review of publically accessible information pertaining to registered environmental impacts associated with the Site and surrounding properties;
- Collecting information on water wells drilled on the Site and surrounding properties;
- Reviewing any previous environmental investigations that have been completed for the Site;
- Interviewing persons knowledgeable of past and present activities at the Site;
- Conducting a field visit to visually observe the conditions on the Site and the surrounding properties and to search for indications of potential contamination; and,
- Providing a report to summarize all of the ESA findings and to present the professional opinion of Masse Environmental regarding actual and/or potential environmental contamination on the Site.

1.2 Methodology

This ESA followed the principles, practices, and guidelines outlined in the following regulatory documents:

- Canadian Standards Association (CSA) Z768-01 Phase 1 Environmental Site Assessment (ESA) Guidelines (CSA 2016);

The site visit was conducted by Iraleigh Anderson, A.Ag. on July 24, 2018. The Site was visited to assess for actual and/or potential environmental contamination.

2 SITE DESCRIPTION

2.1 Site Information

The project site is located within the LKB Indian Reserve (Creston I.R. No. 1C). It is a rural residential lot, known locally as “Nick’s Garden Lot”. This lot is situated west of the Kootenay River (UTM 11U 528677 5437251), approximately 8 km west of the city of Creston, BC, and is accessed approximately 6 km south of the Crowsnest Highway on West Creston Road. The project site is ~3 ha and comprises a small corner of IR 1C. The majority of IR 1C lies to the east of the Site and straddles the Kootenay River. A location map and a detailed Site map are provided in Appendix A. Location information is summarised in Table 1.

Table 1. Summary of Site Information for the Site, Hwy 21, Creston, BC.

Legal Description	Part of Indian Reserve 1C, excluding PL 59632, District Lot 9999.
UTM at center	11U 528706.5437249
Area	~3 ha
Utility Providers	Electricity – overhead power lines from West Creston Rd. Wood heating
Onsite Facilities	Single-family residence Garden, shed, chicken coop Septic tank and field Non-potable water well Metal household waste bin

The Site was undeveloped prior to the early 1990s and was regularly utilized as a camp spot by the Ktunaxa Nation (Curtis Wullum – *personal communication*). The current single family residence was constructed in 1992 and has been occupied since that time.

Surrounding land use within a 0.5 km radius of the Site includes Crown Reserve, Indian Reserve, agricultural, and country residential. The majority of the surrounding land to the north, west and south is forested. Hayfields are present to the east.

The pastures located to the northeast, east, and southeast of the Site (including land within IR 1C) have been grazed for approximately 100 years (Curtis Wullum – *personal communication*). Prior to 1975 (construction of the Libby Dam), the IR 1C was part of a large wetland complex located within the Kootenay River floodplain. Following 1975, much of the floodplain was developed for agricultural purposes; however, the IR 1C lands west of an historical side channel of the Kootenay River lie outside of

the boundaries of any diking district and are subject to more violent flooding by the river. These lands remain undeveloped to this day.

The Corn Creek marshes north and northwest of the Site were historical duck hunting grounds (IR 1C 1972). This land forms part of the Creston Valley Wildlife Management Area (CVWMA) – a 7,000 hectare section of provincial crown land managed for important wildlife values, particularly wetland habitat for migratory waterfowl.

2.2 Geology and Soils Information

The Site is located on the Kootenay River floodplain in the Creston Valley, a wide (~10-20 km) intermountain valley that lies at the south end of Kootenay Lake between the Purcell and Selkirk Ranges. The soils of the floodplain are derived from Kootenay River alluvial deposits of clays and silts. The soils of the project Site form part of the Burtontown Association which is dominated by Orthic Dystric Brunisol and Lithic Dystric Brunisol soils with rapid drainage developed in shallow, medium and coarse textured colluvium overlying medium-grained bedrock. The topography of the site is classified as moderately sloping, moderately rolling terrain with an elevation of 420-1220 m. (Jungen 1980).

2.3 Hydrology and Hydrogeology

The Site is located in the Lower Kootenay Basin hydrologic zone. A portion of the Site, to the north and west, is located within the historic footprint of the active floodplain of the Kootenay River. Prior to the construction of the Libby Hydroelectric Dam (LBH) in 1975 this area received annual flooding from the Kootenay River. Since construction of LBH, the Kootenay River floodplain in the Creston Valley has undergone a transformation from riparian wetland habitat towards intensive agricultural use. Lands within IR 1C have been developed for agricultural use.

The Site is located immediately south of a small marsh, which occurs in an old channel of Corn Creek, a fifth order stream that flows into a historical side channel of the Kootenay River > 1 km north of the Site. There is a mapped stream (iMap BC) that flows through the northwest corner of the Site; however, this stream is actually an extension of the marsh mentioned above.

The natural contouring of the Site slopes gently north and north east towards the Kootenay River floodplain and the historical side channel of the Kootenay River. The Kootenay River is located >500 m east of the Site and it is expected that groundwater under the site flows in this direction. There is no mapped aquifer information available for the area underlying the Site; however, information from wells drilled within 0.5 km of the Site indicates that a bedrock aquifer is present 115 ft to 330 ft below the ground surface.

2.4 Climate and Ecosystems

The Site is situated within the Interior Cedar – Hemlock (very dry warm ICHxw) biogeoclimactic ecosystem subzone. The ICH zone occupies the lower slopes of the Columbia Mountains within the Moist

Climatic Region. Prevailing westerly winds bring in warm, moist Pacific air masses, which deposit considerable moisture as they are forced to rise over the Columbia Mountains. The warmest and driest portion of this area lies along Kootenay Lake. The ICHxw has the greatest diversity of tree species in the province and is characterized by very hot, moist summers and very mild winters with light snowfall (Braumandl and Curran 1992).

The nearest Canadian long term climate station is located in Creston, BC (WPCC) at an elevation of 538 m. The average temperature recorded at this station from 1981 to 2010 was 8.2 degrees Celsius (°C). Historical temperatures were highest during the months of June, July, and August and lowest during the months of December, January, and February. The average annual precipitation was recorded at 563 millimetres (mm) per year, with 446 mm falling as rain and 117 mm falling as snow. Historically, precipitation was heaviest during the months of November, December, and January, and May and June. The climate at the Site is expected to be similar. (Government Canada 2018)

3 RECORDS REVIEW

3.1 Aerial Photograph Review

Aerial photographs of the Site and surrounding area were obtained from GeoBC’s Base Map Online Store to identify historic land use and development. Google Earth was also used to obtain more recent imagery. It should be recognized that aerial photographs give a snap shot at one period in time and do not portray land use and development as a continuous story. Therefore, it is possible that some features of interest could have been constructed and removed between the coverage dates.

Copies of the aerial photographs are provided in Appendix B. A summary of the aerial photograph review is presented in Table 2.

Table 2. Aerial Photograph Review.

Date (Photo ID)	Aerial Photograph Interpretation
July 10, 1968 BC5294/88	Site is undeveloped and lies on the margin of flooded lands along the Kootenay River. West Creston Road appears to be under construction and a small wagon road is faintly visible in the east half of the Site. Lands to the immediate south and west appear to be a mix of rural residential and undeveloped land. Lands to the north and northwest are undeveloped lands leased to the Canada Wildlife Service.
July 13, 1978 BC78107/233	Site remains undeveloped. West Creston Road construction appears complete and an access road enters the Site from the southeast corner. Lands to the east and southeast of the Site have been reclaimed as agricultural land. All other surrounding land appears unchanged.

Date (Photo ID)	Aerial Photograph Interpretation
July 22, 1988 BC788029/173	Site remains undeveloped but may be fenced for grazing. There is a small structure visible at the northern property boundary, possibly a cattle structure. Agricultural lands to the east and southeast of the Site are being cultivated. A few new rural residential properties have been developed southwest of the Site.
July 17, 2000 BCB00003/71	The single family residence has been constructed onsite near the centre of the property. A heavily used vehicle trail runs through the northwest area of the property accessing pasture lands to the north on IR 1C. Continued rural residential development is evident south and southwest of the Site.
August 4, 2010 (GE2010)	Site is largely unchanged, a trail has been developed to access the garden shed. Surrounding properties also appear largely unchanged with the exception of minor construction within established rural residential properties. The Agricultural lands to the east and southeast of the Site are being cultivated again and an access road off West Creston Road has been developed at the southeast corner of the Site.
June 3, 2016 (GE2016)	Site and surrounding properties appear unchanged with the exception that the LKB IR 1C land to the north of the Site are being cultivated.

3.2 Land Title Review

The site lies within the LKB Indian Reserve (Creston I.R. No. 1C). The Site is composed of two lots, both unencumbered band land:

- Lot 1, PL 2407R RSBC BC, PIN 1140287.
- Lot 2, PL 59632 CLSR BC, PIN (unavailable)

Further land title information was unavailable.

3.3 Property Records Review

No building records review were available at the time of

3.4 Online Records Review

Masse Environmental submitted a request to EcoLog Environmental Risk Information Service Ltd. (ERIS) for preparation of a BC Premium Report. The ERIS the LKB Indian Reserve (Creston I.R. No. 1C), BC Premium has been designed to meet the BC Stage 1 ESA requirements for the historical records review. It includes searches of all of the ERIS environmental and historical databases out to a 250 m radius from the centre of the Site and a search of the BC Site Registry out to a 500 m radius from the centre of the Site. The report has been included in Appendix D. A list of all of the searched databases and descriptions of these databases is included in the appendix of the ERIS BC Premium Report. Two databases returned unplottable results for the area searched. These are discussed below.

The Environmental Issues Inventory System (EIIS) database returned a result for the East Kootenay District Regional Landfill, indicating an active waste disposal site registered under the St. Mary's Band

(IR No. 1). The Indian & Northern Affairs Fuel Tanks (IAFT) database also returned two results for the St. Eugene Mission School, indicating the presence of two underground tanks. Both these results are not applicable to the Site as the St. Mary’s Indian Reserve (Cranbrook I.R. No. 1) and the Central Subregion Landfill (formerly the East Kootenay District Regional Landfill) are located nearly 100 linear km away, east of Cranbrook, BC.

3.5 Water Well and Aquifer Search

A water well search was conducted for wells located within a 0.5 km radius from the approximate center of the Site using the iMapBC. Nine water well records were identified within this radius. All of these wells are located upgradient of the Site, in either a south or west direction. Well record details and locations are included in Appendix D.

Table 3. Water Well Summary

Well #	Well Tag #	Well Depth (ft)	Comment
1	66856	310	5 US Gal/min. Private domestic.
2	93230	115	5 US Gal/min. Private domestic.
3	109940	330	7 US Gal/min. Private domestic.
4	47082	205	4 US Gal/min. Unknown well use.
5	66466	120	10 US Gal/min. Private domestic.
6	66931	140	3 US Gal/min. Private domestic.
7	105524	275	3 US Gal/min. Private domestic.
8	71617	285	No yield - decommissioned
9	71618	145	Unknown yield. Private domestic.

An unmapped water well is known to be located within the Site approximately 30 feet north of the residence. The well is 150 mm in diameter but the depth is unknown.

4 INTERVIEWS

A telephone interview was conducted with Cathy Cholpecki, the current resident of the Site, on Monday, July 23, 2018. An in-person interview was also conducted with Curtis Wullum of the Lower Kootenay Band during the site visit on July 24, 2018. The information provided from both interviews has been incorporated into the site visit findings, where applicable (Section 5).

The interviewees were not aware of the presence of any historical fuel tanks onsite or of any imported fill. To the best of their knowledge, no agricultural pesticides have been used or stored on the property. The property is a traditional Ktunaxa Nation camp spot used to monitor the western margin of the Creston Valley Territory. Prior to construction of the residence in 1992, the property was a garden.

5 SITE VISIT

On July 24, 2018, Masse Environmental representative, Iraleigh Anderson visited the Site. The purpose of the site visit was to observe the current Site conditions as well as those of the neighbouring properties. Photographic documentation of the site visit is included in Appendix E.

5.1 Current Land Use, Topography, Drainage, and Vegetation

The current land use of the Site is residential and there is one single-family residence (Photo 1), a garden, and a shed on the property (Photo 2). The residence is surrounded by pasture (Photo 3) with West Creston Road located immediately southwest (Photo 4).

Elevations onsite range from 530-543 metres above sea level (masl) with most of the Site situated above the Regional District of Central Kootenay's flood construction level of 537.4 masl (DNA 2018A). The site sits at the crest of a small mound, which gently slopes to the northwest towards the marsh and to the east towards the Kootenay River floodplain (DNA 2018B).

The majority of the Site is covered with agronomic grasses and invasive weeds (Photo 5) and conditions indicate a long history of grazing by cattle and ungulates. The northwest corner of the site is mixed forest with canopy cover ranging from 60 – 100 % (Photo 6). The mixed forest is dominated by mature trembling aspen (*Populus tremuloides*). An open stand of disturbed poplar is located to the east and southeast of the residence, along the margin of the neighbouring agricultural field (Photo 7). Canopy cover, also dominated by trembling aspen in this stand, ranged from 40 – 80 %.

5.2 Existing Buildings

At the time of the site visit there was one permanent building onsite with an estimated footprint of 140 m² (Google Earth). This split-level residence was constructed in 1992 on a concrete foundation (Photo 8). Exterior siding is vinyl and roofing materials are asphalt shingles. Masse Environmental did not enter the premises to inspect the building materials inside. Services to the residence are limited to overhead power lines. The current resident was unaware of any gas service and indicated that the building is heated using a forced air wood furnace.

Infrastructure associated with the residence includes a gravel driveway, a concrete slab carport, and a raised wooden deck (Photo 1 & Photo 8). The residential area of the Site has been fenced (Photo 9) and other features onsite include a garden and wooden garden shed (Photo 2), a chicken coop, and a metal garbage bin.

5.3 Potable Water

One 150 mm diameter water supply well has been drilled onsite (DNA 2018A) approximately 9 m north of the residence (Photo 10). Well records are not available. The current resident indicated that the well water is not potable.

5.4 Wastewater and Sewage

Wastewater and sewage from the residence are discharged to a septic tank of unknown liquid capacity located behind the house (Photo 11). The tank is connect to a septic field that infiltrates into the garden (DNA 2018A).

5.5 Storage Tanks and Pipelines

No storage tanks were observed on the Site. There was no indication that any above-ground or underground storage tanks have been present on the Site.

5.6 Domestic Waste and Recycling

A metal waste bin was observed onsite adjacent to the gravel driveway (Photo 12). Decaling on the bin indicated pick up service by Ray's Garbage Pick-Up. Recycling is presumably taken offsite for disposal at the RDCK Creston Landfill, located approximately 18 km away at 1501 Mallory Road.

5.7 Hazardous Materials

Given the year of construction of the residence onsite (constructed in 1992), regulated hazardous building materials are not anticipated onsite.

5.7.1 Asbestos-containing materials

The potential for the presence of asbestos-containing materials onsite is low. The production and use of asbestos-containing building construction materials in Canada has declined since the 1970s.

5.7.2 Lead-based paints

The potential for the presence of lead-based paints onsite is low. Consumer paints produced in Canada and the U.S. have been virtually lead-free since the 1990s.

5.7.3 Polychlorinated biphenyls

Polychlorinated (PCBs) were commonly used as dielectric fluids in electrical transformers prior to 1977. Power pole-mounted electrical transformers were observed along the West Creston Road overhead power line (Photo 13) and there is some potential for the presence of PCB materials inside these transformers.

5.7.4 Mould

In consideration of the age of the house and the climate in Creston, BC, the potential for the presence of mould onsite is low. However, Masse Environmental did not enter the premises to inspect the inside of the residence and poor ventilation could lead to the establishment of mould inside any poorly ventilated space.

5.7.5 Radon

The Kootenay Region has high radon gas generating potential (REMC 2012). Radon is a naturally occurring radioactive gas which occurs in geological formations where high concentrations of granite, uranium, shale, or phosphate are present. It is a colorless, odourless, tasteless gas that can diffuse from the soil into buildings. An increased risk of lung cancer has been associated with long-term exposure to high-levels of radon gas. In enclosed spaces, with poor air circulation, such as basements below (or partially below) grade, radon gas can accumulate to dangerous levels. The residence onsite has potential to contain elevated levels of radon in poorly ventilated areas.

5.7.6 Household Hazardous Waste

The property is not known to generate or store hazardous waste and excellent housekeeping practices were observed around the residence during the site visit. Small quantities of miscellaneous cleaning products are expected to be stored inside the premises. Small quantities of gardening products were observed in the carport (Photo 14). One 10 L Jerry can was observed onsite, presumably filled with gasoline for the ride on mower. One 4 L jug of engine oil was also observed adjacent to the Jerry can. One portable propane tank was observed onsite within the BBQ.

5.8 Fill Materials

The Site follows the natural contouring of the area and there was no indication that large volumes of fill material has been imported to the Site. One mound of soil was observed onsite covered in wormwood (*Artemisia absinthum*). The current resident indicated that this material was stripped from the pasture during construction of pasture access trail.

5.9 Mechanical Equipment

A ride-on lawnmower was observed on the Site during the site visit (Photo 14). It was stored under the carport on the concrete slab. There was no evidence of fuel spillage on the concrete slab around the mower.

5.10 Adjacent Land Usage

Adjacent lands northwest, north, east, and southeast are all downslope from the Site. The northwestern edge of the Site neighbors the southern tip of the CVWMA. The northeastern edge of the Site extends into the main portion of the LKB Indian Reserve IR 1C and the eastern edge of the site neighbours private owned undeveloped agricultural land.

West Creston Road is located immediately southwest of the Site. Two country residential properties neighbour the Site to the southeast and southwest beyond West Creston Road. The residence at 1275 West Creston Road has been constructed at a similar elevation to the Site, whereas the residence at 1255 West Creston Road has been constructed upgradient atop a bench (Photo 15). During the site visit there was no observable evidence of any activities occurring on these properties that would raise potential environmental concern with respect to the Site. Table 4 contains a summary of the legal, land-use, and zoning information pertaining to the neighbouring properties.

Table 4. Summary of Site Information for Neighbouring Residential Properties.

1275 West Creston Road	
Legal Description	Lot A, PL NEP12734, DL 281, KLD.
UTM at center	11U 528617.5437177
Area	6.32 Acres
Zoning	Country Residential (R2)
Onsite Facilities	Single Family Residence
1255 West Creston Road	
Legal Description	Lot 1, PL NEP22669, DL 281, KLD.
UTM at center	11U 528811.5437045
Area	5.86 Acres
Zoning	Country Residential (R2)
Onsite Facilities	Single Family Residence

6 FINDINGS AND RECOMMENDATIONS

Based on the information collected and observations made during the Stage 1 ESA, no evidence of actual and/or potential environmental contamination resulting from previous land use, property development, management and operation of the property, and offsite contaminant migration was observed.

7 CLOSURE

This report has been prepared by Masse Environmental, solely for the use of the Lower Kootenay Band. It has been prepared in accordance with the CSA Z768 Phase 1 ESA Guidelines (CSA 2016) and currently acceptable practises at the time. No other warranty is made, expressed, or implied. Use of this report by other parties, and any actions or decisions made based on this report, are the responsibility of such parties. Masse Environmental accepts no responsibility for damages, if any, that may be suffered by other parties. Distribution of this report beyond the client can only be made at the mutual agreement of both the client and the author and is not assignable.

Should you have any questions, please do not hesitate to contact the undersigned.

Yours Sincerely,

A handwritten signature in black ink, appearing to read 'JR', with a long horizontal flourish extending to the right.

Jennifer Ross, M.Sc., P. Chem.
Masse Environmental Consultants Ltd.

8 REFERENCES

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Appendix A
Site Maps



Figure 1. Location Map



Figure 2. Detailed Site Map

Appendix B
Aerial Photographs



Figure 3. 1968 air photo (BC5294/88). Approximate boundaries of Site marked.



Figure 4. 1978 air photo (BCC78107/233). Approximate boundaries of Site marked.



Figure 5. 1988 air photo (BC88029/173). Approximate boundaries of Site marked.



Figure 6. 2000 air photo (BCB00003/71). Approximate boundaries of Site marked.



Figure 7. 2010 air photo (Google Earth). Approximate boundaries of Site marked.



Figure 8. 2016 air photo (Google Earth). Approximate boundaries of Site marked.

Appendix D
ERIS Database Reports



DATABASE REPORT

Project Property: *Lower Kootenay Band IR1C ESA
Nicks Garden Lot
Creston BC*

Project No: *2018-653*

Report Type: *BC Premium Report*

Order No: *20180713125*

Requested by: *Masse Environmental Consultants Ltd.*

Date Completed: *July 19, 2018*

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Executive Summary

Property Information:

Project Property: *Lower Kootenay Band IR1C ESA
Nicks Garden Lot Creston BC*

Project No: *2018-653*

Coordinates:

Latitude: *49.087475*
Longitude: *-116.606779*
UTM Northing: *5,437,254.47*
UTM Easting: *528,710.75*
UTM Zone: *UTM Zone 11U*

Elevation: *1,774 FT
540.84 M*

Order Information:

Order No: *20180713125*
Date Requested: *July 13, 2018*
Requested by: *Masse Environmental Consultants Ltd.*
Report Type: *BC Premium Report*

Historical/Products:

Executive Summary: Report Summary

Database	Name	Searched	Search Radius	Project Property	Within 0.25 km	0.25 km to 0.50 km	Total
AMS	Authorization Management System (formerly WASTE)	Y	0.25	0	0	-	0
ARIS	Assessment Report Indexing System	Y	0.25	0	0	-	0
AUWR	Automobile Wrecking & Supplies	Y	0.25	0	0	-	0
BOGW	BC Oil and Gas Wells	Y	0.25	0	0	-	0
CHEM	Chemical Register	Y	0.25	0	0	-	0
CNG	Compressed Natural Gas Stations	Y	0.25	0	0	-	0
COAL	Coal Tar Sites	Y	0.25	0	0	-	0
CONV	Compliance and Enforcement Summary	Y	0.25	0	0	-	0
DIS	Wastewater Discharge Inventory	Y	0.25	0	0	-	0
DRYCLEANERS	Dry Cleaning Facilities	Y	0.25	0	0	-	0
EEM	Environmental Effects Monitoring	Y	0.25	0	0	-	0
EHS	ERIS Historical Searches	Y	0.25	0	0	-	0
EIIS	Environmental Issues Inventory System	Y	0.25	0	0	-	0
EM	Environmental Monitoring Locations	Y	0.25	0	0	-	0
FCON	Federal Convictions	Y	0.25	0	0	-	0
FCS	Contaminated Sites on Federal Land	Y	0.25	0	0	-	0
FISH	Commercial Fisheries	Y	0.25	0	0	-	0
FOFT	Fisheries & Oceans Fuel Tanks	Y	0.25	0	0	-	0
GEN	Waste Generators Summary	Y	0.25	0	0	-	0
GEN2	Generators - Special Waste Information System (SWIS)	Y	0.25	0	0	-	0
GHG	Greenhouse Gas Emissions from Large Facilities	Y	0.25	0	0	-	0
IAFT	Indian & Northern Affairs Fuel Tanks	Y	0.25	0	0	-	0
LUM	Lumber Mills	Y	0.25	0	0	-	0
MINE	Canadian Mine Locations	Y	0.25	0	0	-	0
MNR	Minerals Deposits Database	Y	0.25	0	0	-	0
NATE	National Analysis of Trends in Emergencies System (NATES)	Y	0.25	0	0	-	0
NCPL	Non-Compliance Reports	Y	0.25	0	0	-	0
NDFT	National Defense & Canadian Forces Fuel Tanks	Y	0.25	0	0	-	0
NDSP	National Defense & Canadian Forces Spills	Y	0.25	0	0	-	0
NDWD	National Defence & Canadian Forces Waste Disposal Sites	Y	0.25	0	0	-	0
NEBI	National Energy Board Pipeline Incidents	Y	0.25	0	0	-	0
NEBW	National Energy Board Wells	Y	0.25	0	0	-	0
NEES	National Environmental Emergencies System (NEES)	Y	0.25	0	0	-	0
NPCB	National PCB Inventory	Y	0.25	0	0	-	0

<i>Database</i>	<i>Name</i>	<i>Searched</i>	<i>Search Radius</i>	<i>Project Property</i>	<i>Within 0.25 km</i>	<i>0.25 km to 0.50 km</i>	<i>Total</i>
NPRI	<i>National Pollutant Release Inventory</i>	Y	0.25	0	0	-	0
OGW	<i>Oil and Gas Wells</i>	Y	0.25	0	0	-	0
PAP	<i>Canadian Pulp and Paper</i>	Y	0.25	0	0	-	0
PCB	<i>Inventory of PCB Storage Sites</i>	Y	0.25	0	0	-	0
PCFT	<i>Parks Canada Fuel Storage Tanks</i>	Y	0.25	0	0	-	0
PES	<i>Pesticide Register</i>	Y	0.25	0	0	-	0
PRAI	<i>Private Aggregate Inventory</i>	Y	0.25	0	0	-	0
PUAI	<i>Public Aggregate Inventory</i>	Y	0.25	0	0	-	0
REC	<i>Waste Receivers Summary</i>	Y	0.25	0	0	-	0
REC SWIS	<i>Receivers - Special Waste Information System (SWIS)</i>	Y	0.25	0	0	-	0
RST	<i>Retail Fuel Storage Tanks</i>	Y	0.25	0	0	-	0
SCT	<i>Scott's Manufacturing Directory</i>	Y	0.25	0	0	-	0
SREG	<i>Site Registry</i>	Y	0.50	0	0	0	0
TANK VAN	<i>Vancouver Heating Oil Underground Storage Tanks</i>	Y	0.25	0	0	-	0
TCFT	<i>Transport Canada Fuel Storage Tanks</i>	Y	0.25	0	0	-	0
WDS	<i>Waste Disposal Site Inventory</i>	Y	0.25	0	0	-	0
WWIS	<i>Water Well Information System</i>	Y	0.25	0	0	-	0
Total:				0	0	0	0

Executive Summary: Site Report Summary - Project Property

<i>Map Key</i>	<i>DB</i>	<i>Company/Site Name</i>	<i>Address</i>	<i>Dir/Dist (m)</i>	<i>Elev diff (m)</i>	<i>Page Number</i>
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No records found in the selected databases for the project property.

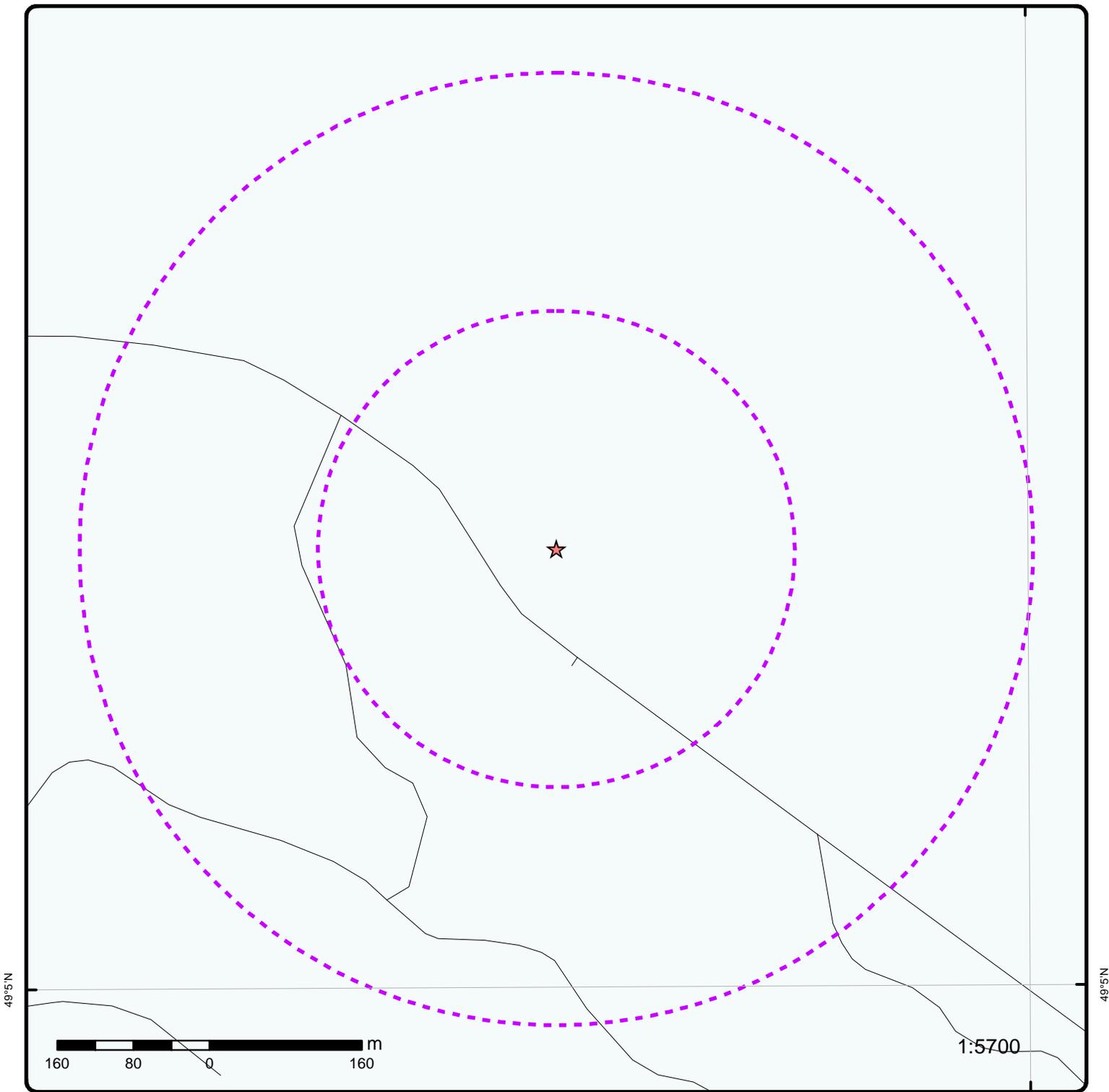
Executive Summary: Site Report Summary - Surrounding Properties

<i>Map Key</i>	<i>DB</i>	<i>Company/Site Name</i>	<i>Address</i>	<i>Dir/Dist (m)</i>	<i>Elev Diff (m)</i>	<i>Page Number</i>
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No records found in the selected databases for the surrounding properties.

Executive Summary: Summary By Data Source

No records found in the selected databases for the project property or surrounding properties.



Map : 0.5 Kilometer Radius

Order No: 20180713125
Address: Nicks Garden Lot, Creston, BC



Project Property	Expressway	Industrial and Resource - Regions	National Park
Buffer Outline	Principal Highway	Main Line	Provincial or Territorial Park
Eris Sites with Higher Elevation	Secondary Highway	Sidetrack	Other Park
Eris Sites with Same Elevation	Major Road	Transit Line	Golf Course or Driving Range
Eris Sites with Lower Elevation	Local road	Abandoned Line	Park or Sports Field
Eris Sites with Unknown Elevation	Trail		Other Recreation Area
	Proposed Road		
	Ferry Route/Ice Road		



Aerial (2016)

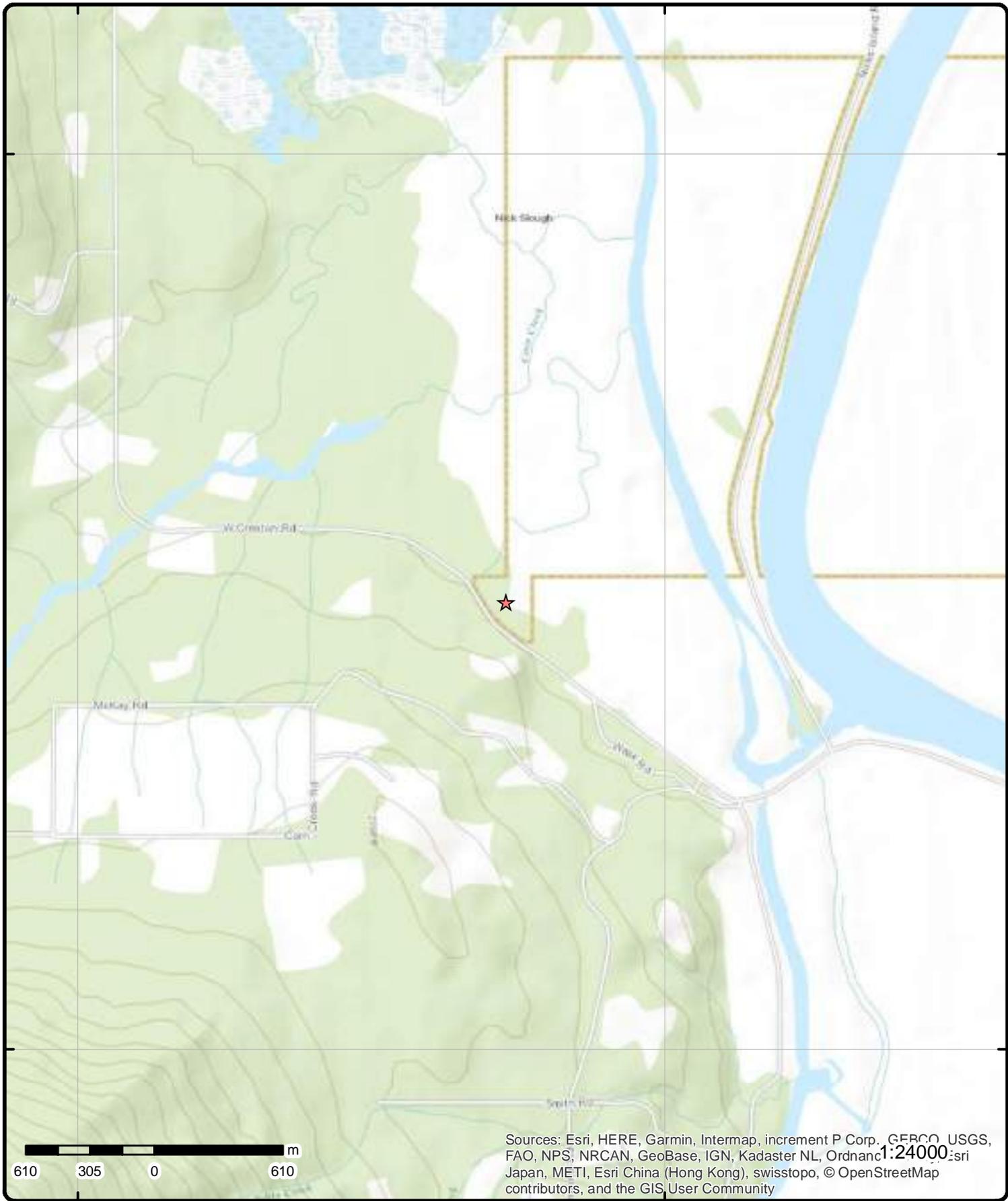
Address: Nicks Garden Lot, Creston, BC

Source: ESRI World Imagery

Order No: 20180713125



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Topographic Map

Address: Nicks Garden Lot, Creston, BC

Source: ESRI World Topographic Map

Order No: 20180713125



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Detail Report

<i>Map Key</i>	<i>Number of Records</i>	<i>Direction/ Distance (m)</i>	<i>Elev/Diff (m)</i>	<i>Site</i>	<i>DB</i>
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No records found in the selected databases for the project property or surrounding properties.

Unplottable Summary

Total: 3 Unplottable sites

DB	Company Name/Site Name	Address	City	Postal
EIIS	East Kootney District Regional Landfill		KOOTENAY NO. 1 BC	
IAFT	St. Eugene School		BC	
IAFT	St. Eugene Mission School		BC	

Unplottable Report

Site: East Kootney District Regional Landfill
KOOTENAY NO. 1 BC

Database:
EIIS

Inventory Number: 7000085996
Band: ST. MARY'S
Environmental Issue: WASTE DISPOSAL SITES (ACTIVE)
Reserve:: KOOTENAY NO. 1
File Closed:: 02/05/00

--Details--

Funding Site Action: PHASE III
Fiscal Year: 1994/1995

Site: St. Eugene School
BC

Database:
IAFT

Owner/Operator:
Reserve Name: KOOTENAY NO. 1
Site No.: 07422
Facility Type:: School
Installed Date: 1968
Tank Type:: Underground
Tank Desc::
Tank No.: 07422-u-001
Tank Material:: None
Contents:: None
Capacity::
Current Status::

Site: St. Eugene Mission School
BC

Database:
IAFT

Owner/Operator:
Reserve Name: KOOTENAY NO. 1
Site No.: 07422
Facility Type:: School
Installed Date: 1968
Tank Type:: Underground
Tank Desc::
Tank No.: 07422-u-002
Tank Material:: None
Contents:: None
Capacity::
Current Status::

Appendix: Database Descriptions

Environmental Risk Information Services (ERIS) can search the following databases. The extent of historical information varies with each database and current information is determined by what is publicly available to ERIS at the time of update. **Note:** Databases denoted with " * " indicates that the database will no longer be updated. See the individual database description for more information.

Authorization Management System (formerly WASTE):

Provincial

[AMS](#)

AMS is the Ministry of Environment's waste permit administration system. It maintains data related to the administration of permits issued under the Environmental Management Act and registrations under various regulations where the regulation requires a discharger to register. It will include information such as companies or individuals permitted to discharge waste; type of business and locations at which waste disposal is permitted; the types, amounts and frequency of waste products that are permitted to be discharged at given locations; issue date and more. This was previously referred to as the "WASTE" database.

Government Publication Date: 1957-Aug 31, 2017

Assessment Report Indexing System:

Provincial

[ARIS](#)

Within British Columbia, the "Mineral Tenure Act Regulation", requires that results of mineral exploration and development programs be submitted to the British Columbia Ministry of Employment and Investment, where they are then maintained and housed by the Geological Survey Branch. The assessment reports provided by the Geological Survey Branch contain summary information for reports approved to November 1998; on geology, geophysics, geochemistry, drilling, prospecting and physical work.

Government Publication Date: 31MAR2018

Automobile Wrecking & Supplies:

Private

[AUWR](#)

This database provides an inventory of known locations that are involved in the scrap metal, automobile wrecking/recycling, and automobile parts & supplies industry. Information is provided on the company name, location and business type.

Government Publication Date: 1999-Jan 31, 2018

BC Oil and Gas Wells:

Provincial

[BOGW](#)

The BC Oil and Gas Wells database was collected from the BC Oil and Gas Commission and is a comprehensive database that includes information regarding well number, well name, operator name, location, depth, status, as well as drill date and type. Please note that this database will not be updated, information on wells drilled after January 2006 can be found in the Oil and Gas Wells (OGW) database under the 'Private Source Database' section.

Government Publication Date: 1918-Jan 2006*

Chemical Register:

Private

[CHEM](#)

This database includes a listing of locations of facilities within the Province or Territory that either manufacture and/or distributes chemicals.

Government Publication Date: 1999-Jan 31, 2018

Compressed Natural Gas Stations:

Private

[CNG](#)

Canada has a network of public access compressed natural gas (CNG) refuelling stations. These stations dispense natural gas in compressed form at 3,000 pounds per square inch (psi), the pressure which is allowed within the current Canadian codes and standards. The majority of natural gas refuelling is located at existing retail gasoline that have a separate refuelling island for natural gas. This list of stations is made available by the Canadian Natural Gas Vehicle Alliance.

Government Publication Date: Dec 31, 2012

Coal Tar Sites:

Provincial

[COAL](#)

This one-time study is an inventory of all known and historical coal tar sites, identifying sites that produced coal tar and other related tars during the mid 1800's to the mid 1900's.

Government Publication Date: 1992*

Compliance and Enforcement Summary:

Provincial

[CONV](#)

This database summarizes orders, tickets and convictions issued by the Ministry of the Environment under applicable ministry and federal legislation. Orders are issued when action is required to prevent or stop actual or potential impact to the environment. Tickets apply to all tickets paid, deemed guilty by non-payment or expiry, or contested in court and found guilty by a judge. Convictions apply to all court convictions of ministry legislation as well as federal legislation where the ministry has taken action. This reporting summary began in January 2006, replacing Non-Compliance Reports by the former Ministry of Water, Land & Air Protection. See the Non-Compliance Reports (NCPL) database below for more information. This database is part of a larger COORS (Conservation Officer On-Line Reporting System) database controlled by the Ministry of Environment in BC.

Government Publication Date: 1990-Dec 2017

Wastewater Discharge Inventory:

Provincial [DIS](#)

This inventory contains information regarding direct dischargers of toxic pollutants for the following operations: Industrial; Commercial; Agricultural; Mining; Municipal; Urban; Aquaculture; and Pulp & Paper, operating under provincial permits. Please note that this program was discontinued and therefore the database will not be updated.

Government Publication Date: 1957-1995*

Dry Cleaning Facilities:

Federal [DRYCLEANERS](#)

List of dry cleaning facilities made available by Environment and Climate Change Canada. Environment and Climate Change Canada's Tetrachloroethylene (Use in Dry Cleaning and Reporting Requirements) Regulations (SOR/2003-79) are intended to reduce releases of tetrachloroethylene to the environment from dry cleaning facilities.

Government Publication Date: Jan 2004-Dec 2016

Environmental Effects Monitoring:

Federal [EEM](#)

The Environmental Effects Monitoring program assesses the effects of effluent from industrial or other sources on fish, fish habitat and human usage of fisheries resources. Since 1992, pulp and paper mills have been required to conduct EEM studies under the Pulp and Paper Effluent Regulations. This database provides information on the mill name, geographical location and sub-lethal toxicity data.

Government Publication Date: 1992-2007*

ERIS Historical Searches:

Private [EHS](#)

ERIS has compiled a database of all environmental risk reports completed since March 1999. Available fields for this database include: site location, date of report, type of report, and search radius. As per all other databases, the ERIS database can be referenced on both the map and "Statistical Profile" page.

Government Publication Date: 1999-Feb 28, 2018

Environmental Issues Inventory System:

Federal [EIS](#)

The Environmental Issues Inventory System was developed through the implementation of the Environmental Issues and Remediation Plan. This plan was established to determine the location and severity of contaminated sites on inhabited First Nation reserves, and where necessary, to remediate those that posed a risk to health and safety; and to prevent future environmental problems. The EIS provides information on the reserve under investigation, inventory number, name of site, environmental issue, site action (Remediation, Site Assessment), and date investigation completed.

Government Publication Date: 1992-2001*

Environmental Monitoring Locations:

Provincial [EM](#)

List of environmental monitoring locations included in the Environmental Monitoring System (EMS) maintained by BC's Ministry of the Environment. EMS is the ministry's primary monitoring data repository. The system was designed to capture data covering physical/chemical and biological analyses performed on water, air, solid waste discharges and ambient monitoring sites throughout the province.

Government Publication Date: Mar 2011-Jan 31, 2018

Federal Convictions:

Federal [FCON](#)

Environment Canada maintains a database referred to as the "Environmental Registry" that details prosecutions under the Canadian Environmental Protection Act (CEPA) and the Fisheries Act (FA). Information is provided on the company name, location, charge date, offence and penalty.

Government Publication Date: 1988-Jun 2007*

Contaminated Sites on Federal Land:

Federal [FCS](#)

The Federal Contaminated Sites Inventory includes information on known federal contaminated sites under the custodianship of departments, agencies and consolidated Crown corporations as well as those that are being or have been investigated to determine whether they have contamination arising from past use that could pose a risk to human health or the environment. The inventory also includes non-federal contaminated sites for which the Government of Canada has accepted some or all financial responsibility. It does not include sites where contamination has been caused by, and which are under the control of, enterprise Crown corporations, private individuals, firms or other levels of government.

Government Publication Date: Jun 2000-Mar 2018

Commercial Fisheries:

Provincial [FISH](#)

The Fisheries, Aquaculture & Commercial Fisheries Branch of the Ministry of Water, Land & Air Protection maintains a database of fish processing plant approvals, licenses and activities. Each year, licenses need to be renewed.

Government Publication Date: 1993-2017

Fisheries & Oceans Fuel Tanks:

Federal [FOFT](#)

Fisheries & Oceans Canada maintains an inventory of aboveground & underground fuel storage tanks located on Fisheries & Oceans property or controlled by DFO. Our inventory provides information on the site name, location, tank owner, tank operator, facility type, storage tank location, tank contents & capacity, and date of tank installation.

Government Publication Date: 1964-Sep 2017

Waste Generators Summary:

Provincial GEN

Within British Columbia, the Special Waste Regulation defines a waste generator as any site, equipment and/or operation involved in the production, collection, handling and/or storage of regulated wastes. A generator of regulated waste is required to register the waste generation site and each waste produced, collected, handled, or stored at the site. This database contains the registration number (BCG#), company name and address of registered generators; including the types of hazardous wastes generated and the form of treatment used in the handling of the waste. Some of "Waste Generators Summary" addresses may represent mailing addresses rather than waste/hazardous sites. This information is a summary of all years from June 1993 to September 2010. Please note that a British Columbia Generator number (BCG#) are not unique to a company. This database is part of a larger SWIS (Special Waste Information System) database controlled by the Ministry of Environment in BC. Waste Generators Summary data are historic and no longer being updated.

Government Publication Date: 1993-2010*

Generators - Special Waste Information System (SWIS):

Provincial GEN2

The Special Waste Information System (SWIS) maintained by the BC Ministry of Environment holds information related to the generation and transportation of hazardous waste under the Hazardous Waste Regulation. This is a list of waste shipper sites (waste generators) included in hazardous waste transport manifests from 2011 - 2014, accompanied by manifest details.

Government Publication Date: Jan 2011-Dec 2014

Greenhouse Gas Emissions from Large Facilities:

Federal GHG

List of greenhouse gas emissions from large facilities made available by Environment Canada. Greenhouse gas emissions in kilotonnes of carbon dioxide equivalents (kt CO2 eq).

Government Publication Date: 2013-Dec 2016

Indian & Northern Affairs Fuel Tanks:

Federal IAFT

The Department of Indian & Northern Affairs Canada (INAC) maintains an inventory of aboveground & underground fuel storage tanks located on both federal and crown land. Our inventory provides information on the reserve name, location, facility type, site/facility name, tank type, material & ID number, tank contents & capacity, and date of tank installation.

Government Publication Date: 1950-Aug 2003*

Lumber Mills:

Provincial LUM

This database provides information regarding the general location and estimated annual output capacity of major timber processing facilities within the province of British Columbia.

Government Publication Date: 1997-2016

Canadian Mine Locations:

Private MINE

This information is collected from the Canadian & American Mines Handbook. The Mines database is a national database that provides over 290 listings on mines (listed as public companies) dealing primarily with precious metals and hard rocks. Listed are mines that are currently in operation, closed, suspended, or are still being developed (advanced projects). Their locations are provided as geographic coordinates (x, y and/or longitude, latitude). As of 2002, data pertaining to Canadian smelters and refineries has been appended to this database.

Government Publication Date: 1998-2009*

Minerals Deposits Database:

Provincial MNR

The Ministry of Energy and Mines maintains a database of more than 12,000 metallic mineral, industrial mineral and coal deposits and occurrences within British Columbia. Information within our report pertains to primary name, elevation, mining division, commodities, and status. Please note that as of January 27, 1999, information included within this database was divided into 2 categories: released and unreleased areas. Records for unreleased areas may contain incomplete, unedited, and/or inaccurate data.

Government Publication Date: Jul 31, 2017

National Analysis of Trends in Emergencies System (NATES):

Federal NATE

In 1974 Environment Canada established the National Analysis of Trends in Emergencies System (NATES) database, for the voluntary reporting of significant spill incidents. The data was to be used to assist in directing the work of the emergencies program. NATES ran from 1974 to 1994. Extensive information is available within this database including company names, place where the spill occurred, date of spill, cause, reason and source of spill, damage incurred, and amount, concentration, and volume of materials released.

Government Publication Date: 1974-1994*

Non-Compliance Reports:

Provincial NCPL

From 1990 to March 2001 the Ministry of Water, Land & Air Protection maintained a reporting system that identified any reported concern that pertained to compliance with authorized waste management permits or plans, approvals, orders, operational certificates and regulations, or any other activity under the Waste Management Act. This reporting system was discontinued in April of 2001; therefore there will be no updates to this database. However, beginning in January 2006 the Ministry of the Environment began publishing Compliance and Enforcement Summaries. See the Compliance and Enforcement Summary (CPL) database above for more information.

Government Publication Date: 1990-Mar 2001*

National Defense & Canadian Forces Fuel Tanks:

Federal

[NDFT](#)

The Department of National Defense and the Canadian Forces maintains an inventory of all aboveground & underground fuel storage tanks located on DND lands. Our inventory provides information on the base name, location, tank type & capacity, tank contents, tank class, date of tank installation, date tank last used, and status of tank as of May 2001. This database will no longer be updated due to the new National Security protocols which have prohibited any release of this database.

Government Publication Date: Up to May 2001*

National Defense & Canadian Forces Spills:

Federal

[NDSP](#)

The Department of National Defense and the Canadian Forces maintains an inventory of spills to land and water. All spill sites have been classified under the "Transportation of Dangerous Goods Act - 1992". Our inventory provides information on the facility name, location, spill ID #, spill date, type of spill, as well as the quantity of substance spilled & recovered.

Government Publication Date: Mar 1999-Apr 2018

National Defence & Canadian Forces Waste Disposal Sites:

Federal

[NDWD](#)

The Department of National Defence and the Canadian Forces maintains an inventory of waste disposal sites located on DND lands. Where available, our inventory provides information on the base name, location, type of waste received, area of site, depth of site, year site opened/closed and status.

Government Publication Date: 2001-Apr 2007*

National Energy Board Pipeline Incidents:

Federal

[NEBI](#)

Locations of pipeline incidents from 2008 to present, made available by the National Energy Board (NEB). Includes incidents reported under the Onshore Pipeline Regulations and the Processing Plant Regulations related to pipelines under federal jurisdiction, does not include incident data related to pipelines under provincial or territorial jurisdiction.

Government Publication Date: 2008-Mar 31, 2018

National Energy Board Wells:

Federal

[NEBW](#)

The NEBW database contains information on onshore & offshore oil and gas wells that are outside provincial jurisdiction(s) and are thereby regulated by the National Energy Board. Data is provided regarding the operator, well name, well ID No./UWI, status, classification, well depth, spud and release date.

Government Publication Date: 1920-Feb 2003*

National Environmental Emergencies System (NEES):

Federal

[NEES](#)

In 2000, the Emergencies program implemented NEES, a reporting system for spills of hazardous substances. For the most part, this system only captured data from the Atlantic Provinces, some from Quebec and Ontario and a portion from British Columbia. Data for Alberta, Saskatchewan, Manitoba and the Territories was not captured. However, NEES is also a repository for previous Environment Canada spill datasets. NEES is composed of the historic datasets ' or Trends ' which dates from approximately 1974 to present. NEES Trends is a compilation of historic databases, which were merged and includes data from NATES (National Analysis of Trends in Emergencies System), ARTS (Atlantic Regional Trends System), and NEES. In 2001, the Emergencies Program determined that variations in reporting regimes and requirements between federal and provincial agencies made national spill reporting and trend analysis difficult to achieve. As a consequence, the department has focused efforts on capturing data on spills of substances which fall under its legislative authority only (CEPA and FA). As such, the NEES database will be decommissioned in December 2004.

Government Publication Date: 1974-2003*

National PCB Inventory:

Federal

[NPCB](#)

Environment Canada's National PCB inventory includes information on in-use PCB containing equipment in Canada including federal, provincial and private facilities. Federal out-of-service PCB containing equipment and PCB waste owned by the federal government or by federally regulated industries such as airlines, railway companies, broadcasting companies, telephone and telecommunications companies, pipeline companies, etc. are also listed. Although it is not Environment Canada's mandate to collect data on non-federal PCB waste, the National PCB inventory includes some information on provincial and private PCB waste and storage sites. Some addresses provided may be Head Office addresses and are not necessarily the location of where the waste is being used or stored.

Government Publication Date: 1988-2008*

National Pollutant Release Inventory:

Federal

[NPRI](#)

Environment Canada has defined the National Pollutant Release Inventory ("NPRI") as a federal government initiative designed to collect comprehensive national data regarding releases to air, water, or land, and waste transfers for recycling for more than 300 listed substances.

Government Publication Date: 1993-May 2017

Oil and Gas Wells:

Private

[OGW](#)

The Nickle's Energy Group (publisher of the Daily Oil Bulletin) collects information on drilling activity including operator and well statistics. The well information database includes name, location, class, status and depth. The main Nickle's database is updated on a daily basis, however, this database is updated on a monthly basis. More information is available at www.nickles.com.

Government Publication Date: 1988-April 30, 2018

Canadian Pulp and Paper:

Private

PAP

This information is part of the Pulp and Paper Canada Directory. The Directory provides a comprehensive listing of the locations of pulp and paper mills and the products that they produce.

Government Publication Date: 1999, 2002, 2004, 2005, 2009-2014

Inventory of PCB Storage Sites:

Provincial

PCB

The Ministry of Water, Land & Air Protection maintains a database of all active Polychlorinated Biphenyls (PCB) waste storage sites within the Special Waste Information System. Please note that there is no requirement to maintain an accurate listing of all inactive PCB waste storage equipment and/or disposal sites. The records within this database provide information regarding site name, location, an inventory of stored wastes and quantities, and status date (when site first active/inactive). Previous to May 1993, data was collected from a different source and is only available for 1989. Inventory of PCB Storage Sites data are historic and no longer being updated.

Government Publication Date: 1989, May 1993-2010*

Parks Canada Fuel Storage Tanks:

Federal

PCFT

Canadian Heritage maintains an inventory of known fuel storage tanks operated by Parks Canada, in both National Parks and at National Historic Sites. The database details information on site name, location, tank install/removal date, capacity, fuel type, facility type, tank design and owner/operator.

Government Publication Date: 1920-Jan 2005*

Pesticide Register:

Provincial

PES

This is a database of individuals who apply for a service or vendor license for the use of registered pesticides. A service license is denoted by an "S" in the license number, likewise, a vendor license by a "V" in the license number.

Government Publication Date: 1989-Sep 2016

Private Aggregate Inventory:

Provincial

PRAI

Within British Columbia, aggregate pits are designated as mines; and as such, the Ministry of Energy and Mines is responsible for their planning, management and regulation, including permitting, health, safety and reclamation. Owners or operators of all private aggregate pits must file Notices of Work as part of the permitting and reclamation process. In 1994, the Geological Survey Branch initiated the Aggregate Program, in order to establish an inventory of natural and crushed aggregate pits. Information about each pit in the database file includes its location, NTS map sheet number, Notice of Work file number and status (active/inactive) and the type of landform hosting the pit. This database was a one-time inventory and will not be updated.

Government Publication Date: 1975-1996*

Public Aggregate Inventory:

Provincial

PUAI

Information about public aggregate pits in British Columbia is collected and managed by the Ministry of Transportation and Highways. Data has been gathered on more than 2000 pits, in respect to pit name, type and geographical location.

Government Publication Date: 1960-2001*

Waste Receivers Summary:

Provincial

REC

The Special Waste Regulation defines the disposal of regulated waste through an operating waste management system or a waste disposal site operated or used pursuant to the terms and conditions of a Certificate of Approval or a Provisional Certificate of Approval. A waste receiving location is any site or facility to which waste is transferred through a waste carrier. A receiver of regulated waste is required to register the waste receiving facility. This database represents registered receivers of regulated wastes, identified by registration number, company name and address. Some of "Waste Receivers Summary" addresses may represent mailing addresses rather than waste/hazardous sites. This database is part of a larger SWIS (Special Waste Information System) database controlled by the Ministry of Environment in BC. Waste Receivers Summary data are historic and no longer being updated.

Government Publication Date: 1992-2010*

Receivers - Special Waste Information System (SWIS):

Provincial

REC SWIS

The Special Waste Information System (SWIS) maintained by the BC Ministry of Environment holds information related to the generation and transportation of hazardous waste under the Hazardous Waste Regulation. This is a list of waste receiver sites included in hazardous waste transport manifests from 2011 - 2014, accompanied by manifest details.

Government Publication Date: Jan 2011-Dec 2014

Retail Fuel Storage Tanks:

Private

RST

This database includes an inventory of retail fuel outlet locations (including marinas) that have on their property gasoline, oil, waste oil, natural gas and / or propane storage tanks.

Government Publication Date: 1999-Jan 31, 2018

Scott's Manufacturing Directory:

Private

SCT

Scott's Directories is a data bank containing information on over 200,000 manufacturers across Canada. Even though Scott's listings are voluntary, it is the most comprehensive database of Canadian manufacturers available. Information concerning a company's address, plant size, and main products are included in this database.

Government Publication Date: 1992-Mar 2011*

Site Registry:

Provincial [SREG](#)

This information is collected from the Ministry of Environment's Site Registry. It is not a registry of contaminated sites, although some sites on the registry are contaminated. Most sites have already been investigated and require minor remediation, or have already been cleaned up to government requirements. The Registry also stores environmentally relevant historic information about sites including: names of participants, legal and administrative notations, references to pertinent documents submitted to the ministry, associations with other sites, and much more.

1. Please note the information provided in the Detail Reports have been updated to the best of our ability as provided by the source, BC Government. For more information, please contact your ERIS sales representative.

Government Publication Date: May 31, 2018

Vancouver Heating Oil Underground Storage Tanks:

Provincial [TANK VAN](#)

A list of heating oil Underground Storage Tanks made available by the City of Vancouver. The City of Vancouver maintains records of UST removals, abandonments, and installations for heating oil storage tanks.

Government Publication Date: Jun 1995 - Feb 2018

Transport Canada Fuel Storage Tanks:

Federal [TCFT](#)

List of fuel storage tanks currently or previously owned or operated by Transport Canada. This inventory also includes tanks on The Pickering Lands, which refers to 7,530 hectares (18,600 acres) of land in Pickering, Markham, and Uxbridge owned by the Government of Canada since 1972; properties on this land has been leased by the government since 1975, and falls under the Site Management Policy of Transport Canada, but is administered by Public Works and Government Services Canada. This inventory provides information on the site name, location, tank age, capacity and fuel type.

Government Publication Date: 1970-Aug 2017

Waste Disposal Site Inventory:

Provincial [WDS](#)

This inventory pertains to active, regulated waste disposal sites within the province of British Columbia. Registered companies may hold a permit or certificate for release of the following waste types: Effluent, Refuse, Air and Special Waste Storage. Information on Waste Disposal Sites after 1998 is contained within the Authorizations (AUTH) database.

Government Publication Date: 1980-1998*

Water Well Information System:

Provincial [WWIS](#)

This database was collected from the Groundwater Information Center of the Ministry of Water, Land & Air Protection and contains over 90,000 records. Comprehensive information is available for each well including: well location (address/site area), latitude/longitude, legal description (section, lot, plan, district lot, range, township), BCGS Mapsheet No., depth of well, construction dates, well status and lithology. The accuracy of well locations is also provided, as well as the reference source for obtaining geographic coordinates.

Government Publication Date: Jan 31, 2018

Definitions

Database Descriptions: This section provides a detailed explanation for each database including: source, information available, time coverage, and acronyms used. They are listed in alphabetic order.

Detail Report: This is the section of the report which provides the most detail for each individual record. Records are summarized by location, starting with the project property followed by records in closest proximity.

Distance: The distance value is the distance between plotted points, not necessarily the distance between the sites' boundaries. All values are an approximation.

Direction: The direction value is the compass direction of the site in respect to the project property and/or center point of the report.

Elevation: The elevation value is taken from the location at which the records for the site address have been plotted. All values are an approximation. Source: Google Elevation API.

Executive Summary: This portion of the report is divided into 3 sections:

'Report Summary'- Displays a chart indicating how many records fall on the project property and, within the report search radii.

'Site Report Summary'-Project Property'- This section lists all the records which fall on the project property. For more details, see the 'Detail Report' section.

'Site Report Summary-Surrounding Properties'- This section summarizes all records on adjacent properties, listing them in order of proximity from the project property. For more details, see the 'Detail Report' section.

Map Key: The map key number is assigned according to closest proximity from the project property. Map Key numbers always start at #1. The project property will always have a map key of '1' if records are available. If there is a number in brackets beside the main number, this will indicate the number of records on that specific property. If there is no number in brackets, there is only one record for that property.

The symbol and colour used indicates 'elevation': the red inverted triangle will dictate 'ERIS Sites with Lower Elevation', the yellow triangle will dictate 'ERIS Sites with Higher Elevation' and the orange square will dictate 'ERIS Sites with Same Elevation.'

Unplottables: These are records that could not be mapped due to various reasons, including limited geographic information. These records may or may not be in your study area, and are included as reference.

Appendix E
Photo Documentation



Photo 1. View of single-family residence.



Photo 2. Shed and garden behind residence.



Photo 3. Looking southeast from IR 1C at pastures north through east of Site.



Photo 4. West Creston Road, located immediately southwest of Site.



Photo 5. Majority of Site covered with agronomic grasses and invasive weeds.



Photo 6. Mixed forest in northwest corner of Site.



Photo 7. Open poplar stand located east and southeast of residence, along margin neighbouring agricultural field.



Photo 8. Split-level residence showing carport and raised deck.



Photo 9. Residential area of the Site fenced.



Photo 10. Water supply well onsite.



Photo 11. Septic tank located behind house.



Photo 12. Waste bin observed adjacent to gravel driveway.



Photo 13. Power pole-mounted electrical transformers observed along West Creston Road.



Photo 14. Small quantities of gardening products, 10 L Jerry can, and ~ 4 L jug of engine oil observed in the carport.



Photo 15. Neighbouring residence at 1255 West Creston Road has been constructed upgradient atop a bench.