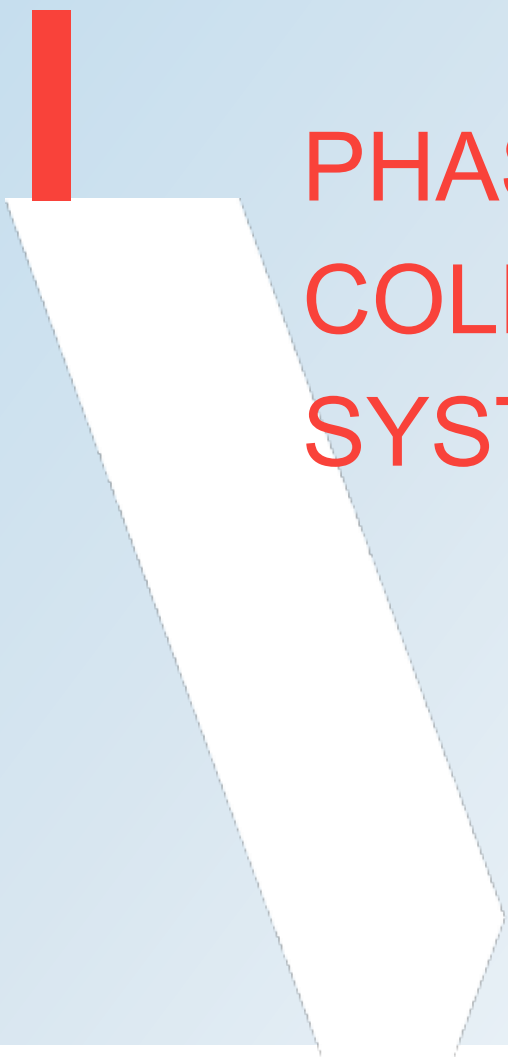


APPENDIX



PHASE 1A/1B COLLECTION SYSTEMS MEMO



MEMO

TO: Vince Van Tongeren, Darry Monteith – CVRD

FROM: Michael Levin, P.Eng., Ian Snyman, Sinead McNally P.Eng., Avtar Panesar, EIT – WSP

SUBJECT: CVRD LWMP CCO16 – South Region LWMP Addendum Scope – Royston, Kilmarnock and Union Bay Collection Systems R2

DATE: April 24, 2024

BACKGROUND

The Comox Valley Regional District (CVRD) retained WSP Canada Ltd. (WSP) to complete the preliminary design for the Sewer Extension South Liquid Waste Management Plan Addendum. Conceptual designs and reviews of Union Bay, Kilmarnock and the core area of Royston collection systems have already been completed in previous scopes of work.

WSP previously proposed a gravity and Low-Pressure Sewer (LPS) configuration noted in the document entitled “Royston/Union Bay Local Collection System Options & Design Updates” dated February 15, 2021. The current revised design configuration of the Royston Pump Station (PS #1) collection system, Kilmarnock Pump Station (PS #3) and Union Bay Pump Station (PS #6) collection system is based on options provided in that 2021 memo with refinements to decrease costs using a gravity sewer-focused system. The Class C Cost Estimate was completed for the design of the Royston Pump Station, Kilmarnock Pump Station and Union Bay Pump Station Collection systems.

LOCATION DESCRIPTION

The Royston, Kilmarnock and Union Bay Areas are in Electoral Area ‘A’, also known as the South Region of the CVRD area located about 5 km and 15 km, respectively, as shown in Figure 1. This Electoral area does not have a centralized sewage collection system and uses privately owned onsite septic systems for wastewater management.

As noted by CVRD, the Kilmarnock Pump Station catchment will also facilitate sewer loading from the future K’ómoks First Nation new development west of Highway 19A. The Union Bay Pump Station catchment will also convey future sewage flows from the planned K’ómoks First Nation development located south of Nelson Street. In addition, 25% of the future Union Bay Estates (UBE) development will convey sanitary flows through the catchment towards Union Bay Pump Station. Royston Pump Station does not have any additional development contributions.

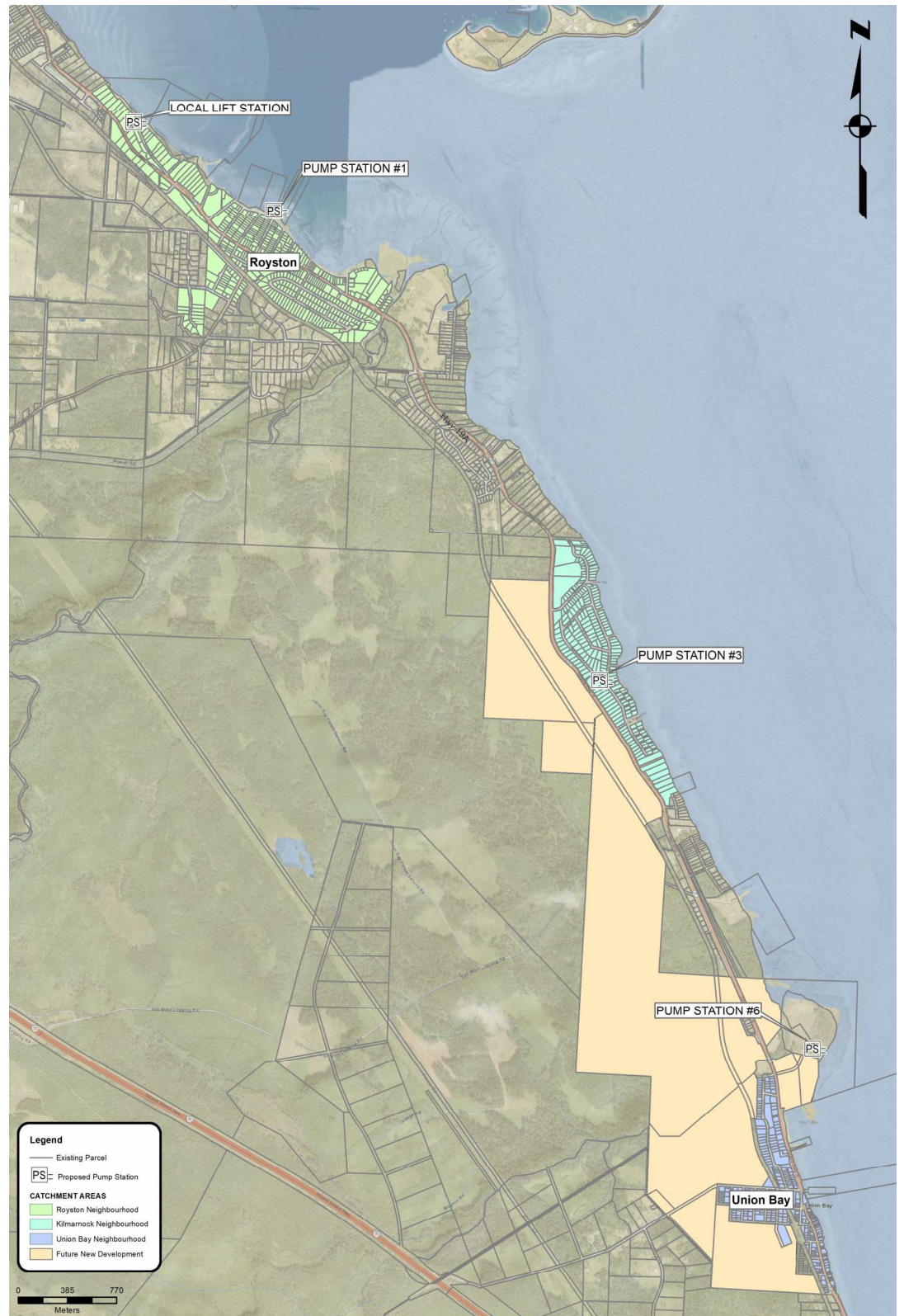


Figure 1: Royston and Union Bay neighbourhoods - Areas of Interest

SANITARY SERVICING REVIEW

The following section summarizes the population and design flow calculations, model, and the sanitary sewer system assessment completed for the study areas.

POPULATION AND DESIGN FLOW SUMMARY

The population and flow projections for the Royston Pump Station, Kilmarnock Pump Station and Union Bay Pump Station catchments were calculated in earlier stages. Design criteria and detailed development can be referred to in the “South Region Service Area Impacts on CVSS Conveyance and Wastewater Infrastructure” dated January 9, 2019. Table 1 summarises the contributing Average Dry Weather Flow (ADWF) and Peak Wet Weather Flow (PWWF) for the projected populations in 2025 and 2070 in the Royston catchment. Similarly, Table 2 summarizes the ADWF and PWWF for the 2025 and 2070 populations for the Kilmarnock catchment. Table 3 outlines the ADWF and PWWF for the 2025 and 2070 populations in the Union Bay catchment.

Table 1: Royston Pump Station Catchment Population, Area and Flow

		Royston PS Catchment
2025	Population	1,011
	Area (ha)	133
	Peaking Factor	3.2
	ADWF (L/s)	2.8
	PDWF (L/s)	9.0
	I&I (L/s)	8.0
	PWWF (L/s)	17.0
2070	Population	1,266
	Area (ha)	133
	Peaking Factor	3.2
	ADWF (L/s)	3.5
	PDWF (L/s)	11.3
	I&I (L/s)	8.0
	PWWF (L/s)	19.2

Table 2: Kilmarnock Pump Station Catchment Population, Area and Flow

		Kilmarnock PS Catchment	Future New Development	Total
2025	Population	507	40	547
	Area (ha)	65	7.5	72.5
	Peaking Factor	3.2	3.2	-
	ADWF (L/s)	1.4	2.1	3.5
	PDWF (L/s)	4.5	6.7	11.2
	I&I (L/s)	3.9	0.4	4.3
	PWWF (L/s)	8.4	7.1	15.5
2070	Population	634	2309	2943
	Area (ha)	64.6	80.7	145.3
	Peaking Factor	3.2	3.0	-
	ADWF (L/s)	1.8	19.2	21.0
	PDWF (L/s)	5.7	57.0	62.7
	I&I (L/s)	3.9	4.8	8.7
	PWWF (L/s)	9.5	61.9	71.4

Table 3: Union Bay Pump Station Catchment Population, Area, and Flow

		Union Bay PS Catchment	Future New Development	Total
2025	Population	692	85	777
	Area (ha)	45.2	82.3	127.5
	Peaking Factor	3.2	6.2	-
	ADWF (L/s)	1.9	0.2	2.1
	PDWF (L/s)	6.15	0.75	6.9
	I&I (L/s)	2.7	5	7.7
	PWWF (L/s)	8.9	5.7	14.6
2070	Population	866	2750	3,616
	Area (ha)	45.2	118.3	163.5
	Peaking Factor	3.2	6.18	-
	ADWF (L/s)	2.4	9.4	11.8
	PDWF (L/s)	7.7	28.9	36.6
	I&I (L/s)	2.7	7.1	9.8
	PWWF (L/s)	10.4	36	46.4

The following assumptions were used in the flow calculations:

- 240 L/cap/day was used as specified in the 2022 MMCD Design Guidelines for ADWF.
- The peaking factor was calculated using the formula from the 2022 MMCD Design Guidelines of $PF = 3.2/P^{0.105}$, where P is the population in thousands rounded to the nearest thousand.
- The inflow and infiltration (I&I) rate for all existing and proposed developments is 0.06 L/s/ha as specified in the 2014 MMCD Design Guidelines.
- The PWWF was calculated using the formula for design flow from the 2022 MMCD Design Guidelines, where the design flow, $Q = \text{population} \times \text{per capita flow} \times \text{peaking factor} + \text{I\&I contribution}$.

The collection system was designed using the 2070 projected flows for the projected development in the area.

MODELLING

PCSWMM was the modelling software used for the design and analysis of the Royston, Kilmarnock and Union Bay sewer collection systems. The software allows for the optimal design and sizing of the collection system to ensure that the system has the required capacity and meets minimum velocities. LIDAR obtained from Parcel Map BC by DataBC was processed and imported into the software for topography. Other GIS components such as land parcels, road networks, and existing sewers were obtained from CVRD in previous submissions and incorporated into the model.

Using the combination of LIDAR and GIS components, the pipe invert levels were calculated, and manholes were placed according to The Master Municipal Construction Documents (MMCD 2022) requirements. Manholes are located at every change in pipe size and direction, with a maximum spacing of 150 m. A projected ADWF and I&I for each parcel is calculated based on the area using the flows outlined in the section above. Parcel sub-catchments were assigned to the closest upstream manhole. For the Kilmarnock Pump Station, the sanitary loads from the future K'ómoks First Nations development were evenly distributed between three manhole locations shown in Figure 4 and Figure 5. For the Union Bay Pump Station, the sanitary loads from the future K'ómoks and UBE development were distributed between the five manhole locations as shown in Figure 6.

Deficiencies in the initial collection system were reviewed in the model. Several challenges had to be resolved, such as pipe surcharging and velocity requirements.

DESIGN STANDARDS

The proposed pipe depth varies along the length of the sanitary sewers but generally follows the ground profile with a minimum cover of 1 m and maximum cover of 4.5 m as required by MMCD (2022). Manholes are provided at every change of pipe size, change in grade and direction with the maximum spacing of 150 m as required by MMCD (2022). Minimum grades of 0.6% are stipulated in the MMCD standards to maintain a minimum velocity of 0.6 m/s. Collection systems are to have a minimum pipe size of 200 mm or 150 mm for upstream sections of a residential sewer where future extension is not possible. The sanitary sewers are designed to be flowing at a maximum capacity of 80%.

SANITARY HYDRAULIC ASSESSMENT

This section outlines the proposed sanitary sewer alignment, low-pressure sewer system, water crossings, highway crossings, and railroad crossings for the Royston Pump Station, Kilmarnock Pump Station and Union Bay Pump Station collection systems.

ROYSTON COLLECTION SYSTEM

The Royston neighborhood is divided into two secondary sections: the western catchment and the eastern catchment, which is illustrated in Figure 2. The eastern catchment is subsequently subdivided into five smaller sub-catchment areas, along with an extension region. The initial stage of the project, Phase 1A, will concentrate on the development of the sewer system for the eastern catchment, commencing with sub-catchment S1-3.

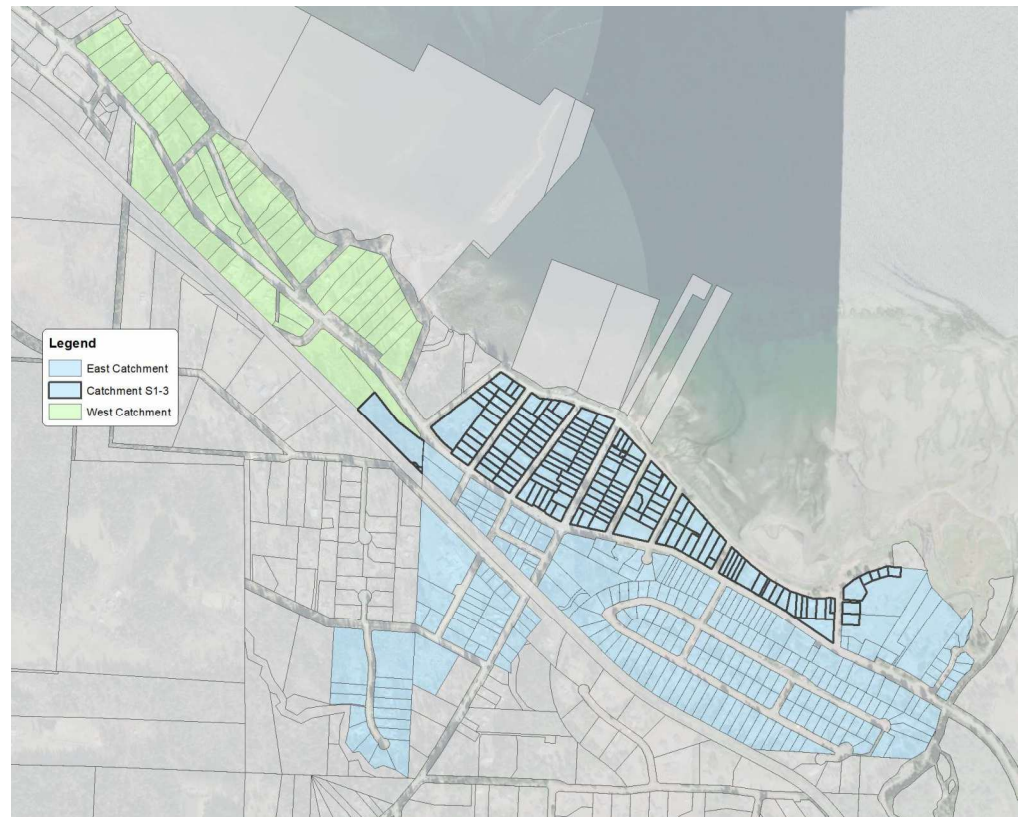


Figure 2: Royston Neighborhood Catchments

ALIGNMENT

The system was initially designed to convey flows from all areas of the Royston sewer catchment to the proposed pump station at Royston Road and Marine Drive. However, the proposed alignment would result in a large amount of construction along the Royston Seaside Trail which made it unfeasible. The system was then split into two secondary catchments with the parcels located west of the Marine Drive and Highway 19A intersection separated from those to the east. Flows from parcels were allocated to upstream manholes fronting the property. In certain cases, such as 3810/3820 Island Hwy W, the parcels were assumed to convey flows through a connection to Marine Drive. Flows from the western sanitary catchment will be conveyed to a small local lift station at the intersection of Haas Road and Thomson Road. Costs for the small lift station were

not included in the cost estimate, as this area is anticipated to be serviced in a future phase. These flows will then be pumped through a new forcemain to the Marine Drive and Highway 19A intersection where it will connect to the eastern collection system. The sanitary flows from the eastern areas will be conveyed as previously planned to the proposed pump station at Royston Road and Marine Drive.

Within the S1-5 sub-area (See Appendix A), parcels along Marine Drive and Carey Place are located in low-lying areas requiring low-pressure forcemains to convey the flows. As a secondary option, these two areas could consider the use of two small lift stations where the parcels would convey flows by gravity to the lift stations before pumping to the gravity trunk sewers.

Although the Royston Pump Station sewer system was able to meet the MMCD capacity requirement of flowing less than or equal to 80% full, the system faced many obstacles related to the minimum velocities requirements. The LIDAR and associated elevation data were confirmed to ensure that they represented the system. The initial system was adjusted to achieve the minimum velocities in the downstream pipes by updating invert elevations to increase pipe slopes and decreasing pipe diameters. After discussions with the CVRD about the challenges, the initial minimum pipe diameter of 150 mm was decreased to 100 mm for the upstream sections of the sewers where the slope could not be increased any further. The decision to use smaller diameter pipes was made to strike a balance between velocity, grading, and depth requirements. Areas with pipe depths greater than 4.5 m were also updated to meet the MMCD requirement for the system.

The updated system design was still affected by velocity deficiencies. As a result, two forcemain connections are suggested in the eastern sanitary catchment to ensure that the downstream sewers maintain self-cleansing velocity. These connections will connect to the Forcemain along Highway 19A. The forcemain connection includes a 100mm tie-in connection to the forcemain with a chamber with actuated valve and flowmeter. The additional flow from the two connections totals 5.5 L/s. In upstream areas of the eastern catchment flushing of the system will be required periodically to prevent the build-up of solids within the sewers. This includes Meredith Drive, Roy Creek Road, Warren Ave, Greig Ave, Hyland Road, and other smaller segments. Similarly in the western sanitary catchment, the minimum self-cleansing velocity is not achieved in the upstream sewers along Highway 19A. Flushing of the system will also be required in these areas. The locations of the forcemain connections are illustrated in Figure 3:.

Pipe sizes for the proposed Royston collection system range between 100 mm at upstream locations and 250 mm at the most downstream pipe as shown in Appendix A. The design would require multiple statutory right of ways (SRWs) along the new sewer alignments and forcemain connections. Areas where these SRWs are expected are presented in Figure 3: A gravity sewer easement would be required along the Meredith-Laurel Drive link trail. The SRW would be extended further down toward the Island Hwy S between the property lines of 3786 and 3780 Laurel Drive and 4035 and 4041 Island Hwy S. A smaller gravity sewer SRWs would be required along the north side (rear) of 3902 and 3904 Island Hwy S to service the properties. The railway crossings would also require SRWs for the new sewers. The final SRW would exist in the western catchment along Beach Terrace for the proposed low-pressure forcemain and Thomson Road near the local lift station.

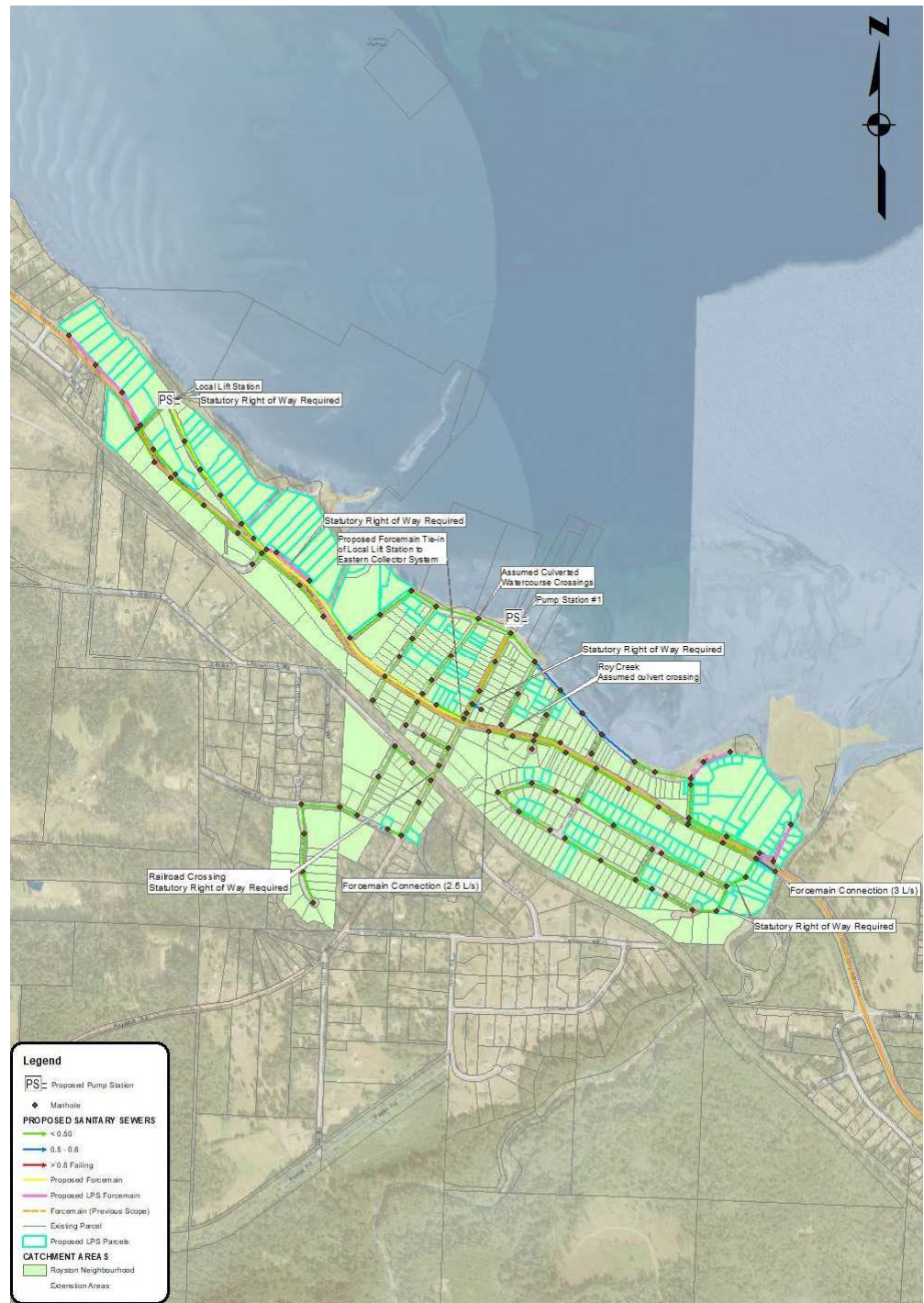


Figure 3: Pump Station #1 Royston Neighbourhood Proposed Collection System

LOW PRESSURE SEWERS (LPS)

A low pressure sewer system will be required in areas unable to be serviced by gravity. Two low pressure forcemains are proposed in the eastern sanitary catchment along the eastern section of Marine Drive and along Carey Place and Hwy 19A. In the western catchment, two separate low

pressure forcemains are proposed along Beach Terrace and another along Island Hwy S (19A) west of Thomson Road. In a Low Pressure Sewer (LPS) system, each connection point uses a grinder pump system to transport the wastewater through the system. These pumps serve individual homes with low horsepower of 1 – 2 H.P. In the case of some areas, the sewage from each connection is pumped into a low pressure sanitary sewer forcemain along the roadway, in some other areas, sewage from service connections is pumped into a gravity sewer main.

A total of 154 parcels are noted as requiring a grinder pump LPS system as shown in Figure 3:. Of these parcels, 31 would contribute flows to the small local lift station to the west with the remaining 110 parcel located to the east. Parcels were assessed for their relative elevation in relation to the inverts for the proposed sewers. Parcels that are low lying resulting in a service connection that is less than 1m below grade at the property line were denoted as requiring LPS systems.

The ownership model of the sewer infrastructure is defined to be divided at the property line; CVRD is responsible for infrastructure within the SRW up to the property line, while the individual homeowners have the responsibility for infrastructure between the house and the property line. For the grinder pump LPS option, the pump and chamber are owned by each property owner located on private property, and there is no responsibility for CVRD for the sewer infrastructure on the private properties. In addition, homeowners are responsible for the operation and maintenance (O&M) cost of the system on their property, for example pumping electricity cost. Pump costs are not added to the overall cost estimate.

WATER CROSSINGS

The proposed alignment does not cross any open bodies of water. However, Roy Creek crosses the Island Hwy S east of Roland Ave. In addition, two constructed watercourses (ditches) convey flows north along Warren Ave before crossing Marine Drive and terminating at the coastline. The watercourse crossings are identified in Figure 3: and the CVRD iMAP GIS tool. This crossing is assumed to be culverted so trenchless HDD is not required. However, confirmation of the assumed culvert would be required in later design phases.

HIGHWAY 19A CROSSINGS

Highway crossings are required at six locations where the proposed sanitary sewers cross the Island Hwy S. As illustrated in Figure 3:, the crossings are expected at Thomson Road, Comox Logging Road, Ross Ave, Warren Ave, Royston Road, and Hayward Ave. Highway crossings are anticipated to be open cut installations and are costed as such.

RAILROAD CROSSINGS

The existing railroad tracks run southeast to northwest parallel to Livingstone Road. To connect Royston Elementary School and the upstream residential area along Hyland, Royston, and Roy Creek Roads to the system, a railroad crossing is required as presented in Figure 3:. The proposed crossing is located on Royston Road. The railway is currently abandoned, therefore there is the possibility for open cut installation. This will be confirmed in detailed design. For the purpose of the preliminary design, it is considered that trenchless installation methods will be required at the crossing.

KILMARNOCK COLLECTION SYSTEM

ALIGNMENT

During the design development of the collection system, the minimum velocity requirements caused a number of challenges. To achieve the minimum velocity, pipe diameter and slope were reviewed. Reducing the diameter and increasing the slope of the pipe both increases velocity. The minimum pipe diameter of 150mm and increasing the slope did not resolve all the issues. Increasing the slope of the pipes also created very deep pipes for long sections of the collection system. These pipes were also greater than the MMCD maximum depth of 4.5m.

Similar to the Royston collection system, 100mm diameter pipes were designed for the upstream sections of the sewers. The decision to use smaller diameter pipes was made to strike a balance between velocity, grading and depth requirements. To reduce the depth of the downstream sewers and the pump station while maintaining the cleansing velocity, three connections to the proposed 250mm South Royston Forcemain were included. Flushing the system is required periodically to prevent the sewer line from the deposition or settlement of solids within the pipeline. The forcemain connection includes a 100mm tie-in connection to the forcemain with a chamber with actuated valve and flowmeter. The additional flow from the forcemain connections is 6L/s. In addition to the forcemain connections, the future new development sanitary loads were distributed over three upstream manholes. The location of the forcemain connections and future new development loads are shown in Figure 4 and Figure 5.

Two designs were proposed for the Kilmarnock Pump Station collection system shown in Figure 4, Figure 5 and Appendix A. The two options are similar, the only difference is the alignment at top of Montrose Drive and Inverness Road and the loads assigned.

In Option 1, the Future Development load is applied to the start of the Inverness Road and Arran Road line and the forcemain connection is applied to the upstream manhole on Montrose Drive. In Option 2, the Future Development load is applied to the upstream manhole on Montrose Drive and the forcemain connection is applied to the upstream manhole of the Inverness Road and Arran Road line. Both designs passed the MMCD capacity requirements of flowing 80% full and the minimum velocity of 0.6 m/s to ensure the self-cleaning of the pipelines.

Both options were designed with three forcemain connections and three future new development sanitary loads noted in Figure 4 and Figure 5. Pipe sizes for both options range between 100-375 mm. Both design options require two SRWs for the gravity sewers, forcemain connections, and connections to the Future New Development. Connections and sewers that will potentially require a SRW are noted in Figure 4 and Figure 5. Both alignments require a gravity sewer SRW between Kilmarnock Road and Highway 19A, north of Brolin Road. This connects to the south subcatchments on Hutchinson Frontage Road, south of Dorothy Road. The second SRW for both options is required at Inverness Road and Montrose Drive. The forcemain connection and Future New Development connection require access to Highway 19A through a utility easement.

An option would be to exclude the south subcatchment on Hutchinson Frontage Road from this sewer collection system and keep these properties using private onsite septic tanks. This would exclude a SRW and forcemain connection.

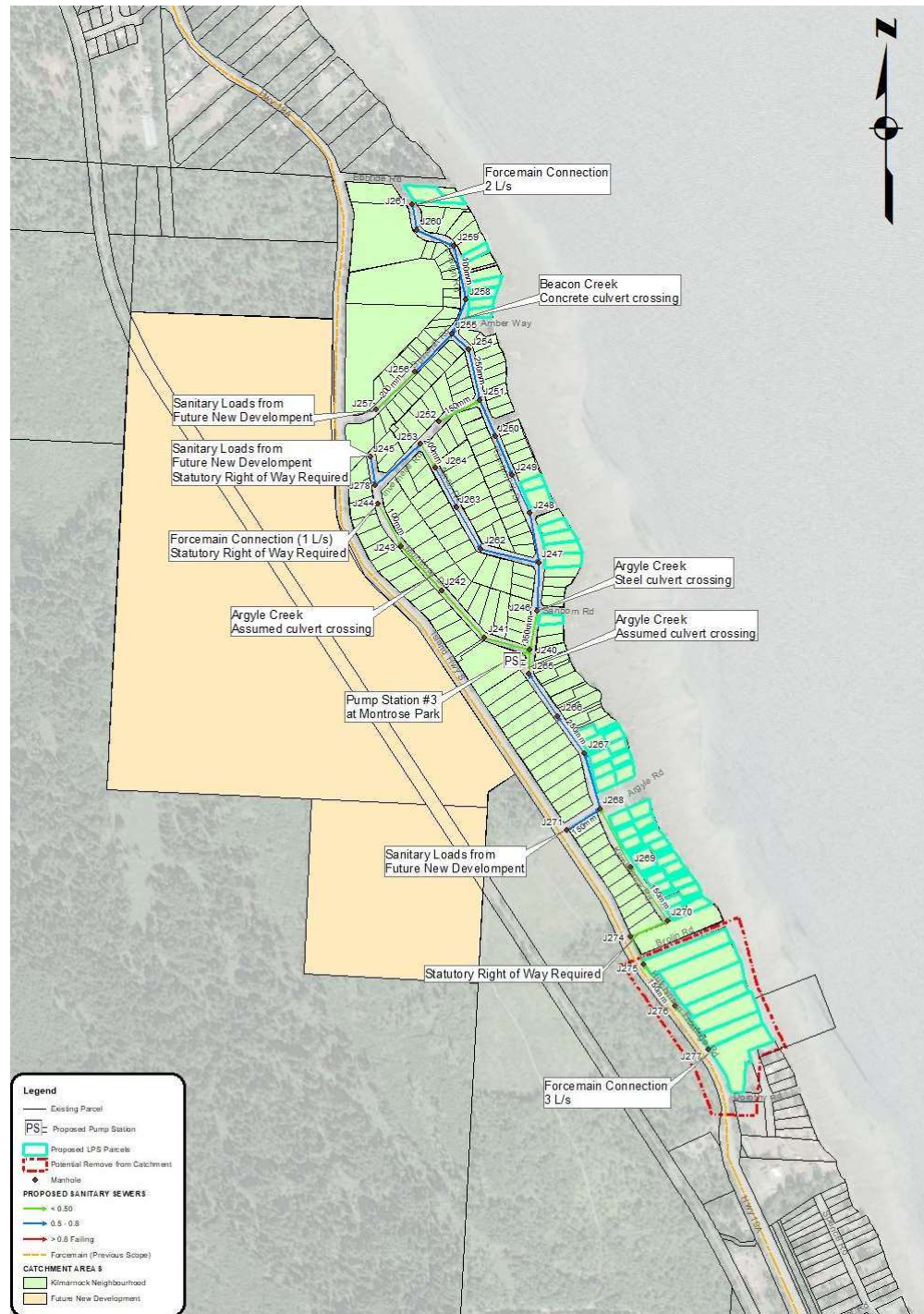


Figure 4: Pump station #3 Kilarnock Neighbourhood proposed collection system – Option 1

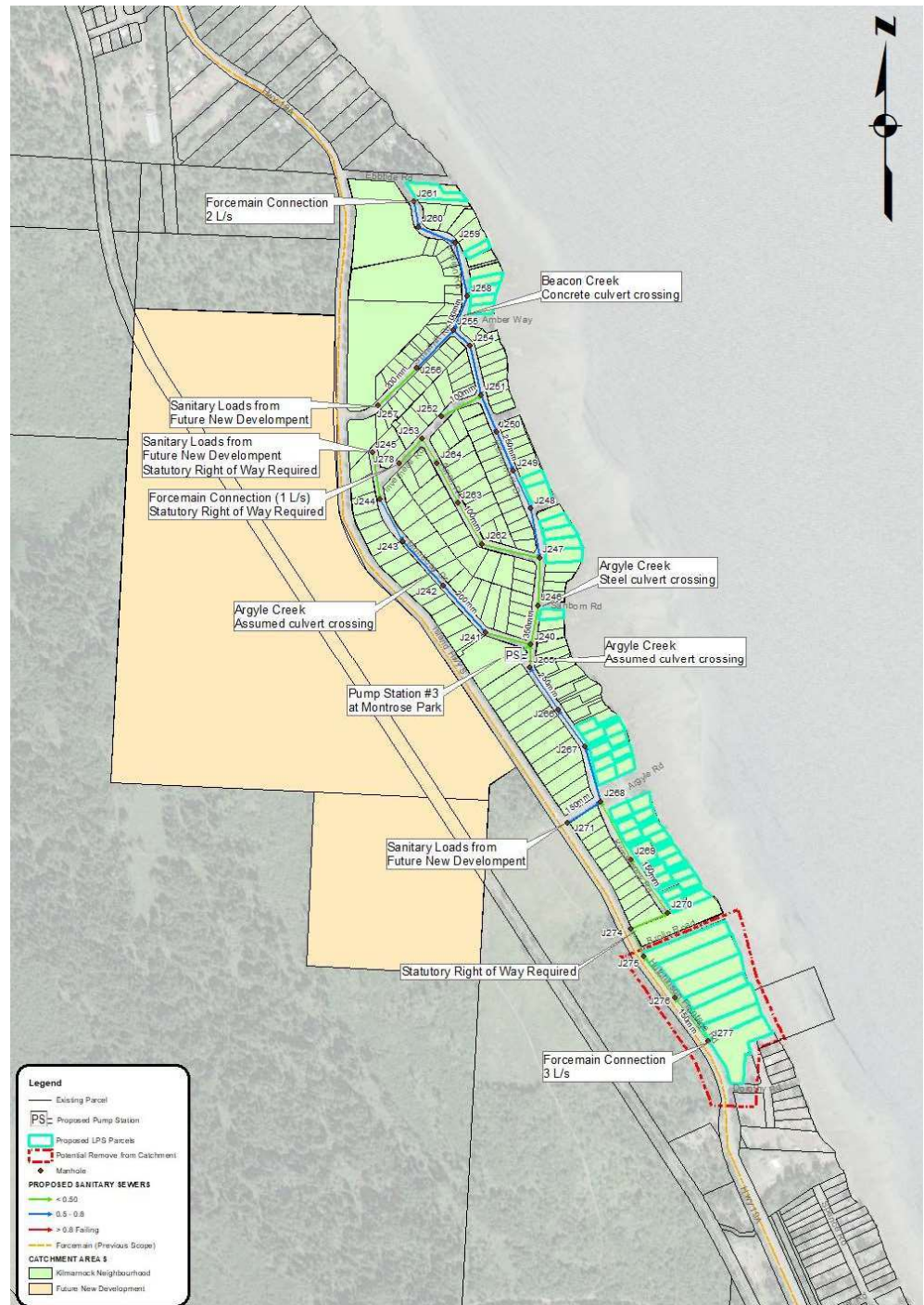


Figure 5: Pump station #3 Kilarnock Neighbourhood proposed collection system – Option 2

LOW PRESSURE SEWERS (LPS)

A total of 46 parcels are identified as requiring an LPS system in Figure 4 and Figure 5. Parcels that are low lying causing the service connection to be less than 1m can't make use of conventional gravity sewers.

WATER CROSSINGS

The proposed alignment does not go cross any open bodies of water so trenchless with Horizontal Directional Drilling (HDD) is not required. There are two creeks in the area- Argyle Creek and Beacon Creek. The creek crossings are identified in Figure 4 and Figure 5. The CVRD open GIS and Google maps confirms that all creek crossings are culverted so trenchless HDD is not required.

UNION BAY COLLECTION SYSTEM

ALIGNMENT

The Union Bay collection system was designed to convey the required flows to Union Bay Pump Station near the northeast area of the sanitary catchment. Future developments for the UBE and K'ómoks would also contribute inflows into the system. These loads are assumed in the locations identified in Figure 6:. The modelled pipe sizes and slopes are dependant on the assumed flow allocations to the proposed sewers at the modelled locations. Development of the sanitary system also presented challenges relating to the minimum velocity requirements of the sewers. Pipe diameters and slopes were refined to correct the velocity deficiencies that were noted. Sections of the conveyance system were unable to achieve the self cleansing velocity using the 150 mm minimum pipe diameter described in the MMCD design guidelines. Increasing the slope was also not an option due to the large depths already modelled. Similar to the Royston and Kilmarnock collection systems, the pipes were downsized further in upstream sewer areas. A minimum pipe size of 100 mm was instead used in these areas to achieve the minimum cleansing velocities. The southwest residential area was initially designed to provide gravity connections for the parcels. However, this was later adjusted to eliminate the need for SRWs in the rear of properties. The change in alignment decreases the number of sanitary sewers but requires an additional 32 properties to operate LPS systems.

As a maintenance requirement, some upstream sewers will require periodic flushing in cases where they were unable to meet the minimum velocity. This is expected to include sewers along 1st Street, Nelson Street, and the proposed right of way between 3rd Street and 4th Street. The inflows from the serviced properties in these locations are unable to provide the necessary flows to meet the required velocities.

The collection system sewers range in diameter between 100 mm at the upstream sections to 375 mm at the downstream alignments before the pump station as shown in Appendix A. SRWs would also be required in areas where access may be needed for operations and maintenance work. As outlined in Figure 6:, these SRWs include areas connecting to the UBE development near the intersection of Tappin Street and Russell Street and the other connection at the sound end of Tappin Street. This SRW would also extend along the south side of the old Union Bay Elementary school parcel. SRWs would also be required between Tappin Street and Island Hwy S along the



property lines between 5493 and 5489 Island Hwy. As part of the future K'ómoks development in the southeast, an SRW is required near Seymour Street for the connection into the proposed collection system. The design of the residential area along McLeod Road considered that sewers would be re-aligned to be only installed in existing roadways, reducing disruption to private properties and removing the requirement of SRWs along the rear of the properties previously proposed in the conceptual design. This design results in additional properties requiring LPS service connections. The railroad crossing locations would also require SRWs.

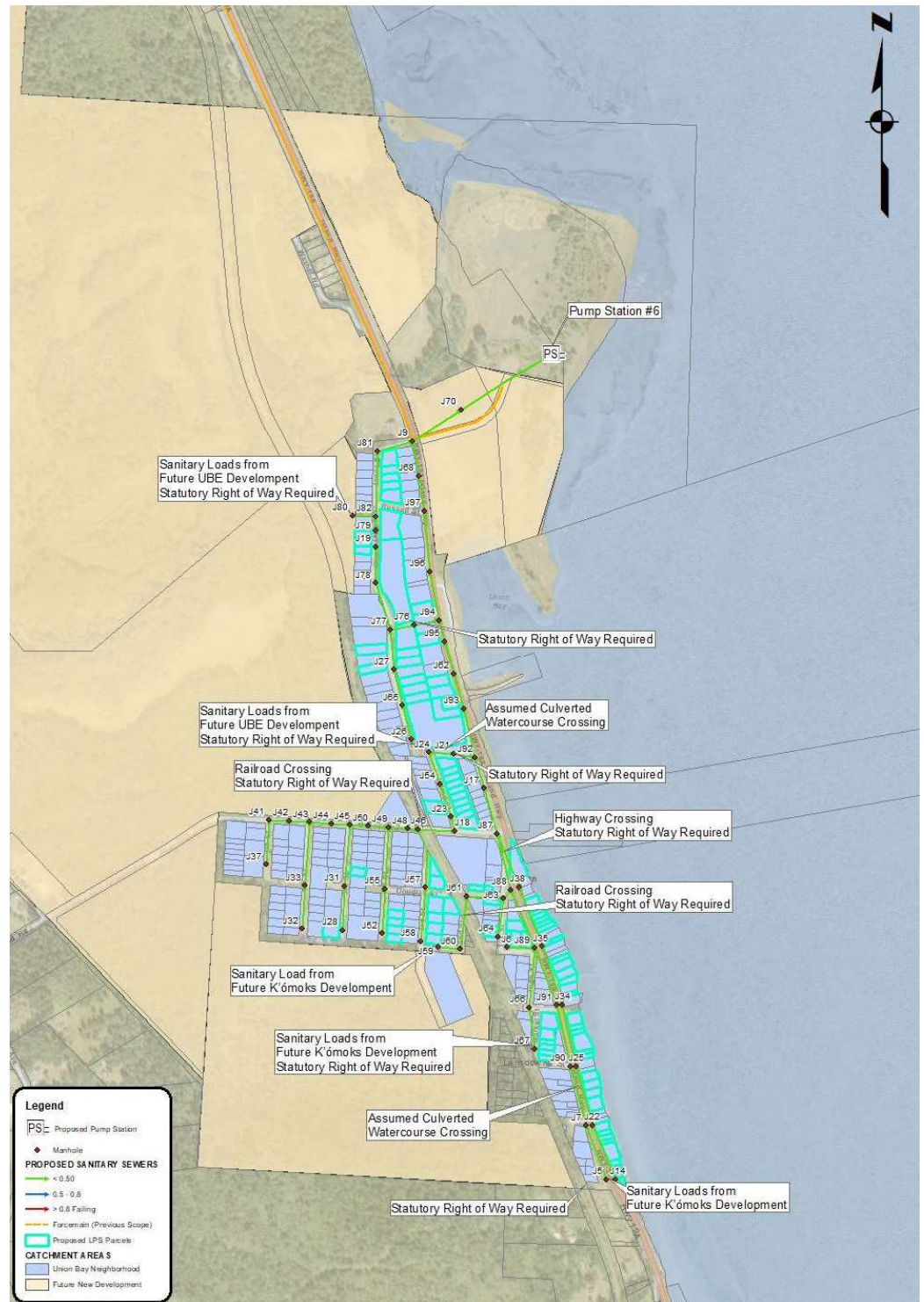


Figure 6: Pump Station #6 Union Bay Neighbourhood Proposed Collection System

LOW PRESSURE SEWERS (LPS)

The Union Bay sanitary system does not require any low pressure forcemains, however some parcels still require a LPS system to convey the wastewater into the gravity sewers. The hybrid gravity LPS system uses individual grinder pumps that serve each home.

A total of 135 parcels are identified as requiring an LPS system in Figure 6:. These parcels exist in low lying areas causing the service connection to be less than 1m below grade which can't make use of conventional gravity sewers. The redesign of the sewer alignment in the McLeod Road area to be only installed in existing roadways, results in an additional 32 properties that require LPS systems rather than discharging flows by gravity towards a SRW at the property's rear. In the preliminary design, the properties on the east side of Horne Street have proposed LPS connections, as shown in Figure 7. In detail design the properties will be reviewed with the potential to have gravity connections into a gravity sewer at the back of these properties.



Figure 7: Home St Property Connections

WATER CROSSINGS

The proposed Union Bay alignment does not cross any open bodies of water or streams. However, two watercourse crossings are specified by the iMAP GIS. The watercourse crossings are identified in Figure 6: and the CVRD iMAP GIS tool. The watercourse crossing near the intersection of Horne Street and Tappin Street is observed to travel east to west, terminating on the east side of the Island Hwy S. The second watercourse crossing is identified between Lansdowne Street and Lytton Street and is acknowledged as crossing the highway. These crossings are assumed to be culverted so trenchless HDD is not required. In all cases, confirmation of the assumed culverts would be required in later design phases.

HIGHWAY 19A CROSSINGS

Highway crossings are required at two locations where the proposed alignment crosses the Island Hwy S. As shown in Figure 6:, the crossings are expected at Jones Street, and the second located south of McLeod Road. Highway crossings are estimated using open cut as the installation method.

RAILROAD CROSSINGS

Within Union Bay, the southwest residential area is split from the remaining system by the existing railroad tracks running southeast to northwest. To connect the residential area to the system, two railroad crossings are necessary as presented in Figure 6:. The proposed crossings are located on McLeod Road and towards the north end of 2nd Street. The railway is currently abandoned, therefore there is the possibility for open cut installation. This will be confirmed in detailed design. For the purpose of the preliminary design, it is considered that trenchless installation methods will be required at the crossing.

COST ESTIMATE

The Class “C” Cost Estimates of Royston Pump Station and Union Bay Pump Station collection systems are summarized in Table 4. The unit rates used are based on values obtained from WSP’s internal cost database containing recent previous sanitary system projects in municipalities across BC. Table 5 details the costs for east sub-catchment S1-3 that’s proposed for construction in Phase 1A. The cost estimate of Kilmarnock Pump Station collection system is summarized in Table 6. Refer to Appendix B, C and D for a further breakdown of cost items.

Table 4: Royston Pump Station and Union Bay Pump Station Collection System Cost Estimate Summary

ITEM	DESCRIPTION	PS #1 ROYSTON EAST	PS #1 ROYSTON WEST	PS #6 UNION BAY
1.0	Sanitary Sewer – Gravity and LPS	\$8,389,000	\$2,484,000	\$6,419,000
2.0	Forcemain Connection	\$64,000	-	-
3.0	Highway Crossing	-	-	-
4.0	Railroad Crossing	\$272,000	-	\$593,000
5.0	Site Works	\$2,184,000	\$822,000	\$1,630,000
6.0	General	\$961,000	\$336,000	\$781,000
Subtotal		\$11,870,000	\$3,642,000	\$9,423,000
Contingency (30%)		\$3,561,000	\$1,093,000	\$2,827,000
Engineering (15%)		\$2,315,000	\$710,000	\$1,838,000
Total		\$17,746,000	\$5,445,000	\$14,088,000

Costs are rounded to the nearest \$1,000. Costs related to SRWs were not included in this estimate.

Table 5: Cost Summary of Royston Pump Station Sub Catchment S1-3

DESCRIPTION		CATCHMENT S1-3
1.0	Sanitary Sewer – Gravity and LPS	\$3,483,000
2.0	Forcemain Connection	-
3.0	Highway Crossing	-
4.0	Railroad Crossing	-
5.0	Site Works	\$880,000
6.0	General	\$438,000
Subtotal		\$4,801,000
Contingency (30%)		\$1,440,000
Engineering (15%)		\$936,000
Total		\$7,177,000

Table 6: Kilmarnock Pump Station Collection System Option 1 and 2 Cost Estimate Summary

ITEM	DESCRIPTION	OPTION 1	OPTION 2
1.0	Sanitary Sewer- Gravity & LPS	\$3,455,000	\$3,443,000
2.0	Forcemain Connection	\$223,000	\$223,000
3.0	Site Works	\$954,000	\$949,000
4.0	General	\$420,000	\$420,000
Subtotal		\$5,052,000	\$5,035,000
Contingency (30%)		\$1,516,000	\$1,511,000
Engineering (15%)		\$985,000	\$982,000
Total		\$7,553,000	\$7,528,000

Costs are rounded to the nearest \$1,000.

SUMMARY

WSP has undertaken the design of the Royston Pump Station, Kilmarnock Pump Station and Union Bay Pump Station collection systems in the CVRD based on population and sanitary loading calculations determined from previous scopes of work. The design also incorporates

sanitary loads from the future K'ómoks developments around Kilmarnock and future K'ómoks and UBE developments around Union Bay.

The Royston Pump Station collection system is grouped into two sub-catchments towards the east and west. The eastern catchment requires additional forcemain connections totaling 5.5 L/s to maintain a cleansing velocity of 0.6 m/s in the downstream sewers. Whereas the western catchment will require a small lift station at the intersection of Haas Road and Thomson Road to pump the collected flows towards Royston Pump Station. To service this system, a total of five SRWs are proposed within the total catchment area. The SRWs would allow for access and maintenance by the operations team. A low-pressure system is also required as part of the overall system, consisting of 154 connections and five low-pressure forcemains.

The proposed Kilmarnock Pump Station collection system includes the sanitary loads from future K'ómoks developments. Three forcemain connections were designed to maintain a cleansing velocity of 0.6 m/s. In addition, two SWRs are required. There are no railway or water crossings so open cut installation is proposed throughout the whole system.

The proposed Union Bay Pump Station collection system consists entirely of gravity sewers to service the catchment. Flows from the future K'ómoks and UBE developments are allocated to nodes within the model to facilitate the system design. The future K'ómoks and UBE developments contribute inflows of 14.4 and 14.5 L/s, respectively. Multiple SRWs are identified within the catchment that are required for operations and maintenance activities. A total of 135 parcels within the area would also require LPS to pump the sewage into the downstream sewers. There are no water crossings of concern within the catchment, however there are two railroad crossings which require trenchless technologies for installation.

CLOSURE

We trust you will find the preceding report suitable. Please do not hesitate to contact the undersigned should you have any questions.

Yours sincerely,

Prepared by:

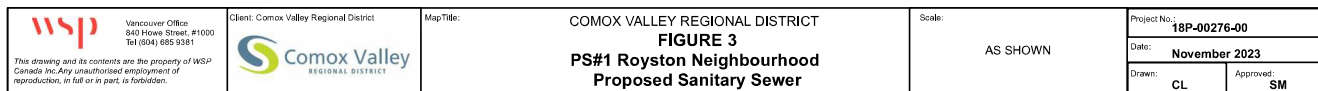


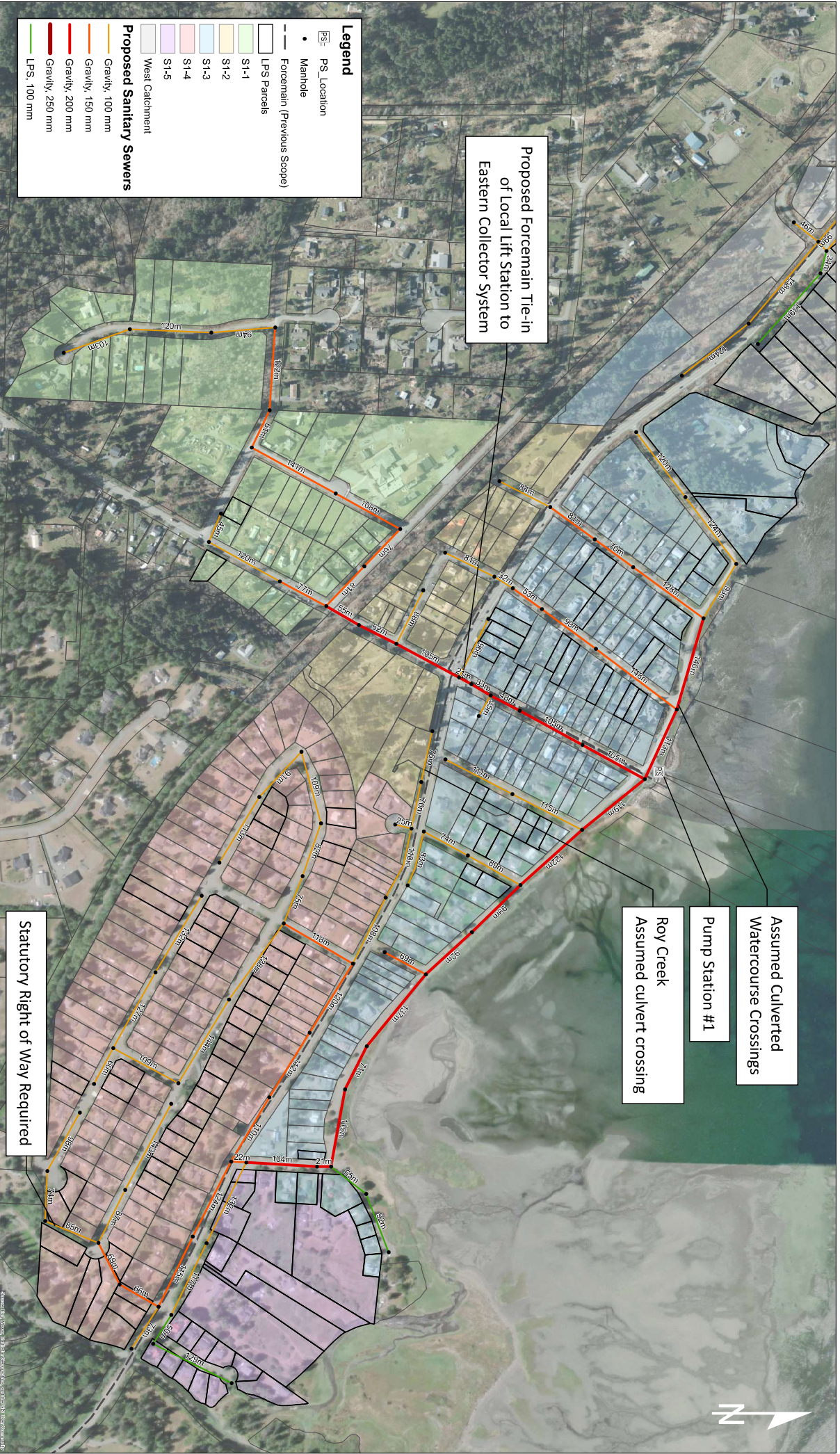
Michael Levin P.Eng.,
Project Manager

Avtar Panesar, EIT
Designer

APPENDIX

APPENDIX A – FIGURES





WSP

Vancouver Office
840 Howe Street, #1000
Tel (604) 685 3361

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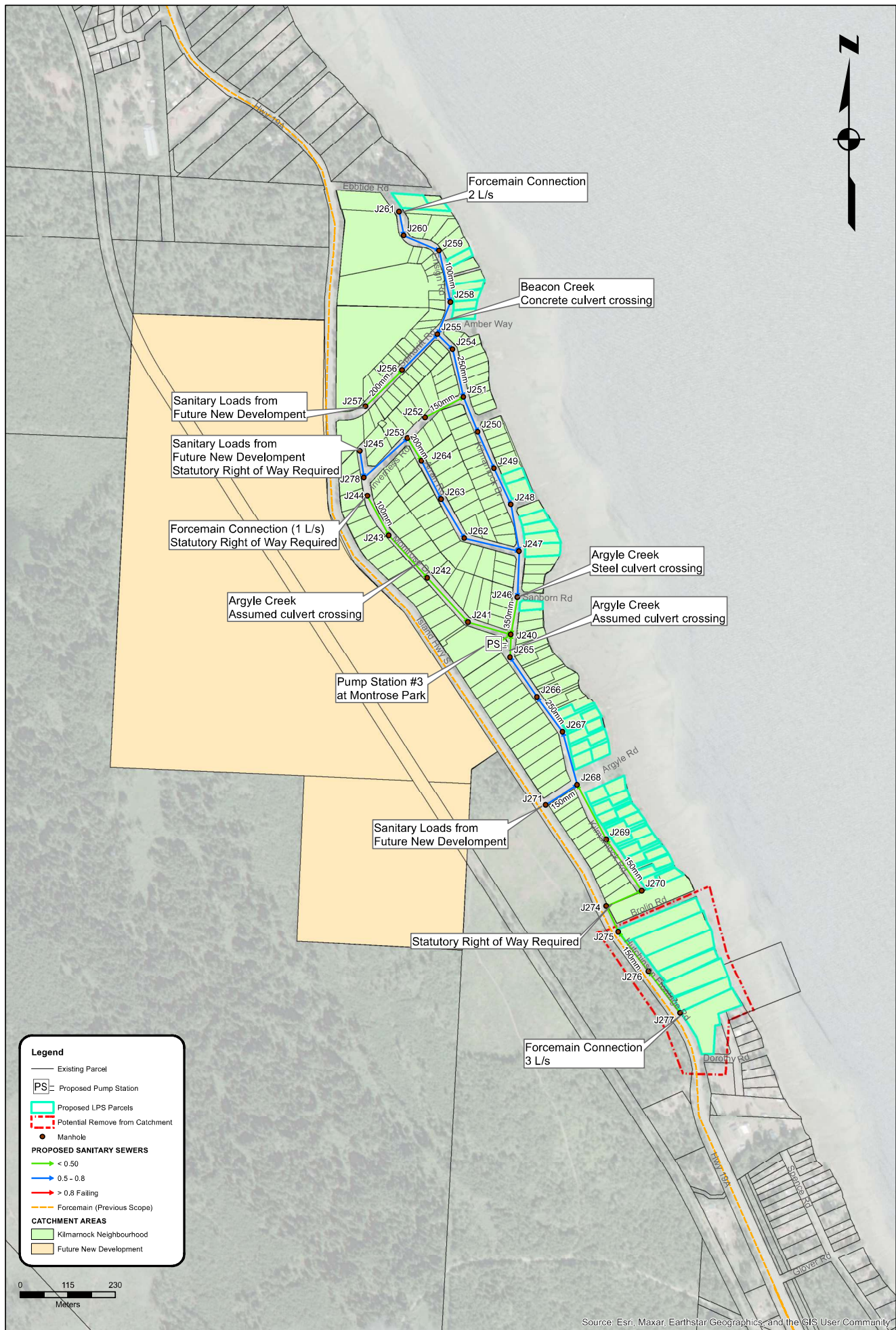
Comox Valley
REGIONAL DISTRICT

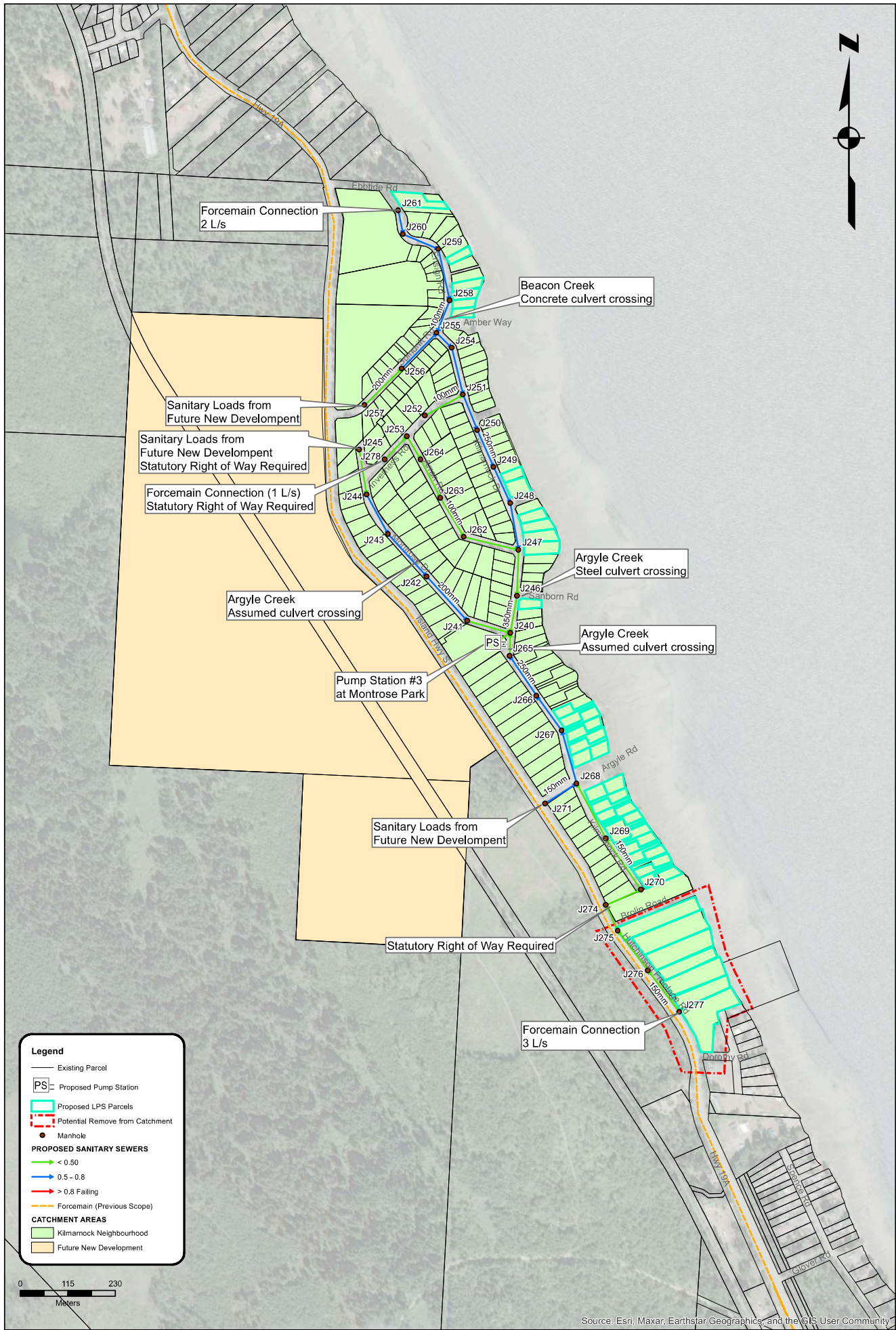
Client: Comox Valley Regional District

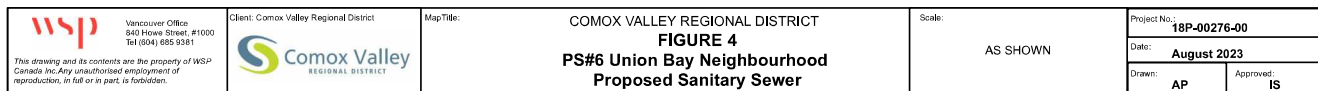
Map Title:

COMOX VALLEY REGIONAL DISTRICT

Royston Neighbourhood Collector System









Pump Station #6

Sanitary Loads from
Future UBE Development
Statutory Right of Way Required

Sanitary Loads from
Future UBE Development
Statutory Right of Way Required

Statutory Right of Way Required

Sanitary Load from
Future K'ómoks Development

Sanitary Loads from
Future K'ómoks Development

Legend

PS= PS_Location
• Manhole
— Forcemain (Previous Scope)
Proposed LPS Parcels
Union Bay Neighborhood

Proposed Sanitary Sewers

- Gravity, 100 mm
- Gravity, 150 mm
- Gravity, 200 mm
- Gravity, 300 mm
- Gravity, 375 mm

APPENDIX

APPENDIX B - ROYSTON PUMP STATION COLLECTION SYSTEM CLASS 'C' COST ESTIMATE



Comox Valley Regional District
South Region Collector System Cost Estimate
Pump Station #1 - Royston Neighbourhood (Eastern Catchment)
Class C Preliminary Design

August 2023

Item	Description	Unit	Quantity	Unit Cost	Total
1	Sanitary Sewers				
1.1	Gravity Sewer				
1.1.1	100 mm PVC SDR35	lm	4,110	\$590	\$2,425,000
1.1.2	150 mm PVC SDR35	lm	2,218	\$600	\$1,331,000
1.1.3	200 mm PVC SDR35	lm	1,965	\$630	\$1,238,000
1.1.4	250 mm PVC SDR35	lm	20	\$660	\$13,000
1.2	Low Pressure Forcemain (LPS)				
1.2.1	100 mm HDPE DR17	lm	337	\$550	\$185,000
1.3	Low Pressure Sewer (LPS) - Gravity Connection				
1.3.1	100 mm HDPE DR17	lm	738	\$580	\$428,000
1.4	Low Pressure Sewer (LPS) - LPS Forcemain Connection				
1.4.1	100 mm HDPE DR17	lm	252	\$560	\$141,000
1.5	Service Connection - Gravity				
1.5.1	100 mm PVC SDR35 <i>c/w inspection chamber at PL</i>	lm	2,790	\$660	\$1,841,000
1.6	Appurtenances and Tie-Ins				
1.6.1	1050 mm Manhole <i>c/w riser and tie in</i>	each	92	\$8,500	\$782,000
1.6.2	Tie-in to PS #1 @ South End of Royston Road	LS	1	\$5,000	\$5,000
	Subtotal Item 1				\$8,389,000
2	Forcemain Connection				
2.1	100mm Accuated Valve	Each	2	\$15,000	\$30,000
2.2	Flow meter chamber	Each	2	\$10,000	\$20,000
2.3	100x250x250 Tee	Each	2	\$3,000	\$6,000
2.4	100mm HDPE DR17 Forcemain	lm	10	\$800	\$8,000
	Subtotal Item 2				\$64,000
3	Highway Crossing				
3.1	Entry / Exit Pit Site + HDD Prep	LS	-	-	-
3.2	Entry / Exit Pit Starter Casing Setup / Removal	LS	-	-	-
3.3	Pipe Installation Works <i>Pipe pilot hole, ream hole, pipe layout and welding, pipe furnishing, pipe pull</i>	lm	-	-	-
3.4	Entry / Exit Pit Site Restoration	LS	-	-	-
	Subtotal Item 3				\$0
4	Railroad Crossing				
4.1	Entry / Exit Pit Site + HDD Prep	LS	1	\$130,000	\$130,000
4.2	Entry / Exit Pit Starter Casing Setup / Removal	LS	1	\$44,000	\$44,000
4.3	Pipe Installation Works <i>Pipe pilot hole, ream hole, pipe layout and welding, pipe furnishing, pipe pull</i>	lm	36	\$1,340	\$48,000
4.4	Entry / Exit Pit Site Restoration	LS	1	\$50,000	\$50,000
	Subtotal Item 4				\$272,000
5	Site Works				
5.1	ROW Acquisition <i>Assumed 5m wide ROW</i>	m ²	2,095	\$10	\$21,000
5.2	Surface Restoration <i>Rough site grading along alignment, pavement, entire 5m ROW width</i>	m ²	43,250	\$50	\$2,163,000
	Subtotal Item 5				\$2,184,000
6	General				
6.1	Mobilization and demobilization (~3%)	LS	1	\$320,000	\$320,000
6.2	Health and safety (~1%)	LS	1	\$107,000	\$107,000
6.3	Environmental protection plan and monitoring (~1%)	LS	1	\$107,000	\$107,000
6.4	Allowance for water management and bypass pumping	LS	1	\$107,000	\$107,000

6.5	Sediment and Erosion Control (~1%)	LS	1	\$107,000	\$107,000
6.6	Traffic Management (~2%)	LS	1	\$213,000	\$213,000
	Subtotal Item 6				\$961,000
	Subtotal All Items				\$11,870,000
	Contingency (30% of Subtotal)		30%		\$3,561,000
	Engineering (15% of Subtotal + Contingency)		15%		\$2,315,000
	TOTAL				\$17,746,000

Notes:

- ¹ This estimate has been produced in advance of design drawings, further design information, and quantities; this estimate is subject to review as new information is available. Quantities that are unavailable at this stage have been captured as LS items based on unit costs for similar recently tendered & estimated work in other municipalities
- ² Costs exclude archeological investigations, considerations/items such as GST, operational costs, and deviation of existing unknown services or extraordinary conditions
- ³ This estimate has been based on prices in August 2023. Pricing and lead times are subject to change as they currently have shown to be volatile from materials & equipment suppliers within the industry, due to the current market conditions and other global issues
- ⁴ Unit rate for land acquisition along the alignment ROW has been indicatively valued at \$10/m². This rate shall be reviewed and CVRD may advise adjustment to this rate
- ⁵ Sewer unit rates include trench excavation, bedding, backfill. Backfill is assemed as 80% imported and 20% native.
- ⁶ Assumed pipe depth of 2m for gravity sewers



Comox Valley Regional District
South Region Collector System Cost Estimate
Pump Station #1 - Royston Neighbourhood (Western Catchment)
Class C Preliminary Design

August 2023

Item	Description	Unit	Quantity	Unit Cost	Total
1	Sanitary Sewers				
1.1	Gravity Sewer				
1.1.1	100 mm PVC SDR35	lm	1,614	\$590	\$952,000
1.1.2	150 mm PVC SDR35	lm	111	\$600	\$67,000
1.1.3	200 mm PVC SDR35	lm	14	\$630	\$9,000
1.2	Forcemain (Tie in to PS# 1 Eastern Catchment)				
1.2.1	150 mm HDPE DR17	lm	960	\$640	\$614,000
1.3	Low Pressure Forcemain (LPS)				
1.3.1	100 mm HDPE DR17	lm	543	\$600	\$326,000
1.4	Low Pressure Sewer (LPS) - Gravity Connection				
1.4.1	100 mm HDPE DR17	lm	150	\$640	\$96,000
1.5	Low Pressure Sewer (LPS) - LPS Forcemain Connection				
1.5.1	100 mm HDPE DR17	lm	160	\$600	\$96,000
1.6	Service Connection - Gravity				
1.6.1	100 mm PVC SDR35 <i>c/w inspection chamber at PL</i>	lm	180	\$640	\$115,000
1.7	Appurtenances and Tie-Ins				
1.7.1	1050 mm Manhole <i>c/w riser and tie in</i>	each	24	\$8,500	\$204,000
1.7.2	Tie-in Western Lift Station to Eastern Collector System	LS	1	\$5,000	\$5,000
	Subtotal Item 1				\$2,484,000
2	Highway Crossing				
2.1	Entry / Exit Pit Site + HDD Prep	LS	-	-	-
2.2	Entry / Exit Pit Starter Casing Setup / Removal	LS	-	-	-
2.3	Pipe Installation Works <i>Pipe pilot hole, ream hole, pipe layout and welding, pipe furnishing, pipe pull</i>	lm	-	-	-
2.4	Entry / Exit Pit Site Restoration	LS	-	-	-
	Subtotal Item 2				\$0
3	Site Works				
3.1	ROW Acquisition <i>Assumed 5m wide ROW</i>	m2	1,120	\$10	\$11,000
3.2	Surface Restoration <i>Rough site grading along alignment, pavement, entire 5m ROW width</i>	m2	16,210	\$50	\$811,000
	Subtotal Item 3				\$822,000
4	General				
4.1	Mobilization and demobilization (~3%)	LS	1	\$100,000	\$100,000
4.2	Health and safety (~1%)	LS	1	\$34,000	\$34,000
4.3	Environmental protection plan and monitoring (~1%)	LS	1	\$34,000	\$34,000
4.4	Allowance for water management and bypass pumping	LS	1	\$34,000	\$34,000
4.5	Sediment and Erosion Control (~1%)	LS	1	\$34,000	\$34,000
4.6	Traffic Management (~3%)	LS	1	\$100,000	\$100,000
	Subtotal Item 4				\$336,000
	Subtotal All Items				\$3,642,000
	Contingency (30% of Subtotal)		30%		\$1,093,000
	Engineering (15% of Subtotal + Contingency)		15%		\$710,000
	TOTAL				\$5,445,000

Notes:

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- ² Costs exclude archeological investigations, considerations/items such as GST, operational costs, and deviation of existing unknown services or extraordinary conditions
- ³ This estimate has been based on prices in August 2023. Pricing and lead times are subject to change as they currently have shown to be volatile from materials & equipment suppliers within the industry, due to the current market conditions and other global issues
- ⁴ Unit rate for land acquisition along the alignment ROW has been indicatively valued at \$10/m². This rate shall be reviewed and CVRD may advise adjustment to this rate
- ⁵ Sewer unit rates include trench excavation, bedding, backfill. Backfill is assemed as 80% imported and 20% native.
- ⁶ Assumed pipe depth of 2m for gravity sewers



Comox Valley Regional District
South Region Collector System Cost Estimate
Pump Station #1 - Royston Neighbourhood (Eastern Catchment S1-3)
Class C Preliminary Design

August 2023

Item	Description	Unit	Quantity	Unit Cost	Total
1	Sanitary Sewers				
1.1	Gravity Sewer				
1.1.1	100 mm PVC SDR35	lm	971	\$590	\$573,000
1.1.2	150 mm PVC SDR35	lm	647	\$600	\$388,000
1.1.3	200 mm PVC SDR35	lm	1,718	\$630	\$1,082,000
1.1.4	250 mm PVC SDR35	lm	20	\$660	\$13,000
1.2	Low Pressure Forcemain (LPS)				
1.2.1	100 mm HDPE DR17	lm	157	\$600	\$94,000
1.3	Low Pressure Sewer (LPS) - Gravity Connection				
1.3.1	100 mm HDPE DR17	lm	300	\$640	\$180,000
1.4	Low Pressure Sewer (LPS) - LPS Forcemain Connection				
1.4.1	100 mm HDPE DR17	lm	60	\$600	\$38,000
1.5	Service Connection - Gravity				
1.5.1	100 mm PVC SDR35 <i>c/w inspection chamber at PL</i>	lm	1,250	\$640	\$800,000
1.6	Appurtenances and Tie-Ins				
1.6.1	1050 mm Manhole <i>c/w riser and tie in</i>	Each	37	\$8,500	\$315,000
1.6.2	Tie-in to PS #1 @ South End of Royston Road	LS	0	\$5,000	\$0
	Subtotal Item 1				\$3,483,000
2	Forcemain Connection				
2.1	100mm Accuated Valve	Each	-	-	-
2.2	Flow meter chamber	Each	-	-	-
2.3	100x250x250 Tee	Each	-	-	-
2.4	100mm HDPE DR17 Forcemain	lm	-	-	-
	Subtotal Item 2				\$0
3	Highway Crossing				
3.1	Entry / Exit Pit Site + HDD Prep	LS	-	-	-
3.2	Entry / Exit Pit Starter Casing Setup / Removal	LS	-	-	-
3.3	Pipe Installation Works <i>Pipe pilot hole, ream hole, pipe layout and welding, pipe furnishing, pipe pull</i>	lm	-	-	-
3.4	Entry / Exit Pit Site Restoration	LS	-	-	-
	Subtotal Item 3				\$0
4	Railroad Crossing				
4.1	Entry / Exit Pit Site + HDD Prep	LS	-	-	-
4.2	Entry / Exit Pit Starter Casing Setup / Removal	LS	-	-	-
4.3	Pipe Installation Works <i>Pipe pilot hole, ream hole, pipe layout and welding, pipe furnishing, pipe pull</i>	lm	-	-	-
4.4	Entry / Exit Pit Site Restoration	LS	-	-	-
	Subtotal Item 4				\$0
5	Site Works				
5.1	ROW Acquisition <i>Assumed 5m wide ROW</i>	m2	175	\$10	\$2,000
5.2	Surface Restoration <i>Rough site grading along alignment, pavement, entire 5m ROW width</i>	m2	17,565	\$50	\$878,000
	Subtotal Item 5				\$880,000
6	General				
6.1	Mobilization and demobilization (~3%)	LS	1	\$131,000	\$131,000
6.2	Health and safety (~1%)	LS	1	\$44,000	\$44,000
6.3	Environmental protection plan and monitoring (~1%)	LS	1	\$44,000	\$44,000
6.4	Allowance for water management and bypass pumping	LS	1	\$44,000	\$44,000
6.5	Sediment and Erosion Control (~1%)	LS	1	\$44,000	\$44,000

6.6	Traffic Management (~3%)	LS	1	\$131,000	\$131,000
	Subtotal Item 6				\$438,000
	Subtotal All Items				\$4,801,000
	Contingency (30% of Subtotal)		30%		\$1,440,000
	Engineering (15% of Subtotal + Contingency)		15%		\$936,000
	TOTAL				\$7,177,000

Notes:

- 1 This estimate has been produced in advance of design drawings, further design information, and quantities; this estimate is subject to review as new information is available. Quantities that are unavailable at this stage have been captured as LS items based on unit costs for similar recently tendered & estimated work in other municipalities
- 2 Costs exclude archeological investigations, considerations/items such as GST, operational costs, and deviation of existing unknown services or extraordinary conditions
- 3 This estimate has been based on prices in August 2023. Pricing and lead times are subject to change as they currently have shown to be volatile from materials & equipment suppliers within the industry, due to the current market conditions and other global issues
- 4 Unit rate for land acquisition along the alignment ROW has been indicatively valued at \$10/m². This rate shall be reviewed and CVRD may advise adjustment to this rate
- 5 Sewer unit rates include trench excavation, bedding, backfill. Backfill is assemmed as 80% imported and 20% native.
- 6 Assumed pipe depth of 2m for gravity sewers

APPENDIX

APPENDIX C - KILMARNOCK PUMP STATION COLLECTION SYSTEM CLASS 'C' COST ESTIMATE



Comox Valley Regional District
South Region Collector System Cost Estimate
Pump Station #3 - Kilmarnock Neighbourhood

Option 1

August 2023

Item	Description	Unit	Quantity	Unit Cost	Total
1	Sanitary Sewer- Kilmarnock Neighbourhood				
1.1	Gravity Sewer				
1.1.1	100 mm PVC SDR35	lm	968	\$590	\$571,000
1.1.2	150 mm PVC SDR35	lm	798	\$600	\$479,000
1.1.3	200 mm PVC SDR35	lm	869	\$630	\$547,000
1.1.4	250 mm PVC SDR35	lm	977	\$660	\$645,000
1.1.5	375 mm PVC SDR35	lm	203	\$750	\$152,000
1.2	Low Pressure Sewer (LPS) - Gravity Connection				
1.2.1	50 mm HDPE DR17	lm	230	\$590	\$136,000
1.3	Service Connection - Gravity				
1.3.1	100 mm PVC SDR35 <i>c/w inspection chamber at PL</i>	lm	945	\$640	\$605,000
1.4	Appurtenances and Tie-Ins				
1.4.1	1050 mm Manhole <i>c/w riser and tie in</i>	each	37	\$8,500	\$315,000
1.4.2	Tie-in to PS #3 @ Montrose Park	LS	1	\$5,000	\$5,000
	Subtotal Item 1				\$3,455,000
2	Forcemain Connection				
2.1	100mm Accuated Valve	Each	3	\$15,000	\$45,000
2.2	Flow meter chamber	Each	3	\$10,000	\$30,000
2.3	100x250x250 Tee	Each	3	\$3,000	\$9,000
2.4	100mm HDPE DR17 Forcemain	lm	198	\$700	\$139,000
	Subtotal Item 2				\$223,000
3	Site Works				
3.1	Surface Restoration <i>Rough site grading along alignment, pavement, entire 5m ROW width</i>	m2	19,075	\$50	\$954,000
	Subtotal Item 3				\$954,000
4	General				
4.1	Mobilization and demobilization (~3%)	LS	1	\$139,000	\$139,000
4.2	Health and safety (~1%)	LS	1	\$47,000	\$47,000
4.3	Environmental protection plan and monitoring (~1%)	LS	1	\$47,000	\$47,000
4.4	Allowance for water management and bypass pumping	LS	1	\$47,000	\$47,000
4.5	Sediment and Erosion Control (~1%)	LS	1	\$47,000	\$47,000
4.6	Traffic Management (~2%)	LS	1	\$93,000	\$93,000
	Subtotal Item 4				\$420,000
	Subtotal All Items				\$5,052,000
	Contingency (30% of Subtotal)		30%		\$1,516,000
	Engineering (15% of Subtotal + Contingency)		15%		\$985,000
	TOTAL				\$7,553,000

Notes:

- 1 Class C cost estimate in 2023 dollars (CAD). Subtotals and totals are rounded to the nearest \$1,000.
- 2 Assumed pipe depth of 2m for gravity sewers
- 3 All PVC pipes are rating SDR35
- 4 Sewer unit rates include trench excavation, bedding, backfill. Backfill is assemmed as 80% imported and 20% native.



Comox Valley Regional District
South Region Collector System Cost Estimate
Pump Station #3 - Kilmarnock Neighbourhood
Option 2

August 2023

Item	Description	Unit	Quantity	Unit Cost	Total
1	Sanitary Sewer- Kilmarnock Neighbourhood				
1.1	Gravity Sewer				
1.1.1	100 mm PVC SDR35	lm	961	\$590	\$567,000
1.1.2	150 mm PVC SDR35	lm	798	\$600	\$479,000
1.1.3	200 mm PVC SDR35	lm	857	\$630	\$540,000
1.1.4	250 mm PVC SDR35	lm	976	\$660	\$644,000
1.1.5	375 mm PVC SDR35	lm	203	\$750	\$152,000
1.2	Low Pressure Sewer (LPS) - Gravity Connection				
1.2.1	50 mm HDPE DR17	lm	230	\$590	\$136,000
1.3	Service Connection - Gravity				
1.3.1	100 mm PVC SDR35 <i>c/w inspection chamber at PL</i>	lm	945	\$640	\$605,000
1.4	Appurtenances and Tie-Ins				
1.4.1	1050 mm Manhole <i>c/w riser and tie in</i>	each	37	\$8,500	\$315,000
1.4.2	Tie-in to PS #3 @ Montrose Park	LS	1	\$5,000	\$5,000
	Subtotal Item 1				\$3,443,000
2	Forcemain Connection				
2.1	100mm Accuated Valve	Each	3	\$15,000	\$45,000
2.2	Flow meter chamber	Each	3	\$10,000	\$30,000
2.3	100x250x250 Tee	Each	3	\$3,000	\$9,000
2.4	100mm HDPE DR17 Forcemain	lm	198	\$700	\$139,000
	Subtotal Item 2				\$223,000
3	Site Works				
3.1	Surface Restoration <i>Rough site grading along alignment, pavement, entire 5m ROW width</i>	m2	18,975	\$50	\$949,000
	Subtotal Item 3				\$949,000
4	General				
4.1	Mobilization and demobilization (~3%)	LS	1	\$139,000	\$139,000
4.2	Health and safety (~1%)	LS	1	\$47,000	\$47,000
4.3	Environmental protection plan and monitoring (~1%)	LS	1	\$47,000	\$47,000
4.4	Allowance for water management and bypass pumping	LS	1	\$47,000	\$47,000
4.5	Sediment and Erosion Control (~1%)	LS	1	\$47,000	\$47,000
4.6	Traffic Management (~3%)	LS	1	\$93,000	\$93,000
	Subtotal Item 4				\$420,000
	Subtotal All Items				\$5,035,000
	Contingency (30% of Subtotal)		30%		\$1,511,000
	Engineering (15% of Subtotal + Contingency)		15%		\$982,000
	TOTAL				\$7,528,000

Notes:

- 1 Class C cost estimate in 2023 dollars (CAD). Subtotals and totals are rounded to the nearest \$1,000.
- 2 Assumed pipe depth of 2m for gravity sewers
- 3 All PVC pipes are rating SDR35
- 4 Sewer unit rates include trench excavation, bedding, backfill. Backfill is assemmed as 80% imported and 20% native.

APPENDIX

APPENDIX D - UNION BAY NEIGHBOURHOOD - CLASS 'C' COST ESTIMATE



Comox Valley Regional District
South Region Collector System Cost Estimate
Pump Station #6 - Union Bay Neighbourhood
Class C Preliminary Design

August 2023

Item	Description	Unit	Quantity	Unit Cost	Total
1	Sanitary Sewers				
1.1	Gravity Sewer				
1.1.1	100 mm PVC SDR35	lm	1,767	\$590	\$1,043,000
1.1.2	150 mm PVC SDR35	lm	2,529	\$600	\$1,517,000
1.1.3	200 mm PVC SDR35	lm	797	\$630	\$502,000
1.1.4	300 mm PVC SDR35	lm	513	\$710	\$364,000
1.1.5	375 mm PVC SDR35	lm	826	\$750	\$620,000
1.2	Low Pressure Forcemain (LPS)				
	75 mm HDPE DR17	lm	-	-	-
1.2	Low Pressure Sewer (LPS) - Gravity Connection				
1.2.1	100 mm HDPE DR17	lm	1,242	\$580	\$720,000
1.3	Service Connection - Gravity				
1.3.1	100 mm PVC SDR35 <i>c/w inspection chamber at PL</i>	lm	1,647	\$660	\$1,087,000
1.4	Appurtenances and Tie-Ins				
1.4.1	1050 mm Manhole <i>c/w riser and tie in</i>	each	66	\$8,500	\$561,000
1.4.2	Tie-in to PS #6 @ East End of Jones Street	LS	1	\$5,000	\$5,000
	LPS - Lift Station and Septic Tank				
	Subtotal Item 1				\$6,419,000
2	Highway Crossing				
2.1	Entry / Exit Pit Site + HDD Prep	LS	-	-	-
2.2	Entry / Exit Pit Starter Casing Setup / Removal	LS	-	-	-
2.3	Pipe Installation Works <i>Pipe pilot hole, ream hole, pipe layout and welding, pipe furnishing, pipe pull</i>	lm	-	-	-
2.4	Entry / Exit Pit Site Restoration	LS	-	-	-
	Subtotal Item 2				\$0
3	Railroad Crossing				
3.1	Entry / Exit Pit Site + HDD Prep	LS	2	\$130,000	\$260,000
3.2	Entry / Exit Pit Starter Casing Setup / Removal	LS	2	\$44,000	\$88,000
3.3	Pipe Installation Works <i>Pipe pilot hole, ream hole, pipe layout and welding, pipe furnishing, pipe pull</i>	lm	108	\$1,340	\$145,000
3.4	Entry / Exit Pit Site Restoration	LS	2	\$50,000	\$100,000
	Subtotal Item 3				\$593,000
4	Site Works				
4.1	ROW Acquisition <i>Assumed 5m wide ROW</i>	m2	2,155	\$10	\$22,000
4.2	Surface Restoration <i>Rough site grading along alignment, pavement, entire 5m ROW width</i>	m2	32,160	\$50	\$1,608,000
	Subtotal Item 4				\$1,630,000
5	General				
5.1	Mobilization and demobilization (~3%)	LS	1	\$260,000	\$260,000
5.2	Health and safety (~1%)	LS	1	\$87,000	\$87,000
5.3	Environmental protection plan and monitoring (~1%)	LS	1	\$87,000	\$87,000
5.4	Allowance for water management and bypass pumping	LS	1	\$87,000	\$87,000
5.5	Sediment and Erosion Control (~1%)	LS	1	\$87,000	\$87,000
5.6	Traffic Management (~3%)	LS	1	\$173,000	\$173,000
	Subtotal Item 5				\$781,000
	Subtotal All Items				\$9,423,000
	Contingency (30% of Subtotal)		30%		\$2,827,000
	Engineering (15% of Subtotal + Contingency)		15%		\$1,838,000
	TOTAL				\$14,088,000

Notes:

- ¹ This estimate has been produced in advance of design drawings, further design information, and quantities; this estimate is subject to review as new information is available. Quantities that are unavailable at this stage have been captured as LS items based on unit costs for similar recently tendered & estimated work in other municipalities
- ² Costs exclude archeological investigations, considerations/items such as GST, operational costs, and deviation of existing unknown services or extraordinary conditions
- ³ This estimate has been based on prices in August 2023. Pricing and lead times are subject to change as they currently have shown to be volatile from materials & equipment suppliers within the industry, due to the current market conditions and other global issues
- ⁴ Unit rate for land acquisition along the alignment ROW has been indicatively valued at \$10/m². This rate shall be reviewed and CVRD may advise adjustment to this rate
- ⁵ Sewer unit rates include trench excavation, bedding, backfill. Backfill is assemed as 80% imported and 20% native.
- ⁶ Assumed pipe depth of 2m for gravity sewers

APPENDIX

J

ROYSTON PUMP STATION FLOOD MITIGATION REPORT

COMOX VALLEY REGIONAL DISTRICT
REPORT NUMBER: 18P-00276-00

FLOOD MITIGATION OPTIONS FOR THE ROYSTON PUMP STATION

MAY 04, 2023



IMAGE SOURCE:
[HTTPS://WWW.COMOXVALLEYRD.CA/SEWEREXTENSION](https://www.comoxvalleyrd.ca/sewerextension)



FLOOD MITIGATION OPTIONS FOR THE ROYSTON PUMP STATION

COMOX VALLEY REGIONAL DISTRICT

FINAL R4.0

PROJECT NO.: 18P-00276-00
DATE: MAY 04, 2023

WSP
SUITE 1000
840 HOWE STREET
VANCOUVER, BC V6Z 2M1

WSP.COM



May 04, 2023

Comox Valley Regional District
600 Comox Road
Courtenay, BC V9N 3P6

Attention: Vince Van Tongeren

Dear Sir:

Subject: CVRD LWMP CCO #17 Task 13 - Flood Mitigation Options for the Royston Pump Station - FINAL

WSP Canada Inc. is pleased to submit our report outlining the Flood Mitigations Options for Royston Pump Station.

The Flood Risk Report outlines five options for flood mitigation. The options include flood resilience of the pump station at the current location, relocation of the pump station above the flood level with a small local pump station or LPS and the construction of the Regional Pump Station.

Please do not hesitate to contact the undersigned to discuss any questions or comments you may have regarding this report.

Yours truly,

Michael Levin, P.Eng., PMP
Project Manager

HS/ab
WSP ref.: 18P-00276-00

REVISION HISTORY

FIRST ISSUE

March 1, 2023	DRAFT			
Prepared by	Reviewed by	Approved By		
Hala Samour Sinead McNally	Ian Snyman	Michael Levin		
REVISION 1				
April 26, 2023	DRAFT R2.0			
Prepared by	Reviewed by	Approved By		
Sinead McNally	Ian Snyman	Michael Levin		
REVISION 2				
May 2, 2023	Draft R3.0			
Prepared by	Reviewed by	Approved By		
Sinead McNally	Ian Snyman	Michael Levin		
REVISION 3				
May 4, 2023	Final R4.0			
Prepared by	Reviewed by	Approved By		
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May 4, 2023

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Date



May 4, 2023

Ian Snyman, PMP
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Date

APPROVED BY



May 4, 2023

Michael Levin, P.Eng., PMP
Project Manager

Date

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TABLE OF CONTENTS

1	BACKGROUND.....	1
1.1	Limitations	1
2	OPTION SELECTION	2
2.1	Option 1 – Improve the Resilience of the Pump Station to Flooding.....	2
2.1.1	Introduction	2
2.1.2	Flood mitigation options	2
2.1.3	Process flow diagram (PFD).....	2
2.1.4	Conceptual P&ID	3
2.1.5	Proposed Pump Station Layout.....	4
2.1.6	Costing.....	6
2.2	Option 2 - Regional Pump Station	6
2.2.1	Introduction	6
2.2.2	Process flow diagram.....	7
2.2.3	Conceptual P&ID	8
2.2.4	Proposed Local pump station #1 layout.....	9
2.2.5	System curve	9
2.2.6	Site layout	10
2.2.7	Cost Estimate	11
2.3	Option 3 – Electrical and Mechanical Equipment above flood Line	12
2.3.1	Introduction	12
2.3.2	Conceptual P&ID	12
2.3.3	Proposed Pump Station Layout.....	13
2.3.4	Costing.....	15
3	RECOMMENDATIONS	16

TABLES

TABLE 1:	OPTION 1 COST ESTIMATE.....	6
TABLE 2:	SUB-CATCHMENT CONTRIBUTIONS TO LOCAL PS#1	7
TABLE 3:	OPTION 2 COST ESTIMATE.....	11
TABLE 4:	OPTION 3 COST ESTIMATE.....	15
TABLE 5:	SUMMARY COSTS OF OPTIONS.....	16

FIGURES

FIGURE 1:	PFD – OPTION 1.....	3
FIGURE 2:	PS#1 CONCEPTUAL P&ID.....	3
FIGURE 3:	OPTION 1 PLAN.....	4
FIGURE 4:	PS#1 OPTION 1 SECTION THROUGH.....	5
FIGURE 5:	PS#1 OPTION 1- FLOOD RISK RESILIENT CONFIGURATION.....	5
FIGURE 6:	OVERVIEW PLAN FOR OPTION 2	7
FIGURE 7:	PFD – OPTION 2.....	8
FIGURE 8:	LOCAL PS#1 CONCEPTUAL P&ID	8
FIGURE 9:	LOCAL PS#1 LAYOUT - OPTION 2B	9
FIGURE 10:	OPTION 2 LOCAL PS#1 SYSTEM CURVE	10
FIGURE 11:	OVERVIEW PLAN OF OPTION 2	11
FIGURE 12:	PS#1 WITH ELECTRICAL EQUIPMENT OUT OF FLOOD ZONE CONCEPTUAL P&ID.....	13
FIGURE 13:	OPTION 3 PS PLAN.....	14
FIGURE 14:	OPTION 3 PS CONFIGURATION.....	14

1 BACKGROUND

This technical report provides details on the investigation undertaken to review the location of Royston pump station located within the coastal flood zone. The current proposed location of the Royston pump station (PS#1) is situated within the coastal flood zone, with a flood level approximately 1.5-2 m above existing ground level.

The following five options will be discussed to provide the Comox Valley Regional District (CVRD) with more insight of the possible options for flood mitigation.

- Option 1: Various methods to improve the resilience of the pump station to flooding at the current proposed position.
- Option 2: Investigate the option to construct the Regional Pump Station and keep PS#1 as small as possible to minimize the flooding risks as the proposed location is at the intersection of Marine Drive and Royston Road (high level review only).
- Option 3: Investigate the relocation of the electrical equipment and MCC to above the flood level.
- Option 4: Investigate the relocation of the PS#1 to above the flood level. Using a small manhole-type pump station at the current proposed location to convey the sewage of the low-lying areas to the new PS#1 location.
- Option 5: Investigate if a Low Pressure Sewer (LPS) System can pump the domestic sewage from each property to the newly proposed PS#1 location.

Option 4 and 5 have been reviewed and removed from further consideration.

1.1 LIMITATIONS

This technical report does not include a climate lens assessment or climate resiliency analysis. The work focuses on flood mitigation measures and options that will eventually inform the more detailed climate change analyses.

2 OPTION SELECTION

2.1 OPTION 1 – IMPROVE THE RESILIENCE OF THE PUMP STATION TO FLOODING

2.1.1 INTRODUCTION

This option will review the methods undertaken to improve the flood resilience of the pump station at the existing proposed location within the coastal flood zone. The options presented in this section applies the principles outline in the Guide for Design of Flood- resistant Buildings published by the NRC.

2.1.2 FLOOD MITIGATION OPTIONS

As per information provided on the Comox Valley Regional District Coastal Flood Mapping portal, coastal flood levels have been calculated using the "Probabilistic Method" in accordance with the provincial guidelines. The flood levels are based on a storm event (wind and wave) with an annual exceedance probability of 0.5% occurring simultaneously with a still water level of the same probability. The coastal flood levels include astronomical tides, storm surge, wave effects, allowances for ground subsidence or uplift and a freeboard allowance of 0.6 m. The level has been provided by the CVRD as part of a previous investigation.

To mitigate flood risk to the proposed location of PS#1 at Royston Road and Marine Drive, the following changes have been undertaken to the design:

- A building to enclose the mechanical and electrical equipment with auxiliary facilities such as a loading area and washroom facilities on the ground level and locating the electrical equipment on the second storey, above the flood levels. The wet well of the pump station will remain outside of the building.
 - The odour control unit will be located in a sump on the ground level that will prevent flooding. The odour control unit can be accessed via the stairs.
 - The electrical supply equipment will be located at a different location above the flood line, this will include the generator and the transformer.
-

2.1.3 PROCESS FLOW DIAGRAM (PFD)

The PFD shown in **Figure 1** is taken from the work previously done for Phase 1A. It includes the two pump stations, PS#1 (Royston) and PS#6 (Union Bay) and two forcemains.

A 250 mm HDPE forcemain will convey 34 L/s from PS#6 to PS#1. This flow corresponds to a population equivalent of 2722 persons and an equivalent dwelling unit number of 1296.

48 L/s will be conveyed from PS#1 to the Courtenay River Siphon through a 250 mm HDPE between PS#1 and Highway 19A, and then increasing to a 300 mm HDPE forcemain from the highway to the siphon to accommodate future developments. The additional 14 L/s conveyed by PS#1 corresponds to a population equivalent of 675 persons and 321 dwelling units as part of the Royston Collection area.

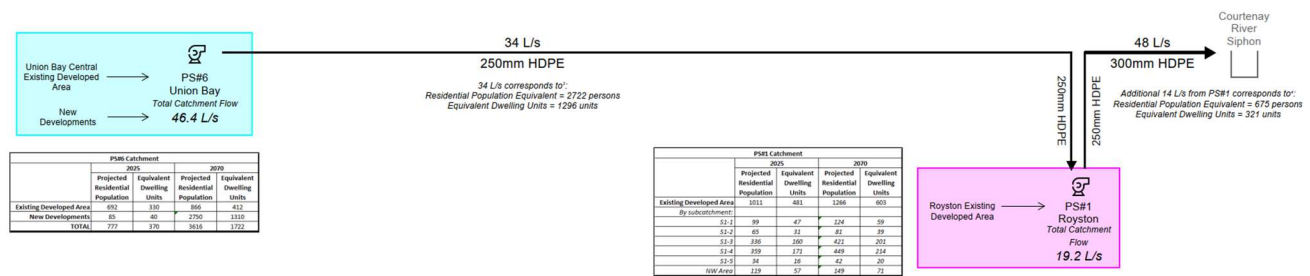


Figure 1: PFD – Option 1

PS#1 is sized to convey a minimum flow of 48 L/s and maximum flow of 72 L/s to the Courtenay River Siphon. Once the Regional Pump Station is constructed, PS#1 will only pump the required 28 L/s from PS#1 and PS#2 catchments to the Regional Pump Station. The pump station will have a duty/standby configuration.

2.1.4 CONCEPTUAL P&ID

The conceptual Piping and Instrumentation Diagram (P&ID) is shown **Figure 2**.

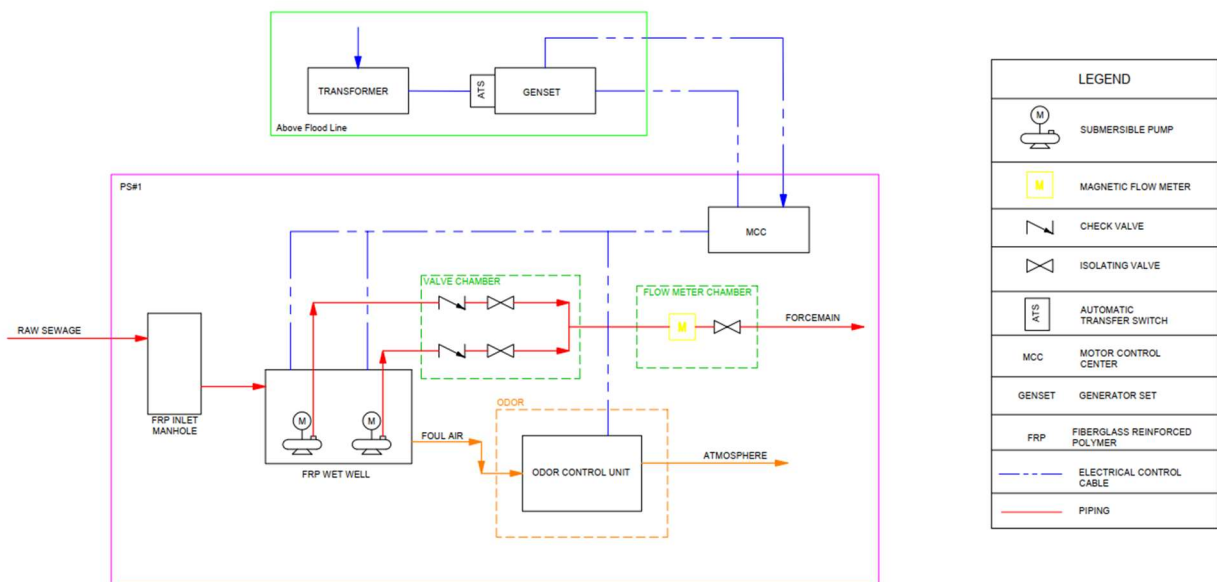


Figure 2: PS#1 Conceptual P&ID

The main components of the P&ID are the following:

- Duty standby pumps
- Non return valves
- Isolation valves
- Flow meter
- Odour control unit
- Generator

- Motor Control Centre
- Transformer

The pump station will be controlled with an level sensor in the wet well and including back up level floats. During the expected low flow period, the operational level in the wet well will be reduced to ensure minimum retention time in the wet well. There will be space available for dual isolation. This option has the same functionality of the previously proposed PS#1 outlined in the Basis of Design Report, however the source of power is different. To mitigate the flood risk at the pump station location, the transformer and generator will be located approximately 200m from the pump station ensuring that it is outside of the flood zone.

2.1.5 PROPOSED PUMP STATION LAYOUT

The pump station will consist of a Fibre Reinforced Plastic (FRP) feeding manhole, as shown in **Figure 3** and **Figure 4**, for the collection of flow from the catchment areas as well as the forcemain from PS#6. This configuration also provides the possibility of constructing an additional manhole pump station in the future if this should be required, without the need to isolate PS#1. The pump station will have an FRP wet well and submersible pumps with quick release couplings. This arrangement removes the need for manual removal of the pumps when required for maintenance. The preferred pumps used by operation staff are Flygt pumps series N3000.

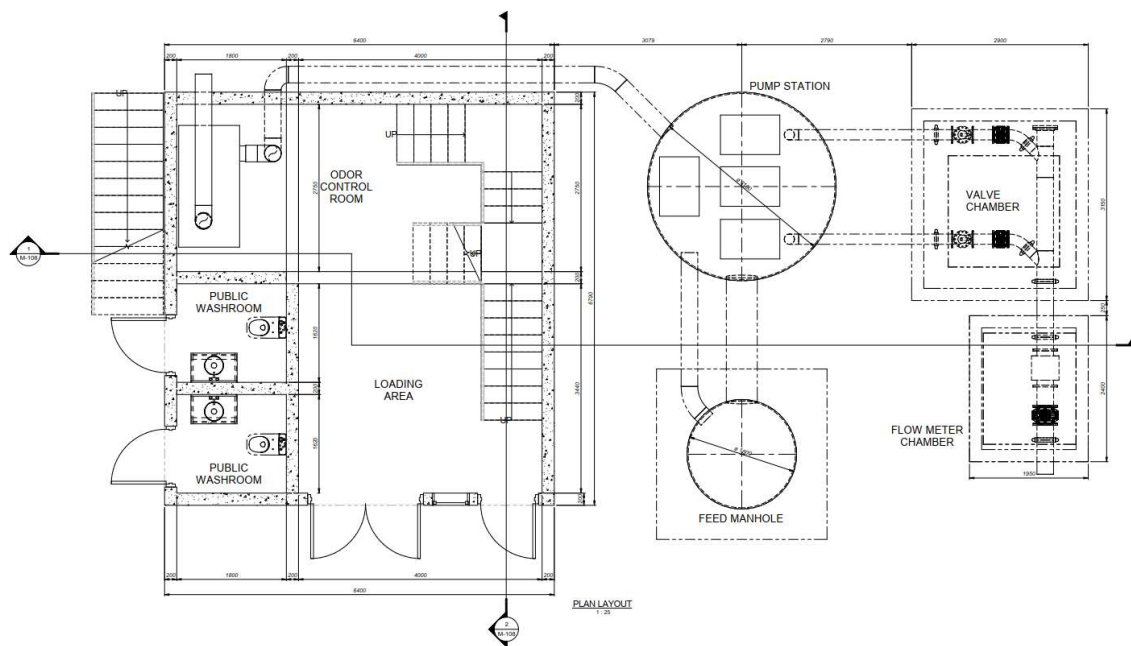


Figure 3: Option 1 Plan

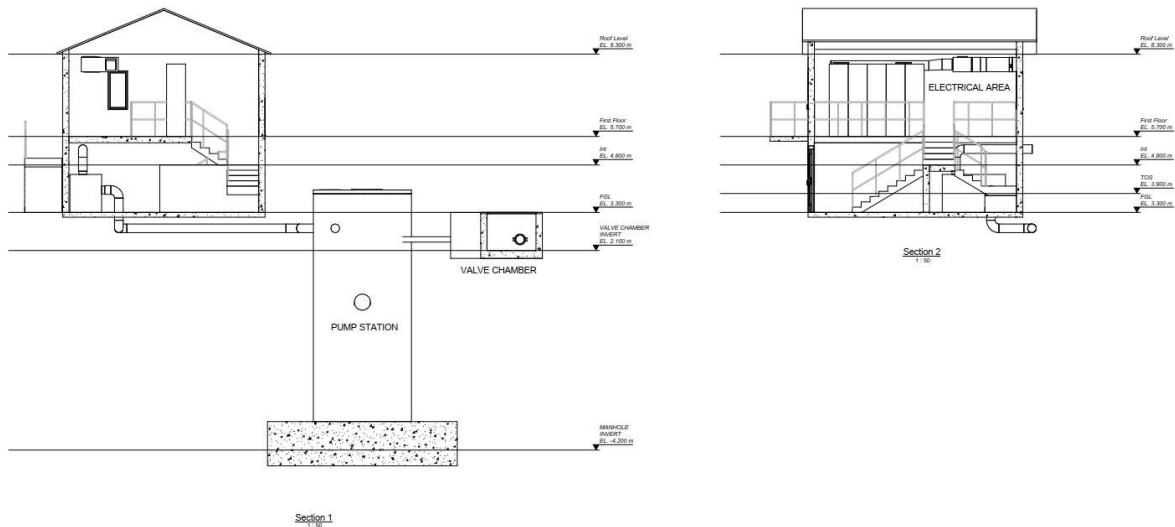


Figure 4: PS#1 Option 1 section through

The pump station will have all the functionality as previous requested by the CVRD. The wet well, valve chamber and the inlet manhole will have a bolted down lid. This will not allow any flood water into the chambers/wells. The new proposed building would include public washrooms. The building will also contain the odour control unit in a secure sump area. The Motor Control Centre (MCC) will be relocated to the second floor to ensure that it will be above the flood level and would be able to operate continuously, even if the surrounding area is flooded.

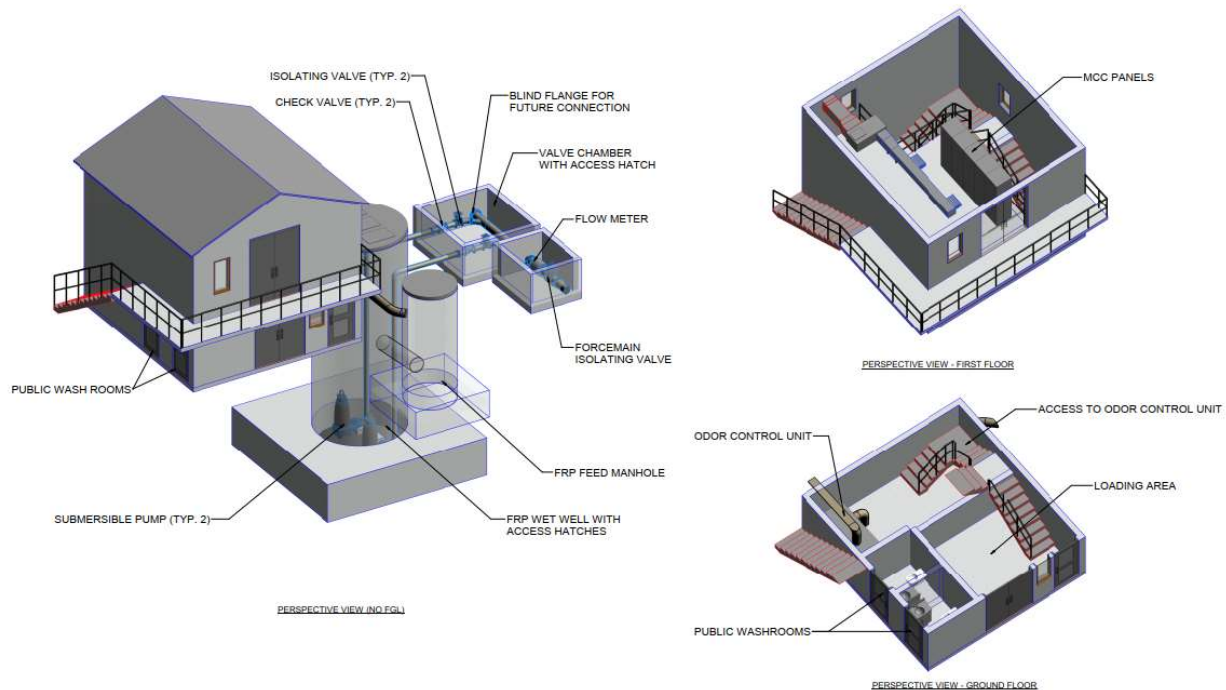


Figure 5: PS#1 Option 1- Flood Risk Resilient Configuration

Each pump outlet pipe will have a non-return valve to prevent backflow to the pumps and an isolation valve for maintenance purposes. The valve chamber will have a separate hatch access from the wet well. The configuration of the pump station is shown in **Figure 5** above. The pumps will be removed by a crane truck (or other suitable mobile rig) in lieu of an overhead gantry to limit the visual impact of the pump station on local residents.

The power supply from BC Hydro will be above the flood level. This transformer and generator will be above the flood level as discussed previously; however, it will ensure uninterrupted power supply to the pump station. The generator will include an automatic transfer switch (ats). This will ensure that in the event of a power failure, the generator will start automatically. This will also save the cost of laying two incoming cables to the MCC and generator.

2.1.6 COSTING

A cost estimate has been completed for Option 1 and the summary is outlined in **Table 1**.

Table 1: Option 1 Cost Estimate

Item	Description	Cost
1	Pump Station	
1.1	Earthworks and Site Works	\$120,000
1.2	Building	\$645,000
1.3	Mechanical	\$737,000
1.4	Electrical	\$610,000
Subtotal Item 1		\$2,112,000
2	General	\$370,000
Subtotal Item 2		\$370,000
Subtotal All Items		\$2,482,000
	Contingency (40% of Subtotal)	\$993,000
	Engineering (15% of Subtotal + Contingency)	\$521,000
TOTAL		\$3,996,000

2.2 OPTION 2 - REGIONAL PUMP STATION

2.2.1 INTRODUCTION

This high-level option investigates the replacement of the PS#1 with the Regional Pump Station, suggested in Phase 1A, with the introduction of a smaller manhole-type pump station (Local PS#1) at the original proposed location (within the coastal flood zone) to pump the low-lying areas to the new regional location. The position of the Regional Pump Station that has been evaluated for this comparative analysis of options is close to highway 19A. Alternative locations may be considered if this option is advanced for further review. The main impact of the

alternative location of the proposed Regional Pump Station is the increase in the cost of the cable due to the cable length as well as the cable size due to the voltage drop in the cable. The catchment areas would also be required to be re-evaluated should an alternative location be considered for the Regional Pump Station. The size of the Local PS #1 pumps will also need to be re-evaluated due to the possible change in the dynamic head.

The areas highlighted in red and yellow in **Figure 6** will flow to the proposed Local PS#1 by gravity sewers. The areas in light blue will gravitate to the Regional Pump Station.

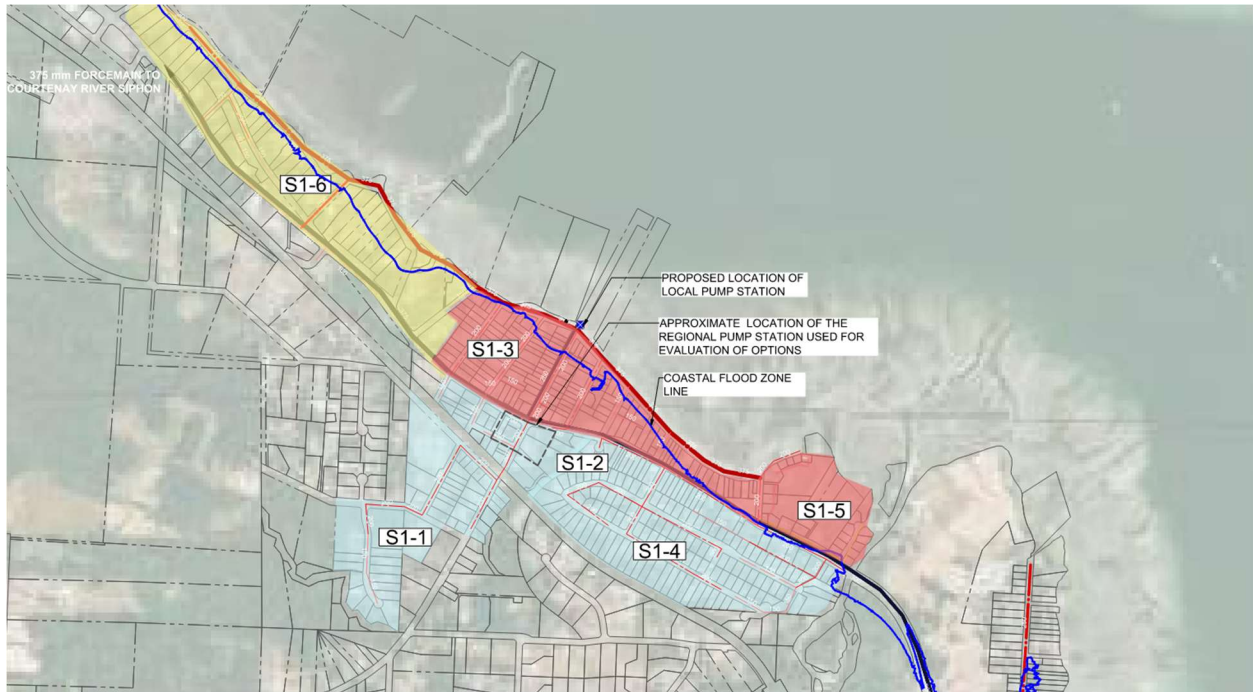


Figure 6: Overview plan for option 2

Table 2 summarises the contributing flows from the sub-catchments to the Local PS#1.

Table 2: Sub-Catchment Contributions to Local PS#1

SUB-CATCHMENT ID	LOCAL PS#1- 2070 PWWF (L/S)
S1-3	5
S1-5	0.8
S1-6	3.7
TOTAL L/S	9.5

2.2.2 PROCESS FLOW DIAGRAM

The PFD for Option 2 is shown in **Figure 7** below. It includes three pump stations: the Local PS#1, Regional Pump Station, and PS#6. The contributing sub catchments for Local PS#1, Regional Pump Station and PS#6 include:

- Local PS#1: S1-3, S1-5 and S1-6;
- Regional Pump Station: S-1, S-2 and S-4; and
- PS#6: Union Bay central existing developed area, and future new developments.

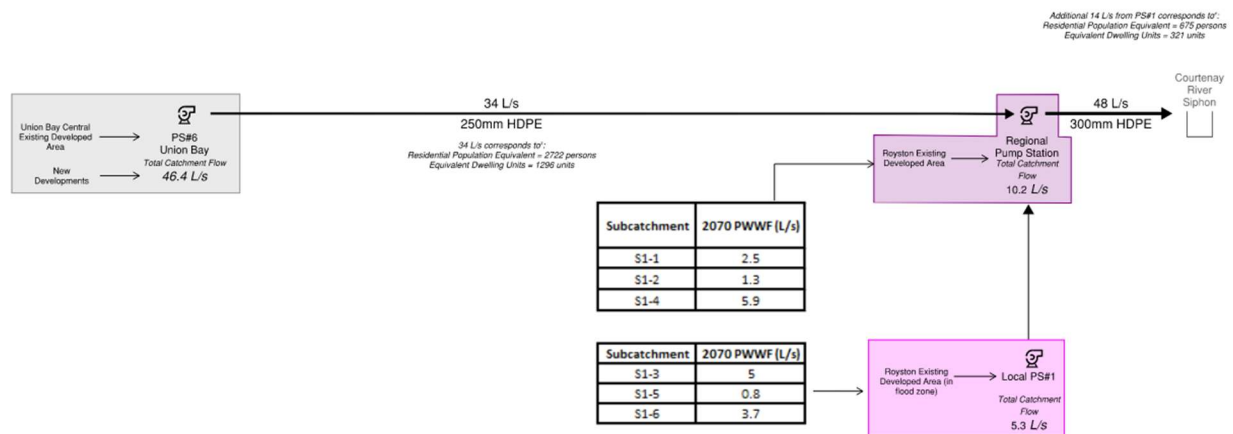


Figure 7: PFD – Option 2

2.2.3 CONCEPTUAL P&ID

The conceptual Piping and Instrumentation Diagram (P&ID) is shown **Figure 8** below.

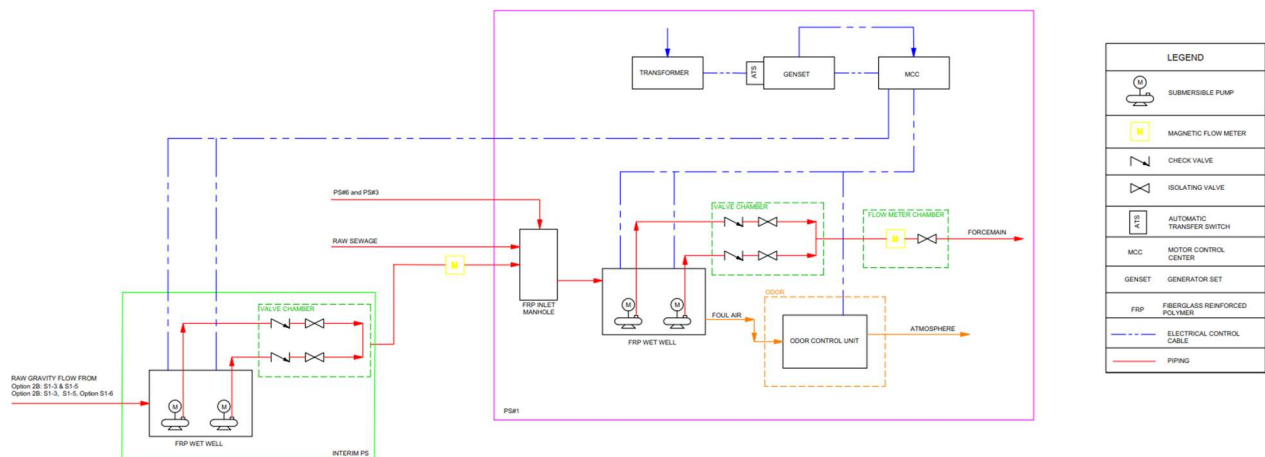


Figure 8: Local PS#1 Conceptual P&ID

The main mechanical components of the P&ID are the following:

For the Local PS#1:

- Duty standby pumps.
- Non return valves.
- Isolation valves.

For the Regional Pump Station, the same arrangement as Option 1.

- Duty standby pumps.
- Non return valves.
- Isolation valves.

- Flow meter.
- Odour control unit.
- Generator.
- Motor Control Centre.
- Transformer.

2.2.4 PROPOSED LOCAL PUMP STATION #1 LAYOUT

The pump station layout for Local PS#1 is shown in **Figure 9** below. The pump station will consist of a Fibre Reinforced Plastic (FRP) feeding manhole for the collection of flow from the catchment areas. The pump station will have an FRP wet well and submersible pumps.

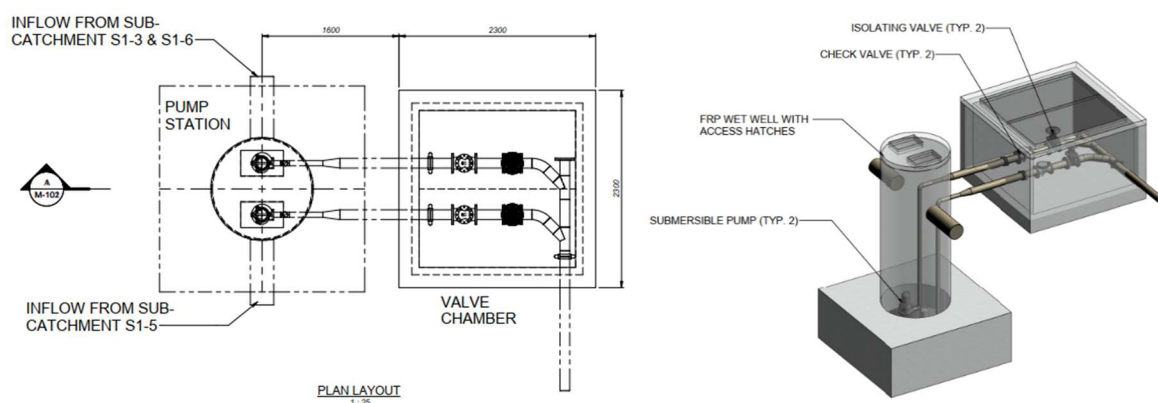


Figure 9: Local PS#1 Layout - Option 2B

2.2.5 SYSTEM CURVE

The flow required is estimated at 11 L/s. The static pressure of the pump station will increase from Option 2 and result in a slightly larger pump of up to 10kW. The green lines below in the graph illustrate two different Flygt pumps, that would be able to deliver the required flow, depending on the size of the forcemain.

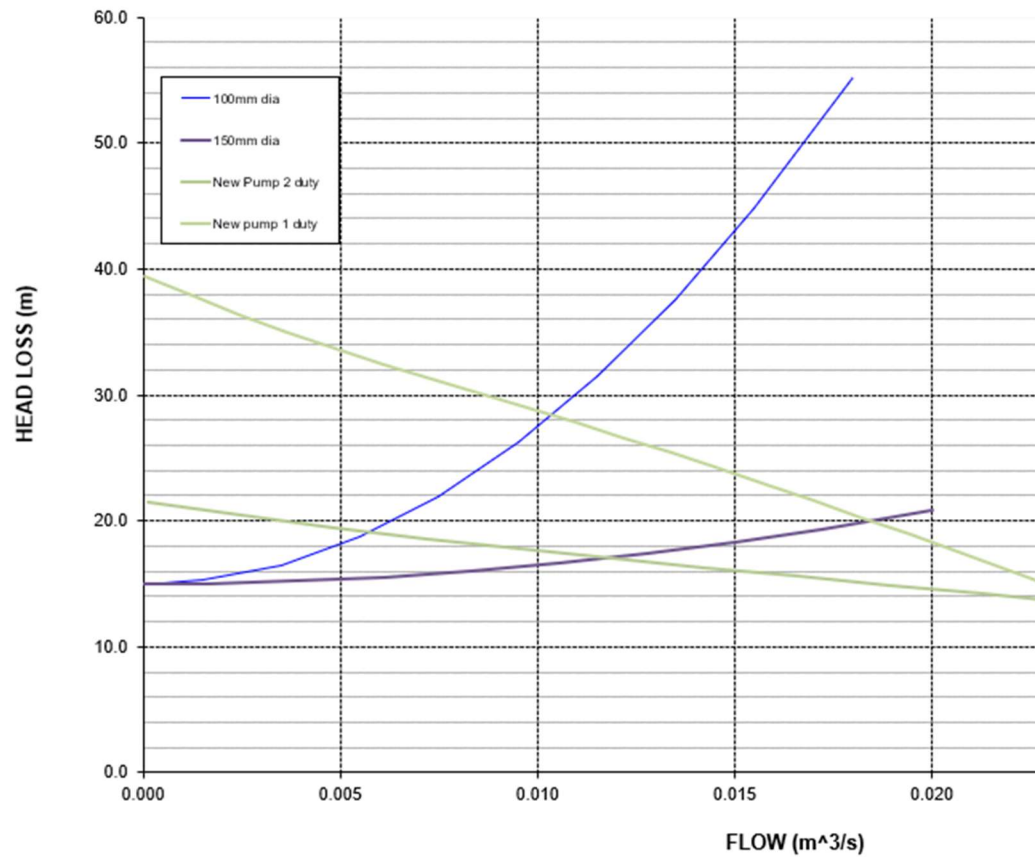


Figure 10: Option 2 Local PS#1 System Curve

2.2.6 SITE LAYOUT

The site layout is shown below in **Figure 11**. The Regional Pump Station location used for this comparative analysis is adjacent to highway 19A (final location still to be determined) and the Local PS#1 is situated at the original proposed PS#1 location. The MCC for the local pump station can be positioned at the Regional Pump Station, however this will require the cable to increase in size from an estimated 6 mm core cable up to 50 mm, which will increase the cost significantly. This is due to the voltage drop over a cable length of more than 500 m. However, it will prevent any electrical equipment from exposure to possible flooding conditions.

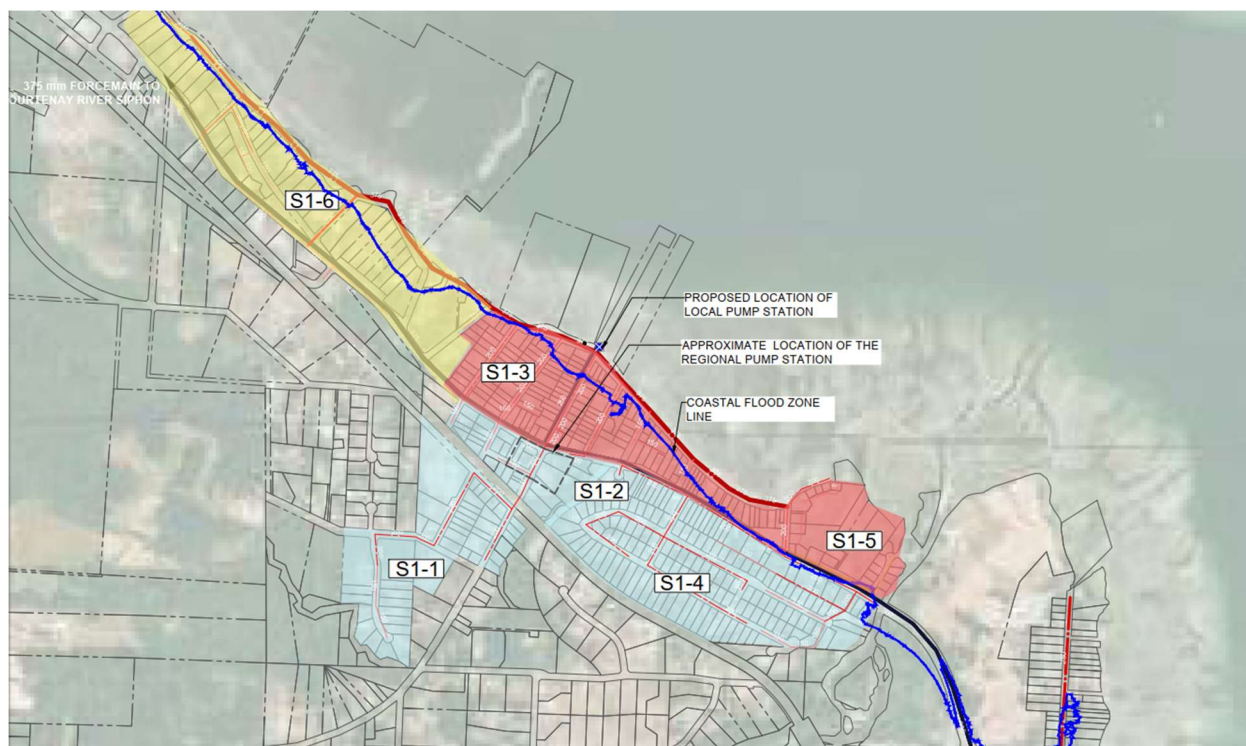


Figure 11: Overview Plan of Option 2

Odour control will not be required at the Local pump station#1 as it is only a localized pump station, and is not expected to have sewage accumulated for long periods of time.

2.2.7 COST ESTIMATE

A cost estimate has been completed for Option 2 and is outlined in **Table 3**.

Table 3: Option 2 Cost Estimate

ITEM	DESCRIPTION	COST
1	REGIONAL Pump Station	
1.1	Earthworks and Site Works	\$52,000
1.2	Building	\$100,000
1.3	Mechanical	\$545,000
1.4	Electrical	\$503,000
Subtotal Item 1		\$1,200,000
2	LOCAL PS	
2.1	Earthworks and Site Works	\$9,000
2.2	Building	\$57,000

ITEM	DESCRIPTION	COST
2.3	Mechanical	\$45,000
2.4	Electrical	\$142,000
Subtotal Item 2		\$258,000
3	GENERAL	\$290,000
Subtotal Item 3		\$290,000
Subtotal All Items		\$1,748,000
	Contingency (40% of Subtotal)	\$699,000
	Engineering (15% of Subtotal + Contingency)	\$367,000
TOTAL		\$2,814,000

2.3 OPTION 3 – ELECTRICAL AND MECHANICAL EQUIPMENT ABOVE FLOOD LINE

2.3.1 INTRODUCTION

This option will review the methods undertaken to improve the flood resilience of the pump station at the existing proposed location within the coastal flood zone. To mitigate flood risk to PS#1 located at Royston Road and Marine Drive, the electrical supply equipment will be located at a different location above the flood line, this will include the generator, transformer and MCC. The pump station #1 will be a minimalistic design without any building surrounding the pump station. In the costing section an additional option has been added to include a single-story building, rather than the minimalistic approach.

2.3.2 CONCEPTUAL P&ID

The conceptual Piping and Instrumentation Diagram (P&ID) is shown **Figure 12**.

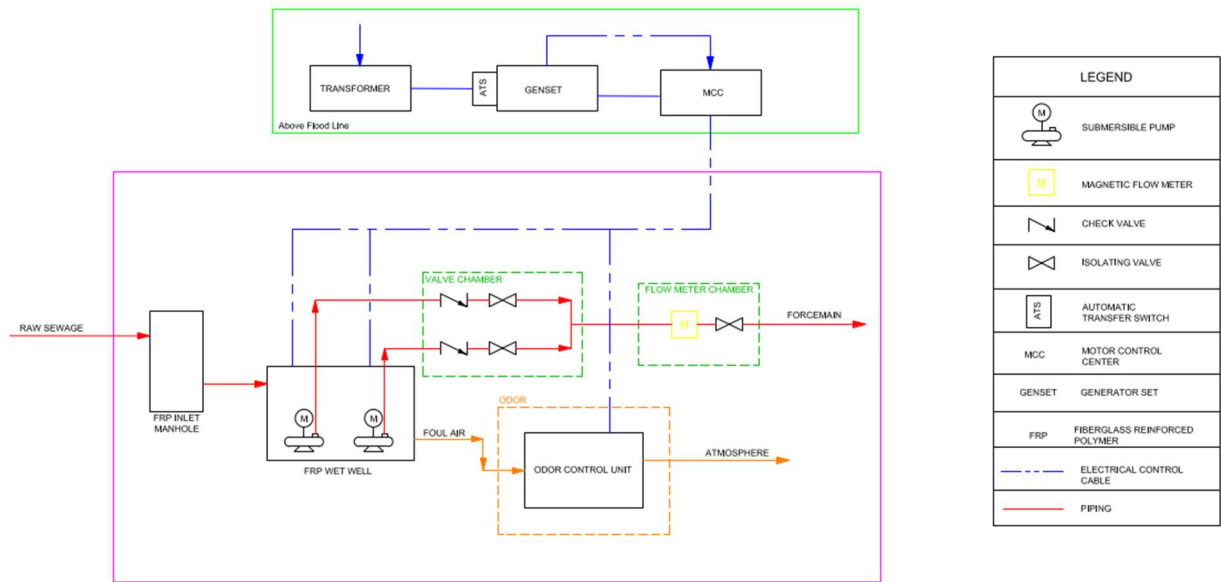


Figure 12: PS#1 with Electrical Equipment out of Flood Zone Conceptual P&ID

The main components of the P&ID are the following:

- Duty standby pumps.
- Non return valves.
- Isolation valves.
- Flow meter.
- Odour control unit.
- Generator.
- Motor Control Centre.
- Transformer.

This option has the same functionality of Option 1, however in addition to the transformer and generator being located outside of the flood zone the MCC will also be located outside of the flood zone approximately 200m from the pump station to mitigate flooding risk. All the other equipment will make use of outdoor housing protection or be enclosed in a building.

2.3.3 PROPOSED PUMP STATION LAYOUT

The pump station will consist of a Fibre Reinforced Plastic (FRP) feeding manhole, as shown in **Figure 13** and **Figure 14**, for the collection of flow from the catchment areas as well as the forcemain from PS#6. This configuration also provides the possibility of constructing an additional manhole pump station in the future if this should be required, without the need to isolate PS#1. The pump station will have an FRP wet well and submersible pumps with quick release couplings. This arrangement removes the need for manual removal of the pumps when required for maintenance.

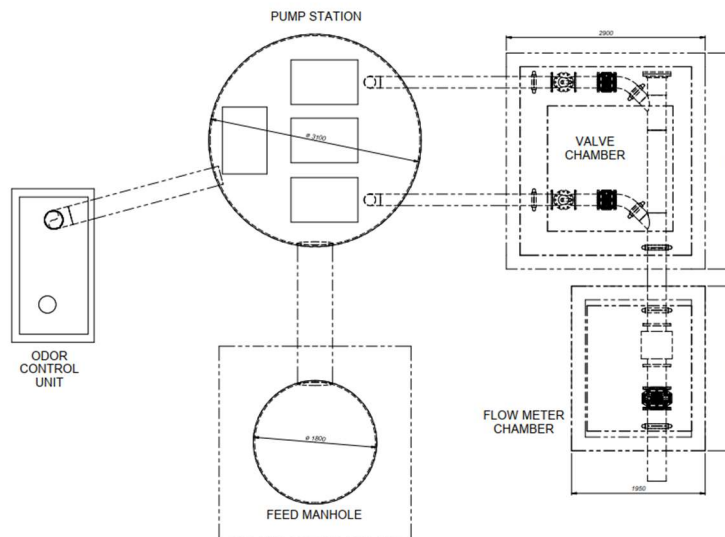


Figure 13: Option 3 PS Plan

The pump station will have all the functionality as previous requested by the CVRD. The wet well, valve chamber and the inlet manhole will have a bolted down lid. This will not allow any flood water into the chambers/wells.

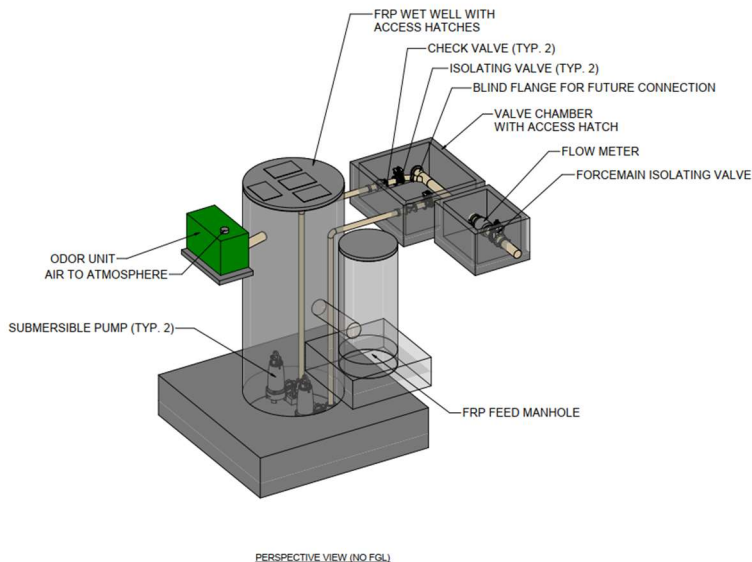


Figure 14: Option 3 PS Configuration

Similar to Option 1, outlined in Section 2.1, the power supply from BC Hydro will be above the flood line. Having the transformer and generator above the flood line will reduce the likelihood of uninterrupted power supply to the pump station. The generator will include an automatic transfer switch (ats). This will provide the functionality to start the generator automatically in case of a power failure. In this option, the MCC will also be located above the flood line. The minimalistic option (Option A) eliminates the need for a building at the pump station site with the odour control located in an unit.

2.3.4 COSTING

A cost estimate has been completed for Option 3 and is outlined in **Table 4**. The cost outlines the minimalist option (Option A) with the odour control in an individual unit and Option B with a single-storey building at the pump station which contains the odour control, washrooms and a small office.

Table 4: Option 3 Cost Estimate

ITEM	DESCRIPTION	OPTION A	OPTION B
1	Pump Station		
1.1	Earthworks and Site Works	\$52,000	\$55,000
1.2	Building	\$100,000	\$220,000
1.3	Mechanical	\$545,000	\$702,000
1.4	Electrical	\$641,000	\$641,000
Subtotal Item 1		\$1,338,000	\$1,618,000
2	General	\$280,000	\$290,000
Subtotal Item 2		\$280,000	\$290,000
Subtotal All Items		\$1,618,000	\$1,908,000
	Contingency (40% of Subtotal)	\$647,000	\$763,000
	Engineering (15% of Subtotal + Contingency)	\$340,000	\$401,000
TOTAL		\$2,605,000	\$3,072,000

3 RECOMMENDATIONS

All of the options outlined in the sections above will mitigate the flood risk for Royston Pump Station (PS#1). Table 5 summarizes the costs of the options.

Table 5: Summary Costs of Options

OPTION	COST
Option 1	\$3,996,000
Option 2	\$2,814,000
Option 3	\$2,605,000**

** Minimalistic approach (Option A).

Option 1 is significantly more expensive than the other options. WSP recommends that CVRD consider option 2, as well as option 3 to investigate further. The cost difference between the options is not significant, however option 2 will require that CVRD have a property available to construct the Regional Pump Station.

Both options will successfully mitigate the flooding risk for the Royston Pump Station.

COMOX VALLEY REGIONAL DISTRICT
REPORT NUMBER: 18P-00276-00

UPDATED COST ESTIMATE FOR ROYSTON PUMP STATION FLOOD MITIGATION REPORT

NOVEMBER 7, 2023

CONFIDENTIAL



SCHEDULE FOR ROYSTON PUMP STATION FLOOD MITIGATION REPORT

PUMP STATION #1 COST ESTIMATE

Tables 1 to 3 show the updated cost estimates for Royston Pump Station (also referred to as PS#1) considering the latest pricing and discussed project alterations. The Royston Pump station was designed on the same basis as the Union Bay Pump station, however a further evaluation was requested, as part of the Value Engineering process. Concerns were raised about both locations being within the coastal flood zone, therefore a flood mitigation assessment (Appendix H) was completed to assess alternative options for Royston Pump Station. The report indicated three viable options, Options 1, 2 and 3.

Table 1: Royston Pump Station Option 1 (Flood resilient building) Cost Estimate Summary

ITEM	DESCRIPTION	TOTAL
1.1	Earthworks and Site Works	\$ 120,000
1.2	Building	\$ 645,000
1.3	Mechanical	\$ 737,000
1.4	Electrical	\$ 610,000
2.0	General	\$ 370,000
Subtotal		\$ 2,112,000
Contingency (40%)		\$ 993,000
Engineering (10%)		\$ 521,000
TOTAL		\$ 3,996,000

Table 2: Royston Pump Station Option 2 (Regional PS with small local PS) Cost Estimate Summary

ITEM	DESCRIPTION	TOTAL
1.1	Earthworks and Site Works	\$ 49,000
1.2	Building	\$ 123,000
1.3	Mechanical	\$ 545,000
1.4	Electrical	\$ 504,000
1.5	Interim PS	\$ 265,000
2.0	General	\$ 310,000
Subtotal		\$ 1,796,000
Contingency (40%)		\$ 718,000

Engineering (10%)	\$ 251,000
TOTAL	\$ 2,765,000

Table 3: Royston Pump Station Option 3 (Building PS with mechanical/electrical outside flood zone) Cost Estimate Summary

ITEM	DESCRIPTION	OPTION A BUILDING	OPTION B KIOSK
1.1	Earthworks and Site Works	\$ 51,000	\$ 48,000
1.2	Building	\$ 321,000	\$ 123,000
1.3	Mechanical	\$ 704,000	\$ 545,000
1.4	Electrical	\$ 643,000	\$ 643,000
2.0	General	\$ 340,000	\$ 300,000
	Subtotal	\$ 2,059,000	\$ 1,659,000
	Contingency (40%)	\$ 824,000	\$ 664,000
	Engineering (10%)	\$ 288,000	\$ 232,000
	TOTAL	\$ 3,171,000	\$ 2,555,000

The following general assumptions were used for preparing the cost estimates:

- Pump cost for PS#1 based on 1 duty + 1 standby, Flygt Model NP 3301 HT, 468 330mm impeller, 63 kW (85 HP), 600 V, 3 phase. Cost for upgraded pumps not included.
- Mechanical installation is based on 2 people, 15 days, \$100/hr
- Odour control is assumed to be Pureair Odor Control Unit w/ Dry Chemical media, draw thru blower, mist eliminator - 250 cfm, w/ 1.5 HP motor, 600V/3 Ph, Class 1 Div 1 rated. A detailed study is required to confirm the odour control.
- Paving area estimated as 100m² for option A and 50m² for Option B, area to be confirmed at detail design.
- Option A cost include costing of a concrete pump station building, with separate underground wet well, flowmeter and valve chambers. Option B cost include costing of individual kiosks and units for the MCC, odour control and genset, with separate underground wet well, flowmeter and valve chambers.

APPENDIX

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ENVIRONMENTAL
IMPACT STUDY

ENVIRONMENTAL IMPACT STUDY

SOUTH REGION ROYSTON UNION BAY SEWER EXTENSION

COMOX VALLEY REGIONAL DISTRICT



November 21, 2022

Revision 3 – January 2, 2024

Prepared for:

WSP Canada Inc.
210 Harbourside Drive
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EXECUTIVE SUMMARY

At the request of WSP Canada Inc. (WSP), Current Environmental Ltd. (CEL) completed an Environmental Impact Study (EIS) to support preliminary design efforts for the construction and operation of the South Region Royston - Union Bay Sewer Extension (hereafter referred to as the “Sewer Extension South” (SES) or the “Project”). This revision of the EIS includes an update to the project area in the Kilmarnock Road neighborhood associated with environmental conditions for the potential siting and design of Pump Station #3 in the Comox Valley Regional District’s (CVRD) Montrose Park. The Project aims to address failing septic systems in the CVRD South Region or Electoral Area “A” through the construction of a new wastewater forcemain, local collection systems, and pump stations to connect to existing Comox Valley Sewer Service (CVSS) infrastructure.

The objectives of this EIS are to:

- Describe existing Valued Components (VCs) along the proposed forcemain alignment and in proximity to pump station locations.
 - VCs are elements having environmental, social, cultural, economic, historical, archaeological or aesthetic importance.
 - VCs of environmental importance are further defined as Environmentally Sensitive Areas (ESAs).
- Summarize cultural resources associated with the Project, including potential areas of conflict with known archaeological sites.
- Complete a Screening-Level Contaminated Sites Assessment to identify potential areas of environmental concern.
- Identify potential adverse impacts from construction and operation of the Project on the surrounding environment and community and assess the significance of those impacts.
- Recommend mitigation strategies to reduce potential adverse impacts.
- Complete a cumulative effects assessment, which considers adverse effects to VCs that may occur as a result of the interaction of the Project with other past, present, and future projects and activities in the area.

The screening-level review of known or potential sources of contamination along the project alignment was completed using a combination of site-level investigation and desktop review of existing databases including custom Environmental Risk Information Services (ERIS) reporting. Of the 62 results within 100 m of the Project alignment, 9 APECs warranted a “High” risk rating. Project planning and execution near High-risk APECs will require a well prepared, measured, and safety-oriented approach to any activities that will disturb soils/groundwater in these areas. For linear components, mostly located in road rights-of-way (predominantly Cliffe Ave/Highway 19A), the risk of ERIS results affecting these construction elements are generally low. However, three of the “High” risk ERIS results, two adjacent to pump station locations (i.e., large sites with complex contamination) and one adjacent to the linear portion, may intersect with the Project working limits. To mitigate risks at these locations: soil, water, and/or vapour testing can be completed to ensure that no contamination will be encountered, and if contamination is present in these areas, that the owner may make informed decisions to adjust plans and avoid these areas or prepare to define, treat and/or dispose of contaminated materials appropriately. It is recommended that the results of this screening-level review of potential sources of contamination be considered in the context of final/confirmed project elements

and decisions be made as to whether a Phase II ESA type sampling program will be initiated for the characterization of materials likely to be disturbed during the project.

Background information on Environmentally Sensitive Areas (ESAs) was identified via desktop review of online mapping inventories and databases. ESAs located within 30 m of the proposed forcemain alignment and within 100 m of the proposed pump station locations, designated as the “working limits,” were considered to possibly intersect or be at risk of direct disturbance from construction and operation of the SES. Following desktop analysis, site visits were conducted in October 2022, and September 2023 during which time the entire alignment was reviewed. Streams and ditches, sensitive habitats and ecosystems, as well as occurrences of species at risk within the working limits, as identified by the background review, were the focus of field surveys. Four habitats identified by the Sensitive Ecosystem Inventory intersect the working limits. A BC red-listed seashore saltgrass community is located in the foreshore of Comox Harbour, directly adjacent to the proposed location of PS#1 which will require application of mitigation measures during construction to prevent encroachment into or impacts from construction on the intertidal habitats. Any unavoidable disturbance to this red-listed plant community will need to be suitably offset to ensure no net negative effects. Numerous species at risk have the potential to occur within the Project footprint and surrounding area including bird, mammal, amphibian, reptile, insect, and plant species. Five recently active Bald Eagle nests are present within the Project area that will require heightened mitigation measures to minimize disturbance should the nests be in use during the breeding season coinciding with timelines of Project construction. Although Great Blue Heron colonies (blue-listed SAR) within the Project area are listed as “inactive” according to online databases, foraging habitat in the vicinity is plentiful, and it is possible that herons will return to use these historical nesting sites. In this case, heightened mitigation measures similar to those in place for Bald Eagle nests may be required. Sixteen streams or ditches either cross or flow directly adjacent to the proposed SES forcemain alignment, with ten having confirmed fish presence. Care must be taken to install forcemain lines either above or below the road-crossing culverts or suspended along bridge crossings to avoid any interaction with watercourses. Appropriate erosion and sediment control measures will also be important to avoid release of deleterious substances into streams and ditches during construction, and possible post-construction rehabilitation should any impacts occur.

Residual and cumulative effects assessments were completed as part of this EIS, which identified mobility and viewscales to be the only VCs at risk of incurring residual effects. Both residual and cumulative effects to these two components were found to be less than significant. With over 99% of the Project footprint located subsurface and within existing road prisms, overall impacts of construction, and operation of the SES are expected to be minimal. The application of general mitigation measures recommended in this report and a project-specific Environmental Management Plan produced prior to construction will further reduce risk to social, cultural, and environmental VCs.

TABLE OF CONTENTS

EXECUTIVE SUMMARY	II
LIST OF TABLES.....	V
LIST OF FIGURES	VI
1 INTRODUCTION	1
1.1 BACKGROUND	4
1.2 PROJECT IDENTIFICATION.....	4
1.2.1 Applicant.....	4
1.2.2 Name of Project	4
1.3 PROJECT CONTACTS	4
1.3.1 Project Manager/Engineer.....	4
1.3.2 Environmental Assessment Contact & Project Biologist	5
1.3.3 Project Administrator.....	5
1.4 NEED FOR THE PROJECT AND ROUTE JUSTIFICATION.....	5
1.5 PROJECT DESCRIPTION	5
2 FIRST NATIONS CONSULTATION	6
3 PUBLIC/GOVERNMENT DEPARTMENT CONSULTATIONS & APPLICABLE LEGISLATION	7
4 PROJECT DESCRIPTION	10
4.1 COMMUNITY STRUCTURE, LAND USE & ZONING.....	10
4.2 EXISTING INFRASTRUCTURE & TRAFFIC.....	10
4.3 PROPOSED DEVELOPMENT.....	10
4.3.1 Physical Description	10
4.3.2 Construction Details.....	11
4.3.3 Operational and Maintenance Details.....	11
4.3.4 Decommissioning Plans	12
4.4 PROJECT DEVELOPMENT SCHEDULE.....	12
5 CONTAMINATED SITE HISTORY	12
5.1 SCOPE AND OBJECTIVES	12
5.2 RESULTS.....	13
5.3 DISCUSSION.....	15
6 DESCRIPTION OF THE ENVIRONMENT	16
6.1 SURFACE AND GROUNDWATER	17
6.2 AQUATIC AND TERRESTRIAL BIOTA.....	18
6.2.1 Ecosystems.....	18
6.2.2 Birds	20
6.2.3 Mammals	23
6.2.4 Amphibians and Reptiles.....	24
6.2.5 Invertebrates.....	25
6.2.6 Vegetation	25
6.2.7 Aquatic Habitat.....	26
6.3 FIRST NATIONS LANDS AND ARCHAEOLOGICAL SITES	30
7 POTENTIAL ENVIRONMENTAL IMPACTS AND PROPOSED MITIGATION MEASURES.....	32
7.1 CONSTRUCTION.....	35
7.1.1 Site and Project Preparation	35
7.1.2 Active Construction	36
7.1.3 Post-Construction Restoration	38

7.2	OPERATION	38
7.2.1	<i>Routine Operation</i>	39
7.3	ACCIDENTS AND MALFUNCTION	39
7.3.1	<i>Spill Prevention</i>	39
7.3.2	<i>Spill Response</i>	40
8	EFFECTS ASSESSMENT	40
8.1	RESIDUAL EFFECTS	42
8.1.1	<i>Mobility</i>	45
8.1.2	<i>Viewscape</i>	45
8.2	CUMULATIVE EFFECTS	45
8.2.1	<i>Mobility</i>	48
8.2.2	<i>Viewscapes</i>	48
8.3	DECOMMISSIONING	48
9	CONCLUSIONS.....	48
10	DISCLAIMER	50
11	FIGURES	51
12	PHOTOS.....	60
APPENDIX A. SUMMARY OF ERI RESULTS AND ASSOCIATED RISK FACTORS THAT MAY IMPACT WORK FOR THE PROJECT ALIGNMENT.....		64
APPENDIX B. ENVIRONMENTAL RISK INFORMATION SERVICES (ERIS) REPORT.....		75
APPENDIX C. CHANCE ARCHAEOLOGICAL FIND GUIDELINES.....		279
APPENDIX D. OPERATIONAL SPILL RESPONSE PLAN.....		308

LIST OF TABLES

Table 1. Regulations and government agencies applicable to construction of the Sewer Extension South Project.....	1
Table 2. At-risk ecological communities with the potential to occur along the Project route. Source: BC Conservation Data Centre.....	19
Table 3. Sensitive ecosystems overlapping with the Project's working limits. Map ID and Map # correspond to ESA maps in Section 11.	20
Table 4. Avian Species at Risk with the potential to occur along the Project alignment. Source: BC Conservation Data Centre.....	20
Table 5. Bald Eagle nest locations in close proximity to the proposed Project footprint. Map ID and Map # correspond to ESA maps in Section 11.....	22
Table 6. Mammal Species at Risk with the potential to occur along the Project alignment. Source: BC Conservation Data Centre.....	23

Table 7. Amphibian and reptile Species at Risk with the potential to occur along the Project alignment. Source: BC Conservation Data Centre.....	24
Table 8. Plant Species at Risk with the potential to occur along the Project alignment. Source: BC Conservation Data Centre.....	25
Table 9. Watercourses within the working limits, including those crossing the proposed sewer forcemain alignment, confirmed during October 2022 site visits. Map ID and Map # correspond to ESA maps in Section 11.....	26
Table 10. Summary of known archaeological sites, potential conflict with the project and recommendations (adapted from Baseline, 2015).....	30
Table 11. Summary of potential environmental impacts and proposed mitigation measure for Project construction and operation.....	33
Table 12. Potential interactions between Valued Components and Project construction and operation works.	41
Table 13. Criteria used in assessing Project effects.	42
Table 14. Residual effects assessment for VCs interacting with Project construction and/or operation.....	44
Table 15. Cumulative Effects Assessment.....	47

LIST OF FIGURES

Figure 1. Map of proposed SES route from Union Bay to Courtenay.....	3
Figure 2. Climate normals from 1981 – 2010, Comox A station.	16
Figure 3. Locations of ESAs and ERIS records along the proposed Project alignment. Overview map.....	52
Figure 4. Locations of ESAs and ERIS records along the proposed Project alignment. Map 1 of 6.....	53
Figure 5. Locations of ESAs and ERIS records along the proposed Project alignment. Map 2 of 6.....	54
Figure 6. Locations of ESAs and ERIS records along the proposed Project alignment. Map 3 of 6.....	55
Figure 7. Locations of ESAs and ERIS records along the proposed Project alignment. Map 4 of 6.....	56
Figure 8. Locations of ESAs and ERIS records along the proposed Project alignment. Map 5 of 6.....	57
Figure 9. Locations of ESAs and ERIS records along the proposed Project alignment. Map 6 of 6.....	58
Figure 10. Kilmarnock extension and PS#3 ESA map.....	59
Figure 11. Summary of 7 known archaeological sites that are expected to trigger HCA permitting and due diligence (adapted from Baseline, 2015) Note: DJSF-36 in Union Bay was moved inland and assigned Legacy Status, so no longer requires permitting.....	31

1 INTRODUCTION

Current Environmental Ltd. (CEL) completed this Environmental Impact Study (EIS) at the request of WSP Canada Inc. (WSP), to support preliminary design efforts for the construction and operation of the South Region Royston Union Bay Sewer Extension (hereafter referred to as the “Sewer Extension South” (SES) or the “Project”). The Project aims to address failing septic systems in the Comox Valley Regional District (CVRD) South Region through the construction of a new wastewater forcemain system, local collection systems, and pump stations to connect to existing Comox Valley Sewer Service (CVSS) infrastructure. The proposed expansion of the CVSS into the South Region would bring a centralized sewage collection system to the communities of Royston, Gartley, Kilmarnock, and Union Bay. In addition to servicing these existing developed areas, sewage systems will be phased in for future developments in the area including the Union Bay Estates and K’ómoks First Nation (KFN) development lands.¹

A phased approach is proposed for the SES with short, medium, long term, and ultimate build out scenarios. Phase 1A (short term) includes the construction of Pump Stations 1 and 6 (PS#1 and PS#6), and two forcemains, conveying wastewater from PS#6 to PS#1 and from PS#1 to the Courtenay River Siphon (Figure 1). This initial phase will service sub catchment areas for PS#1 and PS#6 existing developed areas of Royston and Union Bay as well as new development areas. Phase 1B (medium term) is included in preliminary designs at the current stage and proposes construction of a third pump station (PS#3) between PS#6 and PS#1. Future and ultimate build out phases, subject to master planning and funding availability, propose the construction of five additional pump stations and associated forcemain and local collection infrastructure. Phase 1B and future phases include pump stations that have yet to be confirmed and are therefore outside of the scope of this EIS.

An EIS is required by the BC Ministry of Environment and Climate Change Strategy as part of the registration of the Project under the Municipal Wastewater Regulation (MWR). This EIS fulfills that requirement and pertains only to Phase 1A & 1B: the construction and operation of PS#1, PS#6 and their two associated forcemains, and preliminary designs for PS#3. This document was drafted in accordance with the *Environmental Impact Study Guideline – A Companion Document to the Municipal Sewage Regulation*.²

The objectives of this EIS are as follows:

- Describe existing Valued Components (VCs) along the proposed forcemain alignment and in proximity to pump station locations.
 - VCs are elements having environmental, social, cultural, economic, historical, archaeological or aesthetic importance.
 - VCs of environmental importance are further defined as Environmentally Sensitive Areas (ESAs).
- Summarize cultural resources associated with the Project, including potential areas of conflict with known archaeological sites. The Archaeological Assessment will be completed by others and summarized in the EIS.

¹ WSP Canada Inc (2022). CVRD LWMP CCO#15 – South Region Royston Union Bay Sewer Extension –Basis of Design Draft R1.0.

² <https://www2.gov.bc.ca/assets/gov/environment/waste-management/sewage/eisguidelinedec2000.pdf>

- Complete a Screening Level Contaminated Sites Assessment to identify potential areas of concern.
- Identify potential adverse impacts from construction and operation of the Project on the surrounding environment and community (including residual adverse effects) and assess the significance of those impacts.
- Recommend mitigation strategies to reduce potential adverse impacts.
- Complete a cumulative effects assessment, which considered adverse effects to VCs that may occur as a result of the interaction of the Project with other projects and activities in the area.

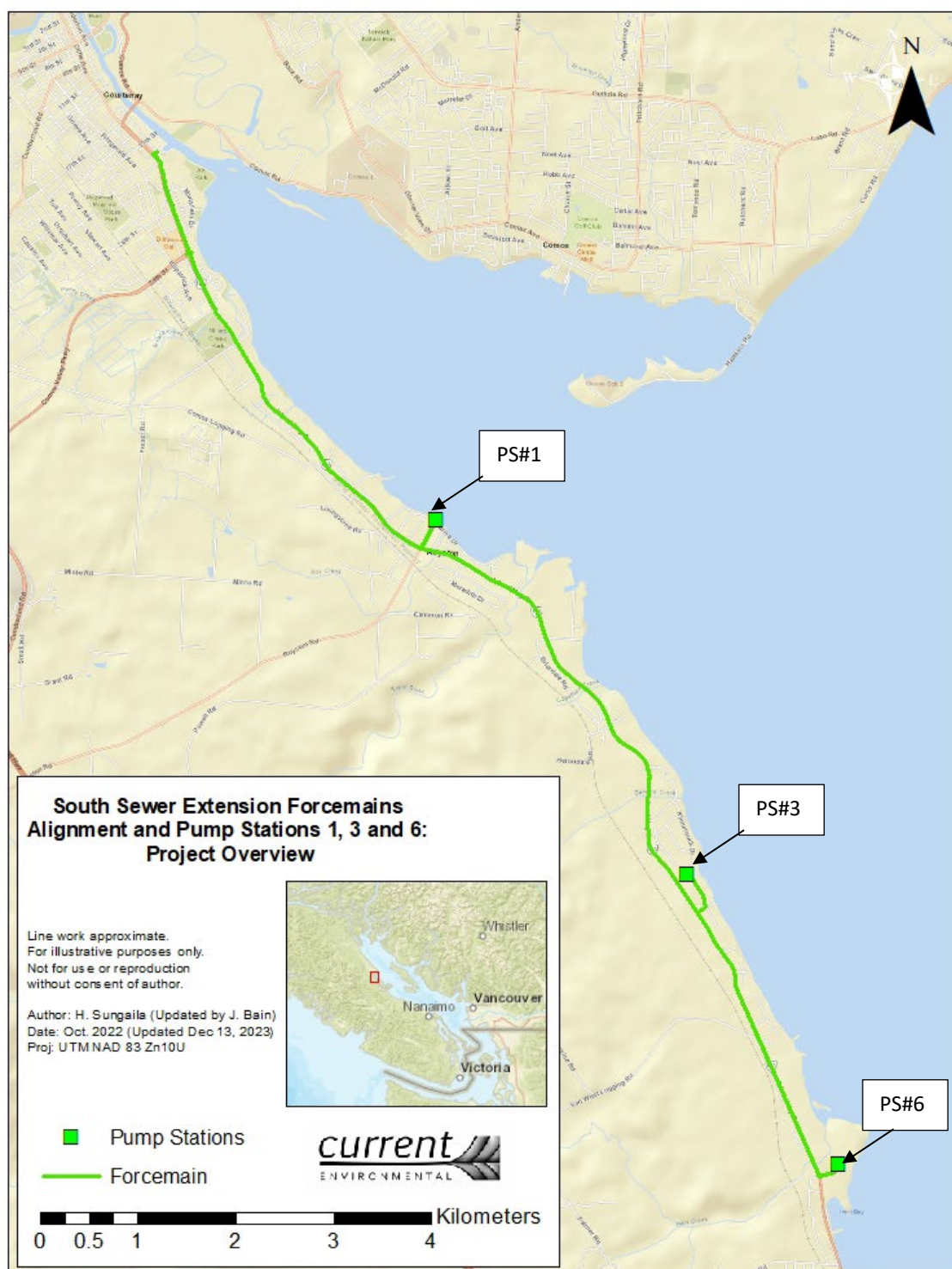


Figure 1. Map of proposed SES route from Union Bay to Courtenay.

1.1 BACKGROUND

The CVSS transports and treats more than 14,000 m³ of wastewater per day from the communities of Courtenay, Comox, CVRD, and KFN.³ The current Project, involving an extension of sewer services into the CVRD South Region, is part of a broader Liquid Waste Management Plan (LWMP) process that has been ongoing since 2018 and involves all levels of government as well as public consultation. The purpose of the LWMP is to facilitate safe operation and expansion of the CVSS as the Comox Valley population continues to grow.

The following assessments to date have been carried out by WSP to explore options for the CVRD South Region sewage collection and conveyance system:

- South Region Service Area Impacts on CVSS Conveyance and Wastewater Infrastructure, 2019
- CVRD LWMP – South Region Forcemain Cost Estimate, 2020
- Royston/Union Bay Local Collection System Options & Design Updates, 2021
- CVRD LWMP CCO#13 – South Region Conveyance Options, 2021
- CVRD LWMP CCO#14 – South Region Collection & Conveyance Options, 2022
- CVRD LWMP CCO#15 – South Region Royston Union Bay Sewer Extension –Basis of Design Draft R1.0, 2022

This EIS will build on these studies and investigate potential environmental and social impacts of the Project and potential avoidance and/or mitigation strategies.

1.2 PROJECT IDENTIFICATION

1.2.1 Applicant

Comox Valley Regional District

1.2.2 Name of Project

South Region Royston Union Bay Sewer Extension (“Sewer Extension South” (SES))

1.3 PROJECT CONTACTS

1.3.1 Project Manager/Engineer

Sinead McNally, Design Specialist – Conveyance, WSP

³ <https://www.comoxvalleyrd.ca/LWMP>

1.3.2 Environmental Assessment Contact & Project Biologist

Rupert Wong, R.P. Bio, Current Environmental

1.3.3 Project Administrator

Darry Monteith, Manager of Liquid Waste Planning, CVRD

1.4 NEED FOR THE PROJECT AND ROUTE JUSTIFICATION

The CVRD South Region currently relies on private, on-site septic systems for wastewater management. A history of failures and aging infrastructure with septic systems in the area has raised concerns over environmental impacts and potential public health issues. Extending infrastructure south to connect the South Region to the existing CVSS system would alleviate these possible impacts within existing developed areas as well as prepare for anticipated population increase in the region.

Several previous studies, assessments and design iterations have been completed for the Project (see Section 1.1). The proposed sewer alignment, as described in this EIS, represents the most direct route for the forcemains to connect Union Bay (southern extent of the SES) with the Courtenay River siphon. The proposed SES alignment follows Highway 19A for its entire length, and by locating the forcemains within the road prism, this route likely presents the lowest risk of environmental and social impacts (Section 8).

1.5 PROJECT DESCRIPTION

Phase 1A of the SES, addressed in this EIS, involves the construction of two pump stations (PS#1 and PS#6), and two forcemains, achieving wastewater conveyance from Union Bay to the Courtenay River Siphon (Figure 1), while Phase 1B includes preliminary design considerations for PS#3 and forcemain connection routing in the Kilmarnock neighborhood. Wastewater from the PS#6 sub catchment of Union Bay servicing existing and future development areas will be conveyed in a northwesterly direction approximately 8.6 km to PS#1 near Royston through a 250 mm HDPE forcemain. From PS#1 wastewater will be conveyed through another 250 mm HDPE forcemain approximately 400 m to Highway 19A, at which point the forcemain will increase to a 300 mm HDPE for the remaining 5 km to the siphon near the City of Courtenay. The increase in pipe size is to allow for integration of future phases of the SES in which a future regional pump station will be constructed. With the exception of spur connections to and from pump station locations, the main forcemain line will run entirely along Highway 19A. A spur connection to the Kilmarnock neighborhood and PS#3 has also been reviewed in this revision of the EIS to identify potential environmental constraints.

The CVRD recognizes the importance of preserving the region's natural environment, and sustainability has been a key consideration in planning and design since the Project's inception. In addressing the potential environmental

impacts, Project planners have followed the mitigation hierarchy of avoidance, minimization, restoration, and offsetting.⁴ The following general mitigation measures were considered during Project design and planning:

1) Avoid

The proposed Project footprint is located almost entirely within existing road prisms or otherwise previously disturbed sites to avoid negatively impacting natural habitats.

2) Minimize

Proposed locations for PS#1 and PS#6 are located in previously disturbed areas where environmental impacts will be minimized. To ensure protection of environmental features, it is recommended that an Environmental Management Plan (EMP)/Construction Environmental Management Plan (CEMP) or similar environmental management document be written pertaining to planned construction works. With appropriate mitigation measures in place, environmental impacts can be minimized.

3) Restore

Restoration is expected to be minimal as most of the Project footprint will be within existing road prisms. Any areas where vegetation is incidentally impacted will be re-planted with an appropriate assemblage of native species.

4) Offset

It is not anticipated that any offsetting will be required as a result of Project activities. Efforts to avoid sensitive habitat and reduce construction impacts should be sufficient to reduce overall net negative impact on biodiversity as a result of the Project.

2 FIRST NATIONS CONSULTATION

The CVSS is located within the traditional unceded territory of K'ómoks First Nation (KFN), Nanwakolas Council, Qualicum First Nation, Tla'amin First Nation, We Wai Kai First Nation, Wei Wai Kum First Nation, and Xwemalhkwu First Nation. With CVSS infrastructure spanning KFN reserve lands, KFN and the CVRD's Sewage Commission signed a Community Benefit Agreement in December 2020 (ratified in February 2021), committing the two governments to work collaboratively towards solutions for upgrading and expanding the regional sewer system. Official consultation will be ongoing with KFN Chief and Council throughout the preliminary design process, and KFN will remain an active partner in all stages of project design and implementation for the SES Project.

⁴ Government of BC (2014). Procedures for Mitigating Impacts on Environmental Values. Accessed from <https://www2.gov.bc.ca/assets/gov/environment/natural-resource-policy-legislation/environmental-mitigation-policy/em_procedures_may27_2014.pdf>.

3 PUBLIC/GOVERNMENT DEPARTMENT CONSULTATIONS & APPLICABLE LEGISLATION

In addition to consulting with First Nations, the CVRD will consult and engage with all levels of government, stakeholders with the potential to be affected, and the public throughout the development of the Project. The Project is subject to review by the Joint Technical and Public Advisory Committees, with meetings scheduled for December 2022 and September 2023.

The following table (Table 1) summarizes the permits, licences and authorizations pertaining to the environment that will be required for implementing the Project, and the respective federal, provincial, or local government department or agency associated with these regulations.

Table 1. Regulations and government agencies applicable to construction of the Sewer Extension South Project.

Level of Government	Legislation	Agency	Directive	Implications for the Project
Federal	<i>Migratory Bird Convention Act</i>	Environment and Climate Change Canada	Prohibits the killing, capturing, injuring, taking or disturbing migratory birds or their nests.	-Vegetation clearing required during the nesting bird window (Mar.15 – Aug. 15 ⁵) should be preceded by a nesting survey by a Qualified Environmental Professional (QEP).
Federal	<i>Fisheries Act</i>	Fisheries and Oceans Canada	Prohibits activities that result in harmful alteration, disruption, or destruction (HADD) of fish habitat and/or pollution of water frequented by fish.	-Project Biologist must complete a self-assessment of Project activities and submit a Request for Review if necessary. -In-stream work must respect reduced risk timing window. ⁶ -Obtain a permit for salvage of salmon species during Project construction.
Federal	<i>Species at Risk Act</i>	Environment and Climate Change Canada	Prohibits the killing, harm, harassment, or take of an extirpated, endangered or threatened species and protects critical habitat.	-Species and habitats at risk must be avoided. In areas where Species at Risk are known to occur near the route a survey by a QEP and heightened mitigation measures may be required.
Provincial	<i>Wildlife Act</i>	Ministry of Forests	Prohibits the killing, harassment or capture of wildlife, except where allowed by a permit.	-Obtain a permit for any fish (under provincial jurisdiction) or amphibian salvage required during Project construction.
Provincial	<i>Municipal Wastewater Regulation</i>	Ministry of Environment and Climate Change Strategy	Requires that notice from a Director be obtained prior to discharging municipal effluent to the environment Conduct an Environmental Impact Study that includes provisions for controlling environmental impacts during construction and operation of the wastewater facility	-Obtain notice from a Director confirming that all requirements have been met prior to beginning Project construction. -QEP must provide an Environmental Impact Study prior to beginning construction.
Provincial	<i>Contaminated Sites Regulation</i>	Ministry of Environment and Climate Change Strategy	Sets standards for acceptable levels of contaminants in soil and groundwater.	-Identify sites with potential contamination and follow proper protocol for testing and disposal of contaminated soil or groundwater.

⁵ <https://www.canada.ca/en/environment-climate-change/services/avoiding-harm-migratory-birds/general-nesting-periods/nesting-periods.html#ZoneA>

⁶ https://www2.gov.bc.ca/assets/gov/environment/air-land-water/water/working-around-water/terms_conditions_van_island.pdf

Provincial	<i>Water Sustainability Act</i>	Ministry of Forests	Requires that the Ministry of Forests be notified of any proposed changes in and about a stream for work below the highwater mark.	-Apply for a Section 11 Notification for changes of a minor nature, while more extensive changes require a Change Approval.
Provincial	<i>Weed Control Act</i>	Ministry of Environment and Climate Change Strategy	Control noxious weeds growing on land or premises.	-Identify locations of noxious weeds and provide a mitigation plan for controlling their spread.
Provincial	<i>Riparian Areas Protection Regulation (RAPR)</i>	Ministry of Land, Water and Resource Stewardship	Provincial regulation that is enforced by local government. Requires that any development proposed within 30 m of a stream or wetland (connected via surface flow to fish-bearing habitat) be assessed by a QEP who then determines setbacks from the feature(s).	-Project activities regulated under provincial Water Sustainability Act and federal Fisheries Act are exempt from municipal bylaw triggering the RAPR process.
Provincial	<i>Heritage Conservation Act</i>	Archaeology Branch, Ministry of Forests	As per Section 12 of the HCA an individual (or corporation) must not damage, excavate, alter or remove any heritage object from a heritage site, except in accordance with a permit issued by the Minister.	- Section 12 Site Alteration Permits and Section 14 Heritage Inspection Permits anticipated - Archaeological monitor anticipated for all earthworks
Municipal	<i>Tree Protection and Management Bylaw</i>	City of Courtenay (CoC)	Prohibits the cutting, removal, and damage of protected trees without a permit.	-If trees will be removed within the City of Courtenay as part of proposed SES works, a Tree Cutting Permit may be required.
Municipal	<i>Official Community Plan Bylaw – Development Permit Areas</i>	CVRD and CoC	Prohibits development in respective CVRD and CoC Development Permit Areas unless superseded by provincial or federal legislation.	-Project activities regulated under provincial Water Sustainability Act and federal Fisheries Act are exempt from municipal bylaw.
Municipal	<i>Prevention of Public Nuisances Bylaw</i>	CoC	Prohibits the making of excessive noise.	-Construction activities exempt from bylaw: 7 am – 10 pm, Mon-Sat. and 8 am – 10 pm Sun.
	<i>Noise Control Regulation Bylaw</i>	CVRD		Construction activities exempt from bylaw: 7 am – 9 pm, Mon-Sat. and 9 am – 9 pm Sun.

4 PROJECT DESCRIPTION

The following sections describe existing conditions along the proposed SES route.

4.1 COMMUNITY STRUCTURE, LAND USE & ZONING

The proposed SES alignment commences in the south within CVRD boundaries and travels north into the City of Courtenay (CoC). Community structure, land use and zoning vary throughout the Project footprint: From south to north, the SES forcemain passes adjacent to undeveloped, forested land and rural residential properties (Photo 1). Higher density residential areas are present in existing developed areas of Union Bay, Kilmarnock, Gartley, and Royston.

The SES crosses into the CoC between Monaltrie Drive and Chinook Road. Land use remains predominantly rural residential and light industrial until north of Millard Nature Park, where the area transitions to a mix of multi-dwelling residential and large and small commercial developments (Photo 2).

As the Project is almost entirely located in road rights-of-way, specific zoning and land use were not significant considerations in planning.

4.2 EXISTING INFRASTRUCTURE & TRAFFIC

Construction of the forcemains will occur entirely within road allowances, with the main length of the alignment located along Highway 19A, and short spur connections to and from pump stations located on side streets. There are many residential and business driveways along the route and concentrated commercial businesses north of Millard Nature Park. Highway 19A experiences moderate to heavy traffic within the Project area, particularly towards the north end of the SES in the CoC and especially during peak commuting hours.

There are numerous underground utilities along the Project route, which will need to be confirmed prior to construction. Careful coordination with the appropriate utilities, municipalities, and other departments within the CVRD and CoC will be required. There is also overhead hydro infrastructure located along the length of Highway 19A that will need to be considered during construction.

4.3 PROPOSED DEVELOPMENT

The following subsections describe details of the proposed development.

4.3.1 Physical Description

The two forcemains making up the SES will be approximately 14 km in total length spanning from Union Bay in the south to the Courtenay River siphon in the north and be composed of 250/300 mm diameter HDPE pipe. The proposed location of PS#6, at the southern extent of the SES, is just east of Highway 19A at Jones Street in Union Bay (Photo 3). Montrose Park in the Kilmarnock neighborhood is the proposed location for PS#3 and is a fully treed,

greenfield site (Photo 4). PS#1 is proposed to be sited in an undeveloped lot at Royston Road and Marine Drive, in the town of Royston on previously cleared sites (Photo 5).

Pump stations will include the following mechanical components:

- Duty standby pumps.
- Non-return valves.
- Isolation valves.
- Flow meters.
- Odour control units.

Additional features proposed for Pump Stations 1 (option A) and 6 include control buildings that house:

- Backup generators.
- Onboard fuel tanks.
- Electrical room containing electrical equipment and the computer control system known as Supervisory Control and Data Acquisition (SCADA).
- Odour control room.
- Public washrooms.

Pump Station 1 Option B proposes having the generator, motor control centre, electrical kiosk, and odour control in individual units as opposed to being consolidated within a building. The design of mechanical components and additional features for Pump Station 3 was not available at the time of writing.

4.3.2 Construction Details

The Project is in the preliminary design stage; therefore, detailed construction methods are currently unavailable. The following are typical methods used in sewer forcemain construction. In general, sewer forcemain construction uses traditional open-trench construction in which the trench is excavated to a depth sufficient to provide the pipe with an appropriate depth of cover. The pipe is typically situated along the trench bottom on a bed of engineered fill and the trench is then backfilled with compacted engineered fill. In areas where shallow bedrock is present, blasting is usually required to prepare the trench. Hydrostatic testing of the pipe is often undertaken at regular designated intervals.

At stream or ditch culvert crossings, the forcemain pipe will either be installed above the existing culverts where the fill above the culvert is of sufficient thickness or below the existing culvert where the fill above the culvert is of insufficient thickness, both methods avoiding the need for any impacts to the stream or ditch. For the two bridge crossings over Hart/Washer Creek and the Trent River, suspended crossings will be required.

4.3.3 Operational and Maintenance Details

The Project is in the preliminary design stage; therefore, details on operational and maintenance protocols are currently unavailable.

4.3.4 Decommissioning Plans

At present there are no plans to decommission Project works as they will be an integral part of wastewater treatment for the CVRD South Region for the long term. Should the decision be made to decommission the SES in the future, a detailed plan will be required for the safe and effective decommissioning of the forcemains, pump stations and associated facilities and infrastructure. This plan will be developed at such a time when the decision is made to decommission Project works.

4.4 PROJECT DEVELOPMENT SCHEDULE

The Project is currently in the preliminary design stage and requires several rounds of consultation with KFN and the Joint Technical and Public Advisory Committees before a development schedule can be proposed.

5 CONTAMINATED SITE HISTORY

The following section details the purpose and results of the screening level contaminated sites assessment, conducted by CEL as part of the EIS.

5.1 SCOPE AND OBJECTIVES

The purpose of the screening level review of existing contaminated sites information is to inform the CVRD of potential issues that may arise with exposure/handling of soils or groundwater during construction. Unforeseen costs and delays associated with characterization (sampling, analysis, and reporting) and handling (removal, trucking, disposal) can result from encounters with uncharacterized suspect materials. These risks can be mitigated by determining the likelihood of encountering Areas of Potential Environmental Concern (APEC) and undertaking additional study to characterize these areas, if warranted, prior to initiating physical works. This screening-level report does not constitute a Phase 1 ESA; however, accessing databases for historical/existing information on the probability of encountering contamination are common characteristics shared with this study.

This screening level review of known or potential sources of contamination along the project alignment has been completed using a combination of site-level investigation and desktop review of existing databases including custom Environmental Risk Information Services (ERIS) reporting associated with the preferred project alignment within a specified buffer area. ERIS reporting provides records from a wide variety of historical and contemporary databases associated with contaminated sites within a defined radius of project components. Within this EIS report, ERIS records have been condensed and summarized with those of particular relevance or risk factors associated with Areas of Potential Environmental Concern (APEC) that could have broader implications for the execution of the CVRD SES. Results of this analysis are provided in Section 5.2 with additional discussion in Section 5.3. This revision of the EIS includes an area of study in the Kilmarnock neighborhood including a site-specific ERIS report in Appendix C.

The conclusions and recommendations made in this report are based on the best available knowledge and information at the time of the assessment. Should additional information become available, or site conditions change, the conclusions and recommendations of this report may also be subject to change. Events occurring after

the date of the site assessment within the Project area or in an instance where the Project alignment or pump station locations have been changed are beyond the scope of work for this report.

5.2 RESULTS

Custom desktop ERIS records are based on presence within a 100 m buffer applied to the proposed alignment supplied by WSP Inc. on October 5, 2022 (Appendix B). Since 2022, the project study area has been revised to include PS#3 and the Kilmarnock neighborhood triggering an additional ERIS report retrieved on Nov. 6, 2023 (Appendix C). Note that it is anticipated all physical disturbances associated with project activities will be limited to a buffer area of approximately 30 m (see Section 6) while 100 m was selected for the assessment of APECs to capture any adjacent sites with records of contamination or other sources of concern that could conceivably migrate towards the Project area. Offsite migration is a known risk factor associated with some types of contamination. The existence of a record within the 100 m assessment area is not considered an APEC by default and discussion of the particulars of each record including likelihood of risk to the project are provided in Appendix A.

Encountering contaminated materials during the process of work may trigger worker health and safety protocols (e.g., dangerous soil vapours or physical materials handling), and/or a determination of whether suspect materials can be re-used for backfill or must be contained, characterized, and transported off-site for disposal at an approved facility. If analysis is required and concentrations of the analyte are determined to be “Hazardous Waste”, specific documentation and handling requirements will be triggered under the BC *Hazardous Waste Regulation*.

Both 2022 (Appendix B) and 2023 (Appendix C) custom ERIS reports include searches within 58 governmental and non-governmental databases. A summary of 62 ERIS records is provided in Appendix A that include all records within 100 m of the project alignment including recorded history, ownership, address, and risk to the project. Moderate to high risk levels have been highlighted in order to emphasize those areas with the greatest likelihood of contamination that could intersect project components and that could trigger additional handling/disposal requirements pending detailed analysis. Risk levels attributed to ERIS records are:

- Very low. The record is not related to a known type of environmental contaminant.
E.g., may be a record of a past report request or business selling controlled substances such as commercial pesticides.
- Low. May involve environmental discharge of a substance that is biologically active and does not include persistent contaminants.
E.g., septic system discharge or permitted process effluent.
- Moderate. Intermittent production or remediation of hazardous materials requiring offsite disposal with record of “non-high risk” site classification by the Ministry.
E.g., clean-up compliance confirmed by the Ministry but unknown offsite migration potential. Service station presence in proximity to project components without specific records of known contamination.
- High. Complex site with confirmed history of remediation with implications for offsite migration to adjacent properties. May have history of hydrocarbon or other hazardous materials spills or remediation. May have limited records of remediation or some likelihood of remaining uncharacterized soils that could affect nearby project components.
E.g., Past record of “high-risk” site classification by the Ministry, record of adjacent properties implicated in risk, or recent incomplete remediation.

High risk sites with potential intersection with project components include (see Appendix A for more detail and Figures in Section 11 for locations/proximity to Project components):

- 1) ERIS ID 43: Imperial Oil Ltd., 2650 Cliffe Ave.
- 2) ERIS ID 52: Mohawk Lubricants Ltd., 2350 Cliffe Ave.
- 3) ERIS ID 10: Shell Canada Products Ltd., 3927 Marine Drv.
- 4) ERIS ID 12: Portions of Royston Road and Marine Drv.
- 5) ERIS ID 13: 3910 Royston Road and adjacent Crown Land
- 6) ERIS ID 14: 3943 Marine Drive
- 7) ERIS ID 46 & 49: 2400 Cliffe Ave.
- 8) ERIS ID 54: 7-Eleven Gas Bar, 2295 Cliffe Ave.
- 9) ERIS ID 56: Kensington Union Bay Properties Ltd., Highway 19A, Union Bay

The application of a “High” risk rating does not constitute confirmed presence of contamination that will affect the project. Instead, it is an indication of where an APEC exists that should trigger application of a well prepared, measured, and safety-oriented approach to planning for and completing work during any activities that will disturb soils/groundwater in these areas. Special attention must be paid to maintain worker safety, presence of crews and qualified professionals prepared to identify and respond to suspect materials, and records of established procedures and worker training protocols for encounters with suspect materials or hazardous substances -prepared in advance of an encounter occurring.

Records described in Appendix A of 62 known ERIS results can be summarized according to the following database entries:

- 4 Authorization Management System (AMS) result: permits issued under the *Environmental Management Act* for discharge of waste.
- 6 Compliance and Enforcement Summary (CONV) result: summary of tickets and convictions issued by the Ministry of Environment.
- 10 ERIS Historical Searches (EHS) result: past search history of the ERIS database.
- 8 Environmental Monitoring Locations (EM) results: environmental monitoring areas maintained by the Ministry of Environment.
- 12 Waste Generators Summary (GEN) result: Any site, equipment and/or operation involved in the production, collection, handling, and/or storage of regulated wastes.
- 8 Generators – Special Waste Information System SWIS (GEN2) result: generation and transport of hazardous waste under the BC Hazardous Waste Regulation.
- 1 National Environmental Emergencies System (NEES) result: includes reports of spills of hazardous substances.
- 7 Pesticide Register (PES) result: includes list of applicants for licences (service or vendor) for use of registered pesticides.
- 1 Waste Receivers Summary (REC) result: registration of a waste receiving facility associated with the disposal of regulated waste under the Special Waste Regulation.
- 12 Retail Fuel Storage Tanks (RST) result: inventory of retail fuel outlet locations.
- 2 Scott’s Manufacturing (SCT) result: voluntary database of manufacturing facilities.
- 21 Site Registry (SREG) result: sites investigated and requiring remediation that may or may not be contaminated. Information collected by the Ministry of Environment.
- 4 Water Well Information System (WWIS) results: database of groundwater wells.

5.3 DISCUSSION

While the ERIS custom reports returned 62 distinct locations, many of the results are not indicative of contamination or potentially contaminated soils. Of the 62 results within 100 m of the Project alignment, 9 warranted a “High” risk rating. There is a broad range of timeframes and recorded details associated with sites classified as being potentially High-risk in this EIS -some of which have been subject to past remediation efforts, received past site registry “high-risk” classifications, and/or records of offsite migration. Because the nature of sub-surface hydrocarbon contamination can be dynamic and effective over long-timescales, adjacent properties, including the project alignment, may still be subject to the effects of contaminant migration in soils and groundwater even if not directly implicated in past spills or other releases of hazardous materials (Photo 4).

Overall, given the location of the indicative project alignment, mostly within road rights-of-way for linear components -the risk of ERIS results affecting these construction elements are generally low. However, where pump station construction within specific parcels is planned (i.e., PS #1, PS#3, & #6), there may be intersections with high-risk ERIS results (See Appendix A: ERIS ID #10, 12-14 for PS#1 and ERIS ID #56 for PS#6). To mitigate these risks: soil, water, and/or vapour testing can be completed to ensure that no contamination will be encountered, and if contamination is present in these areas, that the owner may make informed decisions to adjust plans and avoid these areas or prepare to define, treat and/or dispose of them appropriately. It is recommended that the results of this screening-level review of potential sources of contamination be considered in the context of final/confirmed project elements and decisions be made as to whether a Phase II ESA type sampling programme be initiated for the characterization of materials likely to be disturbed during the project.

6 DESCRIPTION OF THE ENVIRONMENT

Located in the Coastal Western Hemlock very dry maritime Eastern biogeoclimatic subzone (CWHxm1), the Comox Valley region climate is characterized by warm, dry summers and mild, wet winters.⁷ Mean annual precipitation in the CWHxm subzone is 1505 mm, with the warmest month averaging 17.0 °C and the coldest month averaging 1.8 °C (Figure 2).⁸

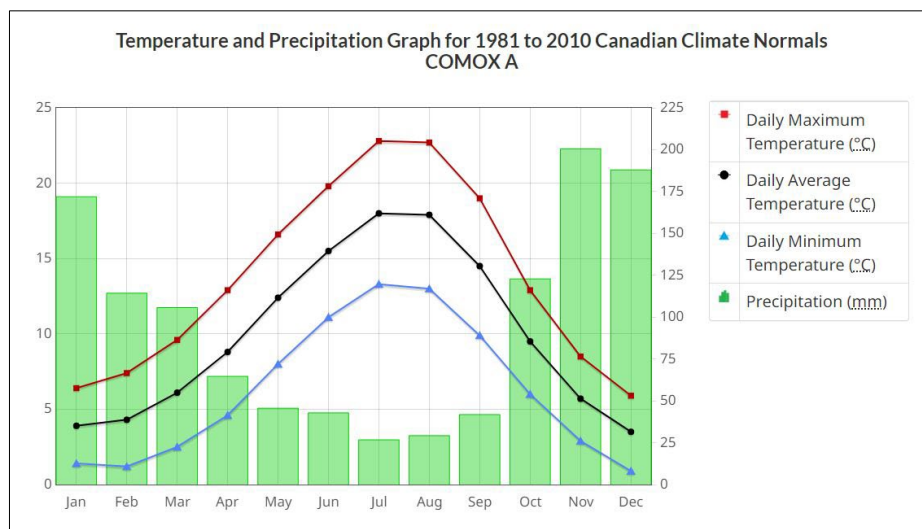


Figure 2. Climate normals from 1981 – 2010, Comox A station.⁹

The following subsections describe existing VCs, which are defined for the purposes of this report as elements having environmental, social, cultural, economic, historical, archaeological or aesthetic importance. VCs of environmental importance are further defined as Environmentally Sensitive Areas (ESAs). For the purposes of this assessment, “Project footprint” refers to the area of land permanently occupied by the sewer forcemain and pump stations. “Working limits” refers to those areas that could reasonably incur direct disturbance from construction and operation of these utilities. For the purposes of this report, a 30 m buffer on either side of the proposed sewer alignment and a 100 m buffer surrounding pump stations was used as an estimate of working limits.

⁷ Ministry of Forests and Range (1994). *A Field Guide for Site Identification and Interpretation for the Vancouver Forest Region*. Land Management Handbook Number 28. Pp 63.

⁸ BC Ministry of Forests. (1991) *Ecosystems of British Columbia*. Accessed from <<https://www.for.gov.bc.ca/hfd/pubs/Docs/Srs/Srs06.pdf>>.

⁹ Government of Canada. Climate Normals & Averages. Accessed from <https://climate.weather.gc.ca/climate_normals/results_1981_2010_e.html?searchType=stnProx&txtRadius=25&selCity=&selPark=&txtCentralLatDeg=&txtCentralLatMin=0&txtCentralLatSec=0&txtCentralLongDeg=&txtCentralLongMin=0&txtCentralLongSec=0&optProxType=decimal&txtLatDecDeg=49.64&txtLongDecDeg=-124.93&stnID=155&dispBack=0>.

Several online mapping inventories and databases were used during desktop analysis to determine whether there are known occurrences of Species at Risk (SAR) and/or known sensitive habitat features within the Project area. Databases used in this query included:

- 1) Comox Valley Regional District (CVRD) iMap;¹⁰
- 2) BC Conservation Data Center (CDC) *Species and Ecosystem Explorer*;¹¹
- 3) Federal Species at Risk Public Registry;¹²
- 4) Fisheries Information Database Query (FIDQ) database,¹³ and the BC Habitat Wizard;¹⁴
- 5) Sensitive Habitat Inventory Mapping (SHIM);¹⁵
- 6) Sensitive Ecosystem Inventory (SEI);
- 7) Wildlife Tree Stewardship Atlas (WiTS);¹⁶
- 8) Great Blue Heron (GBHE) Management Team Atlas;¹⁷

Following desktop analysis, site visits were conducted by a CEL biologist October 21 – 28, 2022, and September 15, 2023 during which the entire alignment was reviewed. Watercourses, sensitive habitats and ecosystems, as well as occurrences of species at risk within or intersecting the working limits, as identified by the background review, were the focus of field surveys. The overall objective was to assess vegetation, terrestrial, and aquatic habitat within the working limits, which included:

- Evaluation of watercourses either crossing or flowing directly adjacent to the alignment.
- Evaluation of terrestrial and aquatic habitats surrounding the pump station locations.
- Assessment of identified SEI sensitive habitats identified within the working limits.
- Assessment of native vegetation communities within the working limits.
- Identification of invasive plant species present within the working limits.

6.1 SURFACE AND GROUNDWATER

The BC interactive iMap identifies aquifers 0411 and 951 below the site.¹⁸ Aquifer 0411 is a fractured sedimentary rock aquifer, of unknown productivity and low vulnerability. It covers an area of 731.9 km² extending from Courtenay to Campbell River. Aquifer 951 is an unconfined sand and gravel aquifer (late glacial outwash), of unknown productivity and moderate vulnerability. This aquifer covers an area of 34.2 km² extending from Courtenay in the

¹⁰ Comox Valley Regional District (2020). CVRD iMap 2.2. Accessed from <<http://imap2.comoxvalleyrd.ca/imapviewer/>>

¹¹ B.C. Conservation Data Centre: CDC iMap (2022). Ministry of Environment, Victoria, B.C. Accessed from <<http://maps.gov.bc.ca/ess/hm/cdc/>>

¹² Government of Canada (2022). *Species at Risk Public Registry*. <<https://www.canada.ca/en/environment-climate-change/services/species-risk-public-registry.html>>

¹³ <https://a100.gov.bc.ca/pub/fidq/welcome.do>

¹⁴ <https://maps.gov.bc.ca/ess/hm/habwiz/>

¹⁵ Sensitive Habitat Inventory Mapping (SHIM) Atlas (2022). The Community Mapping Network. Accessed from <<http://www.cmnmaps.ca/SHIM/>>

¹⁶ Wildlife Tree Stewardship (WiTS) Atlas (2022). Community Mapping Network. Accessed from <<http://www.cmnmaps.ca/wits/>>

¹⁷ Great Blue Heron (GBHE) Management Team (2022). The Community Mapping Network. Accessed from <<http://cmnmaps.ca/GBHE/>>

¹⁸ <https://apps.nrs.gov.bc.ca/gwells/aquifers>

north to Royston in the south and Cumberland in the west. Bedrock geology in the area is identified as the upper cretaceous Nanaimo group characterized by sedimentary rocks of boulder, cobble and pebble conglomerate, coarse to fine sandstone, siltstone, shale and coal.¹⁹ Many residences and farms within the South Region obtain their drinking water from wells; however, there are only three registered groundwater wells in the vicinity of the Project (see Section 5.2 and Section 11), which are at low risk of being impacted by the Project.

Surface drainage patterns along the Project route have been historically altered by development in the region. The majority of land within the Project footprint that will be affected by construction consists of impervious surfaces (i.e., pavement or compacted gravel), with the exception of the pump station footprints.

The proposed SES route includes a total of 14 stream or ditch crossings, ranging from minor drainage ditches to important fish-bearing streams. A 15th and 16th watercourse within the working limits runs parallel to Highway 19A approximately 2 m from the edge of pavement. See Section 6.2.7 for more details on aquatic habitat.

6.2 AQUATIC AND TERRESTRIAL BIOTA

The Project route falls within the Coastal Western Hemlock very dry maritime Eastern subzone (CWHxm1), a biogeoclimatic zone home to a diverse range of habitats. Within this subzone, 39 ecological communities are recognized, 14 of which are red-listed and nine of which are blue-listed.²⁰

The proposed sewer extension route follows a major arterial road in the CoC, Highway 19A/Cliffe Avenue, and along Highway 19A in its southern extent. The route falls largely within heavily modified anthropogenic environments, although there are some less disturbed areas adjacent to the alignment, including forest and wetland habitat (e.g., Montrose Park at PS#3). There are a number of federally and provincially listed species known to occur in the vicinity of the Project. The proposed sewer route intersects with several streams and their associated riparian zones (See Section 6.2.7).

Maps of ESAs found within the working limits can be found in Section 11. The following subsections describe the ecosystems, birds, mammals, amphibians, reptiles, vegetation, invertebrates, fish, and aquatic habitats.

6.2.1 Ecosystems

Based on species composition and forest types observed on-site, a total of 13 CDC-listed ecological communities were identified as potentially occurring within the CWHxm1 BGC zone of the Project area (Table 2). There are also four habitats identified by the Sensitive Ecosystem Inventory (SEI) within or intersecting the working limits (Table 3). SEI habitats are defined as either rare or threatened ecosystems or have significant biodiversity and/or wildlife values. The seashore saltgrass / Pacific swampfire ecological community, corresponding to ECO-4 (Table 3), was observed in the foreshore adjacent to PS#1 proposed locations during site visits. Two forested wetlands and several wildlife trees are present within the area identified to potential support PS#3 at Montrose Park.

¹⁹ iMap BC (2022). Accessed from <<https://maps.gov.bc.ca/ess/hm/imap4m/>>.

²⁰ BC Species & Ecosystem Explorer. Accessed from <<https://a100.gov.bc.ca/pub/eswp/search.do>>.

Table 2. At-risk ecological communities with the potential to occur along the Project route. Source: BC Conservation Data Centre.

English Name	Scientific Name	Status			Ecosystem Group
		Global Status	Prov Status	BC List	
Sitka spruce / salmonberry Very Dry Maritime	<i>Picea sitchensis</i> / <i>Rubus spectabilis</i>	G3	S2	Red	Terrestrial – Flood: Flood (Highbench); Terrestrial – Forest: Mixed – moist/wet
Douglas-fir / dull Oregon-grape	<i>Pseudotsuga menziesii</i> / <i>Mahonia nervosa</i>	G2	S2	Red	Terrestrial – Forest: Coniferous – mesic
Douglas-fir / sword fern	<i>Pseudotsuga menziesii</i> / <i>Polystichum munitum</i>	G2G4	S2S3	Blue	Terrestrial – Forest: Coniferous – dry
Douglas-fir – western hemlock / salal Dry Maritime	<i>Pseudotsuga menziesii</i> – <i>Tsuga heterophylla</i> / <i>Gaultheria shallon</i>	G3G4	S2S3	Blue	Terrestrial – Forest: Coniferous – dry
seashore saltgrass / Pacific swampfire	<i>Distichlis spicata</i> / <i>Sarcocornia pacifica</i>	GNR	S1S2	Red	Estuarine Realm: Estuarine Marsh Class
western redcedar / slough sedge	<i>Thuja plicata</i> / <i>Carex obnupta</i>	GNR	S2S3	Blue	Terrestrial – Forest: Coniferous – moist/wet; Wetland – Mineral: Wetland Swamp
western redcedar / black twinberry	<i>Thuja plicata</i> / <i>Lonicera involucrata</i>	GNR	S1	Red	Terrestrial – Forest: Coniferous – moist/wet
western redcedar – Sitka spruce / skunk cabbage	<i>Thuja plicata</i> – <i>Picea sitchensis</i> / <i>Lysichiton americanus</i>	G3	S3	Blue	Terrestrial – Forest: Coniferous – moist/wet; Wetland – Mineral: Wetland Swamp
western redcedar / sword fern – skunk cabbage	<i>Thuja plicata</i> / <i>Polystichum munitum</i> – <i>Lysichiton americanus</i>	GNR	S3?	Blue	Terrestrial – Forest: Coniferous – moist/wet; Wetland – Mineral: Wetland Swamp
western redcedar / sword fern Very Dry Maritime	<i>Thuja plicata</i> / <i>Polystichum munitum</i>	GNR	S2S3	Blue	Terrestrial – Forest: Coniferous – mesic
western redcedar / salmonberry	<i>Thuja plicata</i> / <i>Rubus spectabilis</i>	GNR	S1S2	Red	Terrestrial – Forest: Coniferous – moist/wet
western hemlock – Douglas-fir / Oregon beaked-moss	<i>Tsuga heterophylla</i> – <i>Pseudotsuga menziesii</i> / <i>Eurhynchium oregonum</i>	G3G4	S2	Red	Terrestrial – Forest: Coniferous – mesic
western hemlock – western redcedar / deer fern	<i>Tsuga heterophylla</i> – <i>Thuja plicata</i> / <i>Blechnum spicant</i>	G2G3	S2	Red	Terrestrial – Forest: Coniferous – moist/wet

Table 3. Sensitive ecosystems overlapping with the Project's working limits. Map ID and Map # correspond to ESA maps in Section 11.

Map ID	Map #	Primary Ecosystem Type	Ecosystem Description	Secondary Ecosystem Type	Ecosystem Description	Location
ECO-1	3	Older Second Growth Forest	Large forested stands 60 – 100 years old	Older Forest	Forests older than 100 years.	South of the Trent River estuary, east side of HWY19A.
ECO-2	3/4	Riparian	Vegetated floodplains, stream and lake shores and gullies.			Right bank of the Trent River on the upstream side of the Hwy19A bridge, extending south.
ECO-3	3/4	Riparian	Vegetated floodplains, stream and lake shores and gullies.	Wetland	Marshes, fens, bogs, swamps, shallow water and wet meadows.	Trent River Estuary, downstream of the HWY19A bridge.
ECO-4	3/4	Wetland	Marshes, fens, bogs, swamps, shallow water and wet meadows.	Sparsely Vegetated	Dunes, spits and inland cliffs.	Along the foreshore at proposed PS#1 locations.

6.2.2 Birds

More than 70 different bird species have the potential to occur along the SES route, including 13 listed species (Table 4). Shrubs, grasses, and forested area along the alignment likely provide nesting and foraging habitat for a variety of avian species. The mature mixed coniferous/deciduous forest surrounding the southern half of the Project footprint provides potential habitat for cavity nesting species in large snags or veteran trees. Dense shrub thickets and tall grasses are also present along the forested section of the proposed alignment as well as extending into the denser residential and commercial areas towards the north end of the alignment, which would be suitable for several nesting passerine species. Because the proposed pump stations and forcemain route is located within lightly to heavily disturbed areas, it is likely that birds found along the route are habituated to disturbance such as noise from traffic, pedestrians, and dogs.

Table 4. Avian Species at Risk with the potential to occur along the Project alignment. Source: BC Conservation Data Centre.

English Name	Scientific Name	Status			Probability of Occurrence	Key Habitat
		COSEWIC*	SARA*	BC Status		
Band-tailed Pigeon	<i>Patagioenas fasciata</i>	SC	S1-SC	Blue	Moderate	Variety of forest types, especially pine-oak, spruce, fir, Douglas-fir, redwood, cedar, hemlock, and alder.
Barn Owl	<i>Tyto alba</i>	T	S1-T	Blue	Low	Nest in cavities in trees, buildings or cliffs. Hunts prey in open pastures.
Barn Swallow	<i>Hirundo rustica</i>	T	N	Blue	Moderate	Open habitat frequently near water. Nest in barns or other buildings, under bridges, in caves of cliffs crevices.
Common Nighthawk	<i>Chordeiles minor</i>	T	S1-T	Yellow	Moderate	Mountains and plains in open and semi-open areas, often in the vicinity of cities and towns. Nesting occurs

Great Blue Heron, <i>fannini</i> subspecies	<i>Ardea herodias fannini</i>	SC	S1-SC	Blue	Moderate	on the ground on a bare site or flat roof in an open area. Nests colonially in tall Sitka spruce, western red cedar, western hemlock, pine, red alder and black cottonwood, away from human disturbance. Forages in shallow water such as marine intertidal areas, estuaries, riparian areas, wetlands, freshwater lakes, and muskegs.
Green Heron	<i>Butorides virescens</i>	N	N	Blue	Moderate (Summer breeding)	Sloughs, rivers, lakes, wetlands, estuaries and beaches; slow moving or shallow water for foraging.
Marbled Murrelet	<i>Brachyramphus marmoratus</i>	T	S1-T	Blue	Low	Coastal areas, usually with 2 km of the shore. Nest in old-growth coastal coniferous forests.
Northern Goshawk, <i>laingi</i> subspecies	<i>Accipiter gentilis laingi</i>	T	S1-T	Red	Low	All forest types, from coniferous and mixed forests to pure deciduous forests; often associated with mature or old growth stands when they are available, primarily during the breeding season. Nests in dense canopy closure, and hunts near permanent sources of water, edges of clearings, roads, or forest openings.
Northern Pygmy-Owl, <i>swarthi</i> subspecies	<i>Glaucidium gnoma swarthi</i>	N	N	Blue	Moderate	Secondary cavity nester, dependent upon woodpecker or natural cavities. Hunts prey in forest openings and riparian corridors
Olive-sided Flycatcher	<i>Contopus cooperi</i>	T	S1-T	Blue	Moderate	Open areas (forest clearings or forest edges near natural openings like rivers and swamps) containing tall live trees or snags for perching, mixed coniferous forests and along the forested edge of streams. Nest in conifers.
Purple Martin	<i>Progne subis</i>	N	N	Blue	Moderate (Summer breeding)	Nests in tree cavities, buildings, rock crevices and, increasingly, bird houses, often in small colonies. Forages in open habitats, often near water and human settlements.
Short-eared Owl	<i>Asio flammeus</i>	SC	S1-SC	Blue	Low	Open habitats including marshlands, estuaries, and grasslands; absent from heavily forested areas. Nests on the ground under low shrubs, reeds or grasses, usually near water.
Western Screech Owl, <i>kennicottii</i> subspecies	<i>Megascops kennicottii kennicottii</i>	T	S1-T	Blue	High (several recorded occurrences in close proximity to the Project)	Semi-open woodlands to treed suburban areas, sometimes in lower elevation forests close to water. Nests in cavities within large, old trees and is strongly associated with riparian areas.

* E=Endangered, T=Threatened, SC=Special Concern, S1=SARA Schedule 1.

According to data from the Wildlife Tree Stewardship Atlas database, there are five Bald Eagle nests near the proposed sewer alignment that have observed breeding activity within the last ten years (Table 5). The CVRD eagle nest assessment area guidelines were used for this study to assess proximity to the project footprint and therefore determine which nests may incur disturbance.²¹ A nest was considered to be at risk of possible disturbance from construction works if it was located:

- 200 metres from the Project footprint if the nest tree is located on a lot equal to or greater than five hectares in area.
- 100 metres from the Project footprint if the nest tree is located on a lot that is one hectare or greater but less than five hectares in area.
- 60 metres from the Project footprint if the nest tree is located on a lot that is less than one hectare in area.

Nest locations, conditions and breeding activity were not assessed during field surveys in October 2022 or September 2023 as this is outside of the nest selection and active breeding window for Bald Eagles, and many other protected avians. Additionally, Bald Eagles often rotate between two or more nest sites within their territory; therefore, it is recommended that field surveys to assess nest usage be conducted during the breeding season coinciding with planned construction works to most accurately assess possible disturbances and establish appropriate mitigation measures. Additionally, prior to construction, the WiTS database should be referenced in the event that a new nest or one that becomes newly active again is within proximity to the Project that was not identified in this report. Heightened mitigation measures to minimize disturbance will be required if nests in close proximity to the Project footprint are in use during Project construction that should be detailed in Project EMP/CEMP.

Table 5. Bald Eagle nest locations in close proximity to the proposed Project footprint. Map ID and Map # correspond to ESA maps in Section 11.

Map ID	Map #	Bald Eagle Nest	Location	Proximity to alignment	Comments
BE-1	1	BAEA-106-093a	Approximately 150 m northwest of the end of Washer Rd.	150 m	New as of 2021, located 15 m away from BAEA-106-093.
BE-2	1	BAEA-106-715	Glover Park.	95 m	Active in 2022 breeding season.
BE-3	3/4	BAEA-106-161	Approximately 260 m east of the Highway 19A bridge over the Trent River.	135 m	Last observed active in 2012, but tree is still standing, and nest is present as of 2021. This nest is thought to be in the same nesting territory as BAEA-106-355.
BE-4	3/4	BAEA-106-355	Approximately 100 m east of the Highway 19A bridge over the Trent River.	80 m	Last observed Active in 2021 breeding season.
BE-5	5/6	BAEA-106-274	Millard Creek Nature Park	80 m	Last observed active in 2013.

²¹ CVRD (2014). Rural Comox Valley Official Community Plan Bylaw No. 337. Development permit guidelines.
<https://www.comoxvalleyrd.ca/sites/default/files/uploads/bylaws/337_rural_cv_occup_consolidated_2018_0.pdf>

The CMN Great Blue Heron (GBHE) Atlas shows no active heron colonies within 300 m of the proposed project footprint with observed activity within the last ten years. To assess heron colony proximity to the project footprint and potential disturbance, the CVRD heron colony assessment area guidelines were used for this study.¹⁸ A colony was considered to be at risk of possible disturbance from construction works if it was located:

- 300 metres from the Project footprint if the nest tree is located on a lot equal to or greater than five hectares in area.
- 200 metres from the Project footprint if the nest tree is located on a lot that is one hectare or greater but less than five hectares in area.
- 60 metres from the Project footprint if the nest tree is located on a lot that is less than one hectare in area.

Although Great Blue Heron colonies within the Project area are listed as “inactive” according to online databases, foraging habitat in the vicinity is plentiful, and it is possible that herons will return to use these historical nesting sites. In this case, heightened mitigation measures similar to those in place for Bald Eagle nests may be required.

6.2.3 Mammals

The proposed sewer alignment intersects a wide range of terrestrial and aquatic habitat types, with varying levels of development, which have the potential to support a variety of mammals species. Mammals likely to occur within the vicinity of the Project include large carnivore, ungulate, mustelid, rodent, and bat species. Six at-risk mammal species have the potential to occur within the Project area (Table 6).

It is anticipated that terrestrial mammals will largely avoid the working limits during active construction. Bats are likely to forage or roost within the Project area, particularly along riparian corridors. Roosting sites include buildings, caves and trees (especially trees with loose bark or cavity features), none of which will be disturbed during construction.

There are no anticipated impacts to mammal species or their habitat as a result of the Project. The forcemain lines are restricted to the existing road prisms, and no tree clearing for pump station construction is expected.

Table 6. Mammal Species at Risk with the potential to occur along the Project alignment. Source: BC Conservation Data Centre.

English Name	Scientific Name	Status			Probability of Occurrence	Key Habitat
		COSEWIC	SARA	BC Status		
Little Brown Myotis	<i>Myotis lucifugus</i>	E	S1-E	Blue	Moderate	Roost in human-made structures, caves and hollow trees. Forage over water, along the margins of lakes and streams, or in woodlands near water.
Roosevelt Elk	<i>Cervus elaphus roosevelti</i>	N	N	Blue	Low	Forage in valley bottoms and riparian areas and use older forests for cover against predators. Bed down along forest edges. Use mature and old-growth forests during winter when snow is deep. Seasonal

						movements can be highly individualistic, influenced by various factors including local vegetation, snow conditions, predators and past experience.
Short-tailed Weasel, <i>anguinae</i> subspecies	<i>Mustela richardsonii anguinae</i>	N	N	Blue	Moderate	Wooded areas with thick understory near watercourses. Dens in hollow log or under log, stump, roots, brush piles, or rocks.
Townsend's Big-eared Bat	<i>Corynorhinus townsendii</i>	N	N	Blue	Moderate	Woodland, immature and mature forests. Require extremely dark daytime roosting and are known to use tree cavities.
Western Water Shrew, <i>brooksi</i> subspecies	<i>Sorex navigator brooksi</i>	N	N	Red	Low	Swift-flowing mountain streams with abundant boulder and cobble substrate, other stream habitats with complex overhanging riparian vegetation, coarse woody debris and undercut banks.
Yuma Myotis	<i>Myotis yumanensis</i>	N	N	Blue	Moderate	Closely associated with water. Upland and lowland habitats, including riparian, desert scrub, moist woodlands, and forests, usually near open water. Forages over water or in open spaces over land. Roosts in caves, cliff crevices, human structures, cavities and nooks in large live trees near water.

6.2.4 Amphibians and Reptiles

Nine species of amphibian and five reptile species are known to occur within the vicinity of the Project. Four of these are provincially and federally listed species (Table 7). There are also four invasive amphibian and reptile species known to occur in the region: green frog (*Lithobates clamitans*), American bullfrog (*Lithobates catesbeianus*), red-eared slider (*Trachemys scripta*), and common wall lizard (*Podarcis muralis*).

Table 7. Amphibian and reptile Species at Risk with the potential to occur along the Project alignment. Source: BC Conservation Data Centre.

English Name	Scientific Name	Status			Probability of Occurrence	Key Habitat
		COSEWIC	SARA	BC Status		
Northern Red-legged frog	<i>Rana aurora</i>	SC	S1-SC	Blue	Moderate	Near permanent waters of stream pools, marshes, ponds, and other quiet waterbodies or damp woods and meadows during wet weather. Breeds in permanent water.
Painted turtle, Pacific coast population	<i>Chrysemys picta</i> pop.1	T	S1-T	Red	Moderate	Slow-moving aquatic habitat (streams, marshes, swamps, ponds, lakes, and reservoirs), with shallow waters with soft bottoms, basking sites, and aquatic vegetation.
Wandering Salamander	<i>Aneides vagrans</i>	SC	S1-SC	Blue	Moderate	Moist coniferous forests, along forest edge, forest clearings, talus, and burned over areas, under bark, in rotten logs, or in rock crevices.
Western Toad	<i>Anaxyrus boreas</i>	SC	S1-SC	Yellow	Moderate	Variety of aquatic and terrestrial habitats, particularly riparian areas. Breed in shallow, littoral zones of lakes, temporary and permanent pools, wetlands bogs, and fens.

6.2.5 Invertebrates

There are hundreds of invertebrate species that potentially occur within the Project footprint, including more than 60 at-risk species; however, there is limited information on their occurrences due to a lack of data. No critical or preferred habitat of invertebrate species is expected to be impacted by the Project. Should an invertebrate species-at-risk be identified during the progress of work appropriate management practices will be initiated according to measures described in the anticipated Project EMP/CEMP.

6.2.6 Vegetation

Where the proposed SES alignment passes through less developed areas, vegetation surrounding Highway 19A is characteristic of a coastal CWHxm1 mixed coniferous-deciduous forest in various stages of regrowth. Dominant tree species include Douglas-fir (*Pseudotsuga menziesii*), Sitka spruce (*Picea sitchensis*), Western redcedar (*Thuja plicata*), bigleaf maple (*Acer macrophyllum*), black cottonwood (*Populus trichocarpa*), red alder (*Alnus rubra*), and Pacific crabapple (*Malus fusca*). Understory vegetation is composed of dominant species such as thimbleberry (*Rubus parviflorus*), salmonberry (*Rubus spectabilis*), common snowberry (*Symphoricarpos albus*), hardhack (*Spiraea douglasii*), Nootka rose (*Rosa nutkana*), red-osier dogwood (*Cornus sericea*), sword fern (*Polystichum munitum*), and bracken fern (*Pteridium aquilinum*).

The lot proposed for the placement of PS#6 is largely cleared, with a perimeter of mature forest composed of the species listed above. The proposed PS#3 location in Montrose Park consists of forested upland, riparian, and wetland vegetation communities. Two locations are proposed for PS#1, both in manicured lawn areas in the backshore adjacent to the Royston Seaside Trail. The intertidal zone bordering proposed locations for PS#1 supports a salt marsh habitat abundant with seashore saltgrass (*Distichlis spicata* var. *spicata*), a provincially red-listed species (Table 8). Consistent with disturbed sites, there is also a high proportion of invasive species in PS#1 and PS#6 locations (See section 6.2.6.1 below).

Nine at-risk species have the potential to occur in the Project area, while one (seashore saltgrass) has confirmed presence within the working limits (Table 8). No incursions into the marine environment where the seashore saltgrass community is located nor vegetation clearing is expected to occur during Project works; therefore, risk of impacts to plant species is anticipated to be very low.

Table 8. Plant Species at Risk with the potential to occur along the Project alignment. Source: BC Conservation Data Centre.

English Name	Scientific Name	Status			Probability of Occurrence	Key Habitat
		COSEWIC	SARA	BC Status		
seashore saltgrass	<i>Distichlis spicata</i> var. <i>spicata</i>	N	N	Red	High (Saltgrass is abundant in the intertidal zone directly adjacent to PS#1 proposed locations (approx. 20 m away))	Intertidal zone of protected shorelines, abundant in shallow lagoons or bays enclosed by spits or other protective features which create low-energy environments for sediment accretion.
Henderson's checker-mallow	<i>Sidalcea hendersonii</i>	N	N	Blue	Moderate	Coastal estuaries, wet meadows and mudflats.

snow bramble	<i>Rubus nivalis</i>	N	N	Blue	Low	Moist forests at low to mid elevations.
flowering quillwort	<i>Lilaea scilloides</i>	N	N	Blue	Moderate	Mudflats and in shallow ponds, marshes and lakeshores at low elevations.
Nuttall's quillwort	<i>Isoetes nuttallii</i>	N	N	Blue	Low	Seasonally wet sites, typically vernal pools, ephemeral stream beds and winter seepage sites, at low elevations.
pointed rush	<i>Juncus oxymeris</i>	N	N	Blue	Low	Wet meadows and river banks at low elevations.
yellow montane violet	<i>Viola praemorsa praemorsa</i>	E	S1-E	Red	Low	Steep rocky slopes under Garry oak trees and on open grasslands.
Western wahoo	<i>Euonymus occidentalis</i> var. <i>occidentalis</i>	N	N	Red	Low	Mesic forests and thickets in the lowland and montane zones. Locally only found near the Tsolum River, 12km northwest of Courtenay.
Vancouver Island beggarticks	<i>Bidens amplissima</i>	SC	S1-SC	Blue	Moderate	Variety of wetland habitats including ditches, willow wetlands, old riverbeds, pond margins, streamsides, and tidal or non-tidal river edges.

6.2.6.1 Invasive Plant Species

Invasive plants are present along most of the forcemain alignment, although occurring sparsely for much of the route. A higher proportion of invasive species were observed surrounding proposed pump station locations, and particularly PS#1. Species identified during site visits include Scotch broom (*Cytisus scoparius*), Himalayan blackberry (*Rubus armeniacus*), Canada thistle (*Cirsium arvense*), and reed canary grass (*Phalaris arundinacea*). Careful management of invasive species will be required during work according to measures described in the future Project EMP/CEMP.

6.2.7 Aquatic Habitat

The proposed sewer forcemain alignment route crosses 14 streams or ditches and runs directly adjacent to two additional watercourses. Streams and ditches within 30 m of the Project footprint are summarized below (Table 9) and nine, which are fish-bearing, are further detailed in the following sections.

Table 9. Watercourses within the working limits, including those crossing the proposed sewer forcemain alignment, confirmed during October 2022 and September 2023 site visits. Map ID and Map # correspond to ESA maps in Section 11.

Map ID	Map #	Name	Type	Fish-bearing Status	Existing Crossing Type	Flow Regime
WC1	1	Hart/Washer Creek	Stream	Fish-bearing	bridge	Seasonal
WC2	1	Unnamed	Stream	unknown	900 mm corrugated steel pipe (CSP)	Seasonal
WC3	1	Unnamed	Stream	unknown	Crosses HWY19A twice (WC3a and WC3b): 600 mm CSP, 900 mm CSP	Seasonal

WC4	1	Spence Creek	Stream	Fish-bearing	1550 mm round concrete culvert	Year-round
WC5a	2	Argyle Creek	Stream	Fish-bearing	950 mm CSP	Year-round
WC5b	2	Argyle Creek Tributary	Stream	Fish-bearing	650 mm black plastic culvert	Seasonal
WC6	2	Ditch	Ditch	unknown	500 mm CSP	Seasonal
WC7	2	Beacon Creek	Stream	unknown	Quad CSPs (900 mm, 900 mm, 600 mm, 900 mm)	Seasonal
WC8	3	Copeman Creek	Stream	Fish-bearing	1200 mm CSP	Year-round
WC9	3	Klein Creek	Stream	Fish-bearing	Runs parallel to alignment, does not cross	Seasonal
WC10	3/4	Trent River	Stream	Fish-bearing	bridge	Year-round
WC11	4	Roy Creek	Stream	Fish-bearing	Approx. 3000 mm wide x 2100 mm tall CSP arch with concrete bottom	Year-round
WC12	4	Unnamed	Ditch	unknown	Does not cross	Seasonal
WC13	4/5	Unnamed	Stream	Fish-bearing	Twin CSPs (600 mm, 800 mm)	Year-round
WC14	5	Unnamed	Ditch	unknown	900 mm CSP, 750 mm HDPE pipe	Year-round
WC15	5/6	Millard Creek	Stream	Fish-bearing	Triple round concrete culverts (1700 mm)	Year-round

6.2.7.1 Hart/Washer Creek (WC1)

Hart Creek, also known locally as Washer Creek, originates west of Highway 19 (Inland Island Highway), flowing northeast for approximately 5.4 km before entering Baynes Sound in Union Bay, just north of the proposed PS#6 location. According to the FIDQ database, the creek is known to support coho (*Oncorhynchus kisutch*) and chum (*O. keta*) salmon, coastal cutthroat trout (*O. clarkii clarkii*) and steelhead trout (*O. mykiss*), and threespine stickleback (*Gasterosteus aculeatus*). Based on aerial photographs, the creek's riparian area appears to be largely intact with mature forest along much of its length. The section of creek spanning Highway 19A is characterized by small to large cobble substrate and established riparian vegetation consisting of a thick shrub layer and a mixed coniferous/deciduous canopy. Hart/Washer Creek is known to dry seasonally near the Highway 19A crossing.

6.2.7.2 Spence Creek (WC4)

Spence Creek flows southeast for approximately 2 km and enters Baynes Sound in the Kilmarnock area between Union Bay and Royston. According to the CVRD iMap, the creek is confirmed fish-bearing, although no information on which species are present is available. Spence Creek runs almost entirely through undeveloped areas, characterized by mature forest. Downstream of Highway 19A, the creek appears to provide good fish habitat, with cobble substrate and abundant overhanging riparian vegetation. The highway culvert is perched approximately 50 cm above stream bed grade and likely acts as a barrier precluding juvenile salmonids and some resident fish species from upstream reaches.

6.2.7.3 Argyle Creek (WC5a)

Argyle Creek originates in a wetland about 700 m west of Highway 19A that according to CVRD mapping also feeds Spence Creek. Argyle Creek flows for approximately 1.3 km before reaching Baynes Sound in the Kilmarnock area. According to the CVRD iMap, fish presence is confirmed in the creek, although species information is unavailable. Downstream of Highway 19A, the creek appears to provide adequate fish habitat, with cobble substrate and overhanging riparian vegetation in some areas, although these lower reaches of the creek run through residential neighbourhoods. The Highway 19A culvert outlet is perched approximately 40 cm above stream bed grade and likely acts as a barrier precluding juvenile salmonids and some resident fish species from upstream reaches.

6.2.7.4 Argyle Creek Tributary (WC5b)

A tributary to Argyle Creek with undefined headwaters west of Highway 19A flows for approximately 320 m in a northerly direction from a culvert under Highway 19A to its confluence with Argyle Creek near the intersection of Montrose Drive and Kilmarnock Drive. Fish presence was confirmed in Argyle Creek from past sampling and visual observation of coho fry in September 2023 and no barriers to fish passage were observed. The upper reach of this tributary stream between Highway 19A and Montrose Dr contains cobble substrates and overhanging vegetation providing adequate fish habitat. The lower reach between Montrose Park and the marine shoreline runs through culverts and channelized roadside streams. A northern branch to this tributary stream (Argyle Creek Tributary North) flows through a culvert under Highway 19A and is conveyed through a roadside ditch and residential development to its confluence with the Argyle Creek Tributary.

This tributary stream system and adjoining wetland habitat overlap with the current proposed location for PS#3 and the north end of the Kilmarnock extension forcemain (Figure 10). As these aquatic and riparian habitats are protected under the *Water Sustainability Act* and the *Riparian Area Protection Regulation*, careful consideration of how to avoid impacting aquatic habitats will be required for locating PS#3. There is potential for a pump house location in the center of Montrose Park that would be accessed from Montrose Drive; this would require additional investigations into existing ESAs including several standing wildlife trees present within the park. A discussion of aquatic and terrestrial habitats and species management considerations is provided in Section 7.1.2.7

6.2.7.5 Copeman Creek (WC8)

Copeman Creek flows for approximately 670 m in an easterly direction and enters Baynes Sound between the Kilmarnock area and Royston. According to the FIDQ database, the creek is known to support coho salmon and coastal cutthroat trout. In the area surrounding Highway 19A, Copeman Creek is characterized by large gravel to small cobble substrate and dense overhanging shrub cover, which appear to provide good quality fish habitat.

6.2.7.6 Klein Creek (WC9)

Klein Creek is a tributary of the Trent River that flows north approximately 950 m along the west side of Highway 19A before joining the Trent River. Fish habitat value in the tributary is low overall as most of its length runs through

a vegetated roadside ditch; however, the lower reach of Klein Creek meanders through the established riparian area of the Trent River and provides known rearing habitat for juvenile coho.

6.2.7.7 Trent River (WC10)

The Trent River originates over 10 km to the southwest, with numerous tributaries and wetlands contributing to river flows (Photo 6). Upper tributaries and reaches of the river meander through logging cutblocks, while the mid-section of the river winds through mature forest before being bordered by residential development for the last approximately 500 m towards the estuary. According to the FIDQ database, the Trent River and its tributaries support fish populations of coho, pink (*O. gorbuscha*) and chum salmon, as well as steelhead, rainbow (*O. mykiss*) and coastal cutthroat trout. In the section of river around the Highway 19A crossing, fish habitat quality is good. The riverbanks provide ample overhanging riparian vegetation, large woody debris and undercut banks. These features provide shade, insect drop and refugia from high flows and predators. Downstream of the bridge, the left bank is characterized by rip rap and little to no vegetation, providing poor fish habitat. Substrate in the assessed section is characterized by a mix of gravels and cobbles with large cobbles and boulders present along each bank, with some patches of suitable salmonid spawning substrate present. The presence of some bank complexity and overhanging riparian vegetation likely provides good rearing habitat for juvenile fishes.

6.2.7.8 Roy Creek (WC11)

The Roy Creek drainage includes rural properties between Cumberland and Royston east of Highway 19 (Inland Island Highway). Roy Creek flows through the town of Royston just north of the Trent River before entering Comox Harbour. Fish species observed in Roy Creek include coho, Chinook (*O. tshawytscha*), and chum salmon, and cutthroat trout. While there is a single observational record of Chinook salmon in 1993 in the FIDQ database, Roy Creek is not known to support an appreciable Chinook population. In its lower reaches surrounding Highway 19A, Roy Creek is characterized by large cobble and boulder substrate forming riffle pool sequences and mature shrub and tree cover in the riparian zone, which contribute quality habitat values for fishes.

6.2.7.9 Unnamed Creek (WC13)

This unnamed creek was added to the CVRD Sensitive Habitat Atlas mapping database after a survey conducted by CEL in 2021 confirmed the creek's location and observed fish presence. There is an approximately 110 cm drop just downstream of Highway 19A crossing that likely acts as a barrier to some species and life stages of fish. Fish habitat in the assessed portion of the creek appears adequate, with some riparian cover but limited suitable substrate to support spawning and rearing.

6.2.7.10 Millard Creek (WC15)

The Millard Creek watershed, including Piercy Creek, drains much of south Courtenay and enters Comox Harbour at Millard Nature Park (Photo 7). Millard Creek supports populations of coho, chum, and pink salmon, and cutthroat trout. According to the FIDQ database, occurrences of steelhead trout (*O. mykiss*) and Chinook salmon have also

been reported, while a single observation of lamprey (*Lampetra* sp.) in Millard Creek was recorded. Fish habitat in the lower reaches is excellent, with ample large woody debris, riffle-pool sequences, and mature mixed coniferous-deciduous riparian vegetation.

6.3 FIRST NATIONS LANDS AND ARCHAEOLOGICAL SITES

An Archaeological Overview Assessment (AOA) and Preliminary Field Reconnaissance (PFR) was conducted in 2015 by Baseline Archaeological Services Ltd. (Baseline).²² The AOA identified seven archaeological sites in conflict with the proposed project alignment. The PFR included revisits to the majority of the sites, including DjSf-11, DjSf-21, DjSf-23/39, DjSf-26 and DjSf-27. A brief description of the archaeological sites in direct conflict with the Project alignment, as well as a brief summary of known sites within 250 m of the Project alignment, is provided in the Baseline (2015) report and summarized in Table 10 and Figure 11. In correspondence with WSP in October 2022, Baseline confirmed that the only relevant update from the 2015 report is that site DjSf-36 (Union Bay) was moved inland and assigned legacy status and therefore no longer requires permitting.

Table 10. Summary of known archaeological sites, potential conflict with the project and recommendations (adapted from Baseline, 2015).

Site	Location	Description	Potential Conflict	Recommendation
DjSf-11	Central Royston / Marine Dr.	Shell midden, human remains, faunal remains, artifacts	Low. Substantially within previously disturbed road matrix	SAP, HIP, CHIP, Monitoring
DjSf-21	Central Royston / Marine Dr.	Shell midden	Low. Substantially within previously disturbed road matrix	SAP, HIP, CHIP, Monitoring
DjSf-23/DjSf-39	Kilmarnock Dr.	Shell midden	Possible. Requires AIA	SAP, HIP, CHIP, Monitoring
DjSf-25	Union Bay / Kensington	Shell midden, human remains, faunal remains, artifacts	PS#6	Avoidance / SAP, HIP, CHIP, Monitoring
DjSf-26	Union Bay / Island Highway	Shell midden, human remains, faunal remains, artifacts	Low. Substantially within previously disturbed road matrix	SAP, HIP, CHIP, Monitoring
DjSf-27	Union Bay (south)	Shell midden	Low. Substantially within previously disturbed road matrix	SAP, HIP, CHIP, Monitoring

²² Baseline (2015). Archaeological Overview Assessment and Preliminary Field Reconnaissance of the Proposed South Sewer Project. Prepared for CVRD. 26 pp.

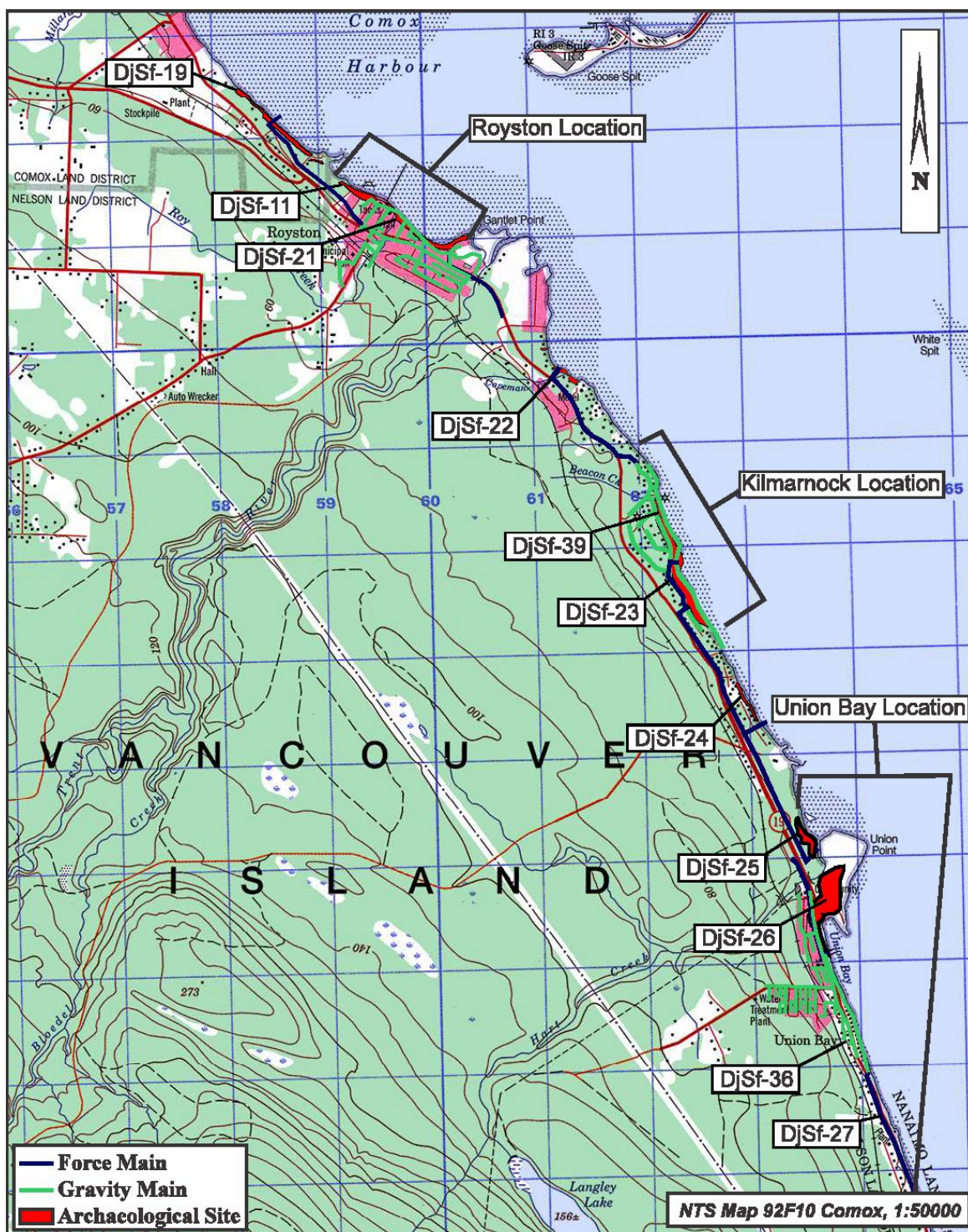


Figure 11. Summary of 7 known archaeological sites that are expected to trigger HCA permitting and due diligence (adapted from Baseline, 2015). Note: DjSf-36 in Union Bay was moved inland and assigned Legacy Status, so no longer requires permitting.

There is potential for impacts to recorded archaeological materials as well as potential for impacts to unrecorded archaeological materials and features along the proposed alignment during both site preparation and construction activities. The *Heritage Conservation Act (HCA)* provides automatic protection for recorded and unrecorded pre-1846 archaeological sites located on public and private land. Protected sites may not be altered without permits issued under the *HCA*. Section 12 Site Alteration Permits (SAP) and Section 14 Heritage Inspection Permits (HIP) are required for all works with the potential for ground disturbance within registered archaeological sites. The K'ómoks First Nation Cultural Heritage Policy²³ provides additional protection for areas that have high archaeological potential, defined as 200 m surrounding registered archaeological sites and within 200 m of all major waterways (rivers, lakes, ocean, large creeks). A Cultural Heritage Investigation Permit (CHIP) is required by KFN for all ground disturbing activities within registered archaeological sites as well as for any ground disturbance larger than 10 m² in areas of high archaeological potential.

As the Project is substantially located within a previously disturbed road prism, Baseline concludes that an Archaeological Impact Assessment (AIA) would be of limited value. Archaeological due diligence in these areas can be serviced with a KFN CHIP and concurrent *HCA* SAP and HIP. Archaeological monitoring will also be required for the Project. Additionally, an AIA may be required for the Project footprint along Kilmarnock Drive where the proposed alignment is located along the shoreline.

Proposed mitigative procedures for work conducted within an archaeological site (whether recorded or unrecorded), within areas of high archaeological potential, and within a 20 m buffer extending beyond archaeological site boundaries can be found in Appendix D. Specific mitigative strategies for the alignment along Kilmarnock Dr will be provided upon the completion of the AIA for this segment.

7 POTENTIAL ENVIRONMENTAL IMPACTS AND PROPOSED MITIGATION MEASURES

Potential impacts from Project construction have been differentiated from those of the operation phase. Potential impacts to VCs from construction and operation and their proposed mitigation measures are outlined in further detail in the following sections and summarized in Table 11.

²³ K'ómoks First Nation (2020). K'ómoks First Nation Cultural Heritage Policy. Accessed from <<https://komoks.ca/departments/lands-program/>>.

Table 11. Summary of potential environmental impacts and proposed mitigation measure for Project construction and operation.

Valued Component	Potential Impacts During Construction	Proposed Construction Mitigation Measures*	Potential Impacts During Operation	Proposed Operation Mitigation Measures*
Air quality	<ul style="list-style-type: none"> Generation of dust and emissions during construction activities 	<ul style="list-style-type: none"> General measures include dust control, equipment emissions control, and reduction of idling times. Air Quality Management Plan to be included in the EMP/CEMP 	<ul style="list-style-type: none"> Release of gases from pump stations and air release points on the forcemains Emissions from the operation of backup generators 	<ul style="list-style-type: none"> Carbon canisters are proposed for all air release points to filter waste air and reduce odours.
Ambient noise and vibration	<ul style="list-style-type: none"> Increased noise and vibration from blasting, excavations, and equipment operations 	<ul style="list-style-type: none"> General measures include restricting hours of work in accordance with municipal bylaws Noise and Vibration Management Plan to be included in the EMP/CEMP 	<ul style="list-style-type: none"> Increased noise and vibration from testing and operation of backup generators 	<ul style="list-style-type: none"> Generators should be equipped with noise-reducing enclosures.
Surface and groundwater quality	<ul style="list-style-type: none"> Generation of sediment-laden runoff Leaks of fuel, hydraulic fluid, or other chemicals to ground or water Release of particulate waste to water 	<ul style="list-style-type: none"> General mitigation measures include use of appropriate erosion and sediment control methods and supplies, and provisions for handling fuel and hazardous materials Spill Response, Erosion and Sediment Control, and Wastewater Management plans to be included in the EMP/CEMP 	<ul style="list-style-type: none"> Leaks of deleterious substance to ground or water 	<ul style="list-style-type: none"> Operational Spill Response Plan (example in Appendix E)
Soils	<ul style="list-style-type: none"> Leaks of fuel, hydraulic fluid, or other chemicals to ground or water 	<ul style="list-style-type: none"> General mitigation measures include provisions for handling fuel and hazardous materials Spill Response Plan to be included in the EMP/CEMP 	<ul style="list-style-type: none"> Leaks of deleterious substance to ground 	<ul style="list-style-type: none"> Operational Spill Response Plan (example in Appendix E)
Vegetation and terrestrial biota	<ul style="list-style-type: none"> Vegetation clearing in pump station footprints (likely none or very minimal) Physical/mechanical damage to trees (inc. wildlife trees) and vegetation along the forcemain alignment Destruction or disturbance of migratory birds or their nests Local fire on site Waste generation and containment adversely affecting the environment 	<ul style="list-style-type: none"> General mitigation measures include protocols for methods of clearing/grubbing vegetation, delineation of vegetation to be retained, and pre-clearing nest surveys conducted by a QEP if vegetation is to be cleared within the nesting bird window (Mar.15 – Aug. 15) Siting project infrastructure away from sensitive terrestrial habitat features, including wildlife trees. Waste Management and Wildlife Management plans to be included in the EMP/CEMP 	<ul style="list-style-type: none"> None anticipated 	<ul style="list-style-type: none"> n/a

Aquatic biota	<ul style="list-style-type: none"> ▪ Generation of sediment-laden runoff ▪ Leaks of fuel, hydraulic fluid, or other chemicals to aquatic habitats ▪ Release of particulate waste to water ▪ Vibration from blasting
	<ul style="list-style-type: none"> ▪ General mitigation measures include delineation of stream/ditch crossings and those running parallel to the alignment within the Working limits, provisions for handling fuel and hazardous materials, and use of appropriate erosion and sediment control methods and supplies and working within the reduced risk work window (general window for Van. Isl. is June 15-September 15²⁴) ▪ Spill Response, Erosion and Sediment Control, and Wastewater Management, and Noise and Vibration Management plans to be included in the EMP/CEMP
	<ul style="list-style-type: none"> ▪ Leaks of deleterious substance to ground or water ▪ Increase in impervious surface due to pump
	<ul style="list-style-type: none"> ▪ Operational Spill Response Plan (example in Appendix E) ▪ Pump stations should be designed to achieve no net increase in stormwater runoff. See Stormwater Management – Section 7.2.1.3.

*NOTE: Proposed mitigation measures outlined in Table 12 are general measures that can be implemented to reduce potential impacts to VCs. Once SES forcemain alignment and pump station locations are confirmed, and construction methods and timing are established, project-specific construction and operation mitigation measures will be developed and detailed in an EMP.

²⁴ https://www2.gov.bc.ca/assets/gov/environment/air-land-water/water/working-around-water/terms_conditions_van_island.pdf

7.1 CONSTRUCTION

Potential impacts associated with construction activities of this Project include but are not limited to:

1. Erosion of exposed soil and deposition of sediment into streams or ditches, leading to impacts on aquatic species and habitats.
2. Fuel and hydraulic fluid leaks or spills to terrestrial or aquatic environments.
3. Release of particulate waste to aquatic habitat.
4. Physical/mechanical damage to riparian trees and vegetation.
5. Destruction or disturbance of migratory birds or their nests due to vegetation clearing and/or hazard tree abatement.
6. Destruction or disturbance of terrestrial mammals, amphibians, and reptiles.
7. Local fire on site.
8. Waste generation and containment adversely affecting the environment.
9. The operation of heavy machinery and smaller vehicles during dry periods can lead to reduced air quality that causes disturbance of wildlife and can become a factor for health and safety of workers and the public.
10. Impacts to cultural resources during excavations.
11. Changes to groundwater hydrology leading to impacts on nearby wells.
12. Disturbance to wildlife and the public as a result of blasting and construction noise and vibrations.
13. Disruptions to vehicle, pedestrian, and bicycle traffic as a result of construction activities.

The following sub-sections detail potential environmental impacts and proposed mitigation measures for the construction phase of the Project.

7.1.1 Site and Project Preparation

Prior to active construction, the following Project preparation is recommended.

7.1.1.1 *Environmental Management Plan*

Once project details are finalized, an EMP should be created by the design team to outline ESAs, regulatory requirements, and Project-specific mitigation measures to be implemented during construction. Furthermore, the contractor hired to construct the project works may also be required to provide a Construction Environmental Management Plan (CEMP) for the project to supplement the EMP and general BMPs and measures outlined in this EIS document.

7.1.1.2 *Delineation of ESAs*

Sensitive habitats and species adjacent to the proposed route have the potential to be impacted by construction activities. In order to mitigate this impact, sensitive habitats adjacent to the Project (i.e., riparian areas, wetlands, listed ecosystems) should be carefully delineated prior to construction and no work will occur in these areas without prior approval of an Environmental Monitor (EM). Laydown areas and access points should be restricted to existing disturbed areas and no equipment or materials should be stored in the rooting zones of trees.

Any vegetation clearing required prior to construction will require an avian nest survey conducted by a Qualified Environmental Professional (QEP) if occurring within the increased risk avian breeding window from March 1 – August 31.

7.1.2 Active Construction

The following subsections detail potential environmental impacts during active construction and suggested mitigation measures.

7.1.2.1 Environmental Monitoring

The contractor will be required to hire an Environmental Monitor (EM) to oversee Project works. The EM must be a QEP or work under the supervision of a QEP with experience in environmental monitoring of pipe infrastructure construction projects. The EM will be required to be on site for a pre-construction meeting, during works around ESAs, and to respond to any environmental incidents that occur on site.

7.1.2.2 Air Quality Management

Degradation of air quality related to the Project can lead to the disturbance of wildlife and the public and can become a factor for worker safety and the safety of the public. To mitigate this impact, an Air Quality Management Plan should be included in the EMP/CEMP, including such measures as controlling dust and emissions, minimizing vehicle and equipment idling, and maintaining and inspecting equipment engines.

7.1.2.3 Noise and Vibration Management

Construction activities will cause a temporary increase in noise and vibrations within the immediate and surrounding area and could disturb wildlife and the public. All construction activities will be required to abide by local noise bylaws for construction activities. Blasting of bedrock along the SES corridor during construction activities has the potential to impact fish bearing streams or ditches, structures, groundwater wells and human health. To mitigate this impact, a Blasting Management Plan (BMP) will be required from the Contractor prior to construction.

7.1.2.4 Erosion and Sediment Control

Erosion of exposed soils and generation of sediment-laden runoff are a potential impact during construction activities. Over sustained periods, sediment-laden runoff can harm aquatic species and degrade aquatic habitats. To mitigate this impact, an Erosion and Sediment Control Plan (ESCP) should be developed either separately or integrated into the EMP/CEMP. The ESCP should outline performance standards and recommended mitigation measures to be followed by the Contractor. The ESCP will include measures such as covering stockpiles of exposed soil, installation of silt fencing, and settling and filtering of sediment-laden runoff generated as a result of construction.

7.1.2.5 Hydrostatic Testing

Hydrostatic testing of the installed pipe is anticipated to ensure the integrity of the pipe to carry the sewage without leakage. Used testing water should be discharged to the municipal sanitary system where available or to the rural ditch system. All discharged water will be in accordance with standards outlined in the BC Water Quality Guidelines.

7.1.2.6 Spill and Accident Prevention

During construction, oil and fuel used by machines and other chemicals have the potential to spill into terrestrial and aquatic habitats, harming aquatic biota. The EMP/CEMP will include provisions for handling fuels and hazardous materials as well as a detailed Emergency Spill Response Plan that outlines procedures for spill prevention and clean-up. To further reduce risk, machines being operated adjacent to streams, ditches and wetlands should contain biodegradable hydraulic fluids only. An example Spill Response Plan is provided in Appendix E.

7.1.2.7 Wildlife and Terrestrial Habitat Protection

Occurrences of birds, mammals, amphibians, and reptiles within the working limits are expected to be low as the Project footprint is located almost entirely within established roadways. An exception is the proposed location of PS#3 in Montrose Park where wetland habitats, stream crossing, and potential impacts to existing wildlife trees exist that would need careful planning and siting of project infrastructure to avoid negative impacts to aquatic and terrestrial species and habitats. With the exception of PS#3, there are no significant wetland areas within or near the working limits that may otherwise encourage amphibian and/or turtle migration through the area. To mitigate potential impacts to wildlife, a Wildlife and Terrestrial Habitat Protection Plan must be included in the EMP/CEMP.

Should any raptor or Great Blue Heron nests listed under the BC *Wildlife Act* or migratory nesting/roosting sites, such as Pileated Woodpecker, listed under the federal Migratory Bird Convention Act be identified during project planning/design or encountered during construction, the contractor/EM will apply an appropriate buffer around the nest as per guidelines specified in *Develop with Care – Environmental Guidelines for Urban and Rural Land Development in British Columbia*.²⁵ If construction activities must proceed within the established buffer, heightened mitigation measures must be implemented to minimize disturbance to the nesting birds that may include relocation of project components and/or applying for removal of the nest necessitating senior government approval/permits and compensation habitat construction.

²⁵ BC Ministry of Forests, Lands, and Natural Resource Operations. (2014). *Develop With Care: Environmental Guidelines for Urban and Rural Land Development in British Columbia*. <<https://www2.gov.bc.ca/gov/content/environment/natural-resource-stewardship/laws-policies-standards-guidance/best-management-practices/develop-with-care>>.

7.1.2.8 Waste Management

Waste generated during construction can cause harm to terrestrial and aquatic species and habitats. Construction waste will be handled appropriately in an environmentally conscious manner. A detailed Waste Management Plan will be included in the EMP/CEMP.

7.1.2.9 Invasive Species Management

Construction activities can lead to the spread of invasive species through movement of contaminated equipment, organic waste, or fill. Because the Project footprint is located largely within existing road prisms, the likelihood of disturbing invasive vegetation is low. Should invasive species be encountered during construction activities, measures for preventing their spread include thorough inspection and cleaning of equipment, inspection of fill, and appropriate removal and disposal. The EMP/CEMP will include a detailed Invasive Species Management Plan.

7.1.2.10 Soil Management

A Soil Management Plan must be developed by the Contractor for excavations occurring in known contaminated sites, when a new contaminated site is discovered, or when soil is exported from the site. Excavations occurring in areas not known to be contaminated will follow Chance Find Protocols, detailed in contract documents. If contaminated soil is discovered during Project activities, work must be stopped, and the EM and appropriate authorities contacted. Before exporting soil and importing fill, it must be verified that the material meets the appropriate CCME Soil Quality Guidelines (Residential/Parkland, Commercial or Industrial).

7.1.3 Post-Construction Restoration

Pump station construction will minimally impact terrestrial vegetation, potentially including shrubs and trees, although unlikely. Some temporary disturbance of vegetated areas along the forcemain alignment is also anticipated during construction. Disturbed areas will be revegetated with an appropriate assemblage of native species upon completion of Project works, and protected trees will be replaced as per municipal bylaws. Any impacts to native vegetation outside of the working limits will also be restored to as near pre-disturbance conditions as possible.

7.2 OPERATION

Potential environmental impacts associated with operation of the SES include but are not limited to:

- Reduced air quality.
- Increased ambient noise and vibration.
- Increased stormwater runoff.
- Spills or leakage of sewage to terrestrial or aquatic environments.

7.2.1 Routine Operation

Environmental impacts from routine operation have been differentiated from potential impacts as a result of accidents and malfunctions (Section 7.3). Routine operation includes maintenance activities detailed in Section 4.3.3. Impacts from routine operations are expected to be minimal and are described in further detail along with proposed mitigation measures below.

7.2.1.1 Air Quality Management

Air quality and odour management will be an ongoing challenge at pump station locations due to organic and inorganic compounds contained in the wastewater being degraded by anaerobic, anoxic, and aerobic biological treatment processes. Preliminary pump station designs propose the use of active carbon adsorption columns for odour control.

7.2.1.2 Noise and Vibration Management

Temporary impacts on ambient noise and vibration are anticipated from the operation of backup generators at pump stations. Generators should be equipped with sound-attenuated enclosures in order to mitigate this impact and comply with municipal noise bylaws.

7.2.1.3 Stormwater Management

Pump station footprints will increase impervious surfaces, leading to an increase in stormwater runoff. To compensate, pump station designs should include drainage features such as bioswales or raingardens and settling chambers.

7.3 ACCIDENTS AND MALFUNCTION

Potential environmental impacts associated with accidents and malfunction of the SES include but are not limited to:

- Spills or leakage of sewage into waterbodies, leading to impacts on aquatic and terrestrial species and habitats.
- Spills or leakage of sewage into the ground, leading to contamination of groundwater resources.

The following subsections outline design features that should be considered during subsequent design stages to reduce the probability of a spill, and a spill response plan in the event that a spill should occur.

7.3.1 Spill Prevention

To mitigate the effects of accidents and malfunction, the SES forcemains and pump stations should be equipped with safety features that typically include:

- Isolation valves.
- Air release valves.
- Combination and air/vacuum valves.
- Pig launching and retrieval assemblies to monitor the integrity of the pipeline.

Additionally, pipe joints should be situated well away from waterbodies so that in the event of a leakage from a joint there would not be a direct discharge into a waterbody. The pipeline and connecting joints should be tested hydrostatically with water to ensure that the integrity of the pipeline is fulsome before allowing wastewater materials to be conveyed through the forcemains.

These safety components and design features can significantly reduce the likelihood of an inadvertent release and the amount of material spilled in the event of an accident or malfunction.

7.3.2 Spill Response

Accidental spillage of fuels, lubricants or hydraulic fluid will be immediately contained, removed, and disposed of in accordance with the Spill Response Plan developed for the project (example in Appendix E), as well as guidelines stipulated by the Environmental Protection Branch of the Federal Department of the Environment (DOE/EP) and the provincial Ministry of Environment and Climate Change Strategy. Significant spills (exceeding 100 L) to ground or spills of any quantity to water must be reported promptly to the Emergency Management BC (EMBC) line at 1-800-663-3456. In accordance with Section 36(3) and Sections 38 (4 thru 7) of the Federal *Fisheries Act*, the Contractor will also have a duty to mitigate, notify and report any deleterious substance spill (any volume) to water to the Fisheries and Oceans Canada (DFO) line at 1-800-465-4336.

8 EFFECTS ASSESSMENT

The following descriptions of potential effects of Project construction and operation on VCs are based on existing conditions in the Local (lands within 30 m of the forcemain alignment and 100 m of the pump stations) and Regional Area (CVRD and CoC municipalities) and impacts that can be reasonably anticipated as a result of Project construction and operation.

The Project has been routed almost entirely along existing road prisms to reduce environmental impacts and risk to VCs. The only component proposed for outside of a road prism are the pump stations, which are primarily planned for previously disturbed sites -PS#3 being the exception within the greenfield site of Montrose Park. Historic and current commercial, industrial, and residential development has already resulted in adverse impacts to ecological integrity and function of the PS#1 and PS#6 areas. Air quality, ambient noise and vibration, traffic patterns and viewsapes have also been impacted by historic and current developments.

Potential interactions between VCs and the various components of Project construction and operation are assessed in Table 12. In this assessment, VCs likely to experience a residual harmful effect despite mitigation measures are identified. Those VCs identified as being likely to experience a residual harmful effect are given detailed consideration in the Residual Effects Assessment (Section 8.1) and Cumulative Effects Assessment (Section 8.2).

Table 12. Potential interactions between Valued Components and Project construction and operation works.

	Valued Component (VC)							
Project Component	Air quality	Ambient noise and vibration	Surface and groundwater quality	Soils	Vegetation and terrestrial biota	Aquatic biota	Mobility	Viewscape
Construction								
<i>Vegetation Clearing (if occurring, will be minimal)</i>	X	X	X	X	X	X	X	X
Blasting	X	X	X	X	X	X	X	X
Forcemain construction outside of riparian areas	X	X	X	X	X	X	X	X
Forcemain construction within riparian areas	X	X	X	X	X	X	X	X
Pump station construction	X	X	X	X	X	X	X	X
Vehicle/Machinery Operation	X	X	X	X	X	X	X	X
Operation								
Forcemain operation	X	X	X	X	X	X	X	X
Pump station operation	X	X	X	X	X	X	X	X
Unlikely	With mitigation measures in place it is unlikely that project components will interact with VCs. No additional consideration required.							
Possible	With mitigation measures in place it is possible that project components may interact with VCs. Appropriate mitigation should result in no residual harmful effect. Further consideration recommended.							
Likely	With mitigation measures in place it is still likely that project components will interact with VCs that could result in some residual harmful effect. Detailed consideration required (see Tables 13 & 14 and sections 8.1 & 8.2).							

8.1 RESIDUAL EFFECTS

For the purposes of this report, residual effects are those effects to VCs anticipated to remain after the application of mitigation measures recommended in this report. Project components identified in Table 12 as being likely to result in a residual harmful effect were those examined in the residual effects assessment (Table 14). The following criteria, based on a 2014 EIS by Tera Environmental,²⁶ were used in assessing environmental effects of the Project (Table 13).

Table 13. Criteria used in assessing Project effects.

Assessment Criteria		Definition
Spatial Context of Effect		
Project footprint		Land area permanently occupied by the forcemain lines and pump stations.
Temporary Workspace		Areas temporarily used during construction, including equipment and material storage or vehicle access.
Local Area		Lands within 30 m of the forcemain alignment and 100 m of the pump stations (working limits).
Regional Area		The surrounding area in CVRD and CoC municipalities.
Temporal Context of Effect		
Duration (length of time a residual effect will last)	Short-term	Event duration is less than or equal to one year.
	Medium-term	Event duration is longer than one year, but less than or equal to five years.
	Long-term	Event duration extends longer than five years.
Frequency (How often event causing residual effect will occur)	Occasional	Event occurs intermittently.
	Periodic	Event occurs intermittently, but repeatedly over the construction and operations period.
	Continuous	Event occurs continually over the assessment period.
Reversibility (Will identified effects cease to be a concern?)	Yes	The potential effect can be reversed.
	No	The potential effect cannot be reversed, despite mitigation efforts.
Magnitude of the Effect		

²⁶ Tera Environmental Consultants. (2014). *Environmental Impact Study of Core Area Wastewater Treatment Program Facilities: Terrestrial Environment - Volume III*.

Negligible	Potential effect is barely detectable.
Low	Potential effect is detectable but below established or derived environmental standards or thresholds.
Moderate	Potential effect is detectable but meets established or derived environmental standards or thresholds.
High	Potential effect exceeds established or derived environmental standards or thresholds.
Beneficial or Adverse effect	
Beneficial	The resource or topic under study would be improved as a result of the Project.
Adverse	The resource or topic under study would be worsened as a result of the Project.
Significance of the Effect	
Significant	The identified effect would have a combination of characteristics that render it unacceptable to the public, regulators, other interests, or that exceeds standards or contravenes legal requirements.
Less than significant	All other effects that are not considered significant.

Table 14. Residual effects assessment for VCs interacting with Project construction and/or operation.

Valued Component	Project Phase	Project Component	Spatial Context	Duration	Frequency	Reversibility	Magnitude	Significance of Residual Effect
Mobility	Construction	<ul style="list-style-type: none"> ▪ Forcemain construction ▪ Pump station construction 	Regional	Medium-term – Through construction of the Project	Continuous	Reversible – mobility will return to previous condition when Project construction is complete.	Moderate – road closures will be temporary and detour routes available where possible.	Less than significant
Viewscape	Construction and Operation	<ul style="list-style-type: none"> ▪ Pump station construction ▪ Pump station operation 	Local	<ul style="list-style-type: none"> ▪ Medium-term – Through construction of the Project ▪ Long-term – During ongoing operation of the pump stations. 	Continuous	Irreversible – Pump stations will permanently alter the viewscape in the Local Area.	Moderate – PS#1 proposed locations are in the backshore of a popular recreation trail and beach access point, within a residential neighbourhood.	Less than significant

8.1.1 Mobility

Construction activities will largely be moving operations as the sewer line is installed along the alignment; therefore, traffic disruptions in each area will be temporary. All Project activities will adhere to Ministry of Transportation and Infrastructure Traffic Management Manual for mitigating impacts to traffic during construction. Residual effects of Project construction on mobility are expected to be regional, medium-term, continuous, reversible, moderate, and **less than significant**. No residual effects on mobility from Project operation are expected.

8.1.2 Viewscape

Project construction will result in temporary disruptions to the viewscape of nearby residences and the general public. As described above, forcemain construction will be moving as the sewer is installed along the alignment; therefore, viewscape effects from this component will be momentary. Pump station construction will have the longest sustained impact on residential viewsapes, with construction likely to take several months to complete. Pump Station 6 is located in a previously cleared lot that has already significantly impacted the viewscape. Future residential construction is anticipated in the surrounding area. Additionally, the lot is located adjacent to Highway 19A and away from residential and recreational areas. The two proposed locations for PS# 1 are in the backshore of a popular recreation trail and beach access point, within a residential neighbourhood. Construction of PS#1 will have a substantially greater effect on local viewsapes compared to PS#6.

There is little that can be done to mitigate impacts to local viewsapes during construction. These impacts are an unavoidable part of construction projects; however, because these impacts are local and short-term, they are not considered to be significant. Residual effects of Project construction on viewsapes have been identified as local, medium-term, continuous, irreversible, moderate, and **less than significant**.

Residences near PS#1 will have their viewsapes permanently altered as a result of Project operations; however, pump stations can be designed with aesthetics in mind, such as being constructed to be low profile and planted with vegetative screening after construction to reduce impact on viewsapes. With design mitigation measures in place, impacts to viewsapes are expected to be local, long-term, continuous, irreversible, moderate, and **less than significant**.

8.2 CUMULATIVE EFFECTS

Cumulative effects for the purposes of this report refer to the effects that may result from the operation of the Project interacting with existing or foreseeable projects and activities within the Local and Regional Areas. The purpose of the cumulative effects assessment is to identify any potential effects to VCs that may result from these interactions. Only two VCs were identified as being likely to experience a residual effect from Project construction: Mobility and Viewsapes (Table 12). These were the only VCs included in the Cumulative Effects Assessment, summarized in Table 15.

The Comox Valley is currently experiencing moderate rates of growth, and commercial and residential development is expected to continue in the Local and Regional areas surrounding the Project. The largest development project currently underway in the area is at the Union Bay Estates (formerly known as Kensington Island Properties)

development in Union Bay. This development area covers 309 hectares directly north of the lot proposed for the PS#6 location and is anticipated to provide 2889 residential units (houses, secondary suites, townhouses, apartments, etc.) as well as commercial, institutional, and recreational components.²⁷

In combination with SES construction, additional projects and activities in the area such as smaller residential and commercial developments, municipal infrastructure works, and local and commuter traffic will interact to impact VCs in the region, as assessed below in Table 15.

²⁷ <https://www.comoxvalleyrd.ca/projects-initiatives/past-current-projects/union-bay-estates>

Table 15. Cumulative Effects Assessment.

Interacting Project/Activity	SES Project Phase	VC Interaction	Likelihood of Interaction	Cumulative Effect	Significance of Cumulative Effect
Union Bay Estates (UBE)	Construction	<ul style="list-style-type: none"> ▪ Mobility ▪ Viewscales 	High – UBE construction is ongoing and will likely overlap with SES Project construction.	<ul style="list-style-type: none"> ▪ Traffic disruptions ▪ Disruption of viewscales during construction works. 	Less than significant
	Operation	<ul style="list-style-type: none"> ▪ Viewscales 	High – UBE construction might still be underway during operation of the SES.	<ul style="list-style-type: none"> ▪ Permanent alteration of viewscales. 	Less than significant
Commercial and Residential Development	Construction	<ul style="list-style-type: none"> ▪ Mobility ▪ Viewscales 	High – The CVRD and CoC are experiencing moderate rates of development. It is probable that other construction projects will interact with SES construction.	<ul style="list-style-type: none"> ▪ Traffic disruptions ▪ Disruption of viewscales during construction works. 	Less than significant
	Operation	<ul style="list-style-type: none"> ▪ Viewscales 	High – Future residential development may occur in the area surrounding PS#1. It is likely that development additional to UBE currently underway will occur in the vicinity of PS#6.	<ul style="list-style-type: none"> ▪ Permanent alteration of viewscales. 	Less than significant
Municipal Infrastructure Works	Construction	<ul style="list-style-type: none"> ▪ Mobility ▪ Viewscales 	High- infrastructure works are likely to occur throughout the Local and Regional areas during the Project construction window.	<ul style="list-style-type: none"> ▪ Traffic disruptions ▪ Disruption of viewscales during construction works. 	Less than significant
	Operation	No interaction	n/a	n/a	n/a
Commuter traffic	Construction	<ul style="list-style-type: none"> ▪ Mobility 	High – due to the Project's location almost entirely along Highway 19A, moderate to heavy vehicle traffic is expected.	<ul style="list-style-type: none"> ▪ Traffic disruptions 	Less than significant
	Operation	No interaction	n/a	n/a	n/a

8.2.1 Mobility

As the SES infrastructure is substantially located within existing road rights-of-way, the Project will have cumulative effects on mobility in the Local and Regional areas throughout the construction phase. With forcemain infrastructure being located entirely subsurface, there will be no cumulative effects or interactions with other projects and activities in the area during operational phases.

8.2.2 Viewscapes

More than 99% of the overall SES footprint is subsurface and located within existing road rights-of-way. As described in Section 8.1.2 the balance of the SES associated with pump stations will have less than significant residual effects on viewscapes with mitigation measures in place. Construction and operation of PS#6 will have greater cumulative effects on viewscapes compared to PS#1 due to interacting effects of the UBE development adjacent to PS#6.

8.3 DECOMMISSIONING

At present there are no plans to decommission the Project as it will be a key component of wastewater management for the CVRD South Region for the long term. Should the Project require decommissioning in the future, a detailed plan will be developed for the safe and effective decommissioning of the forcemains, pump stations and associated facilities and infrastructure. This plan will be developed at such a time when the decision is made to decommission Project works. Decommissioning will be in accordance with applicable legislation that is in effect at the time with no anticipated site alterations that will cause cumulative negative effects.

9 CONCLUSIONS

The proposed South Region Royston Union Bay Sewer Extension described in this report will form an integral component of the CVSS that will extend sewage services into the CVRD South Region and reduce reliance on aging septic infrastructure. Based on the current study, the construction and operation of the Project can be completed without significant environmental, social, or cultural effects.

According to the screening level contaminated sites assessment, nine APECs categorized as “High” risk are located within 100 m of the Project footprint, three of which have the potential to interact with the Project -two of which are located adjacent to proposed PS #1 & #6, and the third along the pipeline on Highway 19A in the City of Courtenay. To mitigate risks at these locations, soil, water, and/or vapour testing can be completed to ensure that no contamination will be encountered. The owner may be required to adjust design plans to avoid any areas of contamination or otherwise define, treat and/or dispose of contaminants appropriately. It is recommended that the results of this screening-level review of potential sources of contamination be considered in the context of final/confirmed Project elements. A Phase II ESA type sampling program may be necessary for the characterization of materials likely to be disturbed during the Project.

In general, risks to ESAs from Project construction and operation are low given the majority of the proposed route alignment follows existing road rights-of-way. Minor terrestrial incursions are expected for existing cleared areas proposed for Pump Stations 1 and 6, although no vegetation clearing is anticipated. The highest risk activities to ESAs

are likely to be aquatic habitat and culvert crossings, and impacts to the forested location proposed for Pump Station #3 where wetland, aquatic, riparian and wildlife ESAs have been recorded. Risks to these ESAs can be mitigated in part locating project components in areas that do not intersect or otherwise negatively impact protected habitats or their setbacks, and by scheduling works to coincide with reduced risk work windows for fish, periods of low flow, and calm weather. Proper site and fish isolation with clean flows diverted around work areas as necessary will also reduce negative impacts to aquatic habitats. Protection of ESAs like species at risk and avian nests can be achieved by establishing suitable buffers that are clearly delineated. Additional mitigation measures should be detailed in project-wide and site-specific Environmental Management Plan developed prior to construction to address potential environmental impacts introduced in Section 7 and any others that may be identified through the process of detailed design, which will reduce risk to all ESAs if implemented correctly.

In assessing effects of Project construction and operation on VCs, it was determined that Project activities would interact with mobility and viewscape VCs. These two VCs were further investigated in regard to residual and cumulative effects. During Project construction, traffic delays and congestion are likely to occur and active construction will be visible, causing temporary negative impacts on mobility and viewsapes. Permanent changes to viewsapes in the areas surrounding pump station locations will result. While likely to occur, residual effects and cumulative effects, resulting from interactions between the SES and other projects and activities in the vicinity, were assessed to be “less than significant.”

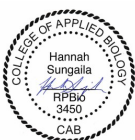
With over 98% of the permanent Project footprint located subsurface and within existing road prisms, overall impact of the Project on the environment and community is anticipated to be minimal. Permanent alteration to the landscape will occur at three pump station locations; there are previously cleared areas within the proposed parcels that could accommodate the footprints of Pump Stations 1 and 6 without significant impacts to existing biota, while the proposed location of Pump Station 3 will require further investigation and delineation, and careful planning and design to avoid contravention of legislation protecting ESAs. Assuming negative impacts to ESAs can be avoided and these parcels can be cleared of potential interactions with contaminated materials, little to no environmental impacts are anticipated.

We trust this document meets the requirements for an Environmental Impact Study outlined under Section 19(1) of the *Municipal Wastewater Regulation* under the *BC Environmental Management Act*. Please contact the undersigned with any queries.

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Rupert Wong, R.P.Bio.

10 DISCLAIMER

This report was prepared exclusively for the WSP Canada Inc. and the Comox Valley Regional District by Current Environmental Ltd. The quality of information, conclusions and estimates contained herein is consistent with the level of effort expended and is based on: i) information available at the time of preparation; ii) data collected by the authors and/or supplied by outside sources; and iii) the assumptions, conditions and qualifications set forth in this report. This report is intended to be used by WSP Canada Inc., the Comox Valley Regional District, and the partners of this Project only, subject to the terms and conditions of its contract or understanding with Current Environmental Ltd. Other use or reliance on this report by any third party is at that party's sole risk.

11 FIGURES

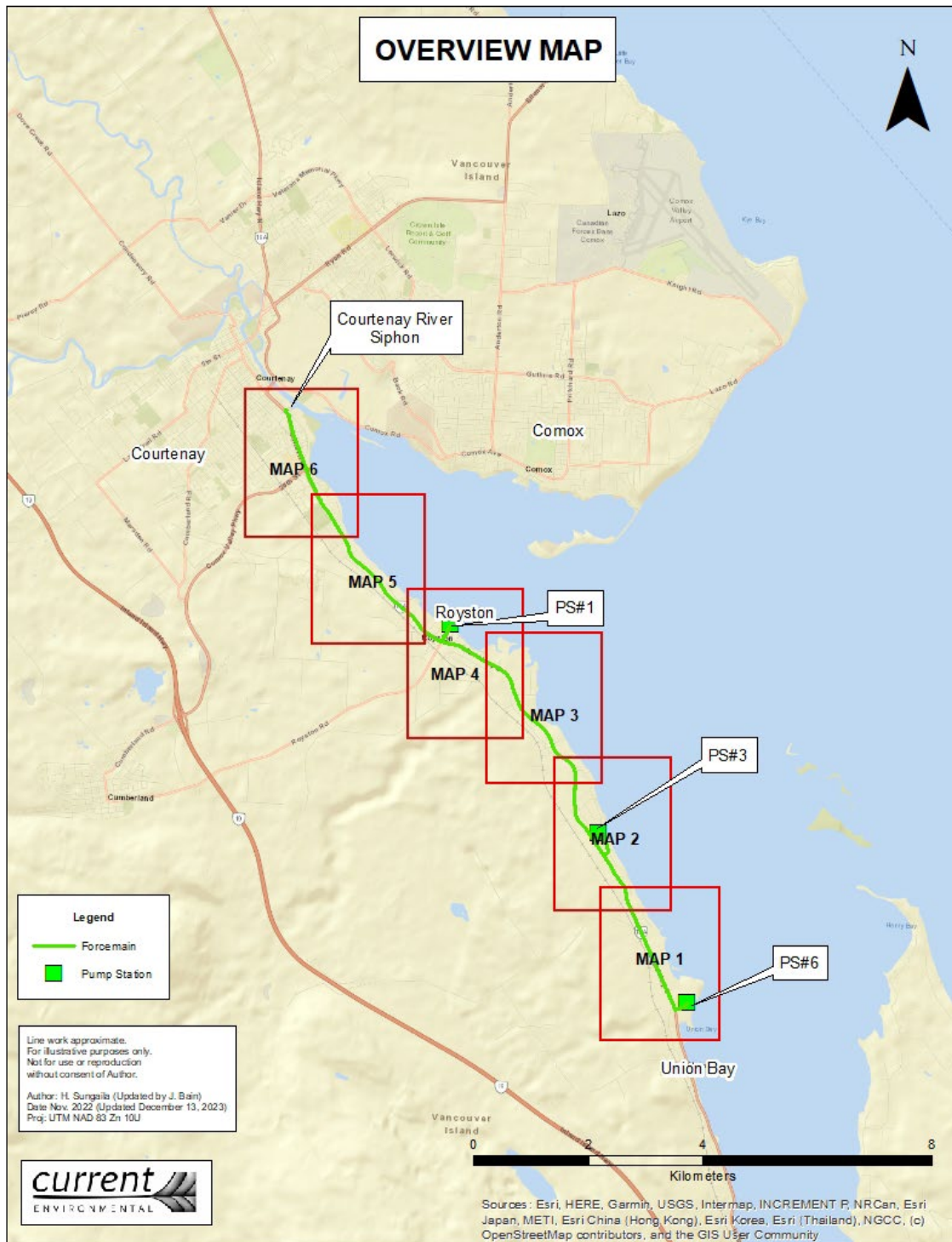


Figure 3. Locations of ESAs and ERIS records along the proposed Project alignment. Overview map.

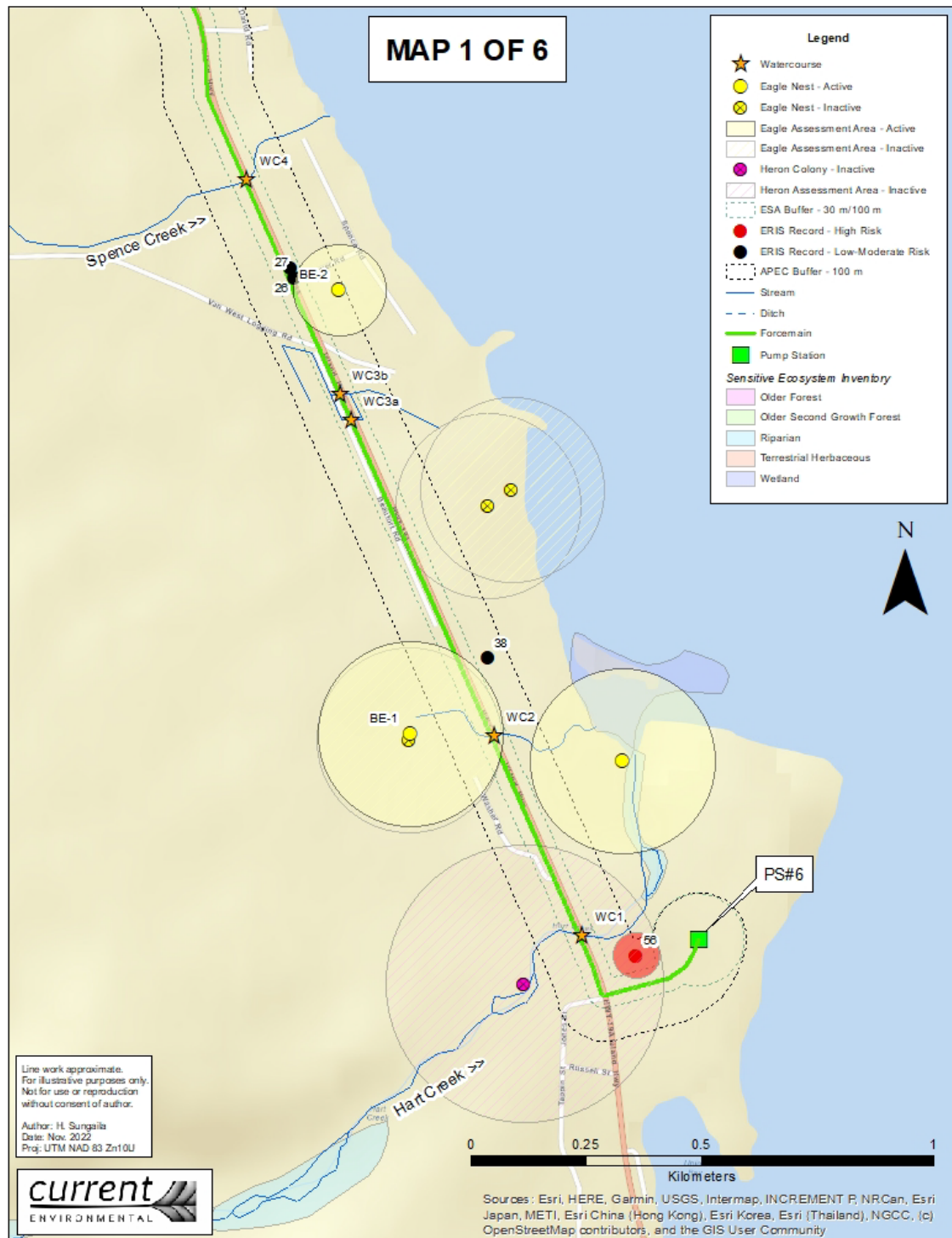


Figure 4. Locations of ESAs and ERIIS records along the proposed Project alignment. Map 1 of 6.

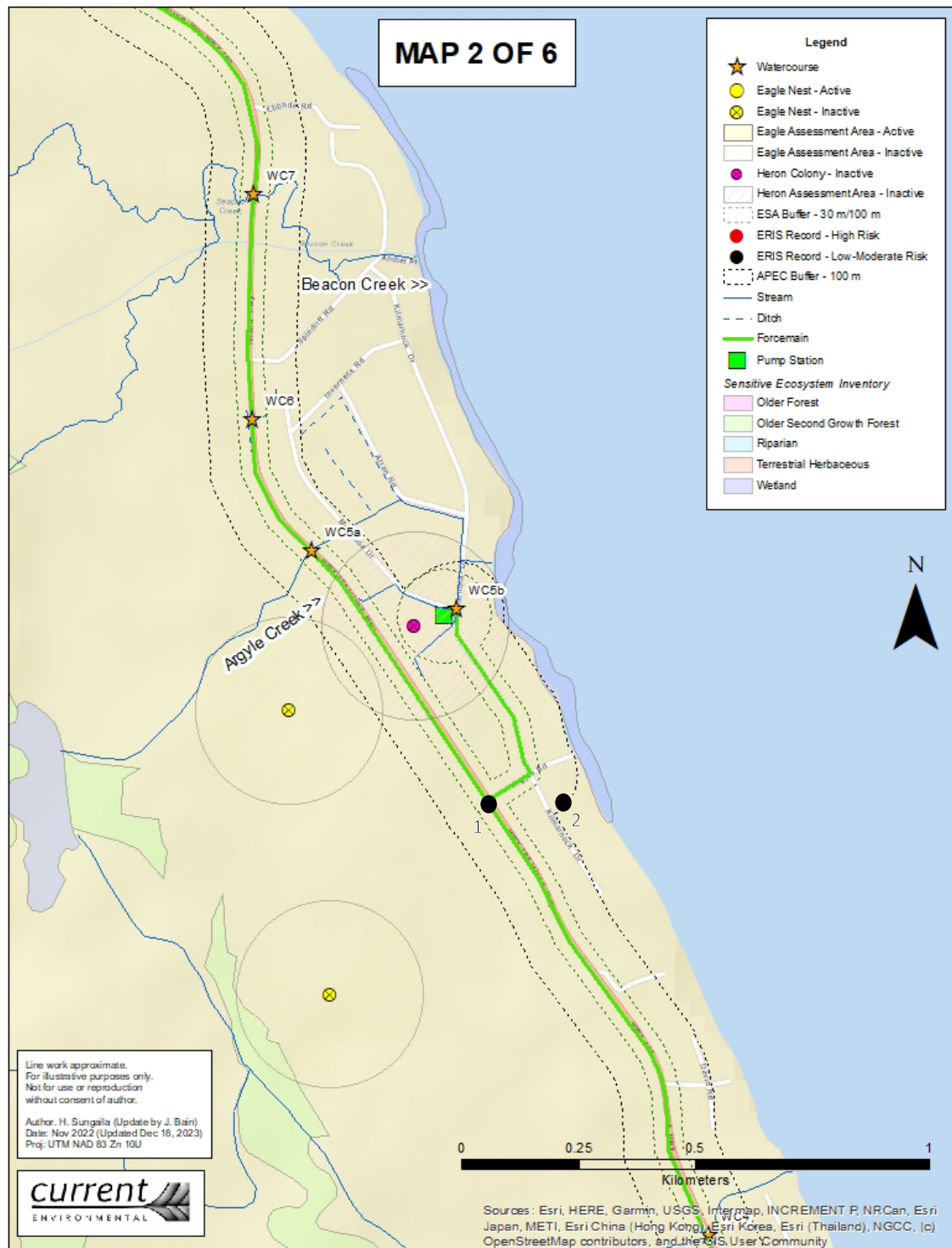


Figure 5. Locations of ESAs and ERIS records along the proposed Project alignment. Map 2 of 6.

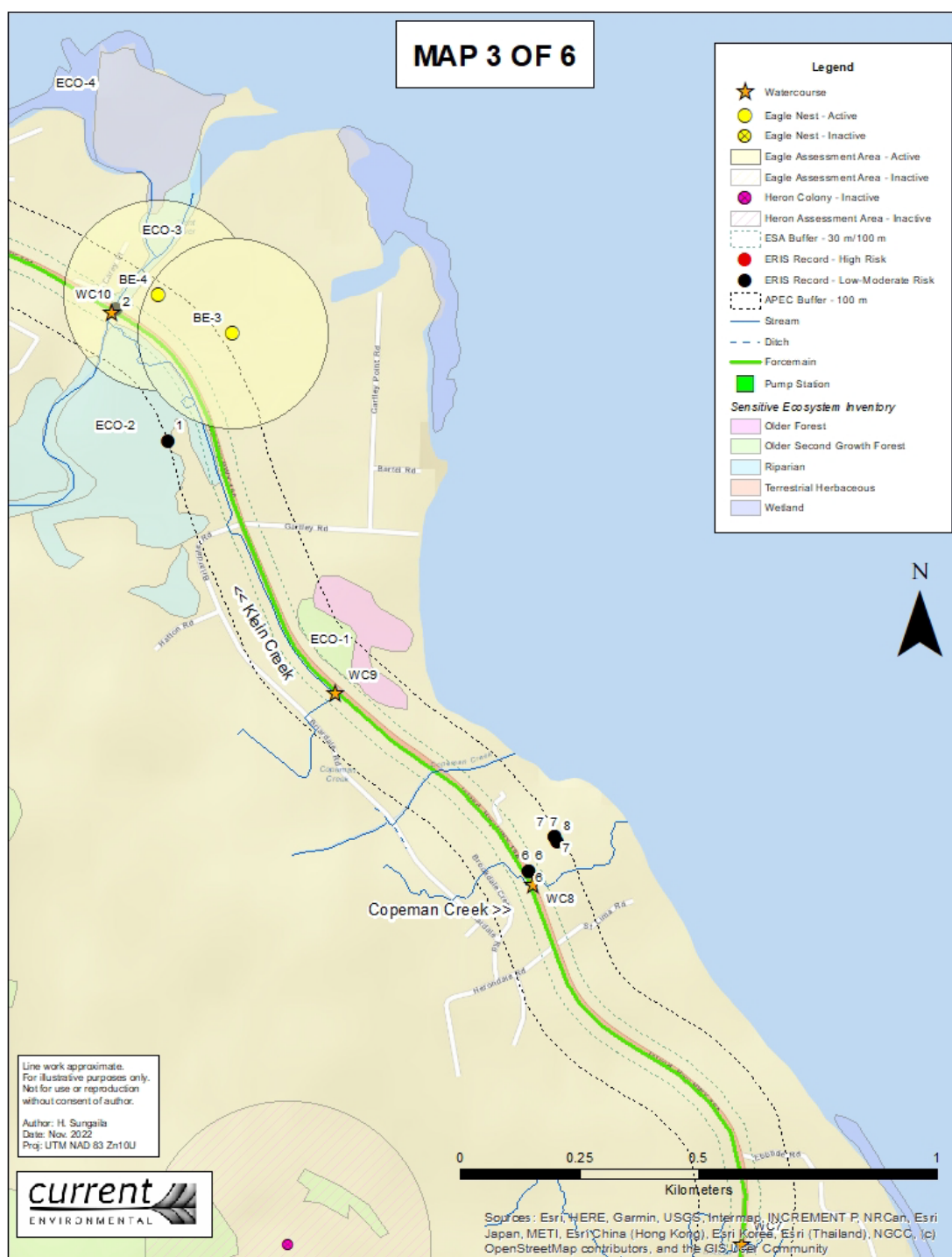


Figure 6. Locations of ESAs and ERIS records along the proposed Project alignment. Map 3 of 6.



Figure 7. Locations of ESAs and ERIS records along the proposed Project alignment. Map 4 of 6.



Figure 8. Locations of ESAs and ERIS records along the proposed Project alignment. Map 5 of 6.

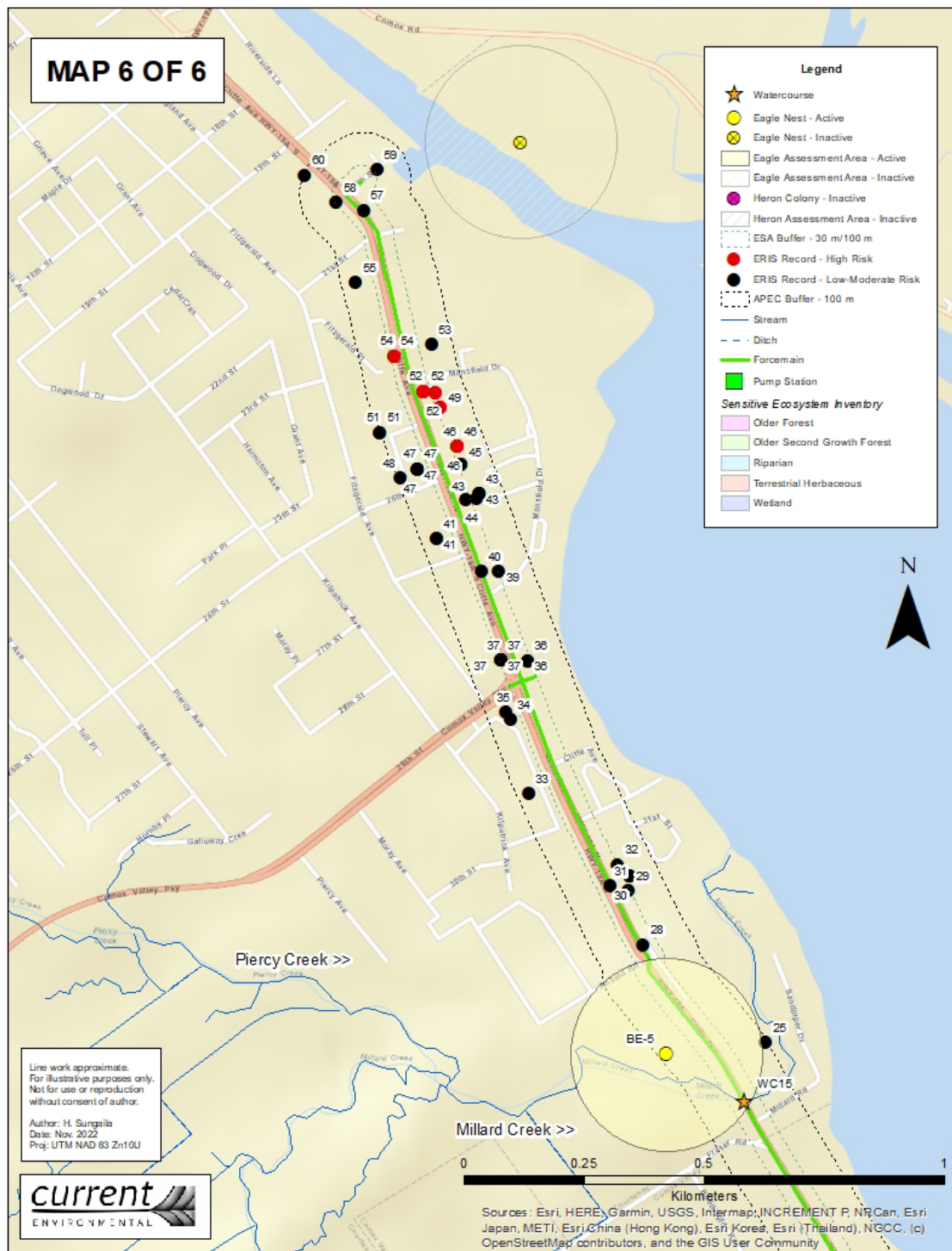


Figure 9. Locations of ESAs and ERIS records along the proposed Project alignment. Map 6 of 6.

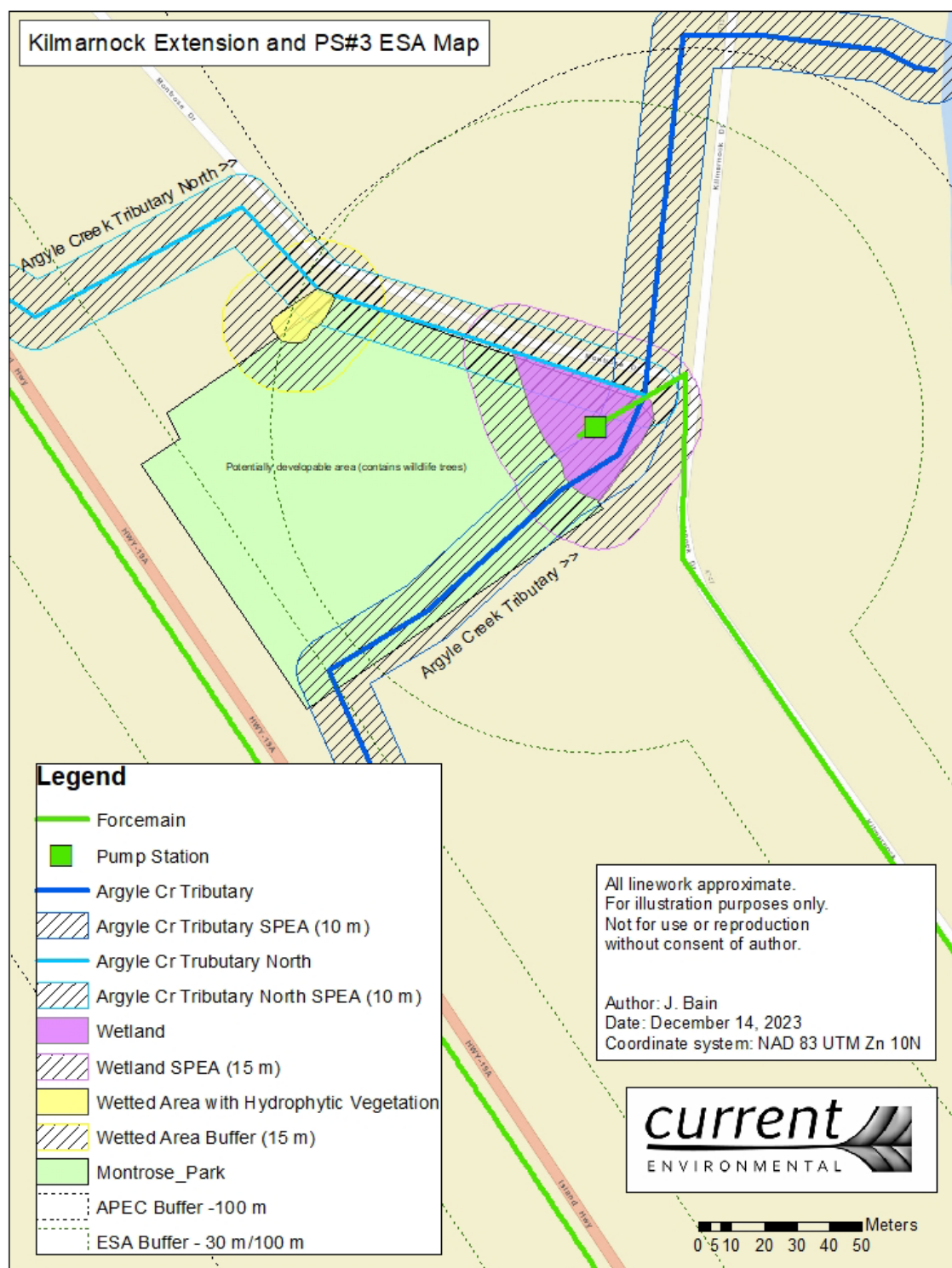


Figure 10. Proposed Kilmarnock forcemain extension and PS#3 location environmentally sensitive area (ESA) map.

12 PHOTOS

Photo 1. Proposed forcemain alignment, view looking north on Highway 19A in the Royston area.



Photo 2. Proposed forcemain alignment, view looking north on Highway 19A/Cliffe Ave. in the City of Courtenay.



Photo 3. Proposed Pump Station 6 location in Union Bay, view looking southwest towards Highway 19A.



Photo 4. Proposed Pump Station 3 Location at Montrose Park in the Kilmarnock Neighborhood.



Photo 5. Proposed Pump Station 1 locations, second option located in foreground and preferred option located in back right of photo adjacent to parked cars. Fenced parcel in background was identified as a high-risk APEC with potential for contaminant migration to neighbouring sites. Records 10, 12-14 in Appendix A.



Photo 6. Trent River bridge, view looking south at Highway 19A crossing the river. The Trent River is the largest watercourse that crosses the proposed SES alignment.



Photo 7. Millard Creek, on the downstream end of the Highway19A crossing.

APPENDIX A. SUMMARY OF ERIS RESULTS AND ASSOCIATED RISK FACTORS THAT MAY IMPACT WORK FOR THE PROJECT ALIGNMENT (RED = HIGH RISK, YELLOW = MODERATE RISK).

ERIS ID (Map ID)	Map #	DATABASE *	ERIS RECORD SUMMARY	RISK	COMPANY NAME	ADDRESS
58	6	SCT	Jewelry and Silverware Manufacturing	Very low	Wayne Mackenzie Designer	105-1995 Cliffe Ave.
7	3	AMS	Sewage Treatment Permit	Low. Septic system managed on hotel property.	KINGFISHER OCEANSIDE RESORT & SPA LTD.	4330 Island Hwy S. Courtney BC V9N 9R9
17	5	AMS	Yoghurt Process Effluent Permit.	Very low	CANADIAN CULTURED DAIRY INC. TREE ISLAND YOGURT	3747 Island Highway, Courtenay BC V9N 9T4
42		AMS	Petroleum storage and distribution facilities authorization.	Moderate	IMPERIAL OIL LIMITED	99-088, VANANDA
53	6	AMS	No data (1998)	Unknown	COMOX TIMBER LTD.	211 - 2270 CLIFFE AVENUE
6	3	CONV	Compliance Warning - Allowable Wastewater Discharge Exceeded Exceeding Permit	Low. Septic system managed on hotel property.	Kingfisher Oceanside Resort and Spa Ltd.	4330 Island Hwy S., Courtney BC V9N 9R9
6	3	CONV	Compliance Warning - Allowable Wastewater Discharge Exceeding Permit	Low. Septic system managed on hotel property.	KINGFISHER OCEANSIDE RESORT AND SPA LTD.	4330 Island Highway South, Courtenay
6	3	CONV	Compliance Warning - Allowable Wastewater Discharge Exceeding Permit	Low. Septic system managed on hotel property.	Kingfisher Oceanside Resort and Spa Ltd.	4330 Island Hwy S. Courtney BC
7	3	CONV	Compliance Inspection with Regulatory Requirement	Low. Septic system managed on hotel property.	KINGFISHER OCEANSIDE RESORT AND SPA LTD.	4330 Island Highway South, Courtenay, BC, V9N 9R9, 49.634609, -124.915963
7	3	CONV	Effluent Discharge Permit	Low. Septic system managed on hotel property.	Kingfisher Oceanside Resort and Spa Ltd.	4330 Island Highway South, Courtenay, BC, V9N 9R9, 49.634609, -124.915963
17	5	CONV	Compliance Warning - Effluent discharge permit	Low	CANADIAN CULTURED DAIRY INC. doing business as TREE ISLAND YOGURT	3747 Island Highway, Courtenay BC V9N 9T4 Artisan Yogurt maker Facility
16	5	EHS	Previous ERIS report request	Very low.		3747 Island Highway South
16	5	EHS	Previous ERIS report request	Very low		3747 Island Highway South

23	5	EHS	Previous ERIS report request	Very low		3573 Island Highway 19 Campbell River BC
24	5	EHS	Previous ERIS report request	Very low		3573 Island Highway South
24	5	EHS	Previous ERIS report request	Very low		3573 Island Highway South
30	6	EHS	Previous ERIS report request	Very low		3210 Cliffe Avenue,
30	6	EHS	Previous ERIS report request	Very low		3210 Cliffe Avenue,
32	6	EHS	Previous ERIS report request	Very low		3170 Cliffe Avenue
41	6	EHS	Previous ERIS report request	Very low		Driftwood Mall
41	6	EHS	Previous ERIS report request	Very low		Driftwood Mall
1	3/4	EM	Hydrometric metering station	Very Low. Station does not pose environmental risk.	TRENT RIVER NEAR ROYSTON	
2	3/4	EM	River monitoring station	Very Low. Station does not pose environmental risk.	TRENT R U/S OF HIGHWAY BRIDGE	
5	4	EM	Marine Water Storm Sewer Discharge	Low. Storm sewer outfall.	NBS364	
18	5	EM	Non-permitted discharge from yoghurt facility with septic.	Low	TREE ISLAND GOURMET YOGURT	
19	5	EM	Permitted discharge conditions.	Low	TIY process water	
20	5	EM	Permitted tile field for effluent discharge.	Low	TREE ISLAND YOGOURT	
25	5	EM	Fish sampling fence in Millard Creek.	Very low	MILLARD CREEK AT FISH FENCE	
50	6	EM	Off-site bio cell approval to remove, store, and treat 200 m3 of special waste (HC and BTEX) (1997)	High. Additional SREG records at this address indicate possible offsite migration of HCs	MOHAWK OIL CO. LTD.	2350 Cliffe Ave.
9	4	GEN	Intermittent storage tank use.	Moderate. Unknown liquid storage. Address associated with Gas n Go service station.	Vancouver Island Ski Services	Royston 3922 Island Hwy
10	4	GEN	Shell Canada Gasoline/fuel/used oil tank storage.	High. See notations on Map Key 10 under SREG.	Shell Canada Products Limited	Royston 3927 Marine Dr Rr 1

22	5	GEN	One time generation and storage of pesticides (solid/liquid and toxic) (2007)	Low	Newalta Corporation	Courtenay 3663 South Island Highway
28	5	GEN	Asbestos generation and disposal (one time only).	Low	Veyron Properties Group Ltd.	Courtenay 3260 Cliffe Avenue
31	6	GEN	Asbestos generation and disposal (one time only).	Low	Veyron Properties Group Ltd.	Courtenay 3230 Cliffe Avenue
36	6	GEN	Asbestos generation and disposal (one time only).	Low	Pace Setter Construction Ltd	Courtenay 2900 Cliffe Ave
43	6	GEN	Intermittent production of flammable liquids and soil contaminated with hydrocarbons/oil BTEX (2009)	Moderate. Off-site migration unknown and no record of site remediation.	Imperial Oil Limited	Courtenay 2650 Cliffe Avenue
44	6	GEN	Generation and off-site management of oily water sludge/debris (2013)	Moderate. Known presence of hazardous materials kept on site including record of disposal. No known spills.	Imperial Oil Limited	Courtenay 2650 Cliff Ave
45	6	GEN	Generation and disposal of solid environmentally hazardous substances (2008)	Low	478008 BC Ltd.	Courtenay 2500 Cliffe Street
52	6	GEN	Contaminated soil with HC/oil BTEX. 110,000 kg transported for biological treatment. Contaminated soil with Xylene 1000000 kg. (1998-2003)	High. Additional SREG records at this address indicate possible offsite migration of HCs	Mohawk Lubricants Ltd.	Courtenay 2350 Cliffe Ave
54	6	GEN	Waste petroleum product generated for off site management (2018)	Moderate	7-Eleven Canada, Inc.	Courtenay 2295 Cliffe Ave
59	6	GEN	Biological treatment of 30,000 kg of environmentally hazardous solid substance. (2005)	Moderate	City Of Courtenay	Courtenay 1 110 20th Street
11	4	GEN2	Residential restoration solid waste transported to landfill.	Very low	ROCKSTEADY RESTORATIONS	3898 ROYSTON ROAD, ROYSTON, BC
33	6	GEN2	Waste manifest for recycling "oily water sludge/debris".	Low	WASTE MANAGEMENT OF CANADA CORP	2966 KILPATRICK STREET, COURTENAY, BC
35	6	GEN2	Storage and disposal of oily water sludge/debris (2013)	Low	GREAT CANADIAN OIL CHANGE	450-29TH ST, COURTNEY, BC
37	6	GEN2	Storage of flammable liquids, aerosols, leachable toxic waste, Li batteries, corrosive liquids, oxidizing substances, poisonous solids	Low	TARGET CANADA CO.	2801 CLIFFE AVENUE, COURTENAY, BC

43	6	GEN2	Storage/disposal of oily water sludge/debris (2013)	Moderate. Known presence of hazardous materials kept on site including record of disposal. No known spills.	QUANTUM MURRAY LP	2650 CLIFFE AVENUE, COURTNEY, BC
47	6	GEN2	Storage/disposal of oily water sludge/debris (2011)	Moderate. Known presence of hazardous materials kept on site including record of disposal. No known spills.	SHELL CANADA PRODUCTS LIMITED	2591 CLIFFE AVE, COURTNEY, BC
52	6	GEN2	Storage/disposal of oily water sludge/debris (2011)	Moderate. Known presence of hazardous materials kept on site including record of disposal. No known spills.	HUSKY OIL LIMITED	2350 CLIFFE AVE, COURTNEY, BC
55	6	GEN2	Storage/disposal of oily water sludge/debris (2013)	Moderate. Known presence of hazardous materials kept on site including record of disposal. No known spills.	BRIAN MCLEAN CHEVROLET	2145 CLIFFE AVE, COURTENAY, BC
34	6	NEES	40 Gal. discharge of unknown liquid in dumpster behind business	Low	Unknown	Dumpster behind Cloverdale Paint at 468 29th Street
21	5	PES	Application of pesticides to treat vegetation and noxious weeds (1991)	Low	COURTENAY CEMENT WORK AND PAVING LTD.	3631 PARK LN, COURTENAY, BC, CA
37	6	PES	Domestic pesticide vendor.	Low.	ZELLERS LTD #029	2801 CLIFFE AVE
37	6	PES	Domestic pesticide vendor.	Low	ZELLERS LTD #029	2801 CLIFFE AVE
37	6	PES	Domestic pesticide vendor.	Low	ZELLERS LTD #029	2801 CLIFFE AVE, COURTENAY, BC, CA V9N 2L8
37	6	PES	Domestic pesticide vendor.	Low	CANADIAN TIRE ASSOC STORE #350	2801 CLIFFE AVE, COURTENAY, BC, V9N2L8
48	6	PES	General pesticide (1992)	Low	MACLEODS HARDWARE/EDMO INVESTMENTS LTD.	2599 CLIFFE AVE, COURTENAY, BC, CA V9N 2L5
51	6	PES	Application of pesticides to treat vegetation and noxious weeds (1998)	Low	MOUNTAIN VALLEY PAVING	3-2401 CLIFFE AVE SUITE 159, COURTENAY, BC, CA V9N 2L5

52	6	REC	Gasoline petrol sales	Moderate. Service stations with underground fuel storage tanks can affect neighbouring properties with migration of hydrocarbon contamination.	MOHAWK LUBRICANTS LTD.	2350 CLIFFE AVE
3	4	RST	Service Stations - Gasoline, Oil, & Natural Gas	Moderate. Service stations with underground fuel storage tanks can affect neighbouring properties with migration of hydrocarbon contamination.	ROYSTON TEMPO AUTOMOTIVE SERVICE	3991 ISLAND HWY RR 1
3	4	RST	Service Stations - Gasoline, Oil, & Natural Gas	Moderate. Service stations with underground fuel storage tanks can affect neighbouring properties with migration of hydrocarbon contamination.	ROYSTON TEMPO AUTOMOTIVE SERVICE	3991S ISLAND HWY RR 1
9	4	RST	Service Stations - Gasoline, Oil, & Natural Gas	Moderate. Service stations with underground fuel storage tanks can affect neighbouring properties with migration of hydrocarbon contamination.	YOUR TURN RETAIL CO	3922 ISLAND HWY S
9	4	RST	Service Stations - Gasoline, Oil, & Natural Gas	Moderate. Service stations with underground fuel storage tanks can affect neighbouring properties with migration of hydrocarbon contamination.	ROYSTON ESSO	3922 ISLAND HWY S
43	6	RST	Fuel and Oils	Moderate. Service stations with underground fuel storage tanks can affect neighbouring properties with migration of hydrocarbon contamination.	ENEX FUELS LTD	2650 CLIFFE AVE

46	6	RST	Fuel and Oils	Moderate. Service stations with underground fuel storage tanks can affect neighbouring properties with migration of hydrocarbon contamination.	COLUMBIA FUELS INC	2440 CLIFFE AVE
46	6	RST	Fuel and Oils	Moderate. Service stations with underground fuel storage tanks can affect neighbouring properties with migration of hydrocarbon contamination.	COLUMBIA FUELS	2440 CLIFFE AVE
47	6	RST	Service Stations - Gasoline, Oil, & Natural Gas	Moderate. Service stations with underground fuel storage tanks can affect neighbouring properties with migration of hydrocarbon contamination.	COURTENAY SHELL	2591 CLIFFE AVE
47	6	RST	Service Stations - Gasoline, Oil, & Natural Gas	Moderate. Service stations with underground fuel storage tanks can affect neighbouring properties with migration of hydrocarbon contamination.	SHELL CANADA PRODUCTS	2591 CLIFFE AVE
47	6	RST	Service Stations - Gasoline, Oil, & Natural Gas	Moderate. Service stations with underground fuel storage tanks can affect neighbouring properties with migration of hydrocarbon contamination.	COURTENAY SHELL	2591 CLIFFE AVE
52	6	RST	Service Stations - Gasoline, Oil, & Natural Gas	High. Records of remediation and off-site migration of HCs including reports of "high-risk"	MOHAWK COURTENAY SERVICE	2350 CLIFFE AVE

52	6	RST	Service Stations - Gasoline, Oil, & Natural Gas	High. Records of remediation and off-site migration of HCs including reports of "high-risk"	COURTENAY HUSKY	2350 CLIFFE AVE
51	6	SCT	Professional lithographic printing	Very low	MINUTEMAN PRESS	9-2401 Cliffe Ave
10	4	SREG	Spill response at Shell Bulk Plant (1996). Site profile created and Notice of Independent Remediation (1997). Above ground fuel or chemical storage tanks present. Groundwater sampling (2002). Risk assessment and Recommendation to decommission nearby groundwater wells (2004). Adjacent lots implicated (PID): 005-438-519, 006-154-689, 007-359-489, 005-438-527.	High. Independent remediation occurred (1997); however, later risk assessment (2004) recommended that nearby groundwater wells be decommissioned. Adjacent properties implicated in risk. Some sub-surface contamination may remain present.	3927 Marine Drive, Royston	3927 MARINE DRIVE
12	4	SREG	Notification of Likely or actual substance migration from neighbouring site. Source parcel at 3910 Royston Road (ESSO/Imperial Oil). Site Classified "Non-high risk" and certificate of compliance received (2014).	High. Although compliance confirmed this site does intersect the road where project works may be planned and there is record of off-site migration.	Portions Of Royston Road and Marine Dr	PORTIONS OF ROYSTON ROAD AND MARINE DRIVE
13	4	SREG	Site Classified "Non-high risk" and certificate of compliance received (2014). Affected parcel is Crown Land adjacent to Seaside Park.	High. Although compliance confirmed this site does have records of off-site migration.	Former Royston Esso Bulk Plant	3910 ROYSTON ROAD
13	4	SREG	Site Classified "Non-high risk" and certificate of compliance received (2014). Affected parcel is Crown Land adjacent to Seaside Park.	High. Although compliance confirmed this site does have records of off-site migration.	Crown Land Adjacent To 3910 Royston Rd	CROWN LAND ADJACENT TO 3910 ROYSTON RD
14	4	SREG	Notice of independent remediation submitted (2000). Certificate of compliance issued (2004). Site profile stated there was a spill to the environment of "Petroleum, Solvent, or other polluting substance" of greater than 100 L and that the source was ESSO home heating oil from their storage site.	High. Known history of spill and remediation.	3943 Marine Drive, Royston	3943 MARINE DRIVE

15	4	SREG	Site Profile for Royston Wharf including land use for "Petroleum Product, Wholesale bulk storage or distribution" (1999).	Moderate. History of hazardous material storage, no record of spill or remediation.	Royston Wharf, Royston	ROYSTON WHARF
26	1	SREG	Notice of Independent Remediation Initiation and completion were submitted (2000). Site profile (2004) stated above ground fuel or chemical tanks had been present.	Moderate. Past remediation has occurred on a lot adjacent to Highway 19A.	5084 Island Highway, Union Bay	5084 SOUTH ISLAND HIGHWAY
27	1	SREG	Site Profile stated there are currently or had been previously above ground fuel or chemical storage tanks and fill materials. No record of remediation included.	Moderate. Private property fuel storage tank.	4988 South Island Highway, Union Bay	4988 SOUTH ISLAND HIGHWAY
29	6	SREG	Notice of Independent Remediation (2001).	Moderate. Private lot off Cliffe Ave. Does not intersect work area.	3220 Cliffe Ave	3220 CLIFFE AVE
36	6	SREG	Notice of Independent Remediation (2020). Suspected historical dumping of waste oil around perimeter of historic building site. Site classified as "non-high risk".	Low. Lot has been remediated and redeveloped.	2900 Cliffe Avenue, Courtenay	2900 CLIFFE AVENUE
39	6	SREG	Site investigation report (1997). Underground storage tank removal from North side of building where leased gas station used to operate.	Low. Location and timeframe not expected to intersect project.	Winter Garden Restaurant	2790 CLIFFE AVENUE
40	6	SREG	Site investigation report and remediation to commercial /industrial levels of Payless Gas station (1994). Contaminated fill transported to Pidgeon Lake landfill for disposal.	Moderate. Service stations with underground fuel storage tanks can affect neighbouring properties with migration of hydrocarbon contamination.	Payless Station #7	2740 CLIFFE AVENUE
45	6	SREG	Notice of independent remediation and site classified non-high risk (2015)	Moderate. Past remediation has occurred on a lot adjacent to Highway 19A.	2500 Cliffe Avenue, Courtenay	2500 CLIFFE AVENUE

46	6	SREG	Notice of independent remediation and likely or actual migration to neighbouring property (2010). Soil remediation and relocation agreement. (2010)	High. See record under SREG 46	2440f Cliffe Avenue, Courtenay	2440F CLIFFE AVENUE
49	6	SREG	Site Risk Classified "high risk". Source parcel 2350 Cliffe Ave. Hydrocarbons in soil vapour. Notification received about likely or actual substance migration from neighbouring site.	High. Unremediated record of offsite migration of hydrocarbons.	2400 Cliffe Avenue, Courtenay	2400 CLIFFE AVENUE
52	6	SREG	Remediation plan (1996) and Site Investigation Report (1994) submitted. Historical site notification issued (1997). Notice of independent remediation (2001). Site risk classified as "non-high risk". Bio cell created at Pidgeon Lake landfill for storage and treatment of 1180m3 of HC contaminated soil. Notification of likely or actual offsite migration to neighbouring site (2010). Site risk classified as "high risk" with neighbouring site at 2400 Cliffe HC soil vapor exceedances (2018).	High. History and recent record of contamination, remediation, and offsite migration affecting neighbouring lots.	Mohawk Courtenay Service	2350 CLIFFE AVENUE
54	6	SREG	Site investigation report (1988 & 1991). Historical site notification issued (1997). Notice of independent remediation initiation and completion (2007). Site disclosure statement and Notice of Independent Remediation (2021). Excavation of soil exceeding land use standards, disposed at Upland Landfill. Site risk classified "non-high risk" (2021)	High. History and recent record of contamination and remediation.	7-Eleven Gas Bar - Courtenay	2295 CLIFFE AVENUE

56	1	SREG	At Hart (Washer) Creek. Large site complex contamination. Waste coal pile, coal shipping wharf, coal washer, and coke ovens. Preliminary site investigation and Phase II assessment (1996). Site profile (1997 & 2018) and remediation plan submitted (2011 & 2019). Notice of independent remediation (2005 & 2006). Determination of contaminated site issue "not contaminated" (2005). Site profile (2007). Further investigation required by the Ministry (2007 & 2018). Release letter issued for subdivision (2018). Approval in principle issued required remediation and monitoring (2019). Site risk classified "high risk" (2019). Notice of independent remediation (2019 & 2020).		Kensington Union Bay Properties Ltd.	ISLAND HIGHWAY 19A
57	6	SREG	Site investigation report. Removal of excavated soil for disposal at landfill. (1994)	Moderate. Past remediation has occurred on a lot adjacent to Highway 19A.	Imperial Oil Cardlock	2050 CLIFFE STREET
60	6	SREG	Underground storage tank Notice of independent remediation initiation and completion (2000).	Moderate. Past remediation has occurred on a lot adjacent to Highway 19A.	1959 Cliffe Ave, Courtenay	1959 CLIFFE AVENUE
4	4	WWIS	Water Supply Well - Private	Very low		ISLAND HIGHWAY SOUTH
8	3	WWIS	Water Supply Well - Private	Very low		
38	1	WWIS	Water Supply Well - Private	Very low		
		GEN	Asbestos generation and disposal (one time only).	Low	Veyron Properties Group Ltd.	Courtenay 3250
		NEES	Overtaken transport truck 25 t diesel spill. (2001)	Low	Unknown tractor trailer	29th Street and the Inland Island Hwy., Courtenay
		NEES	Residential Sewage discharge (2001)	Low	Individual	Across from Wal-Mart, Island Hwy, Comox
		NEES	Undetermined contaminant (2001)	Low	Unknown	On Island Hwy shoulder in Front of Glacier View Plaza

		NEES	Overtured transport truck 25 t diesel spill. (2001)	Low	Unknown tractor trailer	29th Street and the Inland Island Hwy., Courtenay
		NEES	Hydraulic oil spill from tank truck (1988)	Low	SHELL CANADA	Marine Drive, Royston
		PES	General pesticide (1998)	Low	MCCREA HARDWARE LTD	#8-468 29TH ST, COURTENAY, BC, CA V9N 7Z6
1	2	SREG	Notice of independent remediation	Moderate. Notice of independent remediation has occurred at a site adjacent to Highway 19A.	Site ID 27025. No PID	Isl Hwy S from Argyle Rd to Jones St
2	2	WWIS	Water Supply Well - Private	Very low		

APPENDIX B. ENVIRONMENTAL RISK INFORMATION SERVICES (ERIS) REPORT



DATABASE REPORT

Project Property:	<i>CVRD South Sewer Conveyance Courtenay PS - Union Bay Courtenay BC</i>
Project No:	<i>1364</i>
Report Type:	<i>Quote - Custom-Build Your Own Report</i>
Order No:	<i>22101900780</i>
Requested by:	<i>Current Environmental Ltd.</i>
Date Completed:	<i>October 24, 2022</i>

Table of Contents

Table of Contents.....	2
Executive Summary.....	3
Executive Summary: Report Summary.....	4
Executive Summary: Site Report Summary - Project Property.....	6
Executive Summary: Site Report Summary - Surrounding Properties.....	7
Executive Summary: Summary By Data Source.....	15
Map.....	26
Aerial.....	27
Topographic Map.....	28
Detail Report.....	29
Unplottable Summary.....	187
Unplottable Report.....	188
Appendix: Database Descriptions.....	190
Definitions.....	197

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Executive Summary

Property Information:

Project Property: CVRD South Sewer Conveyance
Courtenay PS - Union Bay Courtenay BC

Project No: 1364

Order Information:

Order No: 22101900780
Date Requested: October 19, 2022
Requested by: Current Environmental Ltd.
Report Type: Quote - Custom-Build Your Own Report

Historical/Products:

ERIS Xplorer [ERIS Xplorer](#)

Executive Summary: Report Summary

Database	Name	Searched	Project Property	Boundary to 0.10km	Total
AMS	Authorization Management System (formerly WASTE)	Y	0	4	4
ARIS	Assessment Report Indexing System	Y	0	0	0
AUWR	Automobile Wrecking & Supplies	Y	0	0	0
BCIN	BC Oil and Gas Commission Incidents	Y	0	0	0
BOGW	BC Oil and Gas Wells	Y	0	0	0
CDRY	Dry Cleaning Facilities	Y	0	0	0
CHM	Chemical Register	Y	0	0	0
CNG	Compressed Natural Gas Stations	Y	0	0	0
COAL	Coal Tar Sites	Y	0	0	0
CONV	Compliance and Enforcement Summary	Y	0	6	6
DIS	Wastewater Discharge Inventory	Y	0	0	0
EEM	Environmental Effects Monitoring	Y	0	0	0
EHS	ERIS Historical Searches	Y	0	10	10
EIIS	Environmental Issues Inventory System	Y	0	0	0
EM	Environmental Monitoring Locations	Y	0	8	8
FCON	Federal Convictions	Y	0	0	0
FCS	Contaminated Sites on Federal Land	Y	0	0	0
FISH	Commercial Fisheries	Y	0	0	0
FOFT	Fisheries & Oceans Fuel Tanks	Y	0	0	0
FRST	Federal Identification Registry for Storage Tank Systems (FIRSTS)	Y	0	0	0
GEN	Waste Generators Summary	Y	0	12	12
GEN2	Generators - Special Waste Information System (SWIS)	Y	0	8	8
GHG	Greenhouse Gas Emissions from Large Facilities	Y	0	0	0
HWF	Hazardous Waste Facilities	Y	0	0	0
IAFT	Indian & Northern Affairs Fuel Tanks	Y	0	0	0
LUM	Lumber Mills	Y	0	0	0
MINE	Canadian Mine Locations	Y	0	0	0
MNR	Minerals Deposits Database	Y	0	0	0
NATE	National Analysis of Trends in Emergencies System (NATES)	Y	0	0	0
NCPL	Non-Compliance Reports	Y	0	0	0
NDFT	National Defense & Canadian Forces Fuel Tanks	Y	0	0	0
NDSP	National Defense & Canadian Forces Spills	Y	0	0	0
NDWD	National Defence & Canadian Forces Waste Disposal Sites	Y	0	0	0
NEBI	National Energy Board Pipeline Incidents	Y	0	0	0
NEBP	National Energy Board Wells	Y	0	0	0
NEES	National Environmental Emergencies System (NEES)	Y	0	1	1

Database	Name	Searched	Project Property	Boundary to 0.10km	Total
NPCB	<i>National PCB Inventory</i>	Y	0	0	0
NPRI	<i>National Pollutant Release Inventory</i>	Y	0	0	0
OGCW	<i>Oil Gas Commission Wells</i>	Y	0	0	0
OGF	<i>Oil and Gas Commission Facilities</i>	Y	0	0	0
OGWW	<i>Oil and Gas Wells</i>	Y	0	0	0
PAP	<i>Canadian Pulp and Paper</i>	Y	0	0	0
PCB	<i>Inventory of PCB Storage Sites</i>	Y	0	0	0
PCFT	<i>Parks Canada Fuel Storage Tanks</i>	Y	0	0	0
PES	<i>Pesticide Register</i>	Y	0	7	7
PRAI	<i>Private Aggregate Inventory</i>	Y	0	0	0
PUAI	<i>Public Aggregate Inventory</i>	Y	0	0	0
REC	<i>Waste Receivers Summary</i>	Y	0	1	1
REC2	<i>Receivers - Special Waste Information System (SWIS)</i>	Y	0	0	0
RST	<i>Retail Fuel Storage Tanks</i>	Y	0	12	12
SCT	<i>Scott's Manufacturing Directory</i>	Y	0	2	2
SREG	<i>Site Registry</i>	Y	0	20	20
STNK	<i>Surrey Tank Construction Permits</i>	Y	0	0	0
SUMP	<i>Sump Locations</i>	Y	0	0	0
TCFT	<i>Transport Canada Fuel Storage Tanks</i>	Y	0	0	0
VTNK	<i>Vancouver Heating Oil Underground Storage Tanks</i>	Y	0	0	0
WDS	<i>Waste Disposal Site Inventory</i>	Y	0	0	0
WWIS	<i>Water Well Information System</i>	Y	0	3	3
Total:			0	94	94

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

Map Key	DB	Company/Site Name	Address	Dir/Dist (m)	Elev Diff (m)	Page Number
<u>1</u>	EM	TRENT RIVER NEAR ROYSTON	BC	NE/89.3	-34.69	<u>29</u>
<u>2</u>	EM	TRENT R U/S OF HIGHWAY BRIDGE	BC	NNE/10.3	-35.00	<u>29</u>
<u>3</u>	RST	ROYSTON TEMPO AUTOMOTIVE SERVICE	3991 ISLAND HWY RR 1 ROYSTON BC V0R2V0	NNW/11.7	-35.41	<u>30</u>
<u>3</u>	RST	ROYSTON TEMPO AUTOMOTIVE SERVICE	3991S ISLAND HWY RR 1 ROYSTON BC V0R 2V0	NNW/11.7	-35.41	<u>30</u>
<u>4</u>	WWIS		ISLAND HIGHWAY SOUTH ROYSTON BC	NNW/35.7	-30.77	<u>30</u>
<u>5</u>	EM	NBS364	BC	NNW/99.6	-43.88	<u>33</u>
<u>6</u>	CONV	Kingfisher Oceanside Resort and Spa Ltd.	4330 Island Hwy S., Courtney BC V9N 9R9 BC	ESE/12.2	-25.78	<u>34</u>
<u>6</u>	CONV	KINGFISHER OCEANSIDE RESORT AND SPA LTD.	4330 Island Highway South, Courtenay BC	ESE/12.2	-25.78	<u>34</u>
<u>6</u>	CONV	Kingfisher Oceanside Resort and Spa Ltd.	4330 Island Hwy S. Courtney BC BC	ESE/12.2	-25.78	<u>35</u>
<u>7</u>	AMS	KINGFISHER OCEANSIDE RESORT & SPA LTD.	4330 Island Hwy S. Courtney BC V9N 9R9 Cowichan Valley BC	ESE/100.0	-28.69	<u>35</u>
<u>7</u>	CONV	KINGFISHER OCEANSIDE RESORT AND SPA LTD.	4330 Island Highway South, Courtenay, BC, V9N 9R9, 49.634609, -124.915963 BC	ESE/100.0	-28.69	<u>37</u>
<u>7</u>	CONV	Kingfisher Oceanside Resort and Spa Ltd.	4330 Island Highway South, Courtenay, BC, V9N 9R9, 49.634609, -124.915963 BC	ESE/100.0	-28.69	<u>38</u>

Map Key	DB	Company/Site Name	Address	Dir/Dist (m)	Elev Diff (m)	Page Number
<u>8</u>	WWIS		BC	ESE/98.0	-28.69	<u>38</u>
<u>9</u>	GEN	Vancouver Island Ski Services	Royston 3922 Island Hwy BC	NW/10.7	-28.30	<u>42</u>
<u>9</u>	RST	YOUR TURN RETAIL CO	3922 ISLAND HWY S COURTENAY BC V9N 9T5	NW/10.7	-28.30	<u>43</u>
<u>9</u>	RST	ROYSTON ESSO	3922 ISLAND HWY S COURTENAY BC	NW/10.7	-28.30	<u>43</u>
<u>10</u>	SREG	3927 Marine Drive, Royston	3927 MARINE DRIVE No Entry ROYSTON BC <i>Site ID Updated:</i> 4627 07-Nov-2010	NW/95.9	-36.57	<u>43</u>
<u>10</u>	GEN	Shell Canada Products Limited	Royston 3927 Marine Dr Rr 1 BC	NW/95.9	-36.57	<u>52</u>
<u>11</u>	GEN2	ROCKSTEADY RESTORATIONS	3898 ROYSTON ROAD, ROYSTON, BC BC	NW/6.4	-32.91	<u>53</u>
<u>12</u>	SREG	Portions Of Royston Road And Marine Dr	PORIONS OF ROYSTON ROAD AND MARINE DRIVE No Entry ROYSTON BC <i>Site ID Updated:</i> 16717 13-Nov-2014	NW/6.9	-37.74	<u>53</u>
<u>13</u>	SREG	Former Royston Esso Bulk Plant	3910 ROYSTON ROAD No Entry ROYSTON BC <i>Site ID Updated:</i> 4727 13-Nov-2014	NW/11.3	-35.97	<u>58</u>
<u>13</u>	SREG	Crown Land Adjacent To 3910 Royston Rd	CROWN LAND ADJACENT TO 3910 ROYSTON RD No Entry ROYSTON BC <i>Site ID Updated:</i> 16716 13-Nov-2014	NW/11.3	-35.97	<u>67</u>
<u>14</u>	SREG	3943 Marine Drive, Royston	3943 MARINE DRIVE No Entry ROYSTON BC <i>Site ID Updated:</i> 7063 13-Oct-2004	NW/15.5	-37.34	<u>72</u>
<u>15</u>	SREG	Royston Wharf, Royston	ROYSTON WHARF No Entry ROYSTON BC <i>Site ID Updated:</i> 6386 07-Apr-2004	NNW/39.7	-43.88	<u>76</u>

Map Key	DB	Company/Site Name	Address	Dir/Dist (m)	Elev Diff (m)	Page Number
<u>16</u>	EHS		3747 Island Highway South Courtenay BC V9N 9T6	NW/43.7	-21.17	<u>78</u>
<u>16</u>	EHS		3747 Island Highway South Courtenay BC V9N 9T6	NW/43.7	-21.17	<u>78</u>
<u>17</u>	AMS	CANADIAN CULTURED DAIRY INC. TREE ISLAND YOGURT	3747 Island Highway, Courtenay BC V9N 9T4 Comox Valley BC	NW/2.8	-23.68	<u>78</u>
<u>17</u>	CONV	CANADIAN CULTURED DAIRY INC. doing business as TREE ISLAND YOGURT	3747 Island Highway, Courtenay BC V9N 9T4 Artisan Yogurt maker Facility BC	NW/2.8	-23.68	<u>79</u>
<u>18</u>	EM	TREE ISLAND GOURMET YOGURT	BC	NW/54.1	-19.68	<u>80</u>
<u>19</u>	EM	TIY process water	BC	NW/27.4	-19.83	<u>80</u>
<u>20</u>	EM	TREE ISLAND YOGOURT	BC	NW/34.1	-19.69	<u>80</u>
<u>21</u>	PES	COURTENAY CEMENT WORK AND PAVING LTD.	3631 PARK LN, COURTENAY, BC, CA BC	NW/64.4	-23.64	<u>81</u>
<u>22</u>	GEN	Newalta Corporation	Courtenay 3663 South Island Highway BC	NW/10.9	-28.73	<u>81</u>
<u>23</u>	EHS		3573 Island Highway 19 Campbell River Bc Campbell River BC V9H0C2	NW/4.1	-25.93	<u>82</u>
<u>24</u>	EHS		3573 Island Highway South Courtenay BC V9N 9T8	NW/62.0	-24.08	<u>82</u>
<u>24</u>	EHS		3573 Island Highway South Courtenay BC V9N 9T8	NW/62.0	-24.08	<u>82</u>
<u>25</u>	EM	MILLARD CREEK AT FISH FENCE	BC	NW/98.5	-40.05	<u>82</u>

Map Key	DB	Company/Site Name	Address	Dir/Dist (m)	Elev Diff (m)	Page Number
<u>26</u>	SREG	5084 Island Highway, Union Bay	5084 ISLAND HIGHWAY No Entry UNION BAY BC <i>Site ID Updated:</i> 8850 25-Feb-2010	SE/14.4	-27.42	<u>83</u>
<u>27</u>	SREG	4988 South Island Highway, Union Bay	4988 SOUTH ISLAND HIGHWAY No Entry UNION BAY BC <i>Site ID Updated:</i> 10340 16-May-2007	SE/2.3	-27.42	<u>87</u>
<u>28</u>	GEN	Veyron Properties Group Ltd.	Courtenay 3260 Cliffe Avenue BC	NW/8.8	-31.64	<u>90</u>
<u>29</u>	SREG	3220 Cliffe Ave	3220 CLIFFE AVE No Entry NANAIMO BC <i>Site ID Updated:</i> 7388 31-Aug-2001	NW/31.2	-34.65	<u>91</u>
<u>30</u>	EHS		3210 Cliffe Avenue, Courtenay BC V9N 2L7	NW/45.7	-36.08	<u>92</u>
<u>30</u>	EHS		3210 Cliffe Avenue, Courtenay BC V9N 2L7	NW/45.7	-36.08	<u>92</u>
<u>31</u>	GEN	Veyron Properties Group Ltd.	Courtenay 3230 Cliffe Avenue BC	NW/1.3	-33.34	<u>92</u>
<u>32</u>	EHS		3170 Cliffe Avenue Courtenay BC V9N 8X1	NW/34.9	-35.47	<u>92</u>
<u>33</u>	GEN2	WASTE MANAGEMENT OF CANADA CORP	2966 KILPATRICK STREET, COURTENAY, BC BC	NW/64.8	-32.42	<u>93</u>
<u>34</u>	NEES	Unknown	Dumpster behind Cloverdale Paint at 468 29th Street Courtenay BC	NW/49.3	-33.69	<u>93</u>
<u>35</u>	GEN2	GREAT CANADIAN OIL CHANGE	450-29TH ST, COURTNEY, BC BC	NW/54.0	-33.69	<u>93</u>
<u>36</u>	SREG	2900 Cliffe Avenue, Courtenay	2900 CLIFFE AVENUE No Entry COURTENAY BC <i>Site ID Updated:</i> 23386	NW/26.2	-32.83	<u>94</u>

Map Key	DB	Company/Site Name	Address	Dir/Dist (m)	Elev Diff (m)	Page Number
<u>36</u>	GEN	Pace Setter Construction Ltd	Courtenay 2900 Cliffe Ave BC	NW/26.2	-32.83	<u>95</u>
<u>37</u>	PES	ZELLERS LTD #029	2801 CLIFFE AVE COURTENAY BC	NW/25.1	-34.42	<u>96</u>
<u>37</u>	PES	ZELLERS LTD #029	2801 CLIFFE AVE COURTENAY BC V9N 2L8	NW/25.1	-34.42	<u>96</u>
<u>37</u>	PES	ZELLERS LTD #029	2801 CLIFFE AVE, COURTENAY, BC, CA V9N 2L8 BC	NW/25.1	-34.42	<u>96</u>
<u>37</u>	GEN2	TARGET CANADA CO.	2801 CLIFFE AVENUE, COURTENAY, BC BC	NW/25.1	-34.42	<u>96</u>
<u>37</u>	PES	CANADIAN TIRE ASSOC STORE #350	2801 CLIFFE AVE, COURTENAY, BC, V9N2L8 BC	NW/25.1	-34.42	<u>104</u>
<u>38</u>	WWIS		UNION BAY BC	SE/57.3	-31.69	<u>104</u>
<u>39</u>	SREG	Winter Garden Restaurant	2790 CLIFFE AVENUE No Entry COURTENAY BC <i>Site ID Updated:</i> 3282	NW/35.8	-34.73	<u>108</u>
<u>40</u>	SREG	Payless Station #7	2740 CLIFFE AVENUE No Entry COURTENAY BC <i>Site ID Updated:</i> 1719 14-Nov-1997	NW/2.1	-33.69	<u>109</u>
<u>41</u>	EHS		Driftwood Mall Courtenay BC V9N 2L8	NW/62.1	-31.92	<u>117</u>
<u>41</u>	EHS		Driftwood Mall Courtenay BC V9N 2L8	NW/62.1	-31.92	<u>117</u>
<u>42</u>	AMS	IMPERIAL OIL LIMITED	99-088, VANANDA BC	NW/45.3	-36.09	<u>117</u>
<u>43</u>	GEN	Imperial Oil Limited	Courtenay 2650 Cliffe Avenue BC	NW/53.3	-36.09	<u>118</u>

Map Key	DB	Company/Site Name	Address	Dir/Dist (m)	Elev Diff (m)	Page Number
43	RST	ENEX FUELS LTD	2650 CLIFFE AVE COURTENAY BC V9N2L6	NW/53.3	-36.09	118
43	GEN2	QUANTUM MURRAY LP	2650 CLIFFE AVENUE, COURTNEY, BC BC	NW/53.3	-36.09	118
44	GEN	Imperial Oil Limited	Courtenay 2650 Cliff Ave BC	NW/24.8	-35.68	119
45	GEN	478008 Bc Ltd.	Courtenay 2500 Cliffe Street BC	NW/40.3	-35.14	120
45	SREG	2500 Cliffe Avenue, Courtenay	2500 CLIFFE AVENUE No Entry COURTENAY BC <i>Site ID Updated:</i> 18353 23-Sep-2015	NW/40.3	-35.14	120
46	RST	COLUMBIA FUELS INC	2440 CLIFFE AVE COURTENAY BC V9N2L6	NW/45.2	-34.92	121
46	RST	COLUMBIA FUELS	2440 CLIFFE AVE COURTENAY BC V9N 2L6	NW/45.2	-34.92	122
46	SREG	2440f Cliffe Avenue, Courtenay	2440F CLIFFE AVENUE No Entry COURTENAY BC <i>Site ID Updated:</i> 12139 25-Aug-2011	NW/45.2	-34.92	122
47	RST	COURTENAY SHELL	2591 CLIFFE AVE COURTENAY BC V9N 2L5	NW/48.9	-33.64	125
47	RST	SHELL CANADA PRODUCTS	2591 CLIFFE AVE COURTENAY BC V9N 2L5	NW/48.9	-33.64	125
47	RST	COURTENAY SHELL	2591 CLIFFE AVE COURTENAY BC V9N2L5	NW/48.9	-33.64	125
47	GEN2	SHELL CANADA PRODUCTS LIMITED	2591 CLIFFE AVE, COURTNEY, BC BC	NW/48.9	-33.64	125
48	PES	MACLEODS HARDWARE/EDMO INVESTMENTS LTD.	2599 CLIFFE AVE, COURTENAY, BC, CA V9N 2L5 BC	NW/88.8	-32.69	126

Map Key	DB	Company/Site Name	Address	Dir/Dist (m)	Elev Diff (m)	Page Number
49	SREG	2400 Cliffe Avenue, Courtenay	2400 CLIFFE AVENUE No Entry COURTENAY BC <i>Site ID Updated:</i> 22300 13-May-2021	NW/42.3	-35.85	126
50	EM	MOHAWK OIL CO. LTD.	BC	NW/43.9	-34.76	128
51	SCT	MINUTEMAN PRESS	9-2401 Cliffe Ave Courtenay BC V9N 2L5	NW/94.1	-32.78	129
51	PES	MOUNTAIN VALLEY PAVING	3-2401 CLIFFE AVE SUITE 159, COURTENAY, BC, CA V9N 2L5 BC	NW/94.1	-32.78	129
52	SREG	Mohawk Courtenay Service	2350 CLIFFE AVENUE No Entry COURTENAY BC <i>Site ID Updated:</i> 1907 13-May-2021	NW/20.7	-33.30	129
52	RST	MOHAWK COURTENAY SERVICE	2350 CLIFFE AVE COURTENAY BC V9N2L6	NW/20.7	-33.30	142
52	REC	MOHAWK LUBRICANTS LTD.	2350 CLIFFE AVE COURTENAY BC V9N 2L6	NW/20.7	-33.30	142
52	GEN	Mohawk Lubricants Ltd.	Courtenay 2350 Cliffe Ave BC	NW/20.7	-33.30	142
52	RST	COURTENAY HUSKY	2350 CLIFFE AVE COURTENAY BC V9N2L6	NW/20.7	-33.30	143
52	GEN2	HUSKY OIL LIMITED	2350 CLIFFE AVE, COURTNEY, BC BC	NW/20.7	-33.30	143
53	AMS	COMOX TIMBER LTD.	211 - 2270 CLIFFE AVENUE COURTENAY BC V9N2L4	NW/62.2	-31.69	143
54	SREG	7-Eleven Gas Bar - Courtenay	2295 CLIFFE AVENUE No Entry COURTENAY BC <i>Site ID Updated:</i> 1940 25-Mar-2022	NW/19.9	-33.62	144
54	GEN	7-Eleven Canada, Inc.	Courtenay 2295 Cliffe Ave BC	NW/19.9	-33.62	150

Map Key	DB	Company/Site Name	Address	Dir/Dist (m)	Elev Diff (m)	Page Number
<u>55</u>	GEN2	BRIAN MCLEAN CHEVROLET	2145 CLIFFE AVE, COURTENAY, BC BC	NW/64.4	-30.08	<u>151</u>
<u>56</u>	SREG	Kensington Union Bay Properties Ltd.	ISLAND HIGHWAY 19A AT HART (WASHER) CREEK UNION BAY BC <i>Site ID Updated:</i> 4291 25-Mar-2022	SE/65.6	-35.53	<u>151</u>
<u>57</u>	SREG	Imperial Oil Cardlock	2050 CLIFFE STREET No Entry COURTENAY BC <i>Site ID Updated:</i> 1710	NW/9.2	-30.88	<u>181</u>
<u>58</u>	SCT	Wayne Mackenzie Designer	105-1995 Cliffe Ave. Courtenay BC V9N 2L2	NW/23.6	-32.39	<u>184</u>
<u>59</u>	GEN	City Of Courtenay	Courtenay 1 110 20th Street BC	NW/36.4	-35.69	<u>184</u>
<u>60</u>	SREG	1959 Cliffe Ave, Courtenay	1959 CLIFFE AVENUE No Entry COURTENAY BC <i>Site ID Updated:</i> 6615 15-Jun-2021	NW/92.6	-29.90	<u>185</u>

Executive Summary: Summary By Data Source

AMS - Authorization Management System (formerly WASTE)

A search of the AMS database, dated 1957-Aug 31, 2022 has found that there are 4 AMS site(s) within approximately 0.10 kilometers of the project property.

<u>Site</u>	<u>Address</u>	<u>Distance (m)</u>	<u>Map Key</u>
KINGFISHER OCEANSIDE RESORT & SPA LTD.	4330 Island Hwy S. Courtney BC V9N 9R9 Cowichan Valley BC	100.0	<u>7</u>
CANADIAN CULTURED DAIRY INC. TREE ISLAND YOGURT	3747 Island Highway, Courtenay BC V9N 9T4 Comox Valley BC	2.8	<u>17</u>
IMPERIAL OIL LIMITED	99-088, VANANDA BC	45.3	<u>42</u>
COMOX TIMBER LTD.	211 - 2270 CLIFFE AVENUE COURTENAY BC V9N2L4	62.2	<u>53</u>

CONV - Compliance and Enforcement Summary

A search of the CONV database, dated 1990-May 31, 2022 has found that there are 6 CONV site(s) within approximately 0.10 kilometers of the project property.

<u>Site</u>	<u>Address</u>	<u>Distance (m)</u>	<u>Map Key</u>
Kingfisher Oceanside Resort and Spa Ltd.	4330 Island Hwy S. Courtney BC BC	12.2	<u>6</u>
Kingfisher Oceanside Resort and Spa Ltd.	4330 Island Hwy S., Courtney BC V9N 9R9 BC	12.2	<u>6</u>
KINGFISHER OCEANSIDE RESORT AND SPA LTD.	4330 Island Highway South, Courtenay BC	12.2	<u>6</u>
KINGFISHER OCEANSIDE RESORT AND SPA LTD.	4330 Island Highway South, Courtenay, BC, V9N 9R9, 49.634609, -124.915963	100.0	<u>7</u>

<u>Site</u>	<u>Address</u>	<u>Distance (m)</u>	<u>Map Key</u>
	BC		
Kingfisher Oceanside Resort and Spa Ltd.	4330 Island Highway South, Courtenay, BC, V9N 9R9, 49.634609, -124.915963 BC	100.0	7
CANADIAN CULTURED DAIRY INC. doing business as TREE ISLAND YOGURT	3747 Island Highway, Courtenay BC V9N 9T4 Artisan Yogurt maker Facility BC	2.8	17

EHS - ERIS Historical Searches

A search of the EHS database, dated 1999-Jul 31, 2022 has found that there are 10 EHS site(s) within approximately 0.10 kilometers of the project property.

<u>Site</u>	<u>Address</u>	<u>Distance (m)</u>	<u>Map Key</u>
	3747 Island Highway South Courtenay BC V9N 9T6	43.7	16
	3747 Island Highway South Courtenay BC V9N 9T6	43.7	16
	3573 Island Highway 19 Campbell River Bc Campbell River BC V9H0C2	4.1	23
	3573 Island Highway South Courtenay BC V9N 9T8	62.0	24
	3573 Island Highway South Courtenay BC V9N 9T8	62.0	24
	3210 Cliffe Avenue, Courtenay BC V9N 2L7	45.7	30
	3210 Cliffe Avenue, Courtenay BC V9N 2L7	45.7	30

<u>Site</u>	<u>Address</u>	<u>Distance (m)</u>	<u>Map Key</u>
	3170 Cliffe Avenue Courtenay BC V9N 8X1	34.9	<u>32</u>
	Driftwood Mall Courtenay BC V9N 2L8	62.1	<u>41</u>
	Driftwood Mall Courtenay BC V9N 2L8	62.1	<u>41</u>

EM - Environmental Monitoring Locations

A search of the EM database, dated Mar 2011-Aug 31, 2022 has found that there are 8 EM site(s) within approximately 0.10 kilometers of the project property.

<u>Site</u>	<u>Address</u>	<u>Distance (m)</u>	<u>Map Key</u>
TRENT RIVER NEAR ROYSTON	BC	89.3	<u>1</u>
TRENT R U/S OF HIGHWAY BRIDGE	BC	10.3	<u>2</u>
NBS364	BC	99.6	<u>5</u>
TREE ISLAND GOURMET YOGURT	BC	54.1	<u>18</u>
TIY process water	BC	27.4	<u>19</u>
TREE ISLAND YOGOURT	BC	34.1	<u>20</u>

<u>Site</u>	<u>Address</u>	<u>Distance (m)</u>	<u>Map Key</u>
MILLARD CREEK AT FISH FENCE	BC	98.5	25
MOHAWK OIL CO. LTD.	BC	43.9	50

GEN - Waste Generators Summary

A search of the GEN database, dated 1993-Mar 31, 2021 has found that there are 12 GEN site(s) within approximately 0.10 kilometers of the project property.

<u>Site</u>	<u>Address</u>	<u>Distance (m)</u>	<u>Map Key</u>
Vancouver Island Ski Services	Royston 3922 Island Hwy BC	10.7	9
Shell Canada Products Limited	Royston 3927 Marine Dr Rr 1 BC	95.9	10
Newalta Corporation	Courtenay 3663 South Island Highway BC	10.9	22
Veyron Properties Group Ltd.	Courtenay 3260 Cliffe Avenue BC	8.8	28
Veyron Properties Group Ltd.	Courtenay 3230 Cliffe Avenue BC	1.3	31
Pace Setter Construction Ltd	Courtenay 2900 Cliffe Ave BC	26.2	36
Imperial Oil Limited	Courtenay 2650 Cliffe Avenue BC	53.3	43
Imperial Oil Limited	Courtenay 2650 Cliff Ave BC	24.8	44

<u>Site</u>	<u>Address</u>	<u>Distance (m)</u>	<u>Map Key</u>
478008 Bc Ltd.	Courtenay 2500 Cliffe Street BC	40.3	<u>45</u>
Mohawk Lubricants Ltd.	Courtenay 2350 Cliffe Ave BC	20.7	<u>52</u>
7-Eleven Canada, Inc.	Courtenay 2295 Cliffe Ave BC	19.9	<u>54</u>
City Of Courtenay	Courtenay 1 110 20th Street BC	36.4	<u>59</u>

GEN2 - Generators - Special Waste Information System (SWIS)

A search of the GEN2 database, dated Jan 2011-Dec 2014 has found that there are 8 GEN2 site(s) within approximately 0.10 kilometers of the project property.

<u>Site</u>	<u>Address</u>	<u>Distance (m)</u>	<u>Map Key</u>
ROCKSTEADY RESTORATIONS	3898 ROYSTON ROAD, ROYSTON, BC BC	6.4	<u>11</u>
WASTE MANAGEMENT OF CANADA CORP	2966 KILPATRICK STREET, COURTENAY, BC BC	64.8	<u>33</u>
GREAT CANADIAN OIL CHANGE	450-29TH ST, COURTNEY, BC BC	54.0	<u>35</u>
TARGET CANADA CO.	2801 CLIFFE AVENUE, COURTENAY, BC BC	25.1	<u>37</u>
QUANTUM MURRAY LP	2650 CLIFFE AVENUE, COURTNEY, BC BC	53.3	<u>43</u>

<u>Site</u>	<u>Address</u>	<u>Distance (m)</u>	<u>Map Key</u>
SHELL CANADA PRODUCTS LIMITED	2591 CLIFFE AVE, COURTNEY, BC BC	48.9	47
HUSKY OIL LIMITED	2350 CLIFFE AVE, COURTNEY, BC BC	20.7	52
BRIAN MCLEAN CHEVROLET	2145 CLIFFE AVE, COURTENAY, BC BC	64.4	55

NEES - National Environmental Emergencies System (NEES)

A search of the NEES database, dated 1974-2003* has found that there are 1 NEES site(s) within approximately 0.10 kilometers of the project property.

<u>Site</u>	<u>Address</u>	<u>Distance (m)</u>	<u>Map Key</u>
Unknown	Dumpster behind Cloverdale Paint at 468 29th Street Courtenay BC	49.3	34

PES - Pesticide Register

A search of the PES database, dated 1989-Apr 2022 has found that there are 7 PES site(s) within approximately 0.10 kilometers of the project property.

<u>Site</u>	<u>Address</u>	<u>Distance (m)</u>	<u>Map Key</u>
COURTENAY CEMENT WORK AND PAVING LTD.	3631 PARK LN, COURTENAY, BC, CA BC	64.4	21
ZELLERS LTD #029	2801 CLIFFE AVE COURTENAY BC	25.1	37
ZELLERS LTD #029	2801 CLIFFE AVE COURTENAY BC V9N 2L8	25.1	37
CANADIAN TIRE ASSOC STORE #350	2801 CLIFFE AVE, COURTENAY, BC, V9N2L8 BC	25.1	37

<u>Site</u>	<u>Address</u>	<u>Distance (m)</u>	<u>Map Key</u>
ZELLERS LTD #029	2801 CLIFFE AVE, COURTENAY, BC, CA V9N 2L8 BC	25.1	<u>37</u>
MACLEODS HARDWARE/EDMO INVESTMENTS LTD.	2599 CLIFFE AVE, COURTENAY, BC, CA V9N 2L5 BC	88.8	<u>48</u>
MOUNTAIN VALLEY PAVING	3-2401 CLIFFE AVE SUITE 159, COURTENAY, BC, CA V9N 2L5 BC	94.1	<u>51</u>

REC - Waste Receivers Summary

A search of the REC database, dated 1992-2010* has found that there are 1 REC site(s) within approximately 0.10 kilometers of the project property.

<u>Site</u>	<u>Address</u>	<u>Distance (m)</u>	<u>Map Key</u>
MOHAWK LUBRICANTS LTD.	2350 CLIFFE AVE COURTENAY BC V9N 2L6	20.7	<u>52</u>

RST - Retail Fuel Storage Tanks

A search of the RST database, dated 1999-May 31, 2022 has found that there are 12 RST site(s) within approximately 0.10 kilometers of the project property.

<u>Site</u>	<u>Address</u>	<u>Distance (m)</u>	<u>Map Key</u>
ROYSTON TEMPO AUTOMOTIVE SERVICE	3991 ISLAND HWY RR 1 ROYSTON BC V0R2V0	11.7	<u>3</u>
ROYSTON TEMPO AUTOMOTIVE SERVICE	3991S ISLAND HWY RR 1 ROYSTON BC V0R 2V0	11.7	<u>3</u>
YOUR TURN RETAIL CO	3922 ISLAND HWY S COURTENAY BC V9N 9T5	10.7	<u>9</u>
ROYSTON ESSO	3922 ISLAND HWY S COURTENAY BC	10.7	<u>9</u>

<u>Site</u>	<u>Address</u>	<u>Distance (m)</u>	<u>Map Key</u>
ENEX FUELS LTD	2650 CLIFFE AVE COURTENAY BC V9N2L6	53.3	<u>43</u>
COLUMBIA FUELS	2440 CLIFFE AVE COURTENAY BC V9N 2L6	45.2	<u>46</u>
COLUMBIA FUELS INC	2440 CLIFFE AVE COURTENAY BC V9N2L6	45.2	<u>46</u>
COURTENAY SHELL	2591 CLIFFE AVE COURTENAY BC V9N 2L5	48.9	<u>47</u>
SHELL CANADA PRODUCTS	2591 CLIFFE AVE COURTENAY BC V9N 2L5	48.9	<u>47</u>
COURTENAY SHELL	2591 CLIFFE AVE COURTENAY BC V9N2L5	48.9	<u>47</u>
COURTENAY HUSKY	2350 CLIFFE AVE COURTENAY BC V9N2L6	20.7	<u>52</u>
MOHAWK COURTENAY SERVICE	2350 CLIFFE AVE COURTENAY BC V9N2L6	20.7	<u>52</u>

SCT - Scott's Manufacturing Directory

A search of the SCT database, dated 1992-Mar 2011* has found that there are 2 SCT site(s) within approximately 0.10 kilometers of the project property.

<u>Site</u>	<u>Address</u>	<u>Distance (m)</u>	<u>Map Key</u>
MINUTEMAN PRESS	9-2401 Cliffe Ave Courtenay BC V9N 2L5	94.1	<u>51</u>
Wayne Mackenzie Designer	105-1995 Cliffe Ave. Courtenay BC V9N 2L2	23.6	<u>58</u>

<u>Site</u>	<u>Address</u>	<u>Distance (m)</u>	<u>Map Key</u>
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SREG - Site Registry

A search of the SREG database, dated Jun 2022 has found that there are 20 SREG site(s) within approximately 0.10 kilometers of the project property.

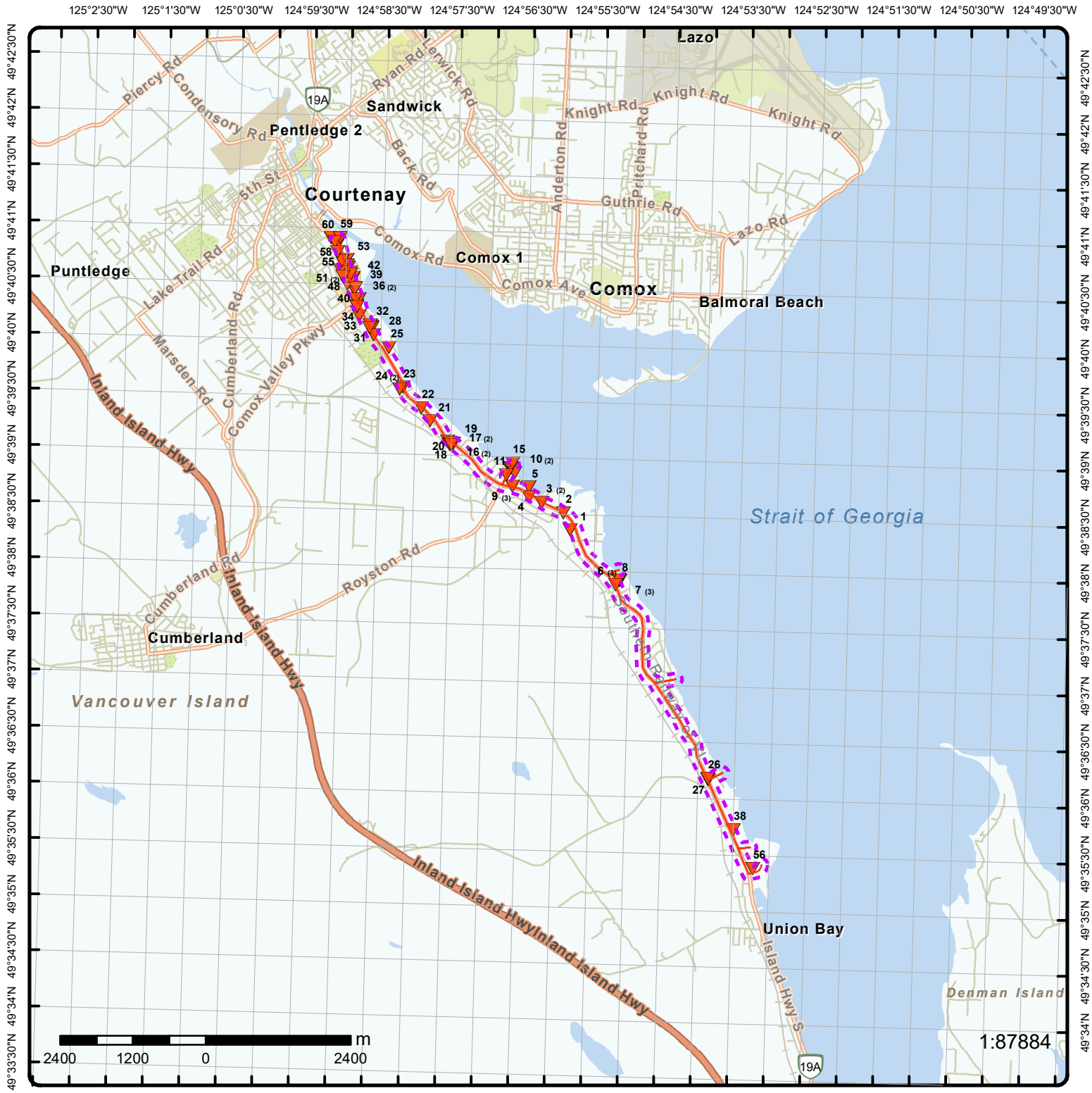
<u>Site</u>	<u>Address</u>	<u>Distance (m)</u>	<u>Map Key</u>
3927 Marine Drive, Royston	3927 MARINE DRIVE No Entry ROYSTON BC <i>Site ID Updated:</i> 4627 07-Nov-2010	95.9	<u>10</u>
Portions Of Royston Road And Marine Dr	PORTIONS OF ROYSTON ROAD AND MARINE DRIVE No Entry ROYSTON BC <i>Site ID Updated:</i> 16717 13-Nov-2014	6.9	<u>12</u>
Crown Land Adjacent To 3910 Royston Rd	CROWN LAND ADJACENT TO 3910 ROYSTON RD No Entry ROYSTON BC <i>Site ID Updated:</i> 16716 13-Nov-2014	11.3	<u>13</u>
Former Royston Esso Bulk Plant	3910 ROYSTON ROAD No Entry ROYSTON BC <i>Site ID Updated:</i> 4727 13-Nov-2014	11.3	<u>13</u>
3943 Marine Drive, Royston	3943 MARINE DRIVE No Entry ROYSTON BC <i>Site ID Updated:</i> 7063 13-Oct-2004	15.5	<u>14</u>
Royston Wharf, Royston	ROYSTON WHARF No Entry ROYSTON BC <i>Site ID Updated:</i> 6386 07-Apr-2004	39.7	<u>15</u>
5084 Island Highway, Union Bay	5084 ISLAND HIGHWAY No Entry UNION BAY BC <i>Site ID Updated:</i> 8850 25-Feb-2010	14.4	<u>26</u>
4988 South Island Highway, Union Bay	4988 SOUTH ISLAND HIGHWAY No Entry UNION BAY BC <i>Site ID Updated:</i> 10340 16-May-2007	2.3	<u>27</u>
3220 Cliffe Ave	3220 CLIFFE AVE No Entry NANAIMO BC <i>Site ID Updated:</i> 7388 31-Aug-2001	31.2	<u>29</u>

<u>Site</u>	<u>Address</u>	<u>Distance (m)</u>	<u>Map Key</u>
2900 Cliffe Avenue, Courtenay	2900 CLIFFE AVENUE No Entry COURTENAY BC <i>Site ID Updated:</i> 23386	26.2	<u>36</u>
Winter Garden Restaurant	2790 CLIFFE AVENUE No Entry COURTENAY BC <i>Site ID Updated:</i> 3282	35.8	<u>39</u>
Payless Station #7	2740 CLIFFE AVENUE No Entry COURTENAY BC <i>Site ID Updated:</i> 1719 14-Nov-1997	2.1	<u>40</u>
2500 Cliffe Avenue, Courtenay	2500 CLIFFE AVENUE No Entry COURTENAY BC <i>Site ID Updated:</i> 18353 23-Sep-2015	40.3	<u>45</u>
2440f Cliffe Avenue, Courtenay	2440F CLIFFE AVENUE No Entry COURTENAY BC <i>Site ID Updated:</i> 12139 25-Aug-2011	45.2	<u>46</u>
2400 Cliffe Avenue, Courtenay	2400 CLIFFE AVENUE No Entry COURTENAY BC <i>Site ID Updated:</i> 22300 13-May-2021	42.3	<u>49</u>
Mohawk Courtenay Service	2350 CLIFFE AVENUE No Entry COURTENAY BC <i>Site ID Updated:</i> 1907 13-May-2021	20.7	<u>52</u>
7-Eleven Gas Bar - Courtenay	2295 CLIFFE AVENUE No Entry COURTENAY BC <i>Site ID Updated:</i> 1940 25-Mar-2022	19.9	<u>54</u>
Kensington Union Bay Properties Ltd.	ISLAND HIGHWAY 19A AT HART (WASHER) CREEK UNION BAY BC <i>Site ID Updated:</i> 4291 25-Mar-2022	65.6	<u>56</u>
Imperial Oil Cardlock	2050 CLIFFE STREET No Entry COURTENAY BC <i>Site ID Updated:</i> 1710	9.2	<u>57</u>
1959 Cliffe Ave, Courtenay	1959 CLIFFE AVENUE No Entry COURTENAY BC <i>Site ID Updated:</i> 6615 15-Jun-2021	92.6	<u>60</u>

WWIS - Water Well Information System

A search of the WWIS database, dated Jul 2022 has found that there are 3 WWIS site(s) within approximately 0.10 kilometers of the project property.

<u>Site</u>	<u>Address</u>	<u>Distance (m)</u>	<u>Map Key</u>
	ISLAND HIGHWAY SOUTH ROYSTON BC	35.7	<u>4</u>
	BC	98.0	<u>8</u>
	UNION BAY BC	57.3	<u>38</u>



Map: 0.1 Kilometer Radius

Order Number: 22101900780

Address: Courtenay PS - Union Bay, Courtenay, BC



— Project Property	— Freeways; Highways	••• Beach	■ Shopping & Sports Area
- - - Buffer Outline	— Traffic Circle; Ramp	■ Airport	■ University/College
▲ Eris Sites with Higher Elevation	— Major Arterial; Minor Arterial	■ Industrial Area	■ Cemetery; Golf Course
■ Eris Sites with Same Elevation	— Local Road	■ Military Base	■ Parkt (National)
▼ Eris Sites with Lower Elevation	— Service Road; Traffic Circle; Ramp	■ Aircraft Roads	■ Park (City/County)
○ Eris Sites with Unknown Elevation	— Rail	■ Native Reservation	
		■ Hospital	





Topographic Map

Address: Courtenay PS - Union Bay, BC

Source: ESRI World Topographic Map

Order Number: 22101900780



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Detail Report

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
1	1 of 1	NE/89.3	9.2 / -34.69	TRENT RIVER NEAR ROYSTON	EM
BC					
Monitoring Loc ID:	E280479			Calc Statistics Ind:	No
Permit ID:				Client Location ID:	649
Prmt Rlshp:				Office CD:	RFC
Contaminated Site ID:				Well Ident Plate No:	
Discharge Media CD:				Location Area Ind:	No
Discharge Media:				Mobile Location Ind:	No
Smpl Cnt:	0			ECO Region CD:	
Rslt Cnt:	0			Watershed CD:	
Frst Smp Dt:				Feature Code:	EP10020300
Lst Smp Dt:				Geometry:	
Established Date:	20100601			Elevation:	
Closed Date:				Latitude:	49.63944
Location Type CD:	21			Longitude:	124.93056
Location Type:	RIVER,STREAM OR CREEK			X:	-124.93056000024899
Location Purpose CD:	6			Y:	49.63944000040941
Location Purpose:	HYDROMETRIC			Geo Ref Source CD:	M1:50
Source Class CD:					
Source Class Narrative:					
Monitoring Loc Comment:	DISCONTINUED				
Legal Description:	08HB044				
Description:	WSC				
2	1 of 1	NNE/10.3	8.9 / -35.00	TRENT R U/S OF HIGHWAY BRIDGE	EM
BC					
Monitoring Loc ID:	0127580			Calc Statistics Ind:	Yes
Permit ID:				Client Location ID:	11
Prmt Rlshp:				Office CD:	10
Contaminated Site ID:				Well Ident Plate No:	
Discharge Media CD:				Location Area Ind:	No
Discharge Media:				Mobile Location Ind:	No
Smpl Cnt:	62			ECO Region CD:	
Rslt Cnt:	1710			Watershed CD:	
Frst Smp Dt:	19850305093000			Feature Code:	EP10020300
Lst Smp Dt:	20101102145000			Geometry:	
Established Date:	19841130			Elevation:	
Closed Date:				Latitude:	49.6419
Location Type CD:	21			Longitude:	124.93220000000001
Location Type:	RIVER,STREAM OR CREEK			X:	-124.93219999994535
Location Purpose CD:	5			Y:	49.641899999565894
Location Purpose:	NONE OF THE ABOVE			Geo Ref Source CD:	G1:20
Source Class CD:					
Source Class Narrative:					
Monitoring Loc Comment:					
Legal Description:					
Description:	AT BRIDGE ON HWY 1				

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
3	1 of 2	NNW/11.7	8.5 / -35.41	ROYSTON TEMPO AUTOMOTIVE SERVICE 3991 ISLAND HWY RR 1 ROYSTON BC V0R2V0	RST
Headcode: 1186800 Headcode Desc: Service Stations-Gasoline, Oil & Natural Gas Phone: 2503342526 List Name: Description:					
3	2 of 2	NNW/11.7	8.5 / -35.41	ROYSTON TEMPO AUTOMOTIVE SERVICE 3991S ISLAND HWY RR 1 ROYSTON BC V0R 2V0	RST
Headcode: 1186800 Headcode Desc: Service Stations-Gasoline, Oil & Natural Gas Phone: 2503342526 List Name: Description:					
4	1 of 1	NNW/35.7	13.1 / -30.77	ISLAND HIGHWAY SOUTH ROYSTON BC	WWIS
Consultant Company: Constr Report Ind: Est. Yield: 0.250 Filter Pack Size Cd: Surface Seal Mthd Cd: Status of Well Code: NEW Class of Well Code: WATR_SPPLY Well Use Code: Well Status: New Crew Driller Name: JASON SCHMIT Gravel Packed From: Driller Company Cd: Driller Well ID: Drilling Mthd Cd: AIR_ROTARY Meridian: Existing Well Tag No: Filter Pack Mtl: Surf Seal Flag: Surf Seal Mthd: Constr Start Dt: 1995-05-31 Water Depth: Constr Mthd: SubClass of Well: N/A Observ. Well No: Owner's Well No: BCGS ID: Seq No: Land District: NELSON Township: Lot: 7 Section: 6A Constr Rpt Rcvd Ind: Longitude: -124.940065 Easting: 359942 Legal Land Distr Cd: 34 Well Diameter: Bedrock Depth:					
Contractor Info 1: Use: Filter Pack Size: Well ID: Surface Seal Mtl Cd: Subclass of Well Cd: NA Constr Mthd Cd: Yield Unit Code: GPM Orientation of Well: Gravel Packed Flag: Gravel Packed To: Drilling Company: Surface Seal Thickness Inches: Drilling Mthd: Elevation: Filter Pack Mtl Cd: Well Tag No: 95533 Surf Seal Mtl: Surface Seal Depth ft: Constr End Dt: 1995-05-31 Final Well Depth: 100.00 Class of Well: Water supply Chemistry Site ID: Well Owner: Accepted Status Cd: BCGS Mapsheet: District Lot: Range: PID: 6146686 Plan: 3376 Island: Latitude: 49.644175 Zone: 10 Northing: 5500877 Legal Misc: Total Depth Drilled Ft 100.00 Bgl: Aquifer No: 411					

31 erisinfo.com | Environmental Risk Information Services Order No: 22101900780

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
Boundary Effect Code: Closure Details: Development Notes: Well Location: NOT PROVIDED Legal Miscellaneous: Analytic Solution Type: Testing Duration Hours: Testing Method: Specific Yield: Specific Storage 1 M: Hydraulic Conductivity: Transmissivity: Storativity: AVI Years:					
<u>Well Details (Cont 2)</u>					
EMS ID: EMS: Filter Pack from: Filter Pack to: Liner Diameter Inches: Liner from: Liner Thickness Inches: Decommission Backfill Mater: Decommission Details: Decommission End Date: Decommission Method Code: Decommission Reason: Decommission Sealant Mater: Decommission Start Date: Hydro Fracturing Performed: False Hydro Fracturing Yield Increas: Intended Water Use Code: DOM Licenced Status Code: UNLICENSED Screen Intake Method Code: Static Level Before Test: Static Water Level Ft Btoc: Water Supply Sys Well Name: Well Orientation: VERTICAL Yield Estimation Duration: Yield Estimation Method Code: Yield Estimation Rate: Alternative Specs Submitted: False Artesian Conditions: False Artesian Pressure Head Ft Agl:					
Liner to: Other Screen Bottom: Otr Screen Mater: Person Responsible: Drawdown: Co Persn Respsble: Tri-K Drilling Consultant Name:					
<u>Lithology Information</u>					
Lithology Seq No: Lithology Desc ID: Lithology: Lithology Cd: Lithology Desc: Lithology Colour Cd: Lithology Colour: Lithology Mtl Cd: Lithology Mtl: Material: TILL & ROCKS, SAND & GRAVEL Well Yield Unit Code: Lithology Observation: Lithology Edited Data:					
Who Created: When Created: When Updated: Who Updated: Depth: From 0.00 To 16.00 Overburden Depth: Bedrock Depth: Total Depth: Rel Hardness Cd: Rel Hardness:					

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
Lithology Raw Data: TILL & ROCKS, SAND & GRAVEL Lithology Meas Unit: Water Bearing Est Flw Unt Cd: Water Bearing Est Flw Unt: Water Bearing Estimated Flow:					
Lithology Seq No: Lithology Desc ID: Lithology: Lithology Cd: Lithology Desc: Lithology Colour Cd: Lithology Colour: Lithology Mtl Cd: shale Lithology Mtl: Material: Well Yield Unit Code: Lithology Observation: AT 32' FRACTURE - WATER AT .25 GPM. Lithology Edited Data: Lithology Raw Data: Lithology Meas Unit: Water Bearing Est Flw Unt Cd: Water Bearing Est Flw Unt: Water Bearing Estimated Flow:					
Who Created: When Created: When Updated: Who Updated: Depth: From 16.00 To 100.00 Overburden Depth: Bedrock Depth: Total Depth: Rel Hardness Cd: Rel Hardness:					
Casing Data Casing ID: Who Created: When Created: Standard Used: Material Code: STEEL Casing Size: Diameter Inches: 6.000 Drive Shoe Ind: Not Installed Casing Code:					
Table Used Flag: Casing Wall: Casing to: Casing from: Total Length: Who Updated: When Updated:					
Production Data (as of Jan 31, 2018) Production ID: 27474 Who Created: PROXY_EWELLS_USER When Created: 09-NOV-09 Static Level: Tidal Flag: Test Rate: Test Rate Units Cd: GPM Test Duration: Net Drawdown: Yield Estimated Method Code: Recommended Pump Depth: Recommended Pump Rate:					
Max Out feet: Max Out gph: Max Out gpm: Pump Gallons: Pump Setting: Pump Setting from: Pump Setting gpmh: Who Updated: When Updated:					
5	1 of 1	NNW/99.6	0.0 / -43.88	NBS364	EM
BC					
Monitoring Loc ID: E238856 Permit ID: Prmt Rlshp: Contaminated Site ID: Discharge Media CD: 2 Discharge Media: MARINE WATER					
Calc Statistics Ind: No Client Location ID: 54 Office CD: 10 Well Ident Plate No: Location Area Ind: No Mobile Location Ind: No					

34 erisinfo.com | Environmental Risk Information Services Order No: 22101900780

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
Documents URL:		https://nrs.objectstore.gov.bc.ca/ltcczn/600802589649ba00212a279b/20180720_IL_WA_90501.pdf			
6	3 of 3	ESE/12.2	18.1 / -25.78	Kingfisher Oceanside Resort and Spa Ltd. 4330 Island Hwy S. Courtney BC BC	CONV
Action:		Disposition:			
Penalty:		Disposition Date:			
Regulation:		Date:			
Act:		Year:			
Section:		Quarter:			
Charge Date:		Court Location:			
Site Project:		Lat Long: 49.6323/-124.9185			
Type:		Issued on Edit:			
Location:		4330 Island Hwy S. Courtney BC			
Issued To:		Kingfisher Oceanside Resort and Spa Ltd.			
Description:		Inspection to verify compliance with regulatory requirement.			
Note:					
Issuing Agency:		Ministry of Environment and Climate Change Strategy			
Issued on:		Oct 14, 2021			
Offence:					
Outcome Description:		Out of Compliance - Warning 120(6)			
Documents:		20211012_IL_WA_175579_-_FINAL.pdf			
Documents URL:		https://nrs.objectstore.gov.bc.ca/ltcczn/62a86ec7e61bc50022e7412a/20211012_IL_WA_175579_-_FINAL.pdf			
7	1 of 3	ESE/100.0	15.2 / -28.69	KINGFISHER OCEANSIDE RESORT & SPA LTD. 4330 Island Hwy S. Courtney BC V9N 9R9 Cowichan Valley BC	AMS
Authorization No:		5551	Compliance:		
File No:			Address Type:		
File No Version:			Program Area: Authorizations - South Region		
Status:		Active	FS:		
Status as of:			Section Code:		
Date Amended:			Nearest Municip: Nanaimo		
Date Issued:		2/21/1980	Latitude: 49.6323		
SIC Code:			Longitude: 124.9185		
Waste Type:			Case Manager:		
Expiry Date:			Current Assignee:		
Office:		Nanaimo	Doing Business as:		
CPIX:		M	Signing Authority:		
Admin Area:		Southern Interior	Billing Address:		
Risk Level:			MEM No:		
PIN or PID:			Major Mines Per No:		
EA Certificate No:					
Permit Type Code:					
Permit Type:		Permit -			
Authorization Type:		Permit			
Primary BCENICID:		531300 Administration - Private			
Secondary BCENICID:		562220 Sewage Treatment			
WDR Regulation:		Schedule 1			
WDR Description:		Municipal Sewage Management			
Region Case Mngr:		Mamoser, Melanie			
Facility Operator:		Lorne Sandberg			
Fac Operator Phone:		(250) 204-4262			
Fac Operator Email:		H2Ops@hotmail.ca			
MEM Description:					
PID PIN Crown File No:					
SIC:					
Mailing Address:		4330 ISLAND HIGHWAY SOUTH COURTENAY, BC V9N 9R9			
Facility Type Description:		Hotel and Restaurant Complex			
Legal Address:					

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
Legal Land Description:		Lot B Plan VIP66171 District Lot 10 Land District			
Location:		4330 Island Hwy S. Courtney BC V9N 9R9 **Note: data in the [Facility Address] field for some records is truncated from the source.			
*Note:					
<u>Authorization Details</u>					
Company:		KINGFISHER OCEANSIDE RESORT & SPA LTD.			
Waste Type:		Effluent			
<u>Waste Discharge (Prior to 1994)</u>					
Compa Priority Idx:	Medium			Discharge Type:	Effluent
Administrativ Area:	Authorizations - South			Discharge Min:	
Discharge Start Dt:	8/31/1990			Discharge Avg:	
Discharge End Dt:	12/31/3999			Discharge Max:	10.00 mg/L
Discharge Point Source:	KINGFISHER - ROYSTON - PE5551				
Discharge Contaminant:	Biochemical Oxygen Demand.				
Bc Industry Code Bcenic :	Primary: 531300 Administration - Private Secondary: 562220 Sewage Treatment				
Ems Site # Type and Desc:	E211456: TITLE FIELD - EFFLUENT DISCHARGE EFFLUENT DISCHARGE Permitted Discharge				
Facility Type Description:	Hotel And Restaurant Complex A Secondary Sewage Treatment Plant With Ultrafiltration, Flow Equalization Tanks, Dual-Pump Chamber, A 2.9 M3 Grease Trap For The Restaurant, A Subsurface Pressurized Distribution System Consisting Of A Minimum Of Two Ground Disposal Fields Each Having 165 M Of Drainage Pipe, A Surface Irrigation System, A Non-Potable Toilet And Urinal Flush Water Recycling System, An Aesthetic Landscape Impoundment (Rock And Water Garden), An Activated Carbon Filter And An Ultra-Violet Disinfection Unit For The Recycled Wastewater				
Proposed Treatment Disposal:	Waste Site Proposal				
<u>Waste Discharge (Prior to 1994)</u>					
Compa Priority Idx:	Medium			Discharge Type:	Effluent
Administrativ Area:	Authorizations - South			Discharge Min:	
Discharge Start Dt:	8/31/1990			Discharge Avg:	
Discharge End Dt:	12/31/3999			Discharge Max:	2.20 MPN/100mL
Discharge Point Source:	KINGFISHER - ROYSTON - PE5551				
Discharge Contaminant:	Fecal Coliform				
Bc Industry Code Bcenic :	Primary: 531300 Administration - Private Secondary: 562220 Sewage Treatment				
Ems Site # Type and Desc:	E211456: TITLE FIELD - EFFLUENT DISCHARGE EFFLUENT DISCHARGE Permitted Discharge				
Facility Type Description:	Hotel And Restaurant Complex A Secondary Sewage Treatment Plant With Ultrafiltration, Flow Equalization Tanks, Dual-Pump Chamber, A 2.9 M3 Grease Trap For The Restaurant, A Subsurface Pressurized Distribution System Consisting Of A Minimum Of Two Ground Disposal Fields Each Having 165 M Of Drainage Pipe, A Surface Irrigation System, A Non-Potable Toilet And Urinal Flush Water Recycling System, An Aesthetic Landscape Impoundment (Rock And Water Garden), An Activated Carbon Filter And An Ultra-Violet Disinfection Unit For The Recycled Wastewater				
Proposed Treatment Disposal:	Waste Site Proposal				
<u>Waste Discharge (Prior to 1994)</u>					
Compa Priority Idx:	Medium			Discharge Type:	Effluent
Administrativ Area:	Authorizations - South			Discharge Min:	
Discharge Start Dt:	8/31/1990			Discharge Avg:	
Discharge End Dt:	12/31/3999			Discharge Max:	10.00 mg/L
Discharge Point Source:	KINGFISHER - ROYSTON - PE5551				
Discharge Contaminant:	Suspended Solids/Residue Non-filterable				
Bc Industry Code Bcenic :	Primary: 531300 Administration - Private Secondary: 562220 Sewage Treatment				
Ems Site # Type and Desc:	E211456: TITLE FIELD - EFFLUENT DISCHARGE EFFLUENT DISCHARGE Permitted Discharge				
Facility Type Description:	Hotel And Restaurant Complex A Secondary Sewage Treatment Plant With Ultrafiltration, Flow Equalization Tanks, Dual-Pump Chamber, A 2.9 M3 Grease Trap For The Restaurant, A Subsurface Pressurized Distribution System Consisting Of A Minimum Of Two Ground Disposal Fields Each Having 165 M Of Drainage Pipe, A Surface Irrigation System, A Non-Potable Toilet And Urinal Flush Water Recycling System, An Aesthetic Landscape Impoundment (Rock And Water Garden), An Activated Carbon Filter And An Ultra-Violet Disinfection Unit For The Recycled Wastewater				
Proposed Treatment Disposal:	Waste Site Proposal				

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
Waste Discharge (Prior to 1994)					
Compa Priority Idx:	Medium			Discharge Type:	Effluent
Administrativ Area:	Authorizations - South			Discharge Min:	
Discharge Start Dt:	8/31/1990			Discharge Avg:	
Discharge End Dt:	12/31/3999			Discharge Max:	2.00 NTU
Discharge Point Source:	KINGFISHER - ROYSTON - PE5551				
Discharge Contaminant:	Effluent Turbidity				
Bc Industry Code Bcenic :	Primary: 531300 Administration - Private Secondary: 562220 Sewage Treatment				
Ems Site # Type and Desc:	E211456: TITLE FIELD - EFFLUENT DISCHARGE EFFLUENT DISCHARGE Permitted Discharge				
Facility Type Description:	Hotel And Restaurant Complex A Secondary Sewage Treatment Plant With Ultrafiltration, Flow Equalization Tanks, Dual-Pump Chamber, A 2.9 M3 Grease Trap For The Restaurant, A Subsurface Pressurized Distribution System Consisting Of A Minimum Of Two Ground Disposal Fields Each Having 165 M Of Drainage Pipe, A Surface Irrigation System, A Non-Potable Toilet And Urinal Flush Water Recycling System, An Aesthetic Landscape Impoundment (Rock And Water Garden), An Activated Carbon Filter And An Ultra-Violet Disinfection Unit For The Recycled Wastewater				
Proposed Treatment Disposal:	Waste Site Proposal				
Waste Discharge (Prior to 1994)					
Compa Priority Idx:	Medium			Discharge Type:	Effluent
Administrativ Area:	Authorizations - South			Discharge Min:	
Discharge Start Dt:	8/31/1990			Discharge Avg:	
Discharge End Dt:	12/31/3999			Discharge Max:	45.00 mg/L
Discharge Point Source:	KINGFISHER - ROYSTON - PE5551				
Discharge Contaminant:	Nitrogen NO3				
Bc Industry Code Bcenic :	Primary: 531300 Administration - Private Secondary: 562220 Sewage Treatment				
Ems Site # Type and Desc:	E211456: TITLE FIELD - EFFLUENT DISCHARGE EFFLUENT DISCHARGE Permitted Discharge				
Facility Type Description:	Hotel And Restaurant Complex A Secondary Sewage Treatment Plant With Ultrafiltration, Flow Equalization Tanks, Dual-Pump Chamber, A 2.9 M3 Grease Trap For The Restaurant, A Subsurface Pressurized Distribution System Consisting Of A Minimum Of Two Ground Disposal Fields Each Having 165 M Of Drainage Pipe, A Surface Irrigation System, A Non-Potable Toilet And Urinal Flush Water Recycling System, An Aesthetic Landscape Impoundment (Rock And Water Garden), An Activated Carbon Filter And An Ultra-Violet Disinfection Unit For The Recycled Wastewater				
Proposed Treatment Disposal:	Waste Site Proposal				
7	2 of 3	ESE/100.0	15.2 / -28.69	KINGFISHER OCEANSIDE RESORT AND SPA LTD. 4330 Island Highway South, Courtenay, BC, V9N 9R9, 49.634609, -124.915963 BC	CONV
Action:	Compliance Inspection			Disposition:	
Penalty:				Disposition Date:	
Regulation:				Date:	Apr-Jun 2018
Act:	Environmental Management Act			Year:	2018
Section:	109			Quarter:	2
Charge Date:				Court Location:	
Site Project:				Lat Long:	
Type:				Issued on Edit:	
Location:	4330 Island Highway South, Courtenay, BC, V9N 9R9, 49.634609, -124.915963				
Issued To:	KINGFISHER OCEANSIDE RESORT AND SPA LTD.				
Description:	Inspection to verify compliance with regulatory requirement				
Note:	Note: many records provided by the department have a truncated LOCATION field.				
Issuing Agency:					
Issued on:					
Offence:					
Outcome Description:					
Documents:					
Documents URL:					

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
7	3 of 3	ESE/100.0	15.2 / -28.69	Kingfisher Oceanside Resort and Spa Ltd. 4330 Island Highway South, Courtenay, BC, V9N 9R9, 49.634609, -124.915963 BC	CONV
Action: Penalty: Regulation: Act: Section: Charge Date: Site Project: Type: Location: Issued To: Description: Note: Issuing Agency: Issued on: Offence: Outcome Description: Documents: Documents URL:		Compliance Inspection Environmental Management Act 109 4330 Island Highway South, Courtenay, BC, V9N 9R9, 49.634609, -124.915963 Kingfisher Oceanside Resort and Spa Ltd. Inspection to verify compliance with regulatory requirement	Disposition: Disposition Date: Date: Year: Quarter: Court Location: Lat Long: Issued on Edit:	 Jan-Mar 2020 2020 1 49.634609, -124.915963	
8	1 of 1	ESE/98.0	15.2 / -28.69	BC	WWIS
Consultant Company: Constr Report Ind: Est. Yield: Filter Pack Size Cd: Surface Seal Mthd Cd: Status of Well Code: Class of Well Code: Well Use Code: Well Status: Crew Driller Name: Gravel Packed From: Driller Company Cd: Driller Well ID: Drilling Mthd Cd: Meridian: Existing Well Tag No: Filter Pack Mtl: Surf Seal Flag: Surf Seal Mthd: Constr Start Dt: Water Depth: Constr Mthd: SubClass of Well: Observ. Well No: Owner's Well No: BCGS ID: Seq No: Land District: Township: Lot: Section: Constr Rpt Rcvd Ind: Longitude: Easting: Legal Land Distr Cd: Well Diameter:		NEW WATR_SPPLY New Richard Bourget AIR_ROTARY N/A N/A 6	Contractor Info 1: Use: Filter Pack Size: Well ID: Surface Seal Mtl Cd: Subclass of Well Cd: Constr Mthd Cd: Yield Unit Code: Orientation of Well: Gravel Packed Flag: Gravel Packed To: Drilling Company: Surface Seal Thickness Inches: Drilling Mthd: Elevation: Filter Pack Mtl Cd: Well Tag No: Surf Seal Mtl: Surface Seal Depth ft: Constr End Dt: Final Well Depth: Class of Well: Chemistry Site ID: Well Owner: Accepted Status Cd: BCGS Mapsheet: District Lot: Range: PID: Plan: Island: Latitude: Zone: Northing: Legal Misc: Total Depth Drilled Ft	NA 81849 63.00 Water supply 49.63206 10 5499491	

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
Bedrock Depth: Aquifer Lithology Cd: Unknown Artesian Flow: Artesian Pressure PSI: Alteration Start Date: Alt Specs Rcvd Ind: Backfill Material: Capture Zone Flag: Water Quality Odour: UTM Accuracy Code: J Location Accuracy: J (unknown, accuracy based on parcel size) ICF cadastre, poor or no location sketch, arbitrarily located in center of parcel				Bgl: Aquifer No: 411 Aquifer Lithology: Artesian Units: Alteration End Date: Alt Specs Ind: Backfill Depth ft: Backfill Type: Water Quality Colour: Water Utility Flag:	
Accepted Status: Class of Well Codclassified by: Observ. Well Status: Other Chemistry Data: Filter Pack Mtl Thickness: Yield Units: Water Supply System Name: Water Supply Well Name: Artesian Flow Unit Cd: Orientation of Well Cd: General Remarks:					
<u>Well Details (Cont.)</u>					
Permit No: Well ID Plate No: Cntrct Well Plate: Well Sequence No: Observe Well No: Well Lic Gen Stat: Old Well No: Indian Reserve: Legal Block: Liner Mtl Cd: Liner Mtl: Lithology Flag: Lith Measure Unit: Lith Desc Count: Perforation Flag: Plate Attached by: Product Tidal Flag: Quarter: Reports Flag: Ground Water Flag: Sieve Flag: Site Flag: Other Flag: Pump Flag: Screen Flag: Screen Bottom Cd: Screen Bottom: Screen Info Text: Screen Intake Cd: Screen Intake: Screen Length: Screen Mfr: Screen Mtl Cd: Screen Mtl: Screen Opening Cd: Screen Opening: Screen Type Cd:				Sealant Mtl: Surfce Seal Length: Well Subclass by: Type of Well Cap: weld solid lid User Guid: Well Disinfect Ind: Not Disinfected When Created: Date Entered: Crew Helper Name: Chemistry Lab Data: Field Lab Data: Other Chem Data: Type of Work: Contractor Info 2: Who Updated: When Updated: Other Information: Who Created: Info Other: Info Site: Accepted by: Source Application: Well ID Plate Atta: Clos End Date: Clos Mthd Cd: Clos Mthd: Clos Reason: Clos Start Date: Development Hours: Develop Method Cd: Develop Meth Desc: Final Casing Stick: Gnd Elev Mthd Cd: UNKNOWN Gnd Elev Mthd: Old Mapsheet: Coordinate X: Coordinate Z:	

40 erisinfo.com | Environmental Risk Information Services Order No: 22101900780

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
Lithology Observation:					
Lithology Edited Data:					
Lithology Raw Data:		clay, grey			
Lithology Meas Unit:					
Water Bearing Est Flw Unt Cd:					
Water Bearing Est Flw Unt:					
Water Bearing Estimated Flow:					
Lithology Seq No:					
Lithology Desc ID:					
Lithology:					
Lithology Cd:					
Lithology Desc:					
Lithology Colour Cd:					
Lithology Colour:					
Lithology Mtl Cd:					
Lithology Mtl:					
Material:	shale				
Well Yield Unit Code:					
Lithology Observation:					
Lithology Edited Data:					
Lithology Raw Data:		shale			
Lithology Meas Unit:					
Water Bearing Est Flw Unt Cd:					
Water Bearing Est Flw Unt:					
Water Bearing Estimated Flow:					
Lithology Seq No:					
Lithology Desc ID:					
Lithology:					
Lithology Cd:	silty				
Lithology Desc:					
Lithology Colour Cd:					
Lithology Colour:					
Lithology Mtl Cd:					
Lithology Mtl:					
Material:	Silty gravel				
Well Yield Unit Code:					
Lithology Observation:					
Lithology Edited Data:					
Lithology Raw Data:		Silty gravel			
Lithology Meas Unit:					
Water Bearing Est Flw Unt Cd:					
Water Bearing Est Flw Unt:					
Water Bearing Estimated Flow:					
Lithology Seq No:					
Lithology Desc ID:					
Lithology:					
Lithology Cd:	silty				
Lithology Desc:					
Lithology Colour Cd:					
Lithology Colour:					
Lithology Mtl Cd:					
Lithology Mtl:					
Material:	silty clay, rocks				
Well Yield Unit Code:					
Lithology Observation:					
Lithology Edited Data:					
Lithology Raw Data:		silty clay, rocks			
Lithology Meas Unit:					
Water Bearing Est Flw Unt Cd:					
Water Bearing Est Flw Unt:					
Water Bearing Estimated Flow:					
Lithology Seq No:					
Who Created:					
When Created:					
When Updated:					
Who Updated:					
Depth:					From 43.00 To 63.00
Overburden Depth:					
Bedrock Depth:					
Total Depth:					
Rel Hardness Cd:					
Rel Hardness:					
Lithology Seq No:					
Who Created:					
When Created:					
When Updated:					
Who Updated:					
Depth:					From 0.00 To 5.00
Overburden Depth:					
Bedrock Depth:					
Total Depth:					
Rel Hardness Cd:					
Rel Hardness:					
Lithology Seq No:					
Who Created:					
When Created:					
When Updated:					
Who Updated:					
Depth:					From 5.00 To 10.00
Overburden Depth:					
Bedrock Depth:					
Total Depth:					
Rel Hardness Cd:					
Rel Hardness:					

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
<div> <div> Lithology Desc ID: Lithology: Lithology Cd: Lithology Desc: Lithology Colour Cd: Lithology Colour: Lithology Mtl Cd: Lithology Mtl: Material: till Well Yield Unit Code: Lithology Observation: Lithology Edited Data: Lithology Raw Data: till Lithology Meas Unit: Water Bearing Est Flw Unt Cd: Water Bearing Est Flw Unt: Water Bearing Estimated Flow: </div> <div> When Created: When Updated: Who Updated: Depth: From 20.00 To 43.00 Overburden Depth: Bedrock Depth: Total Depth: Rel Hardness Cd: Rel Hardness: </div> </div>					
Casing Data					
<div> <div> Casing ID: Who Created: When Created: Standard Used: Material Code: STEEL Casing Size: Diameter Inches: 6.000 Drive Shoe Ind: Installed Casing Code: </div> <div> Table Used Flag: Casing Wall: Casing to: 43.00 Casing from: 0.00 Total Length: Who Updated: When Updated: </div> </div>					
Production Data (as of Jan 31, 2018)					
<div> <div> Production ID: 11662 Who Created: WELLS When Created: 08-NOV-04 Static Level: Tidal Flag: No Test Rate: Test Rate Units Cd: UNK Test Duration: Net Drawdown: Yield Estimated Method Code: UNK Recommended Pump Depth: Recommended Pump Rate: </div> <div> Max Out feet: Max Out gph: Max Out gpm: Pump Gallons: Pump Setting: GrdLvl Pump Setting from: Pump Setting gpmh: Who Updated: PROXY_WELLS_CONVERSION When Updated: 13-FEB-07 </div> </div>					
9	1 of 3	NW/10.7	15.6 / -28.30	Vancouver Island Ski Services Royston 3922 Island Hwy BC	GEN
<div> <div> Generator No: BCG05349 Status: Active Region: VANCOUVER ISLAND Mailing Addr: Waste Generation Site: Royston 3922 Island Hwy Comments: Year: 2019; 2021 </div> <div> Status Date: 28-Jun-1993 Registration Dt: 13-Jan-1995 </div> </div>					
Waste Detail(s)					
<div> <div> TDG Pin No: NA9378 TDG Class: 6.1 </div> <div> Generation Code: Intermittently Handling Code: Storage </div> </div>					

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
Reg Status Date: 28-Jun-1993 Physical State: Liquid Amount in Storage: 1435 L Amount Per 30 Days: 6 L Registered Waste: Tank Tail Ends 78 **Note: Many records provided by the department have a truncated [Registered Waste] field.					
Gen Business Type: Certified By Name: Mike Perry Date Certifier Signed: 21-Dec-1992					
9	2 of 3	NW/10.7	15.6 / -28.30	YOUR TURN RETAIL CO 3922 ISLAND HWY S COURTENAY BC V9N 9T5	RST
Headcode: 01186800 Headcode Desc: SERVICE STATIONS-GASOLINE, OIL & NATURAL GAS Phone: 2503389033 List Name: Description:					
9	3 of 3	NW/10.7	15.6 / -28.30	ROYSTON ESSO 3922 ISLAND HWY S COURTENAY BC	RST
Headcode: 01186800 Headcode Desc: SERVICE STATIONS GASOLINE OIL & NATURAL Phone: 2503389033 List Name: Description:					
10	1 of 2	NW/95.9	7.3 / -36.57	3927 Marine Drive, Royston 3927 MARINE DRIVE No Entry ROYSTON BC	SREG
Site ID: 4627 Victoria File No: 26250-20/4627 Env Rmd ID: Regional File No: 26250-20/4627 Region: Record Status: NOT ASSIGNED Status as of: Jun 2022 Cleanup Status: Category: Medium Site, Complex Contamination Location Desc: SITE CREATED BY SITE PROFILE, ENTERED 97-12-02. LAT/LONG FOR UPLAND PORTION OF SITE, CONFIRMED VIA GOOGLE EARTH BY C. HACKINEN ON 04 NOV/10. Addr (BC Data Catalogue): Site Note: There are no Associated Sites for this site.					
Registered: 02-Apr-1998 Updated: 07-Nov-2010 Detail Removed: 04-Nov-2010 Common Name: Postal Code: V0R 2V0 Latitude DMS: 49d 38m 51.0s Longitude DMS: 124d 56m 37.8s Latitude: 49.647500 Longitude: 124.943822					
Registry Notations Event ID: 39274 Notation Type and Act: PRELIMINARY SITE INVESTIGATION REPORT: INTERNAL REVIEW REQUESTED. Waste Management Act: Contaminated Sites Notations Initiated Date: 28-Jun-2001 Approved Date: 20-Aug-2001 Region: Nanaimo, Vancouver Island Ministry Contact: WALTON, DOUG G Notation Notes: No Notes Entered **Note: Many records provided by the department have a truncated [Notation Notes] field. Required Actions: No Actions Entered Requirement Due Date: Requirement Received Date:					
Participant: Shell Canada Products Limited (Calgary) Role: SUBMITTED BY					

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
<u>Registry Notations</u>					
Event ID:	26144				
Notation Type and Act:	SITE INVESTIGATION REPORT SUBMITTED. Administrative				
Initiated Date:	17-Mar-1997				
Approved Date:	17-Mar-1997				
Region:	Nanaimo, Vancouver Island				
Ministry Contact:	PATTEN, BARRY				
Notation Notes:	Spill Response, 1996 04 13 Shell Bulk Plant, Royston, Bc.				
Required Actions:	No Actions Entered				
Requirement Due Date:					
Requirement Received Date:					
Participant:	Morrow Environmental Consultants Inc (Burnaby (Commerce Court))		Role:	SUBMITTED BY	
<u>Registry Notations</u>					
Event ID:	26143				
Notation Type and Act:	SPILL REPORTED. Administrative				
Initiated Date:	13-Apr-1996				
Approved Date:	13-Apr-1996				
Region:	Nanaimo, Vancouver Island				
Ministry Contact:	PATTEN, BARRY				
Notation Notes:	Dangerous Goods Incident 70123 **Note: Many records provided by the department have a truncated [Notation Notes] field.				
Required Actions:	No Actions Entered				
Requirement Due Date:					
Requirement Received Date:					
<u>Registry Notations</u>					
Event ID:	46327				
Notation Type and Act:	CERTIFICATE OF COMPLIANCE ISSUED USING RISK BASED STANDARDS. Environmental Management Act: General				
Initiated Date:	29-Jul-2004				
Approved Date:	29-Jul-2004				
Region:	Nanaimo, Vancouver Island				
Ministry Contact:	HARRIS, GLENN E				
Notation Notes:	Issued To Management Area Associated With 3927 Marine Drive **Note: Many records provided by the department have a truncated [Notation Notes] field.				
Required Actions:	No Actions Entered				
Requirement Due Date:					
Requirement Received Date:					
Participant:	Regional District Of Comox-Strathcona (Courtenay)		Role:	RECEIVED BY	
Participant:	Shell Canada Products Limited (Calgary)		Role:	REQUESTED BY	
Participant:	Morrow Environmental Consultants Inc (Burnaby (Commerce Court))		Role:	RECEIVED BY	
Participant:	Walton, Doug G		Role:	ISSUED BY	
<u>Registry Notations</u>					
Event ID:	25664				
Notation Type and Act:	SITE PROFILE - NO FURTHER INVESTIGATION REQUIRED BY THE MINISTRY. Waste Management Act: Contaminated Sites Notations				
Initiated Date:	11-Dec-1997				
Approved Date:	No Entry				
Region:	Nanaimo, Vancouver Island				
Ministry Contact:	BROWN, DAVID F				

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
Notation Notes:		However, Verbal Notification Given Of Independent Remediation (97-12-10). Therefore, Site Is Still Active.			
Required Actions:		No Actions Entered			
Requirement Due Date:					
Requirement Received Date:					
<u>Registry Notations</u>					
Event ID:		39276			
Notation Type and Act:		CERTIFICATE OF COMPLIANCE REQUESTED WITHOUT INSPECTION. Waste Management Act: Contaminated Sites Notations			
Initiated Date:		28-Jun-2001			
Approved Date:		20-Aug-2001			
Region:		Nanaimo, Vancouver Island			
Ministry Contact:		WALTON, DOUG G			
Notation Notes:		Off-Site Contamination Remaining.			
Required Actions:		No Actions Entered			
Requirement Due Date:					
Requirement Received Date:					
Participant:	Shell Canada Products Limited (Calgary)	Role:	SUBMITTED BY		
<u>Registry Notations</u>					
Event ID:		25413			
Notation Type and Act:		SITE PROFILE RECEIVED. Waste Management Act: Contaminated Sites Notations			
Initiated Date:		26-Nov-1997			
Approved Date:		No Entry			
Region:		Nanaimo, Vancouver Island			
Ministry Contact:		BROWN, DAVID F			
Notation Notes:		Notation Generated In Site Profile On 97-12-02 By Behalsey **Note: Many records provided by the department have a truncated [Notation Notes] field.			
Required Actions:		No Actions Entered			
Requirement Due Date:					
Requirement Received Date:					
<u>Registry Notations</u>					
Event ID:		25984			
Notation Type and Act:		NOTICE OF INDEPENDENT REMEDIATION INITIATION SUBMITTED (WMA 28(2)). Waste Management Act: Contaminated Sites Notations			
Initiated Date:		12-Dec-1997			
Approved Date:		19-Dec-1997			
Region:		Nanaimo, Vancouver Island			
Ministry Contact:		GUTHER, MIKE J			
Notation Notes:		No Notes Entered **Note: Many records provided by the department have a truncated [Notation Notes] field.			
Required Actions:		No Actions Entered			
Requirement Due Date:					
Requirement Received Date:					
Participant:	Shell Canada Products Limited (Calgary)	Role:	REQUESTED BY		
Participant:	Guthier, Mike J	Role:	RECEIVED BY		
Participant:	Morrow Environmental Consultants Inc (Burnaby (Commerce Court))	Role:	SUBMITTED BY		
Participant:	Sloan, Michael	Role:	REVIEWED BY		
<u>Registry Notations</u>					
Event ID:		39275			
Notation Type and Act:		DETAILED SITE INVESTIGATION REPORT: INTERNAL REVIEW REQUESTED. Waste Management Act: Contaminated Sites Notations			

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
Initiated Date:		28-Jun-2001			
Approved Date:		20-Aug-2001			
Region:		Nanaimo, Vancouver Island			
Ministry Contact:		WALTON, DOUG G			
Notation Notes:		No Notes Entered **Note: Many records provided by the department have a truncated [Notation Notes] field.			
Required Actions:		No Actions Entered			
Requirement Due Date:					
Requirement Received Date:					
Participant:	Shell Canada Products Limited (Calgary)			Role:	SUBMITTED BY
<u>Registry Notations</u>					
Event ID:		46326			
Notation Type and Act:		CERTIFICATE OF COMPLIANCE ISSUED USING RISK BASED STANDARDS. Environmental Management Act: General			
Initiated Date:		29-Jul-2004			
Approved Date:		29-Jul-2004			
Region:		Nanaimo, Vancouver Island			
Ministry Contact:		HARRIS, GLENN E			
Notation Notes:		Issued To Pids: 007-359-489, 005-438-519, 005-438-527, 006-154-689, 005-441-536 **Note: Many records provided by the department have a truncated [Notation Notes] field.			
Required Actions:		Schedule B; Condition 4: "It Is Recommended That All Groundwater Wells That Are No Longer Required Be Properly Decommissioned So As To Prevent The Possible Introduction Of Pollutants Into The Subsurface By Way Of The Well Installation."			
Requirement Due Date:					
Requirement Received Date:					
Participant:	Regional District Of Comox-Strathcona (Courtenay)			Role:	RECEIVED BY
Participant:	Walton, Doug G			Role:	ISSUED BY
Participant:	Morrow Environmental Consultants Inc (Burnaby (Commerce Court))			Role:	RECEIVED BY
Participant:	Shell Canada Products Limited (Calgary)			Role:	REQUESTED BY
<u>Site Participants</u>					
Participant:	Shell Canada Products Limited (Calgary)			Start Date:	Jun-13-2001
Participation Type:	ORG			End Date:	
Notes:					
Participants Role:	Property Owner				
<u>Site Participants</u>					
Participant:	Walton, Doug G			Start Date:	Jun-28-2001
Participation Type:	EMP			End Date:	Jun-14-2021
Notes:					
Participants Role:	Alternate Ministry Contact				
<u>Site Participants</u>					
Participant:	Shell Canada Products Limited (Calgary)			Start Date:	Mar-06-1950
Participation Type:	ORG			End Date:	
Notes:					
Participants Role:	Notice Recipient(Wmaa20.21(3))-Dont Flag				
Participants Role:	Property Owner				

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
<u>Site Participants</u>					
Participant:	Funk, Marilyn			Start Date:	Dec-01-1997
Participation Type:	EMP			End Date:	Dec-31-1999
Notes:					
Participants Role:	Alternate Ministry Contact				
<u>Site Participants</u>					
Participant:	Sloan, Michael			Start Date:	Dec-12-1997
Participation Type:	EMP			End Date:	Jan-30-2002
Notes:					
Participants Role:	Main Ministry Contact				
<u>Site Participants</u>					
Participant:	Regional District Of Comox-Strathcona (Courtenay)			Start Date:	Jul-29-2004
Participation Type:	ORG			End Date:	
Notes:					
Participants Role:	Municipal/Regional Contact				
<u>Site Participants</u>					
Participant:	Evs Environment Consultants (North Vancouver, B.C.)			Start Date:	Jan-01-2002
Participation Type:	ORG			End Date:	
Notes:					
Participants Role:	Environmental Consultant/Contractor				
<u>Site Participants</u>					
Participant:	Guther, Mike J			Start Date:	Dec-12-1997
Participation Type:	EMP			End Date:	Mar-29-2002
Notes:					
Participants Role:	Alternate Ministry Contact				
<u>Site Participants</u>					
Participant:	Patten, Barry			Start Date:	Apr-13-1996
Participation Type:	EMP			End Date:	Mar-31-2003
Notes:					
Participants Role:	Alternate Ministry Contact				
<u>Site Participants</u>					
Participant:	Analytical Service Laboratories Ltd (Vancouver)			Start Date:	Apr-22-1996
Participation Type:	ORG			End Date:	
Notes:					
Participants Role:	Analytical Lab				

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
<u>Site Participants</u>					
Participant:	Harris, Glenn E			Start Date:	Jul-29-2004
Participation Type:	EMP			End Date:	Jun-14-2021
Notes:					
Participants Role:	Alternate Ministry Contact				
<u>Site Participants</u>					
Participant:	Brown, David F			Start Date:	Nov-26-1997
Participation Type:	EMP			End Date:	Mar-31-2004
Notes:					
Participants Role:	Main Ministry Contact				
<u>Site Participants</u>					
Participant:	Morrow Environmental Consultants Inc (Burnaby (Commerce Court))			Start Date:	Aug-15-1992
Participation Type:	ORG			End Date:	
Notes:					
Participants Role:	Environmental Consultant/Contractor				
<u>Site Participants</u>					
Participant:	Shell Canada Products Limited (Burnaby)			Start Date:	Nov-26-1997
Participation Type:	ORG			End Date:	
Notes:					
Participants Role:	Site Profile Completor				
Participants Role:	Site Profile Contact				
<u>Documents on File</u>					
Document or Report Title:	Investigation And Remediation Former Shell Bulk Plant Royston Bc Location Code P00271, Vol 4 Of 4				
Authored Date:	13-Jun-2001				
Submitted Date:	28-Jun-2001				
Document Entry Notes:					
Nothing Noted **Note: Many records provided by the department have a truncated [Document Entry Notes] field.					
Participant and Role:	Shell Canada Products Limited (Calgary) - Commissioner				
Participant and Role:	Morrow Environmental Consultants Inc (Burnaby (Commerce Court)) - Author				
<u>Documents on File</u>					
Document or Report Title:	Groundwater Sampling - 2002 04 03. Former Shell Bulk Plant, Royston Bc				
Authored Date:	16-Oct-2002				
Submitted Date:	16-Oct-2002				
Document Entry Notes:					
Nothing Noted **Note: Many records provided by the department have a truncated [Document Entry Notes] field.					

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
Participant and Role:		Morrow Environmental Consultants Inc (Burnaby (Commerce Court)) - Author			
Documents on File					
Document or Report Title:		Investigation And Remediation Former Shell Bulk Plant Royston Bc Location Code P00271, Vol 2 Of 4			
Authored Date:		13-Jun-2001			
Submitted Date:		28-Jun-2001			
Document Entry Notes:					
Nothing Noted **Note: Many records provided by the department have a truncated [Document Entry Notes] field.					
Participant and Role:		Morrow Environmental Consultants Inc (Burnaby (Commerce Court)) - Author			
Participant and Role:		Shell Canada Products Limited (Calgary) - Commissioner			
Documents on File					
Document or Report Title:		Ground Water/Marine Sediment Problem Formulation			
Authored Date:		01-Jan-2002			
Submitted Date:		01-Jan-2002			
Document Entry Notes:					
Nothing Noted **Note: Many records provided by the department have a truncated [Document Entry Notes] field.					
Participant and Role:		Evs Environment Consultants (North Vancouver, B.C.) - Author			
Documents on File					
Document or Report Title:		Risk Assessment - Additional Soil Vapour Sampling For Management Area Adjacent To Former Shell Bulk Fuel Plant, 3927 Marine Dr, Royston, Bc			
Authored Date:		31-May-2004			
Submitted Date:		31-May-2004			
Document Entry Notes:					
Nothing Noted **Note: Many records provided by the department have a truncated [Document Entry Notes] field.					
Participant and Role:		Morrow Environmental Consultants Inc (Burnaby (Commerce Court)) - Author			
Documents on File					
Document or Report Title:		Human Health Risk Assessment. Management Area Adjacent To Former Shell Bulk Fuel Plant. Royston Bc			
Authored Date:		18-Oct-2002			
Submitted Date:		18-Oct-2002			
Document Entry Notes:					
Nothing Noted **Note: Many records provided by the department have a truncated [Document Entry Notes] field.					
Participant and Role:		Morrow Environmental Consultants Inc (Burnaby (Commerce Court)) - Author			
Documents on File					
Document or Report Title:		Spill Response, 1996 04 13 Shell Bulk Plant, Royston, B.C.			
Authored Date:		27-Jan-1997			
Submitted Date:		17-Mar-1997			

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
Document Entry Notes:					
Nothing Noted **Note: Many records provided by the department have a truncated [Document Entry Notes] field.					
Participant and Role:		Morrow Environmental Consultants Inc (Burnaby (Commerce Court)) - Author			
Participant and Role:		Shell Canada Products Limited (Calgary) - Commissioner			
<u>Documents on File</u>					
Document or Report Title:		Investigation And Remediation Former Shell Bulk Plant Royston Bc Location Code P00271, Vol 1 Of 4			
Authored Date:		13-Jun-2001			
Submitted Date:		28-Jun-2001			
Document Entry Notes:					
Nothing Noted **Note: Many records provided by the department have a truncated [Document Entry Notes] field.					
Participant and Role:		Morrow Environmental Consultants Inc (Burnaby (Commerce Court)) - Author			
Participant and Role:		Shell Canada Products Limited (Calgary) - Commissioner			
<u>Documents on File</u>					
Document or Report Title:		Marine Health Risk Assessment. Former Shell Bulk Fuel Plant. Royston Bc			
Authored Date:		01-Oct-2002			
Submitted Date:		01-Oct-2002			
Document Entry Notes:					
Nothing Noted **Note: Many records provided by the department have a truncated [Document Entry Notes] field.					
Participant and Role:		Evs Environment Consultants (North Vancouver, B.C.) - Author			
<u>Documents on File</u>					
Document or Report Title:		Investigation And Remediation Former Shell Bulk Plant Royston Bc Location Code P00271, Vol 3 Or 4			
Authored Date:		13-Jun-2001			
Submitted Date:		28-Jun-2001			
Document Entry Notes:					
Nothing Noted **Note: Many records provided by the department have a truncated [Document Entry Notes] field.					
Participant and Role:		Morrow Environmental Consultants Inc (Burnaby (Commerce Court)) - Author			
Participant and Role:		Shell Canada Products Limited (Calgary) - Commissioner			
<u>Suspected Land Use - Notes</u>					
Land Use Description:		Petrol Prod., /Produce Water Strg Abvegrnd/Undergrnd Tank			
Notes:		Inserted For Site Profile Dated 97-11-14			
<u>Suspected Land Use - Notes</u>					
Land Use Description:		Petrol Prod., Wholesale Bulk Storage Or Distribution			
Notes:		Inserted For Site Profile Dated 97-11-14			

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
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Parcel Descriptions

Date Added: 11/14/1997 **Crown Land PIN#:**
LTO PID(s): 005-438-519 **Crown Land File#:**
Land Description: LOT 18 BLOCK F SECTION 4 NELSON DISTRICT PLAN 1478 **Note: Many records provided by the department have a truncated [Land Description] field.

Parcel Descriptions

Date Added: 11/14/1997 **Crown Land PIN#:**
LTO PID(s): 006-154-689 **Crown Land File#:**
Land Description: LOT 1, SECTION 4, NELSON DISTRICT, PLAN 3418 **Note: Many records provided by the department have a truncated [Land Description] field.

Parcel Descriptions

Date Added: 11/14/1997 **Crown Land PIN#:**
LTO PID(s): 007-359-489 **Crown Land File#:**
Land Description: LOT 17 BLOCK "F" SECTION 4 NELSON DISTRICT PLAN 1478 **Note: Many records provided by the department have a truncated [Land Description] field.

Parcel Descriptions

Date Added: 11/14/1997 **Crown Land PIN#:**
LTO PID(s): 005-438-527 **Crown Land File#:**
Land Description: LOT 19, BLOCK F, SECTION 4, NELSON DISTRICT, PLAN 1478 **Note: Many records provided by the department have a truncated [Land Description] field.

Current Site Profile Information

Date Entered: Dec-02-1997
Date Completed: Nov-14-1997
Decision Date: Dec-11-1997
Date Received: Nov-26-1997
Date Registrar Recorded:
Date Answer Completed: Nov-14-1997
Reg Date Entered:
Investigation?: No
Local Authority: Regional District Of Comox-Strathcona
Local Authority Date Recorded: Nov-25-1997
Site Profile Comments: No Comment

Site Profile Note All Questions

Important Note:

SPECIAL NOTE REGARDING SITE PROFILE QUESTIONS

In the bulk data provided by the Ministry of the Environment, the Current Site Profile information for any given site ONLY INCLUDES QUESTIONS TO WHICH THE ANSWER IS YES. Here, for informational purposes only, we provide the list of ALL current site profile questions.

All Questions:

AREAS OF POTENTIAL CONCERN

- Petroleum, Solvent Or Other Polluting Substance Spills To The Environment Greater Than 100 Litres?
- Residue Left After Removal Of Piled Materials Such As Chemicals, Coal, Ore, Smelter Slag, Air Quality Control System Baghouse Dust?
- Discarded Barrels, Drums Or Tanks?
- Contamination Resulting From Migration Of Substances From Other Properties?

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
FILL MATERIALS					
- Fill Dirt, Soil, Gravel, Sand Or Like Materials From A Contaminated Site Or From A Source Used For Any Of The Activities Listed Under Schedule 2? - Discarded Or Waste Granular Materials Such As Sand Blasting Grit, Asphalt Paving Or Roofing Material, Spent Foundry Casting Sands, Mine Ore, Waste Rock Or Float? - Dredged Sediments, Or Sediments And Debris Materials Originating From Locations Adjacent To Foreshore Industrial Activities, Or Municipal Sanitary Or Stormwater Discharges?					
WASTE DISPOSAL					
- Materials Such As Household Garbage, Mixed Municipal Refuse, Or Demolition Debris? - Waste Or Byproducts Such As Tank Bottoms, Residues, Sludge, Or Flocculation Precipitates From Industrial Processes Or Wastewater Treatment? - Waste Products From Smelting Or Mining Activities, Such As Smelter Slag, Mine Tailings, Or Cull Materials From Coal Processing? - Waste Products From Natural Gas And Oil Well Drilling Activities, Such As Drilling Fluids And Muds? - Waste Products From Photographic Developing Or Finishing Laboratories; Asphalt Tar Manufacturing; Boilers, Incinerators Or Other Thermal Facilities (Eg. Ash); Appliance, Small Equipment Or Engine Repair Or Salvage; Dry Cleaning Operations (Eg. Solvents); For From The Cleaning Or Repair Of Parts Of Boats, Ships, Barges, Automobiles Or Trucks, Including Sandblasting Grit Or Paint Scrapings? *[1]					
*[1] Note prior to 2009, question 5 was worded as follows: "Waste Products From Photographic Developing Or Finishing Laboratories; Asphalt Tar Manufacturing; Boilers, Incinerators Or Other Thermal Facilities (Eg. Ash); Appliance, Small Equipment Or Engine Repair Or Salvage; Dry Cleaning Operations (Eg. Solvents); Or Automobile And Truck Parts Cleaning Or Repair?"					
TANKS OR CONTAINERS USED OR STORED, OTHER THAN TANKS USED FOR RESIDENTIAL HEATING FUEL*[2]					
- Underground Fuel Or Chemical Storage Tanks Other Than Storage Tanks For Compressed Gases? *[2A] - Above Ground Fuel Or Chemical Storage Tanks Other Than Storage Tanks For Compressed Gases? *[2B]					
*[2] Note prior to 2009, this section was referred to "Tanks Or Containers Used Or Stored".					
*[2A] Note prior to 2009, question 1 was worded as follows: "Underground Fuel Or Chemical Storage Tanks?"					
*[2B] Note prior to 2009, question 2 was worded as follows: "Above Ground Fuel Or Chemical Storage Tanks? "					
HAZARDOUS WASTES OR HAZARDOUS SUBSTANCES *[3]					
- Pcb-Containing Electrical Transformers Or Capacitors Either At Grade, Attached Above Ground To Poles, Located Within Buildings, Or Stored? - Waste Asbestos Or Asbestos Containing Materials Such As Pipe Wrapping, Blown-In Insulation Or Panelling Buried? - Paints, Solvents, Mineral Spirits Or Waste Pest Control Products Or Pest Control Product Containers Stored In Volumes Greater Than 205 Litres?					
*[3] Note, prior to 2009, this section was referred to "Special (Hazardous) Wastes Or Substances".					
LEGAL OR REGULATORY ACTIONS OR CONSTRAINTS					
- Government Orders Or Other Notifications Pertaining To Environmental Conditions Or Quality Of Soil, Water, Groundwater Or Other Environmental Media? - Liens To Recover Costs, Restrictive Covenants On Land Use, Or Other Charges Or Encumbrances, Stemming From Contaminants Or Wastes Remaining Onsite Or From Other Environmental Conditions? - Government Notifications Relating To Past Or Recurring Environmental Violations At The Site Or Any Facility Located On The Site?					
<u>Site Profile Note - Questions</u>					
Category Precursor:		Are there currently or to the best of your knowledge have there been previously on the site any:			
Category and Question:		Tanks Or Containers Used Or Stored - Above Ground Fuel Or Chemical Storage Tanks? Yes			
10	2 of 2	NW/95.9	7.3 / -36.57	Shell Canada Products Limited Royston 3927 Marine Dr Rr 1 BC	GEN
Generator No:	BCG01366			Status Date:	23-Sep-1999
Status:	Active			Registration Dt:	13-Jan-1995
Region:	VANCOUVER ISLAND				
Mailing Addr:					
Waste Generation Site:	Royston 3927 Marine Dr Rr 1				
Comments:	6-MAR-1997 SEE BCG06412				
Year:	2019; 2021				

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
<u>Waste Detail(s)</u>					
TDG Pin No:	UN1203			Generation Code:	Continuously
TDG Class:	3.1			Handling Code:	Storage
Reg Status Date:	23-Sep-1999			Gen Business Type:	
Physical State:	Liquid			Certified By Name:	Bill Allen
Amount in Storage:	0 L			Date Certifier Signed:	27-Apr-1993
Amount Per 30 Days:	60 L				
Registered Waste:	Gasoline Tank Bottoms **Note: Many records provided by the department have a truncated [Registered Waste] field.				
<u>Waste Detail(s)</u>					
TDG Pin No:	UN1202			Generation Code:	Continuously
TDG Class:	3.3			Handling Code:	Storage
Reg Status Date:	23-Sep-1999			Gen Business Type:	
Physical State:	Liquid			Certified By Name:	Bill Allen
Amount in Storage:	0 L			Date Certifier Signed:	27-Apr-1993
Amount Per 30 Days:	60 L				
Registered Waste:	Fuel Oil Tank Bottoms **Note: Many records provided by the department have a truncated [Registered Waste] field.				
<u>Waste Detail(s)</u>					
TDG Pin No:	UN1270			Generation Code:	Continuously
TDG Class:	3.3			Handling Code:	Recycled
Reg Status Date:	23-Sep-1999			Gen Business Type:	
Physical State:	Liquid			Certified By Name:	Bill Allen
Amount in Storage:	1130 L			Date Certifier Signed:	27-Apr-1993
Amount Per 30 Days:	500 L				
Registered Waste:	Used Oil **Note: Many records provided by the department have a truncated [Registered Waste] field.				
11	1 of 1	NW/6.4	11.0 / -32.91	ROCKSTEADY RESTORATIONS 3898 ROYSTON ROAD, ROYSTON, BC BC	GEN2
<u>Waste Manifests - 2012</u>					
Manifest No:	BH343606			Date Shipped:	05-17-2012
TDG Code:	UN3077			Date Received:	05-17-2012
TDG Class:	9.0-MISCELLANEOUS			Copy 3 Date:	05-29-2012
TDG Group:	III-Moderately Dangerous			Qty Shipped:	0 KG
Packing Code:	00-Blank			Qty Rcvd:	350 KG
Handling Code:	06-Secure Landfill			Trans Lic No:	No Entry
Waste Receiver:	7 MILE LANDFILL			Waste Trans:	NORM JONES HOLDINGS LTD.
Receiving Addr:	BOX 729, PT MCNEIL, BC			Trans Addr:	4311 JINGLE POT ROAD, NANAIMO, BC
Waste Name:	ENVIRONMENTALLY HAZARDOUS SUBSTANCES, SOLID, N.O.S.				
12	1 of 1	NW/6.9	6.1 / -37.74	Portions Of Royston Road And Marine Dr PORTIONS OF ROYSTON ROAD AND MARINE DRIVE No Entry ROYSTON BC	SREG
Site ID:	16717			Registered:	09-May-2014
Victoria File No:	26250-20/16717			Updated:	13-Nov-2014
Env Rmd ID:				Detail Removed:	13-Nov-2014
Regional File No:	No File			Common Name:	
Region:				Postal Code:	NA
Record Status:	NOT ASSIGNED			Latitude DMS:	49d 38m 54.9s
Status as of:	Jun 2022			Longitude DMS:	124d 56m 41.5s
Cleanup Status:				Latitude:	49.648589

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
Category:		Longitude:		124.944869	
Location Desc:		LATS/LONGS PROVIDED BY CONSULTANT			
Addr (BC Data Catalogue):					
Site Note:		There are no PIDs for this site.			
Registry Notations					
Event ID:		72982			
Notation Type and Act:		NOTIFICATION RECEIVED ABOUT LIKELY OR ACTUAL SUBSTANCE MIGRATION FROM NEIGHBOURING SITE. Environmental Management Act: General			
Initiated Date:		02-May-2014			
Approved Date:		02-May-2014			
Region:		Nanaimo, Vancouver Island			
Ministry Contact:		SAMWAYS, JENNIFER			
Notation Notes:		Source Parcel Is 3910 Royston Road, Royston. Site 4727.			
Required Actions:		No Actions Entered			
Requirement Due Date:					
Requirement Received Date:					
Participant:	Parsons	Role:		SUBMITTED BY	
Registry Notations					
Event ID:		73021			
Notation Type and Act:		SITE RISK CLASSIFIED - SITE IS NON-HIGH RISK. Environmental Management Act: General			
Initiated Date:		02-May-2014			
Approved Date:		02-May-2014			
Region:		Nanaimo, Vancouver Island			
Ministry Contact:		O'GRADY, TYLER			
Notation Notes:		No Notes Entered **Note: Many records provided by the department have a truncated [Notation Notes] field.			
Required Actions:		No Actions Entered			
Requirement Due Date:					
Requirement Received Date:					
Participant:	Parsons	Role:		SUBMITTED BY	
Registry Notations					
Event ID:		74992			
Notation Type and Act:		CERTIFICATE OF COMPLIANCE REQUESTED. Environmental Management Act: General			
Initiated Date:		04-Nov-2014			
Approved Date:		04-Nov-2014			
Region:		Nanaimo, Vancouver Island			
Ministry Contact:		LOCKHART, DAVE			
Notation Notes:		No Notes Entered **Note: Many records provided by the department have a truncated [Notation Notes] field.			
Required Actions:		No Actions Entered			
Requirement Due Date:					
Requirement Received Date:					
Participant:	Parsons	Role:		APPROVED PROFESSIONAL	
Registry Notations					
Event ID:		75148			
Notation Type and Act:		CERTIFICATE OF COMPLIANCE ISSUED USING NUMERICAL STANDARDS. Environmental Management Act: General			
Initiated Date:		10-Nov-2014			
Approved Date:		10-Nov-2014			
Region:		Nanaimo, Vancouver Island			
Ministry Contact:		LOCKHART, DAVE			
Notation Notes:		Issued On The Recommendation Of An Approved Professional (Ajay Tumber) Under Protocol 6 Of The Contaminated Sites Regulation			
		**Note: Many records provided by the department have a truncated [Notation Notes] field.			

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
Required Actions:		No Actions Entered			
Requirement Due Date:					
Requirement Received Date:					
Participant:	Parsons			Role:	APPROVED PROFESSIONAL
Participant:	Imperial Oil			Role:	RECEIVED BY
Participant:	Ward, John E H			Role:	ISSUED BY
Site Participants					
Participant:	Parsons			Start Date:	May-02-2014
Participation Type:	ORG			End Date:	
Notes:					
Participants Role:	Environmental Consultant/Contractor				
Site Participants					
Participant:	Ministry Of Transportation And Infrastructure			Start Date:	May-02-2014
Participation Type:	ORG			End Date:	
Notes:					
Participants Role:	Property Owner				
Site Participants					
Participant:	Morrow Environmental Consultants Inc (Burnaby (Commerce Court))			Start Date:	Jun-13-2001
Participation Type:	ORG			End Date:	
Notes:					
Participants Role:	Environmental Consultant/Contractor				
Site Participants					
Participant:	Parsons Canada Ltd			Start Date:	Dec-12-2003
Participation Type:	ORG			End Date:	
Notes:					
Participants Role:	Environmental Consultant/Contractor				
Site Participants					
Participant:	Lockhart, Dave			Start Date:	Nov-04-2014
Participation Type:	EMP			End Date:	Jun-14-2021
Notes:					
Participants Role:	Ministry Contact				
Site Participants					
Participant:	Site Information Advisor			Start Date:	May-02-2014
Participation Type:	EMP			End Date:	Jun-14-2021
Notes:					
Participants Role:	Ministry Contact				
Site Participants					

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
Participant: Participation Type: Notes:	Parsons ORG			Start Date: End Date:	Nov-04-2014
Participants Role:	Environmental Consultant/Contractor				
Site Participants					
Participant: Participation Type: Notes:	O'Connor Associates Environmental Inc (Burnaby) ORG			Start Date: End Date:	Dec-12-2003
Participants Role:	Environmental Consultant/Contractor				
Site Participants					
Participant: Participation Type: Notes:	O'Grady, Tyler EMP			Start Date: End Date:	May-02-2014 Jun-14-2021
Participants Role:	Ministry Contact				
Site Participants					
Participant: Participation Type: Notes:	Ward, John E H EMP			Start Date: End Date:	Nov-10-2014 Jun-14-2021
Participants Role:	Alternate Ministry Contact				
Site Participants					
Participant: Participation Type: Notes:	Imperial Oil ORG			Start Date: End Date:	Nov-10-2014
Participants Role:	Property Owner				
Documents on File					
Document or Report Title:	Human Health And Ecological Risk Assessment For Area Adjacent To Former Shell Bulk Plant, Royston, B.C., Location Code: P00217				
Authored Date:	18-Oct-2002				
Submitted Date:	18-Oct-2002				
Document Entry Notes:					
Nothing Noted **Note: Many records provided by the department have a truncated [Document Entry Notes] field.					
Participant and Role:	Morrow Environmental Consultants Inc (Burnaby (Commerce Court)) - Author				
Documents on File					
Document or Report Title:	Detailed Site Investigation Report, Former Royston Esso Bulk Plant, 3910 Royston Road, Royston B.C.				
Authored Date:	12-Dec-2003				
Submitted Date:	12-Dec-2003				
Document Entry Notes:					

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
Nothing Noted **Note: Many records provided by the department have a truncated [Document Entry Notes] field.					
Participant and Role:		Parsons Canada Ltd - Author			
Documents on File					
Document or Report Title:		Stage 1 Preliminary Site Investigation Report, Former Royston Esso Bulk Plant, 3910 Royston Road, Royston B.C.			
Authored Date:		12-Dec-2003			
Submitted Date:		12-Dec-2003			
Document Entry Notes:					
Nothing Noted **Note: Many records provided by the department have a truncated [Document Entry Notes] field.					
Participant and Role:		O'Connor Associates Environmental Inc (Burnaby) - Author			
Documents on File					
Document or Report Title:		Preliminary Site Investigation/Detailed Site Investigation/Confirmation Of Remediation, 3910 Royston Road, Royston, British Columbia			
Authored Date:		07-Oct-2014			
Submitted Date:		07-Oct-2014			
Document Entry Notes:					
Nothing Noted **Note: Many records provided by the department have a truncated [Document Entry Notes] field.					
Participant and Role:		Parsons - Author			
Documents on File					
Document or Report Title:		Investigation And Remediation, Former Shell Bulk Plant, Royston, B.C., Location Code: P00217			
Authored Date:		13-Jun-2001			
Submitted Date:		13-Jun-2001			
Document Entry Notes:					
Nothing Noted **Note: Many records provided by the department have a truncated [Document Entry Notes] field.					
Participant and Role:		Morrow Environmental Consultants Inc (Burnaby (Commerce Court)) - Author			
Documents on File					
Document or Report Title:		Summary Of Site Conditions, 3910 Royston Road, Royston, British Columbia			
Authored Date:		07-Oct-2014			
Submitted Date:		07-Oct-2014			
Document Entry Notes:					
Nothing Noted **Note: Many records provided by the department have a truncated [Document Entry Notes] field.					
Participant and Role:		Parsons Canada Ltd - Author			
Documents on File					
Document or Report Title:		Detailed Site Investigation And Remediation Completion Report, Residential Property Adjacent To The Former			

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
Authored Date: Submitted Date:		Royston Esso Bulk Plant, 3943 Marine Drive, 12-Dec-2003 12-Dec-2003			
Document Entry Notes: Nothing Noted **Note: Many records provided by the department have a truncated [Document Entry Notes] field.					
Participant and Role:		Parsons Canada Ltd - Author			
<u>Associated Sites</u>					
Associated Site ID: Notes:		4727 SOURCE PARCEL 4727 AFFECTED PARCEL 16717	Effective Date: 5/6/2014		
13	1 of 2	NW/11.3	7.9 / -35.97	Former Royston Esso Bulk Plant 3910 ROYSTON ROAD No Entry ROYSTON BC	SREG
Site ID: Victoria File No: Env Rmd ID: Regional File No: Region: Record Status: Status as of: Cleanup Status: Category: Location Desc: Addr (BC Data Catalogue): Site Note:		 4727 26250-20/4727 26250-20/4727 NOT ASSIGNED Jun 2022 Unranked LATS/LONG CONFIRMED USING ICIS NOV 16			
Registered: Updated: Detail Removed: Common Name: Postal Code: Latitude DMS: Longitude DMS: Latitude: Longitude:		 13-Feb-1998 13-Nov-2014 13-Nov-2014 VOR 2V0 49d 38m 53.8s 124d 56m 42.2s 49.648278 124.945056			
<u>Registry Notations</u>					
Event ID: Notation Type and Act: Initiated Date: Approved Date: Region: Ministry Contact: Notation Notes: Required Actions: Requirement Due Date: Requirement Received Date:		 66183 NOTICE OF INDEPENDENT REMEDIATION INITIATION SUBMITTED. Environmental Management Act: General 14-Nov-2012 14-Nov-2012 Nanaimo, Vancouver Island SAMWAYS, JENNIFER Start: 2012-10-13 **Note: Many records provided by the department have a truncated [Notation Notes] field. No Actions Entered			
Participant:		Parsons	Role: SUBMITTED BY		
<u>Registry Notations</u>					
Event ID: Notation Type and Act: Initiated Date: Approved Date: Region: Ministry Contact: Notation Notes: Required Actions: Requirement Due Date: Requirement Received Date:		 73019 SITE RISK CLASSIFIED - AFFECTED SITE IS NON-HIGH RISK. Environmental Management Act: General 02-May-2014 02-May-2014 Nanaimo, Vancouver Island O'GRADY, TYLER Affected Parcel Is Crown Land Adjacent To Site (Seaside Park). Site 16716. No Actions Entered			
Participant:		Parsons	Role: SUBMITTED BY		

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
<u>Registry Notations</u>					
Event ID:	45598				
Notation Type and Act:	CERTIFICATE OF COMPLIANCE ISSUED (WMA 27.6(2)). Waste Management Act: Contaminated Sites Notations				
Initiated Date:	15-Mar-2004				
Approved Date:	15-Mar-2004				
Region:	Nanaimo, Vancouver Island				
Ministry Contact:	WALTON, DOUG G				
Notation Notes:	Issued On The Advice Of A Rostered Professional Expert (Jerry Naus) Under Protocol 6 Of The Contaminated Sites Regulation **Note: Many records provided by the department have a truncated [Notation Notes] field.				
Required Actions:	No Actions Entered				
Requirement Due Date:					
Requirement Received Date:					
Participant:	Porter, Charles		Role:	ISSUED BY	
Participant:	Imperial Oil Limited (Burnaby)		Role:	RECEIVED BY	
Participant:	Naus, Jerry		Role:	ROSTERED EXPERT UNDER PROTOCOL SIX	
<u>Registry Notations</u>					
Event ID:	75150				
Notation Type and Act:	CERTIFICATE OF COMPLIANCE ISSUED USING NUMERICAL STANDARDS. Environmental Management Act: General				
Initiated Date:	10-Nov-2014				
Approved Date:	10-Nov-2014				
Region:	Nanaimo, Vancouver Island				
Ministry Contact:	LOCKHART, DAVE				
Notation Notes:	Issued On The Recommendation Of An Approved Professional (Ajay Tumber) Under Protocol 6 Of The Contaminated Sites Regulation **Note: Many records provided by the department have a truncated [Notation Notes] field.				
Required Actions:	No Actions Entered				
Requirement Due Date:					
Requirement Received Date:					
Participant:	Imperial Oil		Role:	RECEIVED BY	
Participant:	Parsons		Role:	APPROVED PROFESSIONAL	
Participant:	Ward, John E H		Role:	ISSUED BY	
<u>Registry Notations</u>					
Event ID:	66261				
Notation Type and Act:	SITE RISK CLASSIFIED - SITE IS NON-HIGH RISK. Environmental Management Act: General				
Initiated Date:	21-Nov-2012				
Approved Date:	21-Nov-2012				
Region:	Nanaimo, Vancouver Island				
Ministry Contact:	O'GRADY, TYLER				
Notation Notes:	No Notes Entered **Note: Many records provided by the department have a truncated [Notation Notes] field.				
Required Actions:	No Actions Entered				
Requirement Due Date:					
Requirement Received Date:					
Participant:	Parsons		Role:	SUBMITTED BY	
<u>Registry Notations</u>					
Event ID:	74990				
Notation Type and Act:	CERTIFICATE OF COMPLIANCE REQUESTED. Environmental Management Act: General				

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
Initiated Date: 04-Nov-2014 Approved Date: 04-Nov-2014 Region: Nanaimo, Vancouver Island Ministry Contact: LOCKHART, DAVE Notation Notes: No Notes Entered **Note: Many records provided by the department have a truncated [Notation Notes] field. Required Actions: No Actions Entered Requirement Due Date: Requirement Received Date:					
Participant:	Parsons			Role:	APPROVED PROFESSIONAL
<u>Registry Notations</u>					
Event ID: 26146 Notation Type and Act: MONITORING REPORT SUBMITTED. Administrative Initiated Date: 09-Apr-1997 Approved Date: 09-Apr-1997 Region: Nanaimo, Vancouver Island Ministry Contact: PATTEN, BARRY Notation Notes: Royston Esso Bulk Plant 3910 Royston Road Royston, British Columbia **Note: Many records provided by the department have a truncated [Notation Notes] field. Required Actions: No Actions Entered Requirement Due Date: Requirement Received Date:					
Participant:	Imperial Oil Limited (Burnaby)			Role:	SUBMITTED BY
<u>Registry Notations</u>					
Event ID: 72980 Notation Type and Act: NOTIFICATION RECEIVED ABOUT LIKELY OR ACTUAL SUBSTANCE MIGRATION TO NEIGHBOURING SITE. Environmental Management Act: General Initiated Date: 02-May-2014 Approved Date: 02-May-2014 Region: Nanaimo, Vancouver Island Ministry Contact: SAMWAYS, JENNIFER Notation Notes: Affected Roadways Are Portions Of Royston Road And Marine Drive (North And East Of Source Site). Site 16717. Required Actions: No Actions Entered Requirement Due Date: Requirement Received Date:					
Participant:	Parsons			Role:	SUBMITTED BY
<u>Registry Notations</u>					
Event ID: 73018 Notation Type and Act: SITE RISK CLASSIFIED - AFFECTED SITE IS NON-HIGH RISK. Environmental Management Act: General Initiated Date: 02-May-2014 Approved Date: 02-May-2014 Region: Nanaimo, Vancouver Island Ministry Contact: O'GRADY, TYLER Notation Notes: Affected Roadways Are Portions Of Royston Road And Marine Drive (North And East Of Source Site). Site 16717. Required Actions: No Actions Entered Requirement Due Date: Requirement Received Date:					
Participant:	Parsons			Role:	SUBMITTED BY
<u>Registry Notations</u>					
Event ID: 32208 Notation Type and Act: SPILL REPORTED. Administrative					

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
Initiated Date:		24-Feb-1997			
Approved Date:		24-Feb-1997			
Region:		Nanaimo, Vancouver Island			
Ministry Contact:		PATTEN, BARRY			
Notation Notes:		Dangerous Goods Incident Report 73504 **Note: Many records provided by the department have a truncated [Notation Notes] field.			
Required Actions:		No Actions Entered			
Requirement Due Date:					
Requirement Received Date:					
Registry Notations					
Event ID:		36759			
Notation Type and Act:		NOTICE OF INDEPENDENT REMEDIATION INITIATION SUBMITTED (WMA 28(2)). Waste Management Act: Contaminated Sites Notations			
Initiated Date:		05-Sep-2000			
Approved Date:		24-Oct-2000			
Region:		Nanaimo, Vancouver Island			
Ministry Contact:		SLOAN, MICHAEL			
Notation Notes:		No Notes Entered **Note: Many records provided by the department have a truncated [Notation Notes] field.			
Required Actions:		Remediation Schedule Required By November 30, 2000.			
Requirement Due Date:					
Requirement Received Date:					
Participant:	Imperial Oil Limited (Burnaby)	Role:	SUBMITTED BY		
Registry Notations					
Event ID:		66887			
Notation Type and Act:		NOTICE OF INDEPENDENT REMEDIATION COMPLETION SUBMITTED. Environmental Management Act: General			
Initiated Date:		16-Jan-2013			
Approved Date:		16-Jan-2013			
Region:		Nanaimo, Vancouver Island			
Ministry Contact:		SAMWAYS, JENNIFER			
Notation Notes:		Completed: 2012-11-08 **Note: Many records provided by the department have a truncated [Notation Notes] field.			
Required Actions:		No Actions Entered			
Requirement Due Date:					
Requirement Received Date:					
Participant:	Parsons	Role:	SUBMITTED BY		
Registry Notations					
Event ID:		72979			
Notation Type and Act:		NOTIFICATION RECEIVED ABOUT LIKELY OR ACTUAL SUBSTANCE MIGRATION TO NEIGHBOURING SITE. Environmental Management Act: General			
Initiated Date:		02-May-2014			
Approved Date:		02-May-2014			
Region:		Nanaimo, Vancouver Island			
Ministry Contact:		SAMWAYS, JENNIFER			
Notation Notes:		Affected Parcel Is Crown Land Adjacent To Site (Seaside Park). Site 16716.			
Required Actions:		No Actions Entered			
Requirement Due Date:					
Requirement Received Date:					
Participant:	Parsons Canada Ltd	Role:	SUBMITTED BY		
Site Participants					
Participant:	Philip Analytical Services (Burnaby, B.C.)	Start Date:	Mar-05-1997		
Participation Type:	ORG	End Date:			
Notes:					

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
<hr/>					
Participants Role:		Analytical Lab			
<u>Site Participants</u>					
Participant:	Sloan, Michael			Start Date:	Sep-05-2000
Participation Type:	EMP			End Date:	Mar-29-2002
Notes:					
Participants Role:		Main Ministry Contact			
<u>Site Participants</u>					
Participant:	Parsons Canada Ltd			Start Date:	Dec-12-2003
Participation Type:	ORG			End Date:	
Notes:					
Participants Role:		Environmental Consultant/Contractor			
<u>Site Participants</u>					
Participant:	Parsons			Start Date:	Nov-04-2014
Participation Type:	ORG			End Date:	
Notes:					
Participants Role:		Environmental Consultant/Contractor			
<u>Site Participants</u>					
Participant:	Irwin, Belinda & Fraser			Start Date:	Nov-17-2000
Participation Type:	PER			End Date:	
Notes:					
Participants Role:		Potentially Affected Party			
<u>Site Participants</u>					
Participant:	Naus, Jerry			Start Date:	Mar-15-2004
Participation Type:	PER			End Date:	
Notes:					
Participants Role:		Rostered Expert Under Protocol Six			
<u>Site Participants</u>					
Participant:	Walton, Doug G			Start Date:	Mar-15-2004
Participation Type:	EMP			End Date:	Jun-14-2021
Notes:					
Participants Role:		Main Ministry Contact			
<u>Site Participants</u>					
Participant:	Imperial Oil			Start Date:	Nov-10-2014
Participation Type:	ORG			End Date:	
Notes:					
Participants Role:		Property Owner			

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
<u>Site Participants</u>					
Participant:	Morrow Environmental Consultants Inc (Burnaby (Commerce Court))			Start Date:	Jun-13-2001
Participation Type:	ORG			End Date:	
Notes:					
Participants Role:	Environmental Consultant/Contractor				
<u>Site Participants</u>					
Participant:	Lockhart, Dave			Start Date:	Nov-04-2014
Participation Type:	EMP			End Date:	Jun-14-2021
Notes:					
Participants Role:	Ministry Contact				
<u>Site Participants</u>					
Participant:	O'Grady, Tyler			Start Date:	Nov-21-2012
Participation Type:	EMP			End Date:	Jun-14-2021
Notes:					
Participants Role:	Ministry Contact				
<u>Site Participants</u>					
Participant:	Patten, Barry			Start Date:	Feb-24-1997
Participation Type:	EMP			End Date:	Mar-31-2003
Notes:					
Participants Role:	Alternate Ministry Contact				
<u>Site Participants</u>					
Participant:	Porter, Charles			Start Date:	Mar-15-2004
Participation Type:	EMP			End Date:	Jun-14-2021
Notes:					
Participants Role:	Alternate Ministry Contact				
<u>Site Participants</u>					
Participant:	O'Connor Associates Environmental Inc (Langley (92a Avenue))			Start Date:	Feb-28-1997
Participation Type:	ORG			End Date:	
Notes:					
Participants Role:	Environmental Consultant/Contractor				
<u>Site Participants</u>					
Participant:	Parsons			Start Date:	Nov-14-2012
Participation Type:	ORG			End Date:	
Notes:					
Participants Role:	Environmental Consultant/Contractor				
<u>Site Participants</u>					

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
Participant: Participation Type: Notes:	Parsons ORG			Start Date: End Date:	May-02-2014
Participants Role:	Environmental Consultant/Contractor				
Site Participants					
Participant: Participation Type: Notes:	Imperial Oil Limited (Burnaby) ORG			Start Date: End Date:	Feb-28-1997
Participants Role:	Property Owner				
Site Participants					
Participant: Participation Type: Notes:	Ministry Of Transportation And Highways (Courtenay) ORG			Start Date: End Date:	Nov-17-2000
Participants Role:	Potentially Affected Party				
Site Participants					
Participant: Participation Type: Notes:	Imperial Oil Limited (Burnaby) ORG			Start Date: End Date:	Mar-15-2004
Participants Role:	Property Owner				
Site Participants					
Participant: Participation Type: Notes:	Imperial Oil Limited (Burnaby) ORG			Start Date: End Date:	Sep-05-2000
Participants Role:	Property Owner				
Site Participants					
Participant: Participation Type: Notes:	Site Information Advisor EMP			Start Date: End Date:	Nov-14-2012 Jun-14-2021
Participants Role:	Ministry Contact				
Site Participants					
Participant: Participation Type: Notes:	Ward, John E H EMP			Start Date: End Date:	Nov-10-2014 Jun-14-2021
Participants Role:	Ministry Contact				
Documents on File					
Document or Report Title: Authored Date: Submitted Date:	Royston Esso Bulk Plant 3910 Royston Road Royston, British Columbia Location No. 990059 24-Mar-1997 09-Apr-1997				

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
Document Entry Notes:					
Nothing Noted **Note: Many records provided by the department have a truncated [Document Entry Notes] field.					
Participant and Role:		O'Connor Associates Environmental Inc (Langley (92a Avenue)) - Author			
Participant and Role:		Imperial Oil Limited (Burnaby) - Commissioner			
<u>Documents on File</u>					
Document or Report Title:		Detailed Site Investigation And Remediation Completion Report			
Authored Date:		05-Dec-2003			
Submitted Date:		05-Dec-2003			
Document Entry Notes:					
Nothing Noted **Note: Many records provided by the department have a truncated [Document Entry Notes] field.					
Participant and Role:		O'Connor Associates Environmental Inc (Langley (92a Avenue)) - Author			
<u>Documents on File</u>					
Document or Report Title:		Stage 1 Preliminary Site Investigation Report, Former Royston Esso Bulk Plant, 3910 Royston Road, Royston B. C detailed Site Investigation Report, Forme			
Authored Date:		12-Dec-2003			
Submitted Date:		13-Dec-2003			
Document Entry Notes:					
Nothing Noted **Note: Many records provided by the department have a truncated [Document Entry Notes] field.					
Participant and Role:		O'Connor Associates Environmental Inc (Langley (92a Avenue)) - Author			
<u>Documents on File</u>					
Document or Report Title:		(Appendix A) Detailed Site Investigation Report For 3910 Royston Road			
Authored Date:		12-Dec-2003			
Submitted Date:		16-Dec-2003			
Document Entry Notes:					
Report Is Filed With Site 7063 In The Victoria Office.					
Participant and Role:		O'Connor Associates Environmental Inc (Langley (92a Avenue)) - Author			
<u>Documents on File</u>					
Document or Report Title:		Detailed Site Investigation And Remediation Completion Report, Residential Property Adjacent To The Former Royston Esso Bulk Plant, 3943 Marine Drive			
Authored Date:		12-Dec-2003			
Submitted Date:		12-Dec-2003			
Document Entry Notes:					
Nothing Noted **Note: Many records provided by the department have a truncated [Document Entry Notes] field.					
Participant and Role:		Parsons Canada Ltd - Author			

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
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<u>Documents on File</u>					
Document or Report Title:	Human Health And Ecological Risk Assessment For Area Adjacent To Former Shell Bulk Plant, Royston, B.C., Location Code: P00217				
Authored Date:	18-Oct-2002				
Submitted Date:	18-Oct-2002				
Document Entry Notes:					
Nothing Noted **Note: Many records provided by the department have a truncated [Document Entry Notes] field.					
Participant and Role:	Morrow Environmental Consultants Inc (Burnaby (Commerce Court)) - Author				
<u>Documents on File</u>					
Document or Report Title:	Summary Of Site Conditions, 3910 Royston Road, Royston, British Columbia				
Authored Date:	07-Oct-2014				
Submitted Date:	07-Oct-2014				
Document Entry Notes:					
Nothing Noted **Note: Many records provided by the department have a truncated [Document Entry Notes] field.					
Participant and Role:	Parsons Canada Ltd - Author				
<u>Documents on File</u>					
Document or Report Title:	Preliminary Site Investigation/Detailed Site Investigation/Confirmation Of Remediation, 3910 Royston Road, Royston, British Columbia				
Authored Date:	07-Oct-2014				
Submitted Date:	07-Oct-2014				
Document Entry Notes:					
Nothing Noted **Note: Many records provided by the department have a truncated [Document Entry Notes] field.					
Participant and Role:	Parsons Canada Ltd - Author				
<u>Documents on File</u>					
Document or Report Title:	Detailed Site Investigation Report, Former Royston Esso Bulk Plant, 3910 Royston Road, Royston B.C.				
Authored Date:	12-Dec-2003				
Submitted Date:	12-Dec-2003				
Document Entry Notes:					
Nothing Noted **Note: Many records provided by the department have a truncated [Document Entry Notes] field.					
Participant and Role:	O'Connor Associates Environmental Inc (Langley (92a Avenue)) - Author				
<u>Documents on File</u>					
Document or Report Title:	Investigation And Remediation, Former Shell Bulk Plant, Royston, B.C., Location Code: P00217				
Authored Date:	13-Jun-2001				
Submitted Date:	13-Jun-2001				
Document Entry Notes:					

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
Nothing Noted **Note: Many records provided by the department have a truncated [Document Entry Notes] field.					
Participant and Role:	Morrow Environmental Consultants Inc (Burnaby (Commerce Court)) - Author				
Associated Sites					
Associated Site ID:	7063			Effective Date:	12/6/2000
Notes:	ADJACENT PROPERTY				
Associated Sites					
Associated Site ID:	16717			Effective Date:	5/6/2014
Notes:	SOURCE PARCEL 4727 AFFECTED PARCEL 16717				
Associated Sites					
Associated Site ID:	16716			Effective Date:	5/6/2014
Notes:	SOURCE PARCEL 4727 AFFECTED PARCEL 16716				
Suspected Land Use - Notes					
Land Use Description:	Petrol Prod., Wholesale Bulk Storage Or Distribution				
Notes:	No Entry				
Parcel Descriptions					
Date Added:	10/16/2000			Crown Land PIN#:	
LTO PID(s):	007-355-190			Crown Land File#:	
Land Description:	LOT 21, BLOCK E, SECTION 4, NELSON DISTRICT, PLAN 1478 **Note: Many records provided by the department have a truncated [Land Description] field.				
Parcel Descriptions					
Date Added:	12/30/1997			Crown Land PIN#:	
LTO PID(s):	007-355-165			Crown Land File#:	
Land Description:	LOT 20, BLOCK E, SECTION 4, NELSON DISTRICT, PLAN 1478 **Note: Many records provided by the department have a truncated [Land Description] field.				
13	2 of 2	NW/11.3	7.9 / -35.97	Crown Land Adjacent To 3910 Royston Rd CROWN LAND ADJACENT TO 3910 ROYSTON RD No Entry ROYSTON BC	SREG
Site ID:	16716			Registered:	09-May-2014
Victoria File No:	26250-20/16716			Updated:	13-Nov-2014
Env Rmd ID:				Detail Removed:	13-Nov-2014
Regional File No:	No File			Common Name:	
Region:				Postal Code:	NA
Record Status:	NOT ASSIGNED			Latitude DMS:	49d 38m 55.2s
Status as of:	Jun 2022			Longitude DMS:	124d 56m 41.5s
Cleanup Status:				Latitude:	49.648656
Category:				Longitude:	124.944869
Location Desc:	LATS/LONGS PROVIDED BY CONSULTANT				
Addr (BC Data Catalogue):					
Site Note:	There are no PIDs for this site.				

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
<u>Registry Notations</u>					
Event ID:	75149				
Notation Type and Act:	CERTIFICATE OF COMPLIANCE ISSUED USING NUMERICAL STANDARDS. Environmental Management Act: General				
Initiated Date:	10-Nov-2014				
Approved Date:	10-Nov-2014				
Region:	Nanaimo, Vancouver Island				
Ministry Contact:	LOCKHART, DAVE				
Notation Notes:	Issued On The Recommendation Of An Approved Professional (Ajay Tumber) Under Protocol 6 Of The Contaminated Sites Regulation **Note: Many records provided by the department have a truncated [Notation Notes] field.				
Required Actions:	No Actions Entered				
Requirement Due Date:					
Requirement Received Date:					
Participant:	Imperial Oil Limited		Role:	RECEIVED BY	
Participant:	Parsons		Role:	APPROVED PROFESSIONAL	
Participant:	Ward, John E H		Role:	ISSUED BY	
<u>Registry Notations</u>					
Event ID:	73020				
Notation Type and Act:	SITE RISK CLASSIFIED - SITE IS NON-HIGH RISK. Environmental Management Act: General				
Initiated Date:	02-May-2014				
Approved Date:	02-May-2014				
Region:	Nanaimo, Vancouver Island				
Ministry Contact:	O'GRADY, TYLER				
Notation Notes:	No Notes Entered **Note: Many records provided by the department have a truncated [Notation Notes] field.				
Required Actions:	No Actions Entered				
Requirement Due Date:					
Requirement Received Date:					
Participant:	Parsons		Role:	SUBMITTED BY	
<u>Registry Notations</u>					
Event ID:	74991				
Notation Type and Act:	CERTIFICATE OF COMPLIANCE REQUESTED. Environmental Management Act: General				
Initiated Date:	04-Nov-2014				
Approved Date:	04-Nov-2014				
Region:	Nanaimo, Vancouver Island				
Ministry Contact:	LOCKHART, DAVE				
Notation Notes:	No Notes Entered **Note: Many records provided by the department have a truncated [Notation Notes] field.				
Required Actions:	No Actions Entered				
Requirement Due Date:					
Requirement Received Date:					
Participant:	Parsons		Role:	APPROVED PROFESSIONAL	
<u>Registry Notations</u>					
Event ID:	72981				
Notation Type and Act:	NOTIFICATION RECEIVED ABOUT LIKELY OR ACTUAL SUBSTANCE MIGRATION FROM NEIGHBOURING SITE. Environmental Management Act: General				
Initiated Date:	02-May-2014				
Approved Date:	02-May-2014				
Region:	Nanaimo, Vancouver Island				
Ministry Contact:	SAMWAYS, JENNIFER				
Notation Notes:	Source Parcel Is 3910 Royston Road, Royston. Site 4727.				
Required Actions:	No Actions Entered				

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
Requirement Due Date:					
Requirement Received Date:					
Participant:	Parsons			Role:	SUBMITTED BY
<u>Site Participants</u>					
Participant:	Imperial Oil Limited			Start Date:	Nov-10-2014
Participation Type:	ORG			End Date:	
Notes:					
Participants Role:	Property Owner				
<u>Site Participants</u>					
Participant:	Morrow Environmental Consultants Inc (Burnaby (Commerce Court))			Start Date:	Jun-13-2001
Participation Type:	ORG			End Date:	
Notes:					
Participants Role:	Environmental Consultant/Contractor				
<u>Site Participants</u>					
Participant:	O'Connor Associates Environmental Inc (Burnaby)			Start Date:	Dec-12-2003
Participation Type:	ORG			End Date:	
Notes:					
Participants Role:	Environmental Consultant/Contractor				
<u>Site Participants</u>					
Participant:	Parsons			Start Date:	May-02-2014
Participation Type:	ORG			End Date:	
Notes:					
Participants Role:	Environmental Consultant/Contractor				
<u>Site Participants</u>					
Participant:	Crown Land			Start Date:	May-02-2014
Participation Type:	ORG			End Date:	
Notes:					
Participants Role:	Property Owner				
<u>Site Participants</u>					
Participant:	Site Information Advisor			Start Date:	May-02-2014
Participation Type:	EMP			End Date:	Jun-14-2021
Notes:					
Participants Role:	Ministry Contact				
<u>Site Participants</u>					
Participant:	O'Grady, Tyler			Start Date:	May-02-2014
Participation Type:	EMP			End Date:	Jun-14-2021
Notes:					

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
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Participants Role:		Ministry Contact			
<u>Site Participants</u>					
Participant:	Ward, John E H			Start Date:	Nov-10-2014
Participation Type:	EMP			End Date:	Jun-14-2021
Notes:					
Participants Role:		Ministry Contact			
<u>Site Participants</u>					
Participant:	Parsons			Start Date:	Nov-04-2014
Participation Type:	ORG			End Date:	
Notes:					
Participants Role:		Environmental Consultant/Contractor			
<u>Site Participants</u>					
Participant:	Parsons Canada Ltd			Start Date:	Dec-12-2003
Participation Type:	ORG			End Date:	
Notes:					
Participants Role:		Environmental Consultant/Contractor			
<u>Site Participants</u>					
Participant:	Lockhart, Dave			Start Date:	Nov-04-2014
Participation Type:	EMP			End Date:	Jun-14-2021
Notes:					
Participants Role:		Ministry Contact			
<u>Documents on File</u>					
Document or Report Title:		Preliminary Site Investigation/Detailed Site Investigation/Confirmation Of Remediation, 3910 Royston Road, Royston, British Columbia			
Authored Date:		07-Oct-2014			
Submitted Date:		07-Oct-2014			
Document Entry Notes:					
Nothing Noted **Note: Many records provided by the department have a truncated [Document Entry Notes] field.					
Participant and Role:		Parsons Canada Ltd - Author			
<u>Documents on File</u>					
Document or Report Title:		Detailed Site Investigation Report, Former Royston Esso Bulk Plant, 3910 Royston Road, Royston B.C.			
Authored Date:		12-Dec-2003			
Submitted Date:		12-Dec-2003			
Document Entry Notes:					
Nothing Noted **Note: Many records provided by the department have a truncated [Document Entry Notes] field.					
Participant and Role:		Parsons Canada Ltd - Author			

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
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<u>Documents on File</u>					
Document or Report Title:		Human Health And Ecological Risk Assessment For Area Adjacent To Former Shell Bulk Plant, Royston, B.C., Location Code: P00217			
Authored Date:		18-Oct-2002			
Submitted Date:		18-Oct-2002			
Document Entry Notes:					
Nothing Noted **Note: Many records provided by the department have a truncated [Document Entry Notes] field.					
Participant and Role:		Morrow Environmental Consultants Inc (Burnaby (Commerce Court)) - Author			
<u>Documents on File</u>					
Document or Report Title:		Investigation And Remediation, Former Shell Bulk Plant, Royston, B.C., Location Code: P00217			
Authored Date:		13-Jun-2001			
Submitted Date:		13-Jun-2001			
Document Entry Notes:					
Nothing Noted **Note: Many records provided by the department have a truncated [Document Entry Notes] field.					
Participant and Role:		Morrow Environmental Consultants Inc (Burnaby (Commerce Court)) - Author			
<u>Documents on File</u>					
Document or Report Title:		Summary Of Site Conditions, 3910 Royston Road, Royston, British Columbia			
Authored Date:		07-Oct-2014			
Submitted Date:		07-Oct-2014			
Document Entry Notes:					
Nothing Noted **Note: Many records provided by the department have a truncated [Document Entry Notes] field.					
Participant and Role:		Parsons Canada Ltd - Author			
<u>Documents on File</u>					
Document or Report Title:		Stage 1 Preliminary Site Investigation Report, Former Royston Esso Bulk Plant, 3910 Royston Road, Royston B.C			
Authored Date:		12-Dec-2003			
Submitted Date:		12-Dec-2003			
Document Entry Notes:					
Nothing Noted **Note: Many records provided by the department have a truncated [Document Entry Notes] field.					
Participant and Role:		O'Connor Associates Environmental Inc (Burnaby) - Author			
<u>Documents on File</u>					
Document or Report Title:		Detailed Site Investigation And Remediation Completion Report, Residential Property Adjacent To The Former Royston Esso Bulk Plant, 3943 Marine Drive			
Authored Date:		12-Dec-2003			
Submitted Date:		12-Dec-2003			
Document Entry Notes:					

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
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Nothing Noted **Note: Many records provided by the department have a truncated [Document Entry Notes] field.

Participant and Role: O'Connor Associates Environmental Inc (Burnaby) - Author

Associated Sites

Associated Site ID: 4727 **Effective Date:** 5/6/2014
Notes: SOURCE PARCEL 4727
AFFECTED PARCEL 16716

14	1 of 1	NW/15.5	6.5 / -37.34	3943 Marine Drive, Royston 3943 MARINE DRIVE No Entry ROYSTON BC	SREG
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Site ID: 7063
Victoria File No: 26250-20/7063
Env Rmd ID:
Regional File No: 26250-20/7063
Region:
Record Status: NOT ASSIGNED
Status as of: Jun 2022
Cleanup Status:
Category: Unranked
Location Desc: LAT/LONG CONFIRMED USING GOAT BY MINISTRY STAFF
Addr (BC Data Catalogue):
Site Note:

Registered: 26-Jan-2001
Updated: 13-Oct-2004
Detail Removed: 06-Oct-2004
Common Name:
Postal Code: V0R 2V0
Latitude DMS: 49d 38m 55.5s
Longitude DMS: 124d 56m 44.3s
Latitude: 49.648758
Longitude: 124.945647

Registry Notations

Event ID: 46142
Notation Type and Act: CERTIFICATE OF COMPLIANCE ISSUED (WMA 27.6(2)). Waste Management Act: Contaminated Sites Notations
Initiated Date: 17-Jun-2004
Approved Date: 17-Jun-2004
Region: Nanaimo, Vancouver Island
Ministry Contact: PORTER, CHARLES
Notation Notes: Issued On The Advice Of A Rostered Professional Expert (Jerry Naus) Under Protocol 6 Of The Contaminated Sites Regulation.
Required Actions: No Actions Entered
Requirement Due Date:
Requirement Received Date:

Participant:	Imperial Oil Limited (Burnaby)	Role:	REQUESTED BY
Participant:	Regional District Of Comox-Strathcona (Courtenay)	Role:	RECEIVED BY
Participant:	Porter, Charles	Role:	ISSUED BY
Participant:	Irwin, Belinda & Fraser	Role:	RECEIVED BY
Participant:	Naus, Jerry	Role:	ROSTERED EXPERT UNDER PROTOCOL SIX

Registry Notations

Event ID: 44249
Notation Type and Act: SITE PROFILE RECEIVED. Waste Management Act: Contaminated Sites Notations
Initiated Date: 16-Sep-2003
Approved Date: No Entry
Region: Nanaimo, Vancouver Island
Ministry Contact: ALEXANDER, RANDY

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
Notation Notes:		Notation Generated In Site Profile On 2003-09-19 By Rapatter **Note: Many records provided by the department have a truncated [Notation Notes] field.			
Required Actions:		No Actions Entered			
Requirement Due Date:					
Requirement Received Date:					
Participant:	Irwin, Belinda & Fraser			Role:	SITE PROFILE SUBMITTED BY
<u>Registry Notations</u>					
Event ID:		37490			
Notation Type and Act:		NOTICE OF INDEPENDENT REMEDIATION INITIATION SUBMITTED (WMA 28(2)). Waste Management Act: Contaminated Sites Notations			
Initiated Date:		17-Nov-2000			
Approved Date:		17-Nov-2000			
Region:		Nanaimo, Vancouver Island			
Ministry Contact:		BOLLANS, RON A			
Notation Notes:		No Notes Entered **Note: Many records provided by the department have a truncated [Notation Notes] field.			
Required Actions:		No Actions Entered			
Requirement Due Date:					
Requirement Received Date:					
Participant:	Imperial Oil Limited (Burnaby)			Role:	SUBMITTED BY
<u>Registry Notations</u>					
Event ID:		44368			
Notation Type and Act:		SITE PROFILE - NO FURTHER INVESTIGATION REQUIRED BY THE MINISTRY. Waste Management Act: Contaminated Sites Notations			
Initiated Date:		30-Sep-2003			
Approved Date:		No Entry			
Region:		Nanaimo, Vancouver Island			
Ministry Contact:		ALEXANDER, RANDY			
Notation Notes:		Auto Inserted From Site Profile **Note: Many records provided by the department have a truncated [Notation Notes] field.			
Required Actions:		No Actions Entered			
Requirement Due Date:					
Requirement Received Date:					
<u>Site Participants</u>					
Participant:	Regional District Of Comox-Strathcona (Courtenay)			Start Date:	Jun-17-2004
Participation Type:	ORG			End Date:	
Notes:					
Participants Role:	Municipal/Regional Contact				
<u>Site Participants</u>					
Participant:	Patterson, Roberta A			Start Date:	Sep-16-2003
Participation Type:	EMP			End Date:	Dec-05-2006
Notes:					
Participants Role:	Main Ministry Contact				
<u>Site Participants</u>					
Participant:	Imperial Oil Limited (Burnaby)			Start Date:	Nov-17-2000
Participation Type:	ORG			End Date:	
Notes:					

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
Participants Role:		Responsible Person			
<u>Site Participants</u>					
Participant:	Bollans, Ron A			Start Date:	Nov-17-2000
Participation Type:	EMP			End Date:	Mar-29-2002
Notes:					
Participants Role:		Alternate Ministry Contact			
<u>Site Participants</u>					
Participant:	O'Connor Associates Environmental Inc (Langley (92a Avenue))			Start Date:	Dec-12-2003
Participation Type:	ORG			End Date:	
Notes:					
Participants Role:		Environmental Consultant/Contractor			
<u>Site Participants</u>					
Participant:	Irwin, Belinda & Fraser			Start Date:	Nov-17-2000
Participation Type:	PER			End Date:	
Notes:					
Participants Role:		Property Owner			
Participants Role:		Site Profile Contact			
Participants Role:		Site Profile Completor			
<u>Site Participants</u>					
Participant:	Alexander, Randy			Start Date:	Sep-16-2003
Participation Type:	EMP			End Date:	
Notes:					
Participants Role:		Alternate Ministry Contact			
<u>Site Participants</u>					
Participant:	Porter, Charles			Start Date:	Jun-17-2004
Participation Type:	EMP			End Date:	Jun-14-2021
Notes:					
Participants Role:		Alternate Ministry Contact			
<u>Site Participants</u>					
Participant:	Naus, Jerry			Start Date:	Jun-17-2004
Participation Type:	PER			End Date:	
Notes:					
Participants Role:		Rostered Expert Under Protocol Six			
<u>Documents on File</u>					
Document or Report Title:		Detailed Site Investigation And Remediation Completion Report, Residential Property Adjacent To The Former Royston Esso Bulk Plant, 3943 Marine Drive			
Authored Date:		05-Dec-2003			

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
Submitted Date:		16-Dec-2003			
Document Entry Notes:					
Nothing Noted **Note: Many records provided by the department have a truncated [Document Entry Notes] field.					
Participant and Role:		O'Connor Associates Environmental Inc (Langley (92a Avenue)) - Author			
Associated Sites					
Associated Site ID:		4727	Effective Date:		12/6/2000
Notes:		ADJACENT PROPERTY			
Suspected Land Use - Notes					
Land Use Description:		Sites Which Have Possible Contamination From Other Property			
Notes:		Off-Site Migration From Esso Home Heating Oil Storage Site			
Parcel Descriptions					
Date Added:		12/6/2000	Crown Land PIN#:		
LTO PID(s):		017-685-290	Crown Land File#:		
Land Description:		LOT B (DD EF18887), BLOCK E, SECTION 4, NELSON DISTRICT, PLAN 1478 **Note: Many records provided by the department have a truncated [Land Description] field.			
Current Site Profile Information					
Date Entered:		Dec-06-2000			
Date Completed:		Aug-17-2003			
Decision Date:		Sep-30-2003			
Date Received:		Sep-16-2003			
Date Registrar Recorded:		Sep-16-2003			
Date Answer Completed:		Aug-17-2003			
Reg Date Entered:		Sep-19-2003			
Investigation?:		No			
Local Authority:		Regional District Comox Strathcona			
Local Authority Date Recorded:		Aug-18-2003			
Site Profile Comments:		Lot Is Beside Old Esso Home Heating Oil Storage Site. Esso Has Closed The Site And Cleaned The Lot. At That Time They Also Removed Contaminated Soil From Our Lot. The Work Was Completed Over Two Years Ago. It Is At The Opposite Side Of The Lot As The Garage.			
Site Profile Note All Questions					
Important Note:					
SPECIAL NOTE REGARDING SITE PROFILE QUESTIONS					
In the bulk data provided by the Ministry of the Environment, the Current Site Profile information for any given site ONLY INCLUDES QUESTIONS TO WHICH THE ANSWER IS YES. Here, for informational purposes only, we provide the list of ALL current site profile questions.					
All Questions:					
AREAS OF POTENTIAL CONCERN					
- Petroleum, Solvent Or Other Polluting Substance Spills To The Environment Greater Than 100 Litres?					
- Residue Left After Removal Of Piled Materials Such As Chemicals, Coal, Ore, Smelter Slag, Air Quality Control System Baghouse Dust?					
- Discarded Barrels, Drums Or Tanks?					
- Contamination Resulting From Migration Of Substances From Other Properties?					
FILL MATERIALS					

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
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- Fill Dirt, Soil, Gravel, Sand Or Like Materials From A Contaminated Site Or From A Source Used For Any Of The Activities Listed Under Schedule 2?
- Discarded Or Waste Granular Materials Such As Sand Blasting Grit, Asphalt Paving Or Roofing Material, Spent Foundry Casting Sands, Mine Ore, Waste Rock Or Float?
- Dredged Sediments, Or Sediments And Debris Materials Originating From Locations Adjacent To Foreshore Industrial Activities, Or Municipal Sanitary Or Stormwater Discharges?

WASTE DISPOSAL

- Materials Such As Household Garbage, Mixed Municipal Refuse, Or Demolition Debris?
- Waste Or Byproducts Such As Tank Bottoms, Residues, Sludge, Or Flocculation Precipitates From Industrial Processes Or Wastewater Treatment?
- Waste Products From Smelting Or Mining Activities, Such As Smelter Slag, Mine Tailings, Or Cull Materials From Coal Processing?
- Waste Products From Natural Gas And Oil Well Drilling Activities, Such As Drilling Fluids And Muds?
- Waste Products From Photographic Developing Or Finishing Laboratories; Asphalt Tar Manufacturing; Boilers, Incinerators Or Other Thermal Facilities (Eg. Ash); Appliance, Small Equipment Or Engine Repair Or Salvage; Dry Cleaning Operations (Eg. Solvents); For From The Cleaning Or Repair Of Parts Of Boats, Ships, Barges, Automobiles Or Trucks, Including Sandblasting Grit Or Paint Scrapings? *[1]

*[1] Note prior to 2009, question 5 was worded as follows: "Waste Products From Photographic Developing Or Finishing Laboratories; Asphalt Tar Manufacturing; Boilers, Incinerators Or Other Thermal Facilities (Eg. Ash); Appliance, Small Equipment Or Engine Repair Or Salvage; Dry Cleaning Operations (Eg. Solvents); Or Automobile And Truck Parts Cleaning Or Repair?"

TANKS OR CONTAINERS USED OR STORED, OTHER THAN TANKS USED FOR RESIDENTIAL HEATING FUEL*[2]

- Underground Fuel Or Chemical Storage Tanks Other Than Storage Tanks For Compressed Gases? *[2A]
- Above Ground Fuel Or Chemical Storage Tanks Other Than Storage Tanks For Compressed Gases? *[2B]

*[2] Note prior to 2009, this section was referred to "Tanks Or Containers Used Or Stored".

*[2A] Note prior to 2009, question 1 was worded as follows: "Underground Fuel Or Chemical Storage Tanks?"

*[2B] Note prior to 2009, question 2 was worded as follows: "Above Ground Fuel Or Chemical Storage Tanks? "

HAZARDOUS WASTES OR HAZARDOUS SUBSTANCES *[3]

- Pcb-Containing Electrical Transformers Or Capacitors Either At Grade, Attached Above Ground To Poles, Located Within Buildings, Or Stored?
- Waste Asbestos Or Asbestos Containing Materials Such As Pipe Wrapping, Blown-In Insulation Or Panelling Buried?
- Paints, Solvents, Mineral Spirits Or Waste Pest Control Products Or Pest Control Product Containers Stored In Volumes Greater Than 205 Litres?

*[3] Note, prior to 2009, this section was referred to "Special (Hazardous) Wastes Or Substances".

LEGAL OR REGULATORY ACTIONS OR CONSTRAINTS

- Government Orders Or Other Notifications Pertaining To Environmental Conditions Or Quality Of Soil, Water, Groundwater Or Other Environmental Media?
- Liens To Recover Costs, Restrictive Covenants On Land Use, Or Other Charges Or Encumbrances, Stemming From Contaminants Or Wastes Remaining Onsite Or From Other Environmental Conditions?
- Government Notifications Relating To Past Or Recurring Environmental Violations At The Site Or Any Facility Located On The Site?

Site Profile Note - Questions

Category Precursor: Is there currently or to the best of your knowledge has there previously been on the site any:
Category and Question: Areas Of Potential Concern - Petroleum, Solvent Or Other Polluting Substance Spills To The Environment Greater Than 100 Litres? Yes

15	1 of 1	NNW/39.7	0.0 / -43.88	Royston Wharf, Royston ROYSTON WHARF No Entry ROYSTON BC	SREG
Site ID:	6386			Registered:	28-Jan-2000
Victoria File No:	No File			Updated:	07-Apr-2004
Env Rmd ID:				Detail Removed:	31-Mar-2004
Regional File No:	26250-20/6386			Common Name:	
Region:				Postal Code:	No Entry
Record Status:	NOT ASSIGNED			Latitude DMS:	49d 38m 57.0s
Status as of:	Jun 2022			Longitude DMS:	124d 56m 38.5s
Cleanup Status:				Latitude:	49.649175
Category:	Not Applicable			Longitude:	124.944025

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
Location Desc:		SITE CREATED BY SITE PROFILE, ENTERED 2000-01-04. LAT/LONG CONFIRMED USING GOAT BY MINISTRY STAFF (APPROXIMATE)			
Addr (BC Data Catalogue):					
Site Note:		There are no Associated Sites for this site.			
Registry Notations					
Event ID:		34545			
Notation Type and Act:		SITE PROFILE RECEIVED. Waste Management Act: Contaminated Sites Notations			
Initiated Date:		29-Dec-1999			
Approved Date:		No Entry			
Region:		Nanaimo, Vancouver Island			
Ministry Contact:		BOLLANS, RON A			
Notation Notes:		Notation Generated In Site Profile On 2000-01-04 By Msloan **Note: Many records provided by the department have a truncated [Notation Notes] field.			
Required Actions:		No Actions Entered			
Requirement Due Date:					
Requirement Received Date:					
Participant:	Shell Canada Products Limited (Head Office For Alberta)	Role:	SITE PROFILE SUBMITTED BY		
Registry Notations					
Event ID:		34567			
Notation Type and Act:		SITE PROFILE - NO FURTHER INVESTIGATION REQUIRED BY THE MINISTRY. Waste Management Act: Contaminated Sites Notations			
Initiated Date:		05-Jan-2000			
Approved Date:		No Entry			
Region:		Nanaimo, Vancouver Island			
Ministry Contact:		BOLLANS, RON A			
Notation Notes:		Auto Inserted From Site Profile **Note: Many records provided by the department have a truncated [Notation Notes] field.			
Required Actions:		No Actions Entered			
Requirement Due Date:					
Requirement Received Date:					
Site Participants					
Participant:	Dean Associates Ltd (Calgary)	Start Date:	Dec-29-1999		
Participation Type:	ORG	End Date:			
Notes:	BRADLEY MERCEREAU				
Participants Role:	Environmental Consultant/Contractor				
Participants Role:	Site Profile Contact				
Site Participants					
Participant:	Bollans, Ron A	Start Date:	Dec-29-1999		
Participation Type:	EMP	End Date:	Mar-29-2002		
Notes:					
Participants Role:	Main Ministry Contact				
Site Participants					
Participant:	Bc Assets And Land Corporation (Nanaimo)	Start Date:	Dec-29-1999		
Participation Type:	ORG	End Date:			
Notes:					
Participants Role:	Property Owner				

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
<hr/>					
<u>Site Participants</u>					
Participant:	Shell Canada Products Limited (Head Office For Alberta)			Start Date:	Dec-29-1999
Participation Type:	ORG			End Date:	
Notes:	SHERI BECHTEL				
Participants Role:	Site Profile Completor				
Participants Role:	Former Operator				
<hr/>					
<u>Suspected Land Use - Notes</u>					
Land Use Description:	Petrol Prod., Wholesale Bulk Storage Or Distribution				
Notes:	Inserted For Site Profile Dated 1999-12-22				
<hr/>					
<u>Parcel Descriptions</u>					
Date Added:	12/22/1999			Crown Land PIN#:	
LTO PID(s):	000-740-990			Crown Land File#:	
Land Description:					
<hr/>					
16	1 of 2	NW/43.7	22.7 / -21.17	3747 Island Highway South Courtenay BC V9N 9T6	EHS
Order No:	22012600489			Nearest Intersection:	
Status:	C			Municipality:	
Report Type:	Standard Express Report			Client Prov/State:	BC
Report Date:	26-JAN-22			Search Radius (km):	.25
Date Received:	26-JAN-22			X:	-124.9582666
Previous Site Name:				Y:	49.6515906
Lot/Building Size:					
Additional Info Ordered:					
<hr/>					
16	2 of 2	NW/43.7	22.7 / -21.17	3747 Island Highway South Courtenay BC V9N 9T6	EHS
Order No:	22012600489			Nearest Intersection:	
Status:	C			Municipality:	
Report Type:	Standard Express Report			Client Prov/State:	BC
Report Date:	26-JAN-22			Search Radius (km):	.25
Date Received:	26-JAN-22			X:	-124.9582666
Previous Site Name:				Y:	49.6515906
Lot/Building Size:					
Additional Info Ordered:					
<hr/>					
17	1 of 2	NW/2.8	20.2 / -23.68	CANADIAN CULTURED DAIRY INC. TREE ISLAND YOGURT 3747 Island Highway, Courtenay BC V9N 9T4 Comox Valley BC	AMS
Authorization No:	110088			Compliance:	
File No:				Address Type:	
File No Version:				Program Area:	Authorizations - South Region
Status:	Expired			FS:	
Status as of:				Section Code:	
Date Amended:				Nearest Municip:	Courtenay
Date Issued:	3/27/2020			Latitude:	49.651636

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
<div> <div> SIC Code: Waste Type: Expiry Date: 3/31/2021 Office: CPIX: L Admin Area: Southern Interior Risk Level: PIN or PID: EA Certificate No: Permit Type Code: Permit Type: Approval - Authorization Type: Approval Primary BCENICID: 311000 Food - Manufacturing/Processing Secondary BCENICID: WDR Regulation: Schedule 1 WDR Description: Dairy Products Industry Region Case Mngr: Facility Operator: Fac Operator Phone: Fac Operator Email: MEM Description: PID PIN Crown File No: SIC: Mailing Address: 3474 Island Highway South, Courtenay BC V9N 9T4 Facility Type Description: Artisan Yogurt maker Facility produces artisan yogurt and products using the traditional slow-kettle cooking method. Process wash-water is collected into a 11,365 L three-chamber concrete septic tank and eventually discharged into an infiltration tile field. Legal Address: Legal Land Description: Lot 20, Block 2, DL 82 and 86, Comox Land District Plan 1878 Location: 3747 Island Highway, Courtenay BC V9N 9T4 *Note: </div> <div> Longitude: 124.958687 Case Manager: Current Assignee: Doing Business as: Signing Authority: Billing Address: MEM No: Major Mines Per No: </div> </div>					
Authorization Details					
Company: CANADIAN CULTURED DAIRY INC. TREE ISLAND YOGURT Waste Type: Effluent					
17	2 of 2	NW/2.8	20.2 / -23.68	CANADIAN CULTURED DAIRY INC. doing business as TREE ISLAND YOGURT 3747 Island Highway, Courtenay BC V9N 9T4 Artisan Yogurt maker Facility BC	CONV
<div> <div> Action: Penalty: Regulation: Act: Environmental Management Act Section: 109 (-) (-) Charge Date: Site Project: Inspection Type: Location: 3747 Island Highway, Courtenay BC V9N 9T4 Artisan Yogurt maker Facility Issued To: CANADIAN CULTURED DAIRY INC. doing business as TREE ISLAND YOGURT Description: Inspection to verify compliance with regulatory requirement. Note: Issuing Agency: Ministry of Environment and Climate Change Strategy Issued on: Oct 22, 2020 Offence: Outcome Description: Out of Compliance - Advisory Documents: Tree Island Yogurt Advisory.pdf Documents URL: https://nrs.objectstore.gov.bc.ca/lteczn/5fcabe0373cb0b0021aace65/Tree Island Yogurt Advisory.pdf </div> <div> Disposition: Disposition Date: Date: Year: Quarter: Court Location: Lat Long: 49.651636/-124.958687 Issued on Edit: </div> </div>					

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
18	1 of 1	NW/54.1	24.2 / -19.68	TREE ISLAND GOURMET YOGURT	EM
BC					
Monitoring Loc ID:	E317870			Calc Statistics Ind:	No
Permit ID:				Client Location ID:	11
Prmt Rlshp:				Office CD:	10
Contaminated Site ID:				Well Ident Plate No:	
Discharge Media CD:	3			Location Area Ind:	No
Discharge Media:	GROUND			Mobile Location Ind:	No
Smpl Cnt:	0			ECO Region CD:	
Rslt Cnt:	0			Watershed CD:	
Frst Smp Dt:				Feature Code:	EP10020100
Lst Smp Dt:				Geometry:	
Established Date:	20190904			Elevation:	
Closed Date:				Latitude:	49.65162
Location Type CD:	36			Longitude:	124.95855399999999
Location Type:	TILE FIELD			X:	-124.95855400066407
Location Purpose CD:	4			Y:	49.65161999973948
Location Purpose:	NON-PERMITTED DISCHARGE			Geo Ref Source CD:	GOOGLE
Source Class CD:					
Source Class Narrative:					
Monitoring Loc Comment:					
Legal Description:					
Description:	Yogurt facility with septic system.				
19	1 of 1	NW/27.4	24.1 / -19.83	TIY process water	EM
BC					
Monitoring Loc ID:	E319332			Calc Statistics Ind:	No
Permit ID:	110088			Client Location ID:	11
Prmt Rlshp:	DISCHARGE			Office CD:	10
Contaminated Site ID:				Well Ident Plate No:	
Discharge Media CD:	3			Location Area Ind:	No
Discharge Media:	GROUND			Mobile Location Ind:	No
Smpl Cnt:	0			ECO Region CD:	
Rslt Cnt:	0			Watershed CD:	
Frst Smp Dt:				Feature Code:	EP10020100
Lst Smp Dt:				Geometry:	
Established Date:	20200305			Elevation:	
Closed Date:				Latitude:	49.6519000000000005
Location Type CD:	36			Longitude:	124.9585
Location Type:	TILE FIELD			X:	-124.95849999982376
Location Purpose CD:	3			Y:	49.65190000031526
Location Purpose:	PERMITTED DISCHARGE			Geo Ref Source CD:	GOOGLE
Source Class CD:					
Source Class Narrative:					
Monitoring Loc Comment:					
Legal Description:					
Description:	Lot 20, Block 2, DL 82 and 86, Comox Land District, Plan 1878 3-chamber concrete tank (11,365L), grease trap, Zabel filters (in 2nd and 3rd compartments), micro-dose programmed pump, tile field (4-laterals at 20 m with a centre beam)				
20	1 of 1	NW/34.1	24.2 / -19.69	TREE ISLAND YOGOURT	EM
BC					
Monitoring Loc ID:	E316550			Calc Statistics Ind:	No
Permit ID:				Client Location ID:	11
Prmt Rlshp:				Office CD:	10
Contaminated Site ID:				Well Ident Plate No:	
Discharge Media CD:				Location Area Ind:	No

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
Discharge Media: Smpl Cnt: 1 Rslt Cnt: 13 Frt Smp Dt: 20190509143000 Lst Smp Dt: 20190509143000 Established Date: 20190507 Closed Date: Location Type CD: 36 Location Type: TILE FIELD Location Purpose CD: 1 Location Purpose: BACKGROUND Source Class CD: Source Class Narrative: Monitoring Loc Comment: Legal Description: Description: Artisan yogurt company that is located just south of Courtenay, BC.					
Mobile Location Ind: No ECO Region CD: Watershed CD: Feature Code: EP10020100 Geometry: Elevation: Latitude: 49.652107 Longitude: 124.959047 X: -124.95904699993042 Y: 49.65210700007091 Geo Ref Source CD: GOOGLE					
21	1 of 1	NW/64.4	20.2 / -23.64	COURTENAY CEMENT WORK AND PAVING LTD. 3631 PARK LN, COURTENAY, BC, CA BC	PES
Registration No: 1374 Registration Type: Category: INDUSTRIAL VEGETATION & NOXIOUS WEED - PAVERS Regions of Operation: Pesticides to be used: Treatment Description:					
Expiry Date: 04/01/1991 Provides Service:					
22	1 of 1	NW/10.9	15.2 / -28.73	Newalta Corporation Courtenay 3663 South Island Highway BC	GEN
Generator No: BCG13325 Status: Active Region: VANCOUVER ISLAND Mailing Addr: Waste Generation Site: Courtenay 3663 South Island Highway Comments: Year: 2019; 2021					
Status Date: 13-Sep-2007 Registration Dt: 13-Sep-2007					
Waste Detail(s)					
TDG Pin No: UN2588 TDG Class: 6.1 Reg Status Date: 13-Sep-2007 Physical State: Solid Amount in Storage: 0 KG Amount Per 30 Days: 300 KG Registered Waste: Pesticides, Solid, Toxic, N.O.S.					
Generation Code: Generated One Time Only Handling Code: Storage Gen Business Type: Certified By Name: Jim Hibbard Date Certifier Signed: 12-Sep-2007					
Waste Detail(s)					
TDG Pin No: UN2902 TDG Class: 6.1 Reg Status Date: 13-Sep-2007 Physical State: Liquid Amount in Storage: 0 L Amount Per 30 Days: 2000 L Registered Waste: Pesticides, Liquid, Toxic, N.O.S.					
Generation Code: Generated One Time Only Handling Code: Storage Gen Business Type: Certified By Name: Jim Hibbard Date Certifier Signed: 12-Sep-2007					

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
23	1 of 1	NW/4.1	18.0 / -25.93	3573 Island Highway 19 Campbell River Bc Campbell River BC V9H0C2	EHS
Order No: 20150121025		Nearest Intersection:			
Status: C		Municipality:			
Report Type: BC Standard Report Plus		Client Prov/State: TX			
Report Date: 21-JAN-15		Search Radius (km): .25			
Date Received: 21-JAN-15		X: -124.969601			
Previous Site Name:		Y: 49.659999			
Lot/Building Size:					
Additional Info Ordered:					
24	1 of 2	NW/62.0	19.8 / -24.08	3573 Island Highway South Courtenay BC V9N 9T8	EHS
Order No: 21033000032		Nearest Intersection:			
Status: C		Municipality:			
Report Type: Standard Express Report		Client Prov/State: TX			
Report Date: 30-MAR-21		Search Radius (km): .25			
Date Received: 30-MAR-21		X: -124.9702784			
Previous Site Name:		Y: 49.6596445			
Lot/Building Size:					
Additional Info Ordered:					
24	2 of 2	NW/62.0	19.8 / -24.08	3573 Island Highway South Courtenay BC V9N 9T8	EHS
Order No: 21033000032		Nearest Intersection:			
Status: C		Municipality:			
Report Type: Standard Express Report		Client Prov/State: TX			
Report Date: 30-MAR-21		Search Radius (km): .25			
Date Received: 30-MAR-21		X: -124.9702784			
Previous Site Name:		Y: 49.6596445			
Lot/Building Size:					
Additional Info Ordered:					
25	1 of 1	NW/98.5	3.8 / -40.05	MILLARD CREEK AT FISH FENCE BC	EM
Monitoring Loc ID: E327738		Calc Statistics Ind: No			
Permit ID:		Client Location ID: 11			
Prmt Rlshp:		Office CD: 10			
Contaminated Site ID:		Well Ident Plate No:			
Discharge Media CD:		Location Area Ind: No			
Discharge Media:		Mobile Location Ind: No			
Smpl Cnt: 46		ECO Region CD:			
Rslt Cnt: 89		Watershed CD:			
Frt Smp Dt: 20170322111500		Feature Code: EP10020300			
Lst Smp Dt: 20211109111500		Geometry:			
Established Date: 20220302		Elevation:			
Closed Date:		Latitude: 49.665825			
Location Type CD: 21		Longitude: 124.973004			
Location Type: RIVER,STREAM OR CREEK		X: -124.97300399986858			
Location Purpose CD: 2		Y: 49.665824999644855			
Location Purpose: TREND		Geo Ref Source CD: GOOGLE			
Source Class CD:					
Source Class Narrative:					
Monitoring Loc Comment:					
Legal Description:					

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
Description:		Travelling south on Cliffe Ave, turn left onto Millard Rd. Park at Millard Lookout at bottom of hill. Walk along Courtenay Riverway Heritage Walk to the sample site. Sample site is U/S of where trail crosses stream.			
26	1 of 1	SE/14.4	16.5 / -27.42	5084 Island Highway, Union Bay 5084 ISLAND HIGHWAY No Entry UNION BAY BC	SREG
Site ID:		8850	Registered:		19-Feb-2004
Victoria File No:		26250-20/8850	Updated:		25-Feb-2010
Env Rmd ID:			Detail Removed:		24-Feb-2010
Regional File No:		26250-20/8850	Common Name:		
Region:			Postal Code:		V9N 9S2
Record Status:		NOT ASSIGNED	Latitude DMS:		49d 36m 05.2s
Status as of:		Jun 2022	Longitude DMS:		124d 53m 36.7s
Cleanup Status:			Latitude:		49.601447
Category:		Unranked	Longitude:		124.893531
Location Desc:		APPROX 15KM S OF COURTENAY. SITE CREATED BY SITE PROFILE, ENTERED 2004-02-12. LAT/LONG DERIVED BY STAFF USING GOAT.			
Addr (BC Data Catalogue):					
Site Note:		There are no Associated Sites for this site.			
Registry Notations					
Event ID:		53957			
Notation Type and Act:		NOTICE OF INDEPENDENT REMEDIATION INITIATION SUBMITTED. Environmental Management Act: General			
Initiated Date:		01-Oct-2007			
Approved Date:		No Entry			
Region:		Nanaimo, Vancouver Island			
Ministry Contact:		ROSSER, CRAIG L			
Notation Notes:		No Notes Entered **Note: Many records provided by the department have a truncated [Notation Notes] field.			
Required Actions:		No Actions Entered			
Requirement Due Date:					
Requirement Received Date:					
Participant:		Terrawest Environmental Inc	Role:		SUBMITTED BY
Registry Notations					
Event ID:		56290			
Notation Type and Act:		NOTICE OF INDEPENDENT REMEDIATION INITIATION SUBMITTED. Environmental Management Act: General			
Initiated Date:		14-Jul-2000			
Approved Date:		14-Jul-2000			
Region:		Nanaimo, Vancouver Island			
Ministry Contact:		SLOAN, MICHAEL			
Notation Notes:		No Notes Entered **Note: Many records provided by the department have a truncated [Notation Notes] field.			
Required Actions:		No Actions Entered			
Requirement Due Date:					
Requirement Received Date:					
Participant:		Seacor Environmental Engineering Inc (Nanaimo (Skinner Street))	Role:		SUBMITTED BY
Registry Notations					
Event ID:		56291			
Notation Type and Act:		NOTICE OF INDEPENDENT REMEDIATION COMPLETION SUBMITTED. Environmental Management Act: General			
Initiated Date:		20-Nov-2000			
Approved Date:		20-Nov-2000			
Region:		Nanaimo, Vancouver Island			
Ministry Contact:		ROSSER, CRAIG L			
Notation Notes:		No Notes Entered **Note: Many records provided by the department have a truncated [Notation Notes] field.			

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
Required Actions:		No Actions Entered			
Requirement Due Date:					
Requirement Received Date:					
Participant:	Seacor Environmental Engineering Inc (Nanaimo (Skinner Street))			Role:	SUBMITTED BY
<u>Registry Notations</u>					
Event ID:	45379				
Notation Type and Act:	SITE PROFILE RECEIVED. Waste Management Act: Contaminated Sites Notations				
Initiated Date:	05-Feb-2004				
Approved Date:	No Entry				
Region:	Nanaimo, Vancouver Island				
Ministry Contact:	HACKINEN, COLEEN (SURREY)				
Notation Notes:	Notation Generated In Site Profile On 2004-02-12 By Rapatter **Note: Many records provided by the department have a truncated [Notation Notes] field.				
Required Actions:		No Actions Entered			
Requirement Due Date:					
Requirement Received Date:					
Participant:	Hancock Forest Management Inc.			Role:	SITE PROFILE SUBMITTED BY
<u>Registry Notations</u>					
Event ID:	45582				
Notation Type and Act:	SITE PROFILE - FURTHER INVESTIGATION REQUIRED BY THE MINISTRY. Waste Management Act: Contaminated Sites Notations				
Initiated Date:	04-Mar-2004				
Approved Date:	No Entry				
Region:	Nanaimo, Vancouver Island				
Ministry Contact:	HACKINEN, COLEEN (SURREY)				
Notation Notes:	Released Pursuant To Section 946.2(2)(D) Of The Local Government Act By The Assistant Regional Waste Manager, Coleen Hackinen Because, In The Opinion Of The Manager, The Site Would Not Present A Significant Threat Or Risk If The Subject Development Permit Was Approved.				
Required Actions:		No Actions Entered			
Requirement Due Date:					
Requirement Received Date:					
<u>Site Participants</u>					
Participant:	Comox Timber Ltd.			Start Date:	Feb-05-2004
Participation Type:	ORG			End Date:	
Notes:					
Participants Role:	Property Owner				
<u>Site Participants</u>					
Participant:	Union Bay Industries Ltd.			Start Date:	Jan-12-2009
Participation Type:	ORG			End Date:	
Notes:					
Participants Role:	Property Owner				
<u>Site Participants</u>					
Participant:	Site Information Advisor			Start Date:	Nov-20-2000
Participation Type:	EMP			End Date:	Jun-14-2021
Notes:					
Participants Role:	Alternate Ministry Contact				

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
<u>Site Participants</u>					
Participant:	Hancock Forest Management Inc.			Start Date:	Feb-05-2004
Participation Type:	ORG			End Date:	
Notes:	IAN DELISLE				
Participants Role:	Site Profile Completor				
Participants Role:	Site Profile Contact				
<u>Site Participants</u>					
Participant:	Terrawest Environmental Inc			Start Date:	Jan-12-2009
Participation Type:	ORG			End Date:	
Notes:					
Participants Role:	Environmental Consultant/Contractor				
<u>Site Participants</u>					
Participant:	Hackinen, Coleen (Surrey)			Start Date:	Feb-05-2004
Participation Type:	EMP			End Date:	Jun-06-2013
Notes:					
Participants Role:	Main Ministry Contact				
<u>Site Participants</u>					
Participant:	Patterson, Roberta A			Start Date:	Feb-05-2004
Participation Type:	EMP			End Date:	Dec-05-2006
Notes:					
Participants Role:	Alternate Ministry Contact				
<u>Suspected Land Use - Notes</u>					
Land Use Description:	Petrol Prod., /Produce Water Strg Abovegrnd/Undergrnd Tank				
Notes:	Inserted For Site Profile Dated 2003-12-08				
<u>Parcel Descriptions</u>					
Date Added:	7/17/2000			Crown Land PIN#:	
LTO PID(s):	004-758-901			Crown Land File#:	
Land Description:	PARCEL A (D.D. 27784N) OF LOT 11, NELSON DISTRICT, EXCEPT PARTS OUTLINED IN RED ON PLANS 397 R.W. AND 1414R, AND EXCEPT THOSE PARTS IN PLANS 7190,8906, 21511, 22414, 28338, 29341, AND 29342 **Note: Many records provided by the department have a truncated [Land Description] field.				
<u>Current Site Profile Information</u>					
Date Entered:	Feb-12-2004				
Date Completed:	Dec-08-2003				
Decision Date:	Mar-04-2004				
Date Received:	Feb-05-2004				
Date Registrar Recorded:	Feb-05-2004				
Date Answer Completed:	Dec-08-2003				
Reg Date Entered:	Feb-12-2004				
Investigation?:	Yes				
Local Authority:	Regional District Comox Strathcona				
Local Authority Date Recorded:					

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
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Site Profile Comments: No Comment

Site Profile Note All Questions

Important Note:

SPECIAL NOTE REGARDING SITE PROFILE QUESTIONS

In the bulk data provided by the Ministry of the Environment, the Current Site Profile information for any given site ONLY INCLUDES QUESTIONS TO WHICH THE ANSWER IS YES. Here, for informational purposes only, we provide the list of ALL current site profile questions.

All Questions:

AREAS OF POTENTIAL CONCERN

- Petroleum, Solvent Or Other Polluting Substance Spills To The Environment Greater Than 100 Litres?
- Residue Left After Removal Of Piled Materials Such As Chemicals, Coal, Ore, Smelter Slag, Air Quality Control System Baghouse Dust?
- Discarded Barrels, Drums Or Tanks?
- Contamination Resulting From Migration Of Substances From Other Properties?

FILL MATERIALS

- Fill Dirt, Soil, Gravel, Sand Or Like Materials From A Contaminated Site Or From A Source Used For Any Of The Activities Listed Under Schedule 2?
- Discarded Or Waste Granular Materials Such As Sand Blasting Grit, Asphalt Paving Or Roofing Material, Spent Foundry Casting Sands, Mine Ore, Waste Rock Or Float?
- Dredged Sediments, Or Sediments And Debris Materials Originating From Locations Adjacent To Foreshore Industrial Activities, Or Municipal Sanitary Or Stormwater Discharges?

WASTE DISPOSAL

- Materials Such As Household Garbage, Mixed Municipal Refuse, Or Demolition Debris?
- Waste Or Byproducts Such As Tank Bottoms, Residues, Sludge, Or Flocculation Precipitates From Industrial Processes Or Wastewater Treatment?
- Waste Products From Smelting Or Mining Activities, Such As Smelter Slag, Mine Tailings, Or Cull Materials From Coal Processing?
- Waste Products From Natural Gas And Oil Well Drilling Activities, Such As Drilling Fluids And Muds?
- Waste Products From Photographic Developing Or Finishing Laboratories; Asphalt Tar Manufacturing; Boilers, Incinerators Or Other Thermal Facilities (Eg. Ash); Appliance, Small Equipment Or Engine Repair Or Salvage; Dry Cleaning Operations (Eg. Solvents); For From The Cleaning Or Repair Of Parts Of Boats, Ships, Barges, Automobiles Or Trucks, Including Sandblasting Grit Or Paint Scrapings? *[1]

*[1] Note prior to 2009, question 5 was worded as follows: "Waste Products From Photographic Developing Or Finishing Laboratories; Asphalt Tar Manufacturing; Boilers, Incinerators Or Other Thermal Facilities (Eg. Ash); Appliance, Small Equipment Or Engine Repair Or Salvage; Dry Cleaning Operations (Eg. Solvents); Or Automobile And Truck Parts Cleaning Or Repair?"

TANKS OR CONTAINERS USED OR STORED, OTHER THAN TANKS USED FOR RESIDENTIAL HEATING FUEL*[2]

- Underground Fuel Or Chemical Storage Tanks Other Than Storage Tanks For Compressed Gases? *[2A]
- Above Ground Fuel Or Chemical Storage Tanks Other Than Storage Tanks For Compressed Gases? *[2B]

*[2] Note prior to 2009, this section was referred to "Tanks Or Containers Used Or Stored".

*[2A] Note prior to 2009, question 1 was worded as follows: "Underground Fuel Or Chemical Storage Tanks?"

*[2B] Note prior to 2009, question 2 was worded as follows: "Above Ground Fuel Or Chemical Storage Tanks?"

HAZARDOUS WASTES OR HAZARDOUS SUBSTANCES *[3]

- Pcb-Containing Electrical Transformers Or Capacitors Either At Grade, Attached Above Ground To Poles, Located Within Buildings, Or Stored?
- Waste Asbestos Or Asbestos Containing Materials Such As Pipe Wrapping, Blown-In Insulation Or Panelling Buried?
- Paints, Solvents, Mineral Spirits Or Waste Pest Control Products Or Pest Control Product Containers Stored In Volumes Greater Than 205 Litres?

*[3] Note, prior to 2009, this section was referred to "Special (Hazardous) Wastes Or Substances".

LEGAL OR REGULATORY ACTIONS OR CONSTRAINTS

- Government Orders Or Other Notifications Pertaining To Environmental Conditions Or Quality Of Soil, Water, Groundwater Or Other Environmental Media?
- Liens To Recover Costs, Restrictive Covenants On Land Use, Or Other Charges Or Encumbrances, Stemming From Contaminants Or Wastes Remaining Onsite Or From Other Environmental Conditions?
- Government Notifications Relating To Past Or Recurring Environmental Violations At The Site Or Any Facility Located On The Site?

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
<hr/>					
<u>Site Profile Note - Questions</u>					
Category Precursor:		Are there currently or to the best of your knowledge have there been previously on the site any:			
Category and Question:		Tanks Or Containers Used Or Stored - Above Ground Fuel Or Chemical Storage Tanks? Yes			
<hr/>					
27	1 of 1	SE/2.3	16.5 / -27.42	4988 South Island Highway, Union Bay 4988 SOUTH ISLAND HIGHWAY No Entry UNION BAY BC	SREG
Site ID:		10340	Registered:		16-Apr-2007
Victoria File No:		26250-20/10340	Updated:		16-May-2007
Env Rmd ID:			Detail Removed:		03-May-2007
Regional File No:		26250-20/10340	Common Name:		
Region:			Postal Code:		V9N 9S1
Record Status:		NOT ASSIGNED	Latitude DMS:		49d 35m 52.8s
Status as of:		Jun 2022	Longitude DMS:		124d 53m 36.2s
Cleanup Status:			Latitude:		49.598003
Category:		Not Applicable	Longitude:		124.893397
Location Desc:		SITE CREATED BY SITE PROFILE, ENTERED 2007-04-11			
Addr (BC Data Catalogue):					
Site Note:		There are no Associated Sites for this site.			
<hr/>					
<u>Registry Notations</u>					
Event ID:		50675			
Notation Type and Act:		SITE PROFILE REVIEWED - FURTHER INVESTIGATION REQUIRED BY THE MINISTRY. Environmental Management Act: General			
Initiated Date:		17-Apr-2007			
Approved Date:		No Entry			
Region:		Nanaimo, Vancouver Island			
Ministry Contact:		HANEMAYER, VINCENT (SURREY) C			
Notation Notes:		Release Of The Subdivision Application Granted Because In The Opinion Of The Director The Release Of The Subject Application Would Not Pose Significant Risk Or Threat.			
Required Actions:		Preliminary Site Investigation Required.			
Requirement Due Date:					
Requirement Received Date:					
<hr/>					
<u>Registry Notations</u>					
Event ID:		50556			
Notation Type and Act:		SITE PROFILE RECEIVED. Environmental Management Act: General			
Initiated Date:		02-Apr-2007			
Approved Date:		No Entry			
Region:		Nanaimo, Vancouver Island			
Ministry Contact:		HANEMAYER, VINCENT (SURREY) C			
Notation Notes:		Notation Generated In Site Profile On 2007-04-11 By Kellarse **Note: Many records provided by the department have a truncated [Notation Notes] field.			
Required Actions:		No Actions Entered			
Requirement Due Date:					
Requirement Received Date:					
<hr/>					
Participant:		Zaharko Land Surveying Inc	Role:		SITE PROFILE SUBMITTED BY
<hr/>					
<u>Site Participants</u>					
Participant:		Hanemayer, Vincent (Surrey) C	Start Date:		Apr-02-2007
Participation Type:		EMP	End Date:		
Notes:					
Participants Role:		Main Ministry Contact			

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
<u>Site Participants</u>					
Participant:	Zaharko Land Surveying Inc			Start Date:	Apr-02-2007
Participation Type:	ORG			End Date:	
Notes:					
Participants Role:	Site Profile Completor				
Participants Role:	Site Profile Contact				
<u>Site Participants</u>					
Participant:	Oyster Catcher Resort Ltd			Start Date:	Apr-02-2007
Participation Type:	ORG			End Date:	
Notes:					
Participants Role:	Property Owner				
<u>Suspected Land Use - Notes</u>					
Land Use Description:	Bulk Commodity Storage Or Shipping (Eg. Coal)				
Notes:	Inserted For Site Profile Dated 2007-03-14				
<u>Suspected Land Use - Notes</u>					
Land Use Description:	Auto/Truck/Bus/Subway/Othr Vehicle Repair/Salvage/Wrecking				
Notes:	Inserted For Site Profile Dated 2007-03-14				
<u>Parcel Descriptions</u>					
Date Added:	12/8/2003			Crown Land PIN#:	
LTO PID(s):	006-642-390			Crown Land File#:	
Land Description:	THOSE PARTS OF PARCEL A (DD 27784N), DISTRICT LOT 11, NELSON DISTRICTSHOWN OUTLINED IN RED ON PLAN 397 RW, EXCEPT PART IN PLAN VIP85278 **Note: Many records provided by the department have a truncated [Land Description] field.				
<u>Parcel Descriptions</u>					
Date Added:	7/17/2008 12:26:21 AM			Crown Land PIN#:	
LTO PID(s):	027-566-293			Crown Land File#:	
Land Description:	THAT PART OF THOSE PARTS OF PARCEL A (DD27784N) DISTRICT LOT 11 NELSON DISTRICT, SHOWN OUTLINED IN RED ON PLAN 397 RW, INCLUDED IN LOT 1, PLAN VIP85278 **Note: Many records provided by the department have a truncated [Land Description] field.				
<u>Parcel Descriptions</u>					
Date Added:	12/8/2003			Crown Land PIN#:	
LTO PID(s):	006-667-988			Crown Land File#:	
Land Description:	THAT PART OF DISTRICT LOT 11, NELSON DISTRICT, LYING 25 FEET ON EITHERSIDE OF THE CENTRE LINE OF PLAN 20 RW AND BEING THE AREA SHOWN OUTLINED INYELLOW ON PLAN 397 RW, EXCEPT PART IN PLAN VIP85278 **Note: Many records provided by the department have a truncated [Land Description] field.				
<u>Parcel Descriptions</u>					
Date Added:	7/17/2008 12:26:35 AM			Crown Land PIN#:	
LTO PID(s):	027-566-307			Crown Land File#:	
Land Description:	THAT PART OF THAT PART OF DISTRICT LOT 11, NELSON DISTRICT, LYING 25 FEET ON EITHER SIDE OF THE CENTRE LINE OF PLAN 20 RW AND BEING THE AREA SHOWN OUTLINED IN YELLOW ON PLAN 397				

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
RW, INCLUDED IN LOT 1, PLAN VIP85278 **Note: Many records provided by the department have a truncated [Land Description] field.					
<u>Parcel Descriptions</u>					
Date Added:	3/14/2007			Crown Land PIN#:	
LTO PID(s):	005-756-707			Crown Land File#:	
Land Description:	LOT 15, DISTRICT LOT 11, NELSON DISTRICT, PLAN 7190 **Note: Many records provided by the department have a truncated [Land Description] field.				
<u>Parcel Descriptions</u>					
Date Added:	7/17/2008 12:21:55 AM			Crown Land PIN#:	
LTO PID(s):	027-566-447			Crown Land File#:	
Land Description:	LOT 1 DISTRICT LOT 11 NELSON DISTRICT PLAN VIP85278 **Note: Many records provided by the department have a truncated [Land Description] field.				
<u>Current Site Profile Information</u>					
Date Entered:	Apr-11-2007				
Date Completed:	Mar-14-2007				
Decision Date:	Apr-17-2007				
Date Received:	Apr-02-2007				
Date Registrar Recorded:					
Date Answer Completed:	Mar-14-2007				
Reg Date Entered:					
Investigation?:	Yes				
Local Authority:	Ministry Of Transportation				
Local Authority Date Recorded:	Mar-26-2007				
Site Profile Comments:	No Comment				
<u>Site Profile Note All Questions</u>					
<u>Important Note:</u>					
SPECIAL NOTE REGARDING SITE PROFILE QUESTIONS					
In the bulk data provided by the Ministry of the Environment, the Current Site Profile information for any given site ONLY INCLUDES QUESTIONS TO WHICH THE ANSWER IS YES. Here, for informational purposes only, we provide the list of ALL current site profile questions.					
<u>All Questions:</u>					
AREAS OF POTENTIAL CONCERN					
- Petroleum, Solvent Or Other Polluting Substance Spills To The Environment Greater Than 100 Litres?					
- Residue Left After Removal Of Piled Materials Such As Chemicals, Coal, Ore, Smelter Slag, Air Quality Control System Baghouse Dust?					
- Discarded Barrels, Drums Or Tanks?					
- Contamination Resulting From Migration Of Substances From Other Properties?					
FILL MATERIALS					
- Fill Dirt, Soil, Gravel, Sand Or Like Materials From A Contaminated Site Or From A Source Used For Any Of The Activities Listed Under Schedule 2?					
- Discarded Or Waste Granular Materials Such As Sand Blasting Grit, Asphalt Paving Or Roofing Material, Spent Foundry Casting Sands, Mine Ore, Waste Rock Or Float?					
- Dredged Sediments, Or Sediments And Debris Materials Originating From Locations Adjacent To Foreshore Industrial Activities, Or Municipal Sanitary Or Stormwater Discharges?					
WASTE DISPOSAL					
- Materials Such As Household Garbage, Mixed Municipal Refuse, Or Demolition Debris?					
- Waste Or Byproducts Such As Tank Bottoms, Residues, Sludge, Or Flocculation Precipitates From Industrial Processes Or Wastewater Treatment?					
- Waste Products From Smelting Or Mining Activities, Such As Smelter Slag, Mine Tailings, Or Cull Materials From Coal Processing?					
- Waste Products From Natural Gas And Oil Well Drilling Activities, Such As Drilling Fluids And Muds?					

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
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- Waste Products From Photographic Developing Or Finishing Laboratories; Asphalt Tar Manufacturing; Boilers, Incinerators Or Other Thermal Facilities (Eg. Ash); Appliance, Small Equipment Or Engine Repair Or Salvage; Dry Cleaning Operations (Eg. Solvents); For From The Cleaning Or Repair Of Parts Of Boats, Ships, Barges, Automobiles Or Trucks, Including Sandblasting Grit Or Paint Scrapings? *[1]

*[1] Note prior to 2009, question 5 was worded as follows: "Waste Products From Photographic Developing Or Finishing Laboratories; Asphalt Tar Manufacturing; Boilers, Incinerators Or Other Thermal Facilities (Eg. Ash); Appliance, Small Equipment Or Engine Repair Or Salvage; Dry Cleaning Operations (Eg. Solvents); Or Automobile And Truck Parts Cleaning Or Repair?"

TANKS OR CONTAINERS USED OR STORED, OTHER THAN TANKS USED FOR RESIDENTIAL HEATING FUEL*[2]

- Underground Fuel Or Chemical Storage Tanks Other Than Storage Tanks For Compressed Gases? *[2A]
- Above Ground Fuel Or Chemical Storage Tanks Other Than Storage Tanks For Compressed Gases? *[2B]

*[2] Note prior to 2009, this section was referred to "Tanks Or Containers Used Or Stored".

*[2A] Note prior to 2009, question 1 was worded as follows: "Underground Fuel Or Chemical Storage Tanks?"

*[2B] Note prior to 2009, question 2 was worded as follows: "Above Ground Fuel Or Chemical Storage Tanks? "

HAZARDOUS WASTES OR HAZARDOUS SUBSTANCES *[3]

- Pcb-Containing Electrical Transformers Or Capacitors Either At Grade, Attached Above Ground To Poles, Located Within Buildings, Or Stored?
- Waste Asbestos Or Asbestos Containing Materials Such As Pipe Wrapping, Blown-In Insulation Or Panelling Buried?
- Paints, Solvents, Mineral Spirits Or Waste Pest Control Products Or Pest Control Product Containers Stored In Volumes Greater Than 205 Litres?

*[3] Note, prior to 2009, this section was referred to "Special (Hazardous) Wastes Or Substances".

LEGAL OR REGULATORY ACTIONS OR CONSTRAINTS

- Government Orders Or Other Notifications Pertaining To Environmental Conditions Or Quality Of Soil, Water, Groundwater Or Other Environmental Media?
- Liens To Recover Costs, Restrictive Covenants On Land Use, Or Other Charges Or Encumbrances, Stemming From Contaminants Or Wastes Remaining Onsite Or From Other Environmental Conditions?
- Government Notifications Relating To Past Or Recurring Environmental Violations At The Site Or Any Facility Located On The Site?

Site Profile Note - Questions

Category Precursor: Are there currently or to the best of your knowledge have there been previously on the site any:
Category and Question: Tanks Or Containers Used Or Stored - Above Ground Fuel Or Chemical Storage Tanks? Yes

Site Profile Note - Questions

Category Precursor: Is there currently or to the best of your knowledge has there previously been on the site any deposit of:
Category and Question: Fill Materials - Discarded Or Waste Granular Materials Such As Sand Blasting Grit, Asphalt Paving Or Roofing Material, Spent Foundry Casting Sands, Mine Ore, Waste Rock Or Float? Yes

28	1 of 1	NW/8.8	12.2 / -31.64	Veyron Properties Group Ltd. Courtenay 3260 Cliffe Avenue BC	GEN
Generator No:	BCG19357			Status Date:	28-Mar-2014
Status:	Active			Registration Dt:	28-Mar-2014
Region:	VANCOUVER ISLAND				
Mailing Addr:					
Waste Generation Site:	Courtenay 3260 Cliffe Avenue				
Comments:					
Year:	2021				
<u>Waste Detail(s)</u>					
TDG Pin No:	UN2590			Generation Code:	Generated One Time Only
TDG Class:	9			Handling Code:	Off Site Management
Reg Status Date:	28-Mar-2014			Gen Business Type:	
Physical State:	Solid			Certified By Name:	Brett Giese - Veyron

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
Amount in Storage:		KG		Date Certifier Signed:	27-Mar-2014
Amount Per 30 Days:		2000 KG			
Registered Waste:		Asbestos, White **Note: Many records provided by the department have a truncated [Registered Waste] field.			

29	1 of 1	NW/31.2	9.2 / -34.65	3220 Cliffe Ave 3220 CLIFFE AVE No Entry NANAIMO BC	SREG
Site ID:		7388		Registered:	21-Aug-2001
Victoria File No:		No File		Updated:	31-Aug-2001
Env Rmd ID:				Detail Removed:	28-Aug-2001
Regional File No:		26250-20/7388		Common Name:	
Region:				Postal Code:	No Entry
Record Status:		NOT ASSIGNED		Latitude DMS:	49d 40m 07.7s
Status as of:		Jun 2022		Longitude DMS:	124d 58m 31.7s
Cleanup Status:				Latitude:	49.668794
Category:		Unranked		Longitude:	124.975486
Location Desc:					
Addr (BC Data Catalogue):					
Site Note:		There are no Associated Sites for this site.			

Registry Notations

Event ID:	39434
Notation Type and Act:	NOTICE OF INDEPENDENT REMEDIATION INITIATION SUBMITTED (WMA 28(2)). Waste Management Act: Contaminated Sites Notations
Initiated Date:	19-Jul-2001
Approved Date:	19-Jul-2001
Region:	Nanaimo, Vancouver Island
Ministry Contact:	COLLISON-BAKER, JOHN
Notation Notes:	No Notes Entered **Note: Many records provided by the department have a truncated [Notation Notes] field.
Required Actions:	No Actions Entered
Requirement Due Date:	
Requirement Received Date:	

Participant:	Amec Earth & Environmental Limited (Nanaimo)	Role:	SUBMITTED BY
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Site Participants

Participant:	First Professional Management Inc. (Richmond)	Start Date:	Jul-19-2001
Participation Type:	ORG	End Date:	
Notes:			
Participants Role:	Property Owner		

Site Participants

Participant:	Amec Earth & Environmental Limited (Nanaimo)	Start Date:	Jul-19-2001
Participation Type:	ORG	End Date:	
Notes:			
Participants Role:	Environmental Consultant/Contractor		

Site Participants

Participant:	Collison-Baker, John	Start Date:	Jul-19-2001
Participation Type:	EMP	End Date:	
Notes:			

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
Participants Role:		Main Ministry Contact			
Parcel Descriptions					
Date Added:	9/11/2001	Crown Land PIN#:			
LTO PID(s):	001-245-309	Crown Land File#:			
Land Description:	LOT 5, BLOCK 1, SECTION 67, COMOX DISTRICT, PLAN 9900 **Note: Many records provided by the department have a truncated [Land Description] field.				
30	1 of 2	NW/45.7	7.8 / -36.08	3210 Cliffe Avenue, Courtenay BC V9N 2L7	EHS
Order No:	21092900462	Nearest Intersection:			
Status:	C	Municipality:			
Report Type:	BC Standard Report Plus	Client Prov/State: BC			
Report Date:	04-OCT-21	Search Radius (km): .5			
Date Received:	29-SEP-21	X: -124.9770744			
Previous Site Name:		Y: 49.6688745			
Lot/Building Size:					
Additional Info Ordered:					
30	2 of 2	NW/45.7	7.8 / -36.08	3210 Cliffe Avenue, Courtenay BC V9N 2L7	EHS
Order No:	21092900462	Nearest Intersection:			
Status:	C	Municipality:			
Report Type:	BC Standard Report Plus	Client Prov/State: BC			
Report Date:	04-OCT-21	Search Radius (km): .5			
Date Received:	29-SEP-21	X: -124.9770744			
Previous Site Name:		Y: 49.6688745			
Lot/Building Size:					
Additional Info Ordered:					
31	1 of 1	NW/1.3	10.5 / -33.34	Veyron Properties Group Ltd. Courtenay 3230 Cliffe Avenue BC	GEN
Generator No:	BCG19355	Status Date: 28-Mar-2014			
Status:	Active	Registration Dt: 28-Mar-2014			
Region:	VANCOUVER ISLAND				
Mailing Addr:					
Waste Generation Site:	Courtenay 3230 Cliffe Avenue				
Comments:					
Year:	2021				
Waste Detail(s)					
TDG Pin No:	UN2590	Generation Code: Generated One Time Only			
TDG Class:	9	Handling Code: Off Site Management			
Reg Status Date:	28-Mar-2014	Gen Business Type:			
Physical State:	Solid	Certified By Name: Brett Giese - Veyron			
Amount in Storage:	KG	Date Certifier Signed: 27-Mar-2014			
Amount Per 30 Days:	2000 KG				
Registered Waste:	Asbestos, White **Note: Many records provided by the department have a truncated [Registered Waste] field.				

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
Status:	C			Municipality:	
Report Type:	BC Premium Report			Client Prov/State:	BC
Report Date:	31-JUL-19			Search Radius (km):	.25
Date Received:	29-JUL-19			X:	-124.977408
Previous Site Name:				Y:	49.669075
Lot/Building Size:					
Additional Info Ordered:	Fire Insur. Maps and/or Site Plans				

33	1 of 1	NW/64.8	11.5 / -32.42	WASTE MANAGEMENT OF CANADA CORP 2966 KILPATRICK STREET, COURTENAY, BC BC	GEN2
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Waste Manifests - 2014

Manifest No:	BK448666	Date Shipped:	02-27-2014
TDG Code:	BC0007	Date Received:	02-28-2014
TDG Class:	9.0-MISCELLANEOUS	Copy 3 Date:	03-14-2014
TDG Group:	III-Moderately Dangerous	Qty Shipped:	200 L
Packing Code:	01-Drum	Qty Rcvd:	200 L
Handling Code:	07-Recycling	Trans Lic No:	LT0859
Waste Receiver:	NEWALTA CORPORATION	Waste Trans:	NEWALTA CORPORATION
Receiving Addr:	1080 MAUGHAN RD, NANAIMO, BC	Trans Addr:	1080 MAUGHAN RD, NANAIMO, BC
Waste Name:	(L17 OILY WATER SLUDGE/DEBRIS) CERAMIC BEADS, WASTE OIL FILTER CAKE, ALUMINIUM, SAND		

34	1 of 1	NW/49.3	10.2 / -33.69	Unknown Dumpster behind Cloverdale Paint at 468 29th Street Courtenay BC	NEES
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Incident Date:	7/7/01 15:40
Contaminant:	MDI
Amount:	40
Units:	Gallons (Imperial)
Quantity:	[Other]
Cause:	Discharge
Source:	Unknown
Reason:	Intent
Sector:	Unknown

35	1 of 1	NW/54.0	10.2 / -33.69	GREAT CANADIAN OIL CHANGE 450-29TH ST, COURTNEY, BC BC	GEN2
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Waste Manifests - 2013

Manifest No:	BH952638	Date Shipped:	09-23-2013
TDG Code:	BC0007	Date Received:	09-23-2013
TDG Class:	9.0-MISCELLANEOUS	Qty Shipped:	500 L
TDG Group:	III-Moderately Dangerous	Qty Rcvd:	500 L
Packing Code:	03-Bulk	Trans Lic No:	LT1103
Handling Code:	01-Storage	Waste Trans:	COAST ENVIRONMENTAL LTD.
Waste Receiver:	NEWALTA CORPORATION	Trans Addr:	2673 SOOKE RD, VICTORIA, BC
Receiving Address:	1080 MAUGHAN RD, NANAIMO, BC		
Waste Name:	(L17 OILY WATER SLUDGE/DEBRIS) CERAMIC BEADS, WASTE OIL FILTER CAKE, ALUMINIUM, SAND		

Manifest No:	BH952638	Date Shipped:	09-23-2013
TDG Code:	BC0007	Date Received:	09-23-2013
TDG Class:	9.0-MISCELLANEOUS	Qty Shipped:	4000 L

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
TDG Group:	III-Moderately Dangerous			Qty Rcvd: 4000 L	
Packing Code:	03-Bulk			Trans Lic No: LT1103	
Handling Code:	01-Storage			Waste Trans: COAST ENVIRONMENTAL LTD.	
Waste Receiver:	NEWALTA CORPORATION			Trans Addr: 2673 SOOKE RD, VICTORIA, BC	
Receiving Address:	1080 MAUGHAN RD, NANAIMO, BC				
Waste Name:	(L17 OILY WATER SLUDGE/DEBRIS) CERAMIC BEADS, WASTE OIL FILTER CAKE, ALUMINIUM, SAND				
Manifest No:	BH981157			Date Shipped: 04-27-2013	
TDG Code:	BC0001			Date Received: 04-29-2013	
TDG Class:	9.0-MISCELLANEOUS			Qty Shipped: 2000 L	
TDG Group:	III-Moderately Dangerous			Qty Rcvd: 2000 L	
Packing Code:	03-Bulk			Trans Lic No: LT1103	
Handling Code:	01-Storage			Waste Trans: COAST ENVIRONMENTAL LTD.	
Waste Receiver:	NEWALTA CORPORATION			Trans Addr: 2673 SOOKE RD, VICTORIA, BC	
Receiving Address:	1080 MAUGHAN RD, NANAIMO, BC				
Waste Name:	LEACHABLE TOXIC -L17 OIL, COMPRESSION OIL, GEAR, HYDRAULIC. GREASE, AQUACENT, PREMIUM SOLVENT				

36 **1 of 2** **NW/26.2** **11.0 / -32.83** **2900 Cliffe Avenue, Courtenay**
2900 CLIFFE AVENUE No Entry
COURTENAY BC **SREG**

Site ID:	23386	Registered:	03-Apr-2020
Victoria File No:	26250-20/23386	Updated:	
Env Rmd ID:		Detail Removed:	
Regional File No:	No File	Common Name:	
Region:		Postal Code:	V9N 2L7
Record Status:	NOT ASSIGNED	Latitude DMS:	49d 40m 19.0s
Status as of:	Jun 2022	Longitude DMS:	124d 58m 46.0s
Cleanup Status:		Latitude:	49.671944
Category:	Not Applicable	Longitude:	124.979444
Location Desc:	LOCATION CONFIRMED USING GOOGLE EARTH/LTSA		
Addr (BC Data Catalogue):			
Site Note:	There are no Associated Sites for this site.		

Registry Notations

Event ID:	97136
Notation Type and Act:	NOTICE OF INDEPENDENT REMEDIATION COMPLETION SUBMITTED. Environmental Management Act: General
Initiated Date:	31-Mar-2020
Approved Date:	31-Mar-2020
Region:	Nanaimo, Vancouver Island
Ministry Contact:	FREDERICK, PABLO
Notation Notes:	Completed: 2020-03-28 Residential: Suspected Historical Dumping Of Waste Oil Or Fuel In Perimeter Around Historic Building On-Site **Note: Many records provided by the department have a truncated [Notation Notes] field.
Required Actions:	No Actions Entered
Requirement Due Date:	
Requirement Received Date:	

Participant:	Terrawest Environmental Inc.	Role:	SUBMITTED BY
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Registry Notations

Event ID:	97135
Notation Type and Act:	NOTICE OF INDEPENDENT REMEDIATION INITIATION SUBMITTED. Environmental Management Act: General
Initiated Date:	31-Mar-2020
Approved Date:	31-Mar-2020
Region:	Nanaimo, Vancouver Island
Ministry Contact:	FREDERICK, PABLO
Notation Notes:	Start: 2020-02-05 Residential: Suspected Historical Dumping Of Waste Oil Or Fuel In Perimeter Around Historic Building On-Site **Note: Many records provided by the department have a truncated [Notation Notes] field.

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
Required Actions:		No Actions Entered			
Requirement Due Date:					
Requirement Received Date:					
Participant:	Terrawest Environmental Inc.			Role:	SUBMITTED BY
Registry Notations					
Event ID:	97137				
Notation Type and Act:	SITE RISK CLASSIFIED - SITE IS NON-HIGH RISK. Environmental Management Act: General				
Initiated Date:	31-Mar-2020				
Approved Date:	31-Mar-2020				
Region:	Nanaimo, Vancouver Island				
Ministry Contact:	YAN, PETER				
Notation Notes:	No Notes Entered **Note: Many records provided by the department have a truncated [Notation Notes] field.				
Required Actions:	No Actions Entered				
Requirement Due Date:					
Requirement Received Date:					
Participant:	Terrawest Environmental Inc.			Role:	SUBMITTED BY
Site Participants					
Participant:	Frederick, Pablo			Start Date:	Mar-31-2020
Participation Type:	EMP			End Date:	Jun-14-2021
Notes:					
Participants Role:	Ministry Contact				
Site Participants					
Participant:	Terrawest Environmental Inc.			Start Date:	Mar-31-2020
Participation Type:	ORG			End Date:	
Notes:					
Participants Role:	Environmental Consultant/Contractor				
Site Participants					
Participant:	Pace Setter Construction Ltd.			Start Date:	Mar-31-2020
Participation Type:	ORG			End Date:	
Notes:					
Participants Role:	Property Owner				
Parcel Descriptions					
Date Added:	3/31/2020			Crown Land PIN#:	
LTO PID(s):	030-813-409			Crown Land File#:	
Land Description:	LOT 1 SECTION 67 COMOX DISTRICT PLAN EPP70886 **Note: Many records provided by the department have a truncated [Land Description] field.				
36	2 of 2	NW/26.2	11.0 / -32.83	Pace Setter Construction Ltd Courtenay 2900 Cliffe Ave BC	GEN
Generator No:	BCG99863			Status Date:	20-May-2020
Status:	Active			Registration Dt:	20-May-2020
Region:	VANCOUVER ISLAND				
Mailing Addr:					
Waste Generation Site:	Courtenay 2900 Cliffe Ave				

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
Comments:					
Year:	2021				
Waste Detail(s)					
TDG Pin No:	UN2212			Generation Code:	Generated One Time Only
TDG Class:	9			Handling Code:	Secure Landfill
Reg Status Date:	20-May-2020			Gen Business Type:	
Physical State:	Solid			Certified By Name:	Rick Bennett
Amount in Storage:	7000 kg			Date Certifier Signed:	20-May-2020
Amount Per 30 Days:	7000 kg				
Registered Waste:	Amphibole Asbestos **Note: Many records provided by the department have a truncated [Registered Waste] field.				
37	1 of 5	NW/25.1	9.5 / -34.42	ZELLERS LTD #029 2801 CLIFFE AVE COURTENAY BC	PES
Registration No:	3837V			Expiry Date:	
Registration Type:				Provides Service:	
Category:	VENDOR- NET TREATMENT PROD.				
Regions of Operation:					
Pesticides to be used:					
Treatment Description:					
37	2 of 5	NW/25.1	9.5 / -34.42	ZELLERS LTD #029 2801 CLIFFE AVE COURTENAY BC V9N 2L8	PES
Registration No:	3837V			Expiry Date:	
Registration Type:				Provides Service:	
Category:					
Regions of Operation:					
Pesticides to be used:					
Treatment Description:					
37	3 of 5	NW/25.1	9.5 / -34.42	ZELLERS LTD #029 2801 CLIFFE AVE, COURTENAY, BC, CA V9N 2L8 BC	PES
Registration No:	3837			Expiry Date:	04/01/2002
Registration Type:				Provides Service:	
Category:	3 - GENERAL; DOMESTIC PESTICIDES				
Regions of Operation:					
Pesticides to be used:					
Treatment Description:					
37	4 of 5	NW/25.1	9.5 / -34.42	TARGET CANADA CO. 2801 CLIFFE AVENUE, COURTENAY, BC BC	GEN2
Waste Manifests - 2014					
Manifest No:	BK541395			Date Shipped:	08-06-2014
TDG Code:	UN1993			Date Received:	08-08-2014
TDG Class:	3.0-FLAMMABLE			Copy 3 Date:	09-19-2014
TDG Group:	II-Dangerous			Qty Shipped:	15 KG

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
Packing Code:	04-Carton			Qty Rcvd:	15 KG
Handling Code:	01-Storage			Trans Lic No:	LT0976
Waste Receiver:	STERICYCLE INC			Waste Trans:	STERICYCLE, ULC
Receiving Addr:	104-1772 BROADWAY STREET, PORT COQUITLAM, BC			Trans Addr:	150B 1407 KEBET WAY, PORT COQ, BC
Waste Name:	FLAMMABLE LIQUIDS, N.O.S.				
Manifest No:	BK541395			Date Shipped:	08-06-2014
TDG Code:	UN1950			Date Received:	08-08-2014
TDG Class:	2.1-FLAMMABLE GAS			Copy 3 Date:	09-19-2014
TDG Group:	N/R-Not Regulated			Qty Shipped:	1 KG
Packing Code:	04-Carton			Qty Rcvd:	1 KG
Handling Code:	01-Storage			Trans Lic No:	LT0976
Waste Receiver:	STERICYCLE INC			Waste Trans:	STERICYCLE, ULC
Receiving Addr:	104-1772 BROADWAY STREET, PORT COQUITLAM, BC			Trans Addr:	150B 1407 KEBET WAY, PORT COQ, BC
Waste Name:	AEROSOLS				
Manifest No:	BK541395			Date Shipped:	08-06-2014
TDG Code:	BC0005			Date Received:	08-08-2014
TDG Class:	8.0-CORROSIVE			Copy 3 Date:	09-19-2014
TDG Group:	III-Moderately Dangerous			Qty Shipped:	1 KG
Packing Code:	04-Carton			Qty Rcvd:	1 KG
Handling Code:	01-Storage			Trans Lic No:	LT0976
Waste Receiver:	STERICYCLE INC			Waste Trans:	STERICYCLE, ULC
Receiving Addr:	104-1772 BROADWAY STREET, PORT COQUITLAM, BC			Trans Addr:	150B 1407 KEBET WAY, PORT COQ, BC
Waste Name:	LEACHABLE TOXIC WASTE (L19 MERCURY)(LIGHT BULB FILAMENT)				
Manifest No:	BK541965			Date Shipped:	07-16-2014
TDG Code:	UN3090			Date Received:	07-18-2014
TDG Class:	9.0-MISCELLANEOUS			Copy 3 Date:	08-13-2014
TDG Group:	II-Dangerous			Qty Shipped:	1 KG
Packing Code:	04-Carton			Qty Rcvd:	1 KG
Handling Code:	01-Storage			Trans Lic No:	LT0976
Waste Receiver:	STERICYCLE, ULC			Waste Trans:	STERICYCLE, ULC
Receiving Addr:	104 1772 BROADWAY STREET, PORT COQUITLAM, BC			Trans Addr:	150B 1407 KEBET WAY, PORT COQ, BC
Waste Name:	LITHIUM BATTERIES				
Manifest No:	BK541965			Date Shipped:	07-16-2014
TDG Code:	UN1950			Date Received:	07-18-2014
TDG Class:	2.1-FLAMMABLE GAS			Copy 3 Date:	08-13-2014
TDG Group:	N/R-Not Regulated			Qty Shipped:	12 KG
Packing Code:	04-Carton			Qty Rcvd:	12 KG
Handling Code:	01-Storage			Trans Lic No:	LT0976
Waste Receiver:	STERICYCLE, ULC			Waste Trans:	STERICYCLE, ULC
Receiving Addr:	104 1772 BROADWAY STREET, PORT COQUITLAM, BC			Trans Addr:	150B 1407 KEBET WAY, PORT COQ, BC
Waste Name:	AEROSOLS				
Manifest No:	BK541965			Date Shipped:	07-16-2014
TDG Code:	UN1760			Date Received:	07-18-2014
TDG Class:	8.0-CORROSIVE			Copy 3 Date:	08-13-2014
TDG Group:	II-Dangerous			Qty Shipped:	10 KG
Packing Code:	04-Carton			Qty Rcvd:	10 KG
Handling Code:	01-Storage			Trans Lic No:	LT0976
Waste Receiver:	STERICYCLE, ULC			Waste Trans:	STERICYCLE, ULC
Receiving Addr:	104 1772 BROADWAY STREET, PORT COQUITLAM, BC			Trans Addr:	150B 1407 KEBET WAY, PORT COQ, BC
Waste Name:	CORROSIVE LIQUIDS, N.O.S.				
Manifest No:	BK151260			Date Shipped:	06-11-2014
TDG Code:	UN3028			Date Received:	06-13-2014
TDG Class:	8.0-CORROSIVE			Copy 3 Date:	07-08-2014
TDG Group:	III-Moderately Dangerous			Qty Shipped:	1 KG

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
Packing Code:	04-Carton			Qty Rcvd:	1 KG
Handling Code:	01-Storage			Trans Lic No:	LT0976
Waste Receiver:	STERICYCLE INC			Waste Trans:	STERICYCLE, ULC
Receiving Addr:	104-1772 BROADWAY STREET, PORT COQUITLAM, BC			Trans Addr:	150B 1407 KEBET WAY, PORT COQ, BC
Waste Name:	BATTERIES, DRY, CONTAINING POTASSIUM HYDROXIDE8 III				
Manifest No:	BK151260			Date Shipped:	06-11-2014
TDG Code:	UN1950			Date Received:	06-13-2014
TDG Class:	2.1-FLAMMABLE GAS			Copy 3 Date:	07-08-2014
TDG Group:	N/R-Not Regulated			Qty Shipped:	4 KG
Packing Code:	04-Carton			Qty Rcvd:	4 KG
Handling Code:	01-Storage			Trans Lic No:	LT0976
Waste Receiver:	STERICYCLE INC			Waste Trans:	STERICYCLE, ULC
Receiving Addr:	104-1772 BROADWAY STREET, PORT COQUITLAM, BC			Trans Addr:	150B 1407 KEBET WAY, PORT COQ, BC
Waste Name:	AEROSOLS				
Manifest No:	BK121065			Date Shipped:	05-14-2014
TDG Code:	UN3175			Date Received:	05-16-2014
TDG Class:	4.1-FLAMMABLE SOLIDS			Copy 3 Date:	06-09-2014
TDG Group:	II-Dangerous			Qty Shipped:	12 KG
Packing Code:	04-Carton			Qty Rcvd:	12 KG
Handling Code:	01-Storage			Trans Lic No:	LT0976
Waste Receiver:	STERICYCLE INC			Waste Trans:	STERICYCLE, ULC
Receiving Addr:	104-1772 BROADWAY STREET, PORT COQUITLAM, BC			Trans Addr:	150B 1407 KEBET WAY, PORT COQ, BC
Waste Name:	SOLIDS CONTAINING FLAMMABLE LIQUID, N.O.S.				
Manifest No:	BK121065			Date Shipped:	05-14-2014
TDG Code:	UN1950			Date Received:	05-16-2014
TDG Class:	2.1-FLAMMABLE GAS			Copy 3 Date:	06-09-2014
TDG Group:	N/R-Not Regulated			Qty Shipped:	2 KG
Packing Code:	04-Carton			Qty Rcvd:	2 KG
Handling Code:	01-Storage			Trans Lic No:	LT0976
Waste Receiver:	STERICYCLE INC			Waste Trans:	STERICYCLE, ULC
Receiving Addr:	104-1772 BROADWAY STREET, PORT COQUITLAM, BC			Trans Addr:	150B 1407 KEBET WAY, PORT COQ, BC
Waste Name:	AEROSOLS				
Manifest No:	BK115745			Date Shipped:	04-30-2014
TDG Code:	UN1950			Date Received:	05-02-2014
TDG Class:	2.1-FLAMMABLE GAS			Copy 3 Date:	06-09-2014
TDG Group:	N/R-Not Regulated			Qty Shipped:	15 KG
Packing Code:	04-Carton			Qty Rcvd:	15 KG
Handling Code:	01-Storage			Trans Lic No:	LT0976
Waste Receiver:	STERICYCLE INC			Waste Trans:	STERICYCLE, ULC
Receiving Addr:	104-1772 BROADWAY STREET, PORT COQUITLAM, BC			Trans Addr:	150B 1407 KEBET WAY, PORT COQ, BC
Waste Name:	AEROSOLS				
Manifest No:	BK115745			Date Shipped:	04-30-2014
TDG Code:	UN3139			Date Received:	05-02-2014
TDG Class:	5.2-OXIDIZING & ORGANIC			Copy 3 Date:	06-09-2014
TDG Group:	II-Dangerous			Qty Shipped:	30 KG
Packing Code:	04-Carton			Qty Rcvd:	30 KG
Handling Code:	01-Storage			Trans Lic No:	LT0976
Waste Receiver:	STERICYCLE INC			Waste Trans:	STERICYCLE, ULC
Receiving Addr:	104-1772 BROADWAY STREET, PORT COQUITLAM, BC			Trans Addr:	150B 1407 KEBET WAY, PORT COQ, BC
Waste Name:	OXIDIZING SUBSTANCES, LIQUID, N.O.S.				
Manifest No:	BK115745			Date Shipped:	04-30-2014
TDG Code:	UN3090			Date Received:	05-02-2014
TDG Class:	9.0-MISCELLANEOUS			Copy 3 Date:	06-09-2014
TDG Group:	II-Dangerous			Qty Shipped:	1 KG

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
Packing Code:	03-Bulk			Qty Rcvd:	1 KG
Handling Code:	01-Storage			Trans Lic No:	LT0976
Waste Receiver:	STERICYCLE INC			Waste Trans:	STERICYCLE, ULC
Receiving Addr:	104-1772 BROADWAY STREET, PORT COQUITLAM, BC			Trans Addr:	150B 1407 KEBET WAY, PORT COQ, BC
Waste Name:	LITHIUM BATTERIES				
Manifest No:	BK115760			Date Shipped:	04-30-2014
TDG Code:	UN2811			Date Received:	05-02-2014
TDG Class:	6.1-POISONOUS			Copy 3 Date:	06-09-2014
TDG Group:	II-Dangerous			Qty Shipped:	10 KG
Packing Code:	04-Carton			Qty Rcvd:	10 KG
Handling Code:	01-Storage			Trans Lic No:	LT0976
Waste Receiver:	STERICYCLE INC			Waste Trans:	STERICYCLE, ULC
Receiving Addr:	104-1772 BROADWAY STREET, PORT COQUITLAM, BC			Trans Addr:	150B 1407 KEBET WAY, PORT COQ, BC
Waste Name:	POISONOUS SOLIDS, N.O.S.				
Manifest No:	BK115745			Date Shipped:	04-30-2014
TDG Code:	UN1760			Date Received:	05-02-2014
TDG Class:	8.0-CORROSIVE			Copy 3 Date:	06-09-2014
TDG Group:	II-Dangerous			Qty Shipped:	1 KG
Packing Code:	04-Carton			Qty Rcvd:	1 KG
Handling Code:	01-Storage			Trans Lic No:	LT0976
Waste Receiver:	STERICYCLE INC			Waste Trans:	STERICYCLE, ULC
Receiving Addr:	104-1772 BROADWAY STREET, PORT COQUITLAM, BC			Trans Addr:	150B 1407 KEBET WAY, PORT COQ, BC
Waste Name:	CORROSIVE LIQUIDS, N.O.S.				
Manifest No:	BK305692			Date Shipped:	02-19-2014
TDG Code:	UN3028			Date Received:	02-21-2014
TDG Class:	8.0-CORROSIVE			Copy 3 Date:	03-13-2014
TDG Group:	III-Moderately Dangerous			Qty Shipped:	1 KG
Packing Code:	04-Carton			Qty Rcvd:	1 KG
Handling Code:	01-Storage			Trans Lic No:	LT0976
Waste Receiver:	STERICYCLE INC			Waste Trans:	STERICYCLE, ULC
Receiving Addr:	104-1772 BROADWAY STREET, PORT COQUITLAM, BC			Trans Addr:	150B 1407 KEBET WAY, PORT COQ, BC
Waste Name:	BATTERIES, DRY, CONTAINING POTASSIUM HYDROXIDE8 III				
Manifest No:	BK186498			Date Shipped:	02-19-2014
TDG Code:	UN1950			Date Received:	
TDG Class:	2.1-FLAMMABLE GAS			Copy 3 Date:	04-22-2014
TDG Group:	N/R-Not Regulated			Qty Shipped:	18 KG
Packing Code:	04-Carton			Qty Rcvd:	18 KG
Handling Code:	01-Storage			Trans Lic No:	LT0976
Waste Receiver:	STERICYCLE INC			Waste Trans:	STERICYCLE, ULC
Receiving Addr:	200 - 1407 KEBET WAY, PORT COQUITLAM, BC			Trans Addr:	150B 1407 KEBET WAY, PORT COQ, BC
Waste Name:	AEROSOLS				
Manifest No:	BK186498			Date Shipped:	02-19-2014
TDG Code:	UN1993			Date Received:	
TDG Class:	3.0-FLAMMABLE			Copy 3 Date:	04-22-2014
TDG Group:	II-Dangerous			Qty Shipped:	8 KG
Packing Code:	04-Carton			Qty Rcvd:	8 KG
Handling Code:	01-Storage			Trans Lic No:	LT0976
Waste Receiver:	STERICYCLE INC			Waste Trans:	STERICYCLE, ULC
Receiving Addr:	200 - 1407 KEBET WAY, PORT COQUITLAM, BC			Trans Addr:	150B 1407 KEBET WAY, PORT COQ, BC
Waste Name:	FLAMMABLE LIQUIDS, N.O.S.				
Manifest No:	BK186498			Date Shipped:	02-19-2014
TDG Code:	UN3090			Date Received:	
TDG Class:	9.0-MISCELLANEOUS			Copy 3 Date:	04-22-2014
TDG Group:	II-Dangerous			Qty Shipped:	,1 KG

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
Packing Code:	04-Carton			Qty Rcvd:	,1 KG
Handling Code:	01-Storage			Trans Lic No:	LT0976
Waste Receiver:	STERICYCLE INC			Waste Trans:	STERICYCLE, ULC
Receiving Addr:	200 - 1407 KEBET WAY, PORT COQUITLAM, BC			Trans Addr:	150B 1407 KEBET WAY, PORT COQ, BC
Waste Name:	LITHIUM BATTERIES				
Manifest No:	BK305692			Date Shipped:	02-19-2014
TDG Code:	UN1950			Date Received:	02-21-2014
TDG Class:	2.1-FLAMMABLE GAS			Copy 3 Date:	03-13-2014
TDG Group:	N/A-Not Applicable			Qty Shipped:	5 KG
Packing Code:	04-Carton			Qty Rcvd:	5 KG
Handling Code:	01-Storage			Trans Lic No:	LT0976
Waste Receiver:	STERICYCLE INC			Waste Trans:	STERICYCLE, ULC
Receiving Addr:	104-1772 BROADWAY STREET, PORT COQUITLAM, BC			Trans Addr:	150B 1407 KEBET WAY, PORT COQ, BC
Waste Name:	AEROSOLS				
Manifest No:	BK305692			Date Shipped:	02-19-2014
TDG Code:	UN1993			Date Received:	02-21-2014
TDG Class:	3.0-FLAMMABLE			Copy 3 Date:	03-13-2014
TDG Group:	II-Dangerous			Qty Shipped:	14 KG
Packing Code:	04-Carton			Qty Rcvd:	14 KG
Handling Code:	01-Storage			Trans Lic No:	LT0976
Waste Receiver:	STERICYCLE INC			Waste Trans:	STERICYCLE, ULC
Receiving Addr:	104-1772 BROADWAY STREET, PORT COQUITLAM, BC			Trans Addr:	150B 1407 KEBET WAY, PORT COQ, BC
Waste Name:	FLAMMABLE LIQUIDS, N.O.S.				
Manifest No:	BK333629			Date Shipped:	01-22-2014
TDG Code:	UN1993			Date Received:	01-24-2014
TDG Class:	3.0-FLAMMABLE			Copy 3 Date:	02-19-2014
TDG Group:	II-Dangerous			Qty Shipped:	20 KG
Packing Code:	04-Carton			Qty Rcvd:	20 KG
Handling Code:	01-Storage			Trans Lic No:	LT0976
Waste Receiver:	STERICYCLE INC			Waste Trans:	STERICYCLE, ULC
Receiving Addr:	104-1772 BROADWAY STREET, PORT COQUITLAM, BC			Trans Addr:	150B 1407 KEBET WAY, PORT COQ, BC
Waste Name:	FLAMMABLE LIQUIDS, N.O.S.				
Manifest No:	BK333629			Date Shipped:	01-22-2014
TDG Code:	UN1950			Date Received:	01-24-2014
TDG Class:	2.1-FLAMMABLE GAS			Copy 3 Date:	02-19-2014
TDG Group:	N/A-Not Applicable			Qty Shipped:	25 KG
Packing Code:	04-Carton			Qty Rcvd:	25 KG
Handling Code:	01-Storage			Trans Lic No:	LT0976
Waste Receiver:	STERICYCLE INC			Waste Trans:	STERICYCLE, ULC
Receiving Addr:	104-1772 BROADWAY STREET, PORT COQUITLAM, BC			Trans Addr:	150B 1407 KEBET WAY, PORT COQ, BC
Waste Name:	AEROSOLS				
Manifest No:	BK333637			Date Shipped:	01-22-2014
TDG Code:	UN2811			Date Received:	01-24-2014
TDG Class:	6.1-POISONOUS			Copy 3 Date:	02-19-2014
TDG Group:	II-Dangerous			Qty Shipped:	2 KG
Packing Code:	04-Carton			Qty Rcvd:	2 KG
Handling Code:	01-Storage			Trans Lic No:	LT0976
Waste Receiver:	STERICYCLE INC			Waste Trans:	STERICYCLE, ULC
Receiving Addr:	104-1772 BROADWAY STREET, PORT COQUITLAM, BC			Trans Addr:	150B 1407 KEBET WAY, PORT COQ, BC
Waste Name:	POISONOUS SOLIDS, N.O.S.				
Manifest No:	BK333629			Date Shipped:	01-22-2014
TDG Code:	UN3028			Date Received:	01-24-2014
TDG Class:	8.0-CORROSIVE			Copy 3 Date:	02-19-2014
TDG Group:	III-Moderately Dangerous			Qty Shipped:	2 KG

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
Packing Code:	04-Carton			Qty Rcvd:	2 KG
Handling Code:	01-Storage			Trans Lic No:	LT0976
Waste Receiver:	STERICYCLE INC			Waste Trans:	STERICYCLE, ULC
Receiving Addr:	104-1772 BROADWAY STREET, PORT COQUITLAM, BC			Trans Addr:	150B 1407 KEBET WAY, PORT COQ, BC
Waste Name:	BATTERIES, DRY, CONTAINING POTASSIUM HYDROXIDE8 III				
Manifest No:	BK333629			Date Shipped:	01-22-2014
TDG Code:	UN1760			Date Received:	01-24-2014
TDG Class:	8.0-CORROSIVE			Copy 3 Date:	02-19-2014
TDG Group:	II-Dangerous			Qty Shipped:	3 KG
Packing Code:	04-Carton			Qty Rcvd:	3 KG
Handling Code:	01-Storage			Trans Lic No:	LT0976
Waste Receiver:	STERICYCLE INC			Waste Trans:	STERICYCLE, ULC
Receiving Addr:	104-1772 BROADWAY STREET, PORT COQUITLAM, BC			Trans Addr:	150B 1407 KEBET WAY, PORT COQ, BC
Waste Name:	CORROSIVE LIQUIDS, N.O.S.				
Waste Manifests - 2013					
Manifest No:	BK331110			Date Shipped:	12-18-2013
TDG Code:	UN2810			Date Received:	12-20-2013
TDG Class:	6.1-POISONOUS			Qty Shipped:	42 KG
TDG Group:	II-Dangerous			Qty Rcvd:	42 KG
Packing Code:	03-Bulk			Trans Lic No:	LT0976
Handling Code:	01-Storage			Waste Trans:	STERICYCLE, ULC
Waste Receiver:	STERICYCLE INC			Trans Addr:	150B 1407 KEBET WAY, PORT COQ, BC
Receiving Address:	104-1772 BROADWAY STREET, PORT COQUITLAM, BC				
Waste Name:	POISONOUS LIQUID, N.O.S.				
Manifest No:	BK331110			Date Shipped:	12-18-2013
TDG Code:	UN3175			Date Received:	12-20-2013
TDG Class:	4.1-FLAMMABLE SOLIDS			Qty Shipped:	6 KG
TDG Group:	II-Dangerous			Qty Rcvd:	6 KG
Packing Code:	04-Carton			Trans Lic No:	LT0976
Handling Code:	01-Storage			Waste Trans:	STERICYCLE, ULC
Waste Receiver:	STERICYCLE INC			Trans Addr:	150B 1407 KEBET WAY, PORT COQ, BC
Receiving Address:	104-1772 BROADWAY STREET, PORT COQUITLAM, BC				
Waste Name:	SOLIDS CONTAINING FLAMMABLE LIQUID, N.O.S.				
Manifest No:	BJ955407			Date Shipped:	11-27-2013
TDG Code:	UN2811			Date Received:	11-29-2013
TDG Class:	6.1-POISONOUS			Qty Shipped:	50 KG
TDG Group:	II-Dangerous			Qty Rcvd:	50 KG
Packing Code:	04-Carton			Trans Lic No:	LT0976
Handling Code:	01-Storage			Waste Trans:	STERICYCLE, ULC
Waste Receiver:	STERICYCLE INC			Trans Addr:	150B 1407 KEBET WAY, PORT COQ, BC
Receiving Address:	104-1772 BROADWAY STREET, PORT COQUITLAM, BC				
Waste Name:	POISONOUS SOLIDS, N.O.S.				
Manifest No:	BJ955407			Date Shipped:	11-27-2013
TDG Code:	UN2811			Date Received:	11-29-2013
TDG Class:	6.1-POISONOUS			Qty Shipped:	2 KG
TDG Group:	II-Dangerous			Qty Rcvd:	2 KG
Packing Code:	04-Carton			Trans Lic No:	LT0976
Handling Code:	01-Storage			Waste Trans:	STERICYCLE, ULC
Waste Receiver:	STERICYCLE INC			Trans Addr:	150B 1407 KEBET WAY, PORT COQ, BC
Receiving Address:	104-1772 BROADWAY STREET, PORT COQUITLAM, BC				
Waste Name:	POISONOUS SOLIDS, N.O.S.				
Manifest No:	BJ955399			Date Shipped:	11-27-2013

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
TDG Code:	UN1950			Date Received:	11-29-2013
TDG Class:	2.1-FLAMMABLE GAS			Qty Shipped:	2 KG
TDG Group:	N/R-Not Regulated			Qty Rcvd:	2 KG
Packing Code:	04-Carton			Trans Lic No:	LT0976
Handling Code:	01-Storage			Waste Trans:	STERICYCLE, ULC
Waste Receiver:	STERICYCLE INC			Trans Addr:	150B 1407 KEBET WAY, PORT COQ, BC
Receiving Address:	104-1772 BROADWAY STREET, PORT COQUITLAM, BC				
Waste Name:	AEROSOLS				
Manifest No:	BJ955399			Date Shipped:	11-27-2013
TDG Code:	UN1750			Date Received:	11-29-2013
TDG Class:	8.0-CORROSIVE			Qty Shipped:	3 KG
TDG Group:	II-Dangerous			Qty Rcvd:	3 KG
Packing Code:	04-Carton			Trans Lic No:	LT0976
Handling Code:	01-Storage			Waste Trans:	STERICYCLE, ULC
Waste Receiver:	STERICYCLE INC			Trans Addr:	150B 1407 KEBET WAY, PORT COQ, BC
Receiving Address:	104-1772 BROADWAY STREET, PORT COQUITLAM, BC				
Waste Name:	Chloroacetic acid, liquid				
Manifest No:	BJ955399			Date Shipped:	11-27-2013
TDG Code:	UN1993			Date Received:	11-29-2013
TDG Class:	3.0-FLAMMABLE			Qty Shipped:	15 KG
TDG Group:	II-Dangerous			Qty Rcvd:	15 KG
Packing Code:	04-Carton			Trans Lic No:	LT0976
Handling Code:	01-Storage			Waste Trans:	STERICYCLE, ULC
Waste Receiver:	STERICYCLE INC			Trans Addr:	150B 1407 KEBET WAY, PORT COQ, BC
Receiving Address:	104-1772 BROADWAY STREET, PORT COQUITLAM, BC				
Waste Name:	FLAMMABLE LIQUIDS, N.O.S.				
Manifest No:	BJ955399			Date Shipped:	11-27-2013
TDG Code:	UN3028			Date Received:	11-29-2013
TDG Class:	8.0-CORROSIVE			Qty Shipped:	15 KG
TDG Group:	III-Moderately Dangerous			Qty Rcvd:	15 KG
Packing Code:	04-Carton			Trans Lic No:	LT0976
Handling Code:	01-Storage			Waste Trans:	STERICYCLE, ULC
Waste Receiver:	STERICYCLE INC			Trans Addr:	150B 1407 KEBET WAY, PORT COQ, BC
Receiving Address:	104-1772 BROADWAY STREET, PORT COQUITLAM, BC				
Waste Name:	BATTERIES, DRY, CONTAINING POTASSIUM HYDROXIDE8 III				
Manifest No:	BJ955407			Date Shipped:	11-27-2013
TDG Code:	UN3175			Date Received:	11-29-2013
TDG Class:	4.1-FLAMMABLE SOLIDS			Qty Shipped:	50 KG
TDG Group:	II-Dangerous			Qty Rcvd:	50 KG
Packing Code:	04-Carton			Trans Lic No:	LT0976
Handling Code:	01-Storage			Waste Trans:	STERICYCLE, ULC
Waste Receiver:	STERICYCLE INC			Trans Addr:	150B 1407 KEBET WAY, PORT COQ, BC
Receiving Address:	104-1772 BROADWAY STREET, PORT COQUITLAM, BC				
Waste Name:	SOLIDS CONTAINING FLAMMABLE LIQUID, N.O.S.				
Manifest No:	BJ925038			Date Shipped:	11-06-2013
TDG Code:	UN2811			Date Received:	11-08-2013
TDG Class:	6.1-POISONOUS			Qty Shipped:	143 KG
TDG Group:	II-Dangerous			Qty Rcvd:	143 KG
Packing Code:	04-Carton			Trans Lic No:	LT0976
Handling Code:	01-Storage			Waste Trans:	STERICYCLE, ULC
Waste Receiver:	STERICYCLE INC			Trans Addr:	150B 1407 KEBET WAY, PORT COQ, BC
Receiving Address:	104-1772 BROADWAY STREET, PORT COQUITLAM, BC				
Waste Name:	POISONOUS SOLIDS, N.O.S.				
Manifest No:	BJ925038			Date Shipped:	11-06-2013

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
TDG Code:	UN1760			Date Received:	11-08-2013
TDG Class:	8.0-CORROSIVE			Qty Shipped:	5 KG
TDG Group:	II-Dangerous			Qty Rcvd:	5 KG
Packing Code:	04-Carton			Trans Lic No:	LT0976
Handling Code:	01-Storage			Waste Trans:	STERICYCLE, ULC
Waste Receiver:	STERICYCLE INC			Trans Addr:	150B 1407 KEBET WAY, PORT COQ, BC
Receiving Address:	104-1772 BROADWAY STREET, PORT COQUITLAM, BC				
Waste Name:	CORROSIVE LIQUIDS, N.O.S.				
Manifest No:	BJ376620			Date Shipped:	09-04-2013
TDG Code:	UN1993			Date Received:	09-06-2013
TDG Class:	3.0-FLAMMABLE			Qty Shipped:	2 KG
TDG Group:	II-Dangerous			Qty Rcvd:	2 KG
Packing Code:	04-Carton			Trans Lic No:	LT0976
Handling Code:	01-Storage			Waste Trans:	STERICYCLE, ULC
Waste Receiver:	STERICYCLE INC			Trans Addr:	150B 1407 KEBET WAY, PORT COQ, BC
Receiving Address:	104-1772 BROADWAY STREET, PORT COQUITLAM, BC				
Waste Name:	FLAMMABLE LIQUIDS, N.O.S.				
Manifest No:	BJ376620			Date Shipped:	09-04-2013
TDG Code:	UN1760			Date Received:	09-06-2013
TDG Class:	8.0-CORROSIVE			Qty Shipped:	2 KG
TDG Group:	II-Dangerous			Qty Rcvd:	2 KG
Packing Code:	04-Carton			Trans Lic No:	LT0976
Handling Code:	01-Storage			Waste Trans:	STERICYCLE, ULC
Waste Receiver:	STERICYCLE INC			Trans Addr:	150B 1407 KEBET WAY, PORT COQ, BC
Receiving Address:	104-1772 BROADWAY STREET, PORT COQUITLAM, BC				
Waste Name:	CORROSIVE LIQUIDS, N.O.S.				
Manifest No:	BJ376323			Date Shipped:	07-31-2013
TDG Code:	UN2926			Date Received:	08-02-2013
TDG Class:	4.1-FLAMMABLE SOLIDS			Qty Shipped:	7,5 KG
TDG Group:	II-Dangerous			Qty Rcvd:	7,5 KG
Packing Code:	04-Carton			Trans Lic No:	LT0976
Handling Code:	01-Storage			Waste Trans:	STERICYCLE, ULC
Waste Receiver:	STERICYCLE INC			Trans Addr:	150B 1407 KEBET WAY, PORT COQ, BC
Receiving Address:	104-1772 BROADWAY STREET, PORT COQUITLAM, BC				
Waste Name:	Flammable solids, poisonous, n.o.s.				
Manifest No:	BJ376323			Date Shipped:	07-31-2013
TDG Code:	UN1950			Date Received:	08-02-2013
TDG Class:	2.1-FLAMMABLE GAS			Qty Shipped:	1 KG
TDG Group:	N/A-Not Applicable			Qty Rcvd:	1 KG
Packing Code:	04-Carton			Trans Lic No:	LT0976
Handling Code:	01-Storage			Waste Trans:	STERICYCLE, ULC
Waste Receiver:	STERICYCLE INC			Trans Addr:	150B 1407 KEBET WAY, PORT COQ, BC
Receiving Address:	104-1772 BROADWAY STREET, PORT COQUITLAM, BC				
Waste Name:	AEROSOLS				
Manifest No:	BJ376323			Date Shipped:	07-31-2013
TDG Code:	UN3028			Date Received:	08-02-2013
TDG Class:	8.0-CORROSIVE			Qty Shipped:	1 KG
TDG Group:	III-Moderately Dangerous			Qty Rcvd:	1 KG
Packing Code:	04-Carton			Trans Lic No:	LT0976
Handling Code:	01-Storage			Waste Trans:	STERICYCLE, ULC
Waste Receiver:	STERICYCLE INC			Trans Addr:	150B 1407 KEBET WAY, PORT COQ, BC
Receiving Address:	104-1772 BROADWAY STREET, PORT COQUITLAM, BC				
Waste Name:	BATTERIES, DRY, CONTAINING POTASSIUM HYDROXIDE8 III				
Manifest No:	BJ376323			Date Shipped:	07-31-2013

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
<div> <div> TDG Code: UN3265 TDG Class: 8.0-CORROSIVE TDG Group: II-Dangerous Packing Code: 04-Carton Handling Code: 01-Storage Waste Receiver: STERICYCLE INC Receiving Address: 104-1772 BROADWAY STREET, PORT COQUITLAM, BC Waste Name: CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S. </div> <div> Date Received: 08-02-2013 Qty Shipped: 8 KG Qty Rcvd: 8 KG Trans Lic No: LT0976 Waste Trans: STERICYCLE, ULC Trans Addr: 150B 1407 KEBET WAY, PORT COQ, BC </div> </div>					
<div> <div> Manifest No: BJ375184 TDG Code: UN1950 TDG Class: 2.1-FLAMMABLE GAS TDG Group: N/R-Not Regulated Packing Code: 04-Carton Handling Code: 01-Storage Waste Receiver: STERICYCLE INC Receiving Address: 104-1772 BROADWAY STREET, PORT COQUITLAM, BC Waste Name: AEROSOLS </div> <div> Date Shipped: 07-03-2013 Date Received: 07-05-2013 Qty Shipped: 3 KG Qty Rcvd: 3 KG Trans Lic No: LT0976 Waste Trans: STERICYCLE, ULC Trans Addr: 150B 1407 KEBET WAY, PORT COQ, BC </div> </div>					
37	5 of 5	NW/25.1	9.5 / -34.42	CANADIAN TIRE ASSOC STORE #350 2801 CLIFFE AVE, COURTENAY, BC, V9N2L8 BC	PES
<div> <div> Registration No: 928 Registration Type: LICENCE Category: VENDOR Regions of Operation: VANCOUVER ISLAND Pesticides to be used: Treatment Description: </div> <div> Expiry Date: 01-APR-19 Provides Service: No </div> </div>					
38	1 of 1	SE/57.3	12.2 / -31.69	UNION BAY BC	WWIS
<div> <div> Consultant Company: Constr Report Ind: Est. Yield: 0.000 Filter Pack Size Cd: Surface Seal Mthd Cd: Status of Well Code: NEW Class of Well Code: UNK Well Use Code: Well Status: New Crew Driller Name: Gravel Packed From: Driller Company Cd: Driller Well ID: Drilling Mthd Cd: OTHER Meridian: Existing Well Tag No: Filter Pack Mtl: Surf Seal Flag: Surf Seal Mthd: Constr Start Dt: Water Depth: Constr Mthd: SubClass of Well: Observ. Well No: Owner's Well No: BCGS ID: Seq No: </div> <div> Contractor Info 1: Use: Filter Pack Size: Well ID: Surface Seal Mtl Cd: Subclass of Well Cd: Constr Mthd Cd: Yield Unit Code: Orientation of Well: Gravel Packed Flag: Gravel Packed To: Drilling Company: Surface Seal Thickness Inches: Drilling Mthd: Elevation: Filter Pack Mtl Cd: Well Tag No: 65650 Surf Seal Mtl: Surface Seal Depth ft: Constr End Dt: Final Well Depth: 68.00 Class of Well: Chemistry Site ID: Well Owner: Accepted Status Cd: BCGS Mapsheet: District Lot: 28 </div> </div>					

105 erisinfo.com | Environmental Risk Information Services Order No: 22101900780

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
Screen Intake Cd: Screen Intake: Screen Length: Screen Mfr: Screen Mtl Cd: Screen Mtl: Screen Opening Cd: Screen Opening: Screen Type Cd: Screen Type: Screen Wire: Boundary Effect Code: Closure Details: Development Notes: Well Location: Legal Miscellaneous: Analytic Solution Type: Testing Duration Hours: Testing Method: Specific Yield: Specific Storage 1 M: Hydraulic Conductivity: Transmissivity: Storativity: AVI Years:				Development Hours: Develop Method Cd: Develop Meth Desc: Final Casing Stick: Gnd Elev Mthd Cd: UNKNOWN Gnd Elev Mthd: Old Mapsheet: Coordinate X: Coordinate Z: Coordinate Y: Pump Desc:	
<u>Well Details (Cont 2)</u>					
EMS ID: EMS: Filter Pack from: Filter Pack to: Liner Diameter Inches: Liner from: Liner Thickness Inches: Decommission Backfill Mater: Decommission Details: Decommission End Date: Decommission Method Code: Decommission Reason: Decommission Sealant Mater: Decommission Start Date: Hydro Fracturing Performed: False Hydro Fracturing Yield Increas: Intended Water Use Code: NA Licenced Status Code: UNLICENSED Screen Intake Method Code: Static Level Before Test: Static Water Level Ft Btoc: Water Supply Sys Well Name: Well Orientation: VERTICAL Yield Estimation Duration: Yield Estimation Method Code: Yield Estimation Rate: Alternative Specs Submitted: False Artesian Conditions: False Artesian Pressure Head Ft Agl:				Liner to: Other Screen Bottom: Otr Screen Mater: Person Responsible: Drawdown: Co Persn Respsble: Pacific Water Wells Consultant Name:	
<u>Lithology Information</u>					
Lithology Seq No: Lithology Desc ID:				Who Created: When Created:	

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
<hr/>					
Lithology:				When Updated:	
Lithology Cd:				Who Updated:	
Lithology Desc:				Depth:	From 0.00 To 0.00
Lithology Colour Cd:				Overburden Depth:	
Lithology Colour:				Bedrock Depth:	
Lithology Mtl Cd:				Total Depth:	
Lithology Mtl:				Rel Hardness Cd:	
Material:	GENERAL LOG FOR THE THREE TEST HOLES			Rel Hardness:	
Well Yield Unit Code:					
Lithology Observation:					
Lithology Edited Data:					
Lithology Raw Data:	GENERAL LOG FOR THE THREE TEST HOLES				
Lithology Meas Unit:					
Water Bearing Est Flw Unt Cd:					
Water Bearing Est Flw Unt:					
Water Bearing Estimated Flow:					
Lithology Seq No:				Who Created:	
Lithology Desc ID:				When Created:	
Lithology:				When Updated:	
Lithology Cd:				Who Updated:	
Lithology Desc:				Depth:	From 49.00 To 68.00
Lithology Colour Cd:				Overburden Depth:	
Lithology Colour:				Bedrock Depth:	
Lithology Mtl Cd:				Total Depth:	
Lithology Mtl:				Rel Hardness Cd:	
Material:	MED SAND & GRAVEL WB SL 11FT			Rel Hardness:	
Well Yield Unit Code:					
Lithology Observation:					
Lithology Edited Data:					
Lithology Raw Data:	MED SAND & GRAVEL WB SL 11FT				
Lithology Meas Unit:					
Water Bearing Est Flw Unt Cd:					
Water Bearing Est Flw Unt:					
Water Bearing Estimated Flow:					
Lithology Seq No:				Who Created:	
Lithology Desc ID:				When Created:	
Lithology:				When Updated:	
Lithology Cd:				Who Updated:	
Lithology Desc:				Depth:	From 0.00 To 22.00
Lithology Colour Cd:				Overburden Depth:	
Lithology Colour:				Bedrock Depth:	
Lithology Mtl Cd:				Total Depth:	
Lithology Mtl:				Rel Hardness Cd:	
Material:	FILL SHELLS & CLAY			Rel Hardness:	
Well Yield Unit Code:					
Lithology Observation:					
Lithology Edited Data:					
Lithology Raw Data:	FILL SHELLS & CLAY				
Lithology Meas Unit:					
Water Bearing Est Flw Unt Cd:					
Water Bearing Est Flw Unt:					
Water Bearing Estimated Flow:					
Lithology Seq No:				Who Created:	
Lithology Desc ID:				When Created:	
Lithology:				When Updated:	
Lithology Cd:				Who Updated:	
Lithology Desc:				Depth:	From 68.00 To 68.00
Lithology Colour Cd:				Overburden Depth:	
Lithology Colour:				Bedrock Depth:	
Lithology Mtl Cd:				Total Depth:	
Lithology Mtl:				Rel Hardness Cd:	
Material:	CLAY HARDPAN			Rel Hardness:	

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
Well Yield Unit Code: Lithology Observation: Lithology Edited Data: Lithology Raw Data: CLAY HARDPAN Lithology Meas Unit: Water Bearing Est Flw Unt Cd: Water Bearing Est Flw Unt: Water Bearing Estimated Flow: Lithology Seq No: Lithology Desc ID: Lithology: Lithology Cd: Lithology Desc: Lithology Colour Cd: Lithology Colour: Lithology Mtl Cd: Lithology Mtl: Material: CLAY HARDPAN Well Yield Unit Code: Lithology Observation: Lithology Edited Data: Lithology Raw Data: CLAY HARDPAN Lithology Meas Unit: Water Bearing Est Flw Unt Cd: Water Bearing Est Flw Unt: Water Bearing Estimated Flow:					
				Who Created: When Created: When Updated: Who Updated: Depth: From 22.00 To 49.00 Overburden Depth: Bedrock Depth: Total Depth: Rel Hardness Cd: Rel Hardness:	

39	1 of 1	NW/35.8	9.2 / -34.73	Winter Garden Restaurant 2790 CLIFFE AVENUE No Entry COURTENAY BC	SREG
Site ID: 3282 Victoria File No: 26250-20/3282 Env Rmd ID: Regional File No: 26250-20/3282 Region: Record Status: NOT ASSIGNED Status as of: Jun 2022 Cleanup Status: Category: Small Site, Simple Contamination Location Desc: LAT/LONG DERIVED BY BC ENVIRONMENT REFERENCING THE TRANSPORTATION CENTERLINE NETWORK (TCN),NAD 83. Addr (BC Data Catalogue): Site Note: There are no Associated Sites for this site.					
Registered: 07-Oct-1997 Updated: Detail Removed: Common Name: Postal Code: V9N 2L3 Latitude DMS: 49d 40m 27.0s Longitude DMS: 124d 58m 53.0s Latitude: 49.674164 Longitude: 124.981383					
Registry Notations Event ID: 13604 Notation Type and Act: SITE INVESTIGATION REPORT SUBMITTED. Administrative Initiated Date: 02-Nov-1994 Approved Date: 16-Nov-1994 Region: Nanaimo, Vancouver Island Ministry Contact: DAVIES, ROBERT J Notation Notes: No Notes Entered **Note: Many records provided by the department have a truncated [Notation Notes] field. Required Actions: No Actions Entered Requirement Due Date: Requirement Received Date:					
Participant:		Davies, Robert J	Role:	REVIEWED BY	
Participant:		Eba Environmental Ltd (Nanaimo)	Role:	SUBMITTED BY	

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
<u>Site Participants</u>					
Participant:	Winter, Johann			Start Date:	Nov-18-1988
Participation Type:	PER			End Date:	
Notes:					
Participants Role:	Notice Recipient(Wmaa20.21(3))-Dont Flag				
Participants Role:	Property Owner				
<u>Site Participants</u>					
Participant:	Eba Environmental Ltd (Nanaimo)			Start Date:	Nov-02-1994
Participation Type:	ORG			End Date:	Nov-16-1994
Notes:	CONTACT: MARTIN JARMAN				
Participants Role:	Environmental Consultant/Contractor				
<u>Site Participants</u>					
Participant:	Davies, Robert J			Start Date:	Nov-02-1994
Participation Type:	EMP			End Date:	Nov-30-1994
Notes:	REPORT FROM EBA ENVIRONMENTAL RECEIVED				
Participants Role:	Main Ministry Contact				
<u>Documents on File</u>					
Document or Report Title:	Tank Pull Assessment Results				
Authored Date:	16-Nov-1994				
Submitted Date:	16-Nov-1994				
Document Entry Notes:					
Nothing Noted **Note: Many records provided by the department have a truncated [Document Entry Notes] field.					
Participant and Role:	Davies, Robert J - Reviewer				
Participant and Role:	Winter Garden Restaurant (Courtenay) - Commissioner				
Participant and Role:	Eba Environmental Ltd (Nanaimo) - Author				
<u>Suspected Land Use - Notes</u>					
Land Use Description:	Petrol Prod., /Produce Water Strg Abvegrnd/Undergrnd Tank				
Notes:	Ust Removal On The North Side Of Property Where Leased Gas Station Used To Operate.				
<u>Parcel Descriptions</u>					
Date Added:	7/2/1996			Crown Land PIN#:	
LTO PID(s):	003-646-246			Crown Land File#:	
Land Description:	LOT 13 SECTION 67 COMOX DISTRICT PLAN 7471 EXCEPT THAT PART IN PLAN 47645 **Note: Many records provided by the department have a truncated [Land Description] field.				
40	1 of 1	NW/2.1	10.2 / -33.69	Payless Station #7 2740 CLIFFE AVENUE No Entry COURTENAY BC	SREG
Site ID:	1719			Registered:	09-Oct-1997
Victoria File No:	No File			Updated:	14-Nov-1997

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
Env Rmd ID:				Detail Removed:	09-Oct-1997
Regional File No:	26250-20/1719			Common Name:	
Region:				Postal Code:	No Entry
Record Status:	NOT ASSIGNED			Latitude DMS:	49d 40m 29.8s
Status as of:	Jun 2022			Longitude DMS:	124d 53m 53.4s
Cleanup Status:				Latitude:	49.674931
Category:	Unranked			Longitude:	124.898161
Location Desc:		NEW BLDG - MONKS OFFICE SUPPLIES, VALLEY SPORT & SKI LOCATION DERIVED FROM GPS PROJECT ENVIC RVR#P103118B			
Addr (BC Data Catalogue):					
Site Note:		There are no Associated Sites for this site.			

Registry Notations

Event ID: 6080
Notation Type and Act: REMEDIATED TO COMMERCIAL/INDUSTRIAL LEVELS (DRAFT CMCS 21/11/89). Administrative
Initiated Date: 29-Sep-1994
Approved Date: 29-Sep-1994
Region: Nanaimo, Vancouver Island
Ministry Contact: DAVIES, ROBERT J
Notation Notes: No Notes Entered **Note: Many records provided by the department have a truncated [Notation Notes] field.
Required Actions: No Actions Entered
Requirement Due Date:
Requirement Received Date:

Registry Notations

Event ID: 6072
Notation Type and Act: SITE INVESTIGATION REPORT SUBMITTED. Administrative
Initiated Date: 02-May-1994
Approved Date: 02-May-1994
Region: Nanaimo, Vancouver Island
Ministry Contact: DAVIES, ROBERT J
Notation Notes: Environmental Assessments And Proposed Remediation Payless Station #7, Courtenay, B.C.
Required Actions: No Actions Entered
Requirement Due Date:
Requirement Received Date:

Participant:	Canadian Turbo Inc (Calgary)	Role:	REQUESTED BY
Participant:	Seacor Environmental Engineering Inc (Vancouver (West 6th Avenue))	Role:	SUBMITTED BY

Registry Notations

Event ID: 6079
Notation Type and Act: LETTER OF COMFORT ISSUED. Administrative
Initiated Date: 29-Sep-1994
Approved Date: 29-Sep-1994
Region: Nanaimo, Vancouver Island
Ministry Contact: DAVIES, ROBERT J
Notation Notes: No Notes Entered **Note: Many records provided by the department have a truncated [Notation Notes] field.
Required Actions: No Actions Entered
Requirement Due Date:
Requirement Received Date:

Participant:	Canadian Turbo Inc (Calgary)	Role:	REQUESTED BY
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Registry Notations

Event ID: 23634
Notation Type and Act: CASE MANAGEMENT ITEM. Administrative

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
<hr/>					
Initiated Date:		02-May-1994			
Approved Date:		02-May-1994			
Region:		Nanaimo, Vancouver Island			
Ministry Contact:		FUNK, MARILYN			
Notation Notes:		Initial Generator Registration (For #00314) Dated 94-05-02 **Note: Many records provided by the department have a truncated [Notation Notes] field.			
Required Actions:		No Actions Entered			
Requirement Due Date:					
Requirement Received Date:					
 <u>Registry Notations</u>					
Event ID:		6081			
Notation Type and Act:		CASE MANAGEMENT ITEM. Administrative			
Initiated Date:		06-Oct-1994			
Approved Date:		06-Oct-1994			
Region:		Nanaimo, Vancouver Island			
Ministry Contact:		DAVIES, ROBERT J			
Notation Notes:		Soil Remediated At Pidgeon Lake Landfill Has Been Remediated To Within Class 2 Delisting **Note: Many records provided by the department have a truncated [Notation Notes] field.			
Required Actions:		No Actions Entered			
Requirement Due Date:					
Requirement Received Date:					
 <u>Registry Notations</u>					
Event ID:		6068			
Notation Type and Act:		CONCENTRATION CRITERIA APPROACH USED. Administrative			
Initiated Date:		26-Apr-1993			
Approved Date:		26-Apr-1993			
Region:		Nanaimo, Vancouver Island			
Ministry Contact:		OLDHAM, GEORGE (TED) E			
Notation Notes:		No Notes Entered **Note: Many records provided by the department have a truncated [Notation Notes] field.			
Required Actions:		No Actions Entered			
Requirement Due Date:					
Requirement Received Date:					
 <u>Registry Notations</u>					
Event ID:		6083			
Notation Type and Act:		REMEDIED TO RESIDENTIAL/RECREATIONAL/AGRICULTURAL LEVELS (DRAFT CMCS 21/11/89). Administrative			
Initiated Date:		02-Nov-1994			
Approved Date:		02-Nov-1994			
Region:		Nanaimo, Vancouver Island			
Ministry Contact:		DAVIES, ROBERT J			
Notation Notes:		No Notes Entered **Note: Many records provided by the department have a truncated [Notation Notes] field.			
Required Actions:		No Actions Entered			
Requirement Due Date:					
Requirement Received Date:					
 <u>Registry Notations</u>					
Event ID:		6074			
Notation Type and Act:		REMEDIATION PLAN REPORT SUBMITTED. Administrative			
Initiated Date:		02-May-1994			
Approved Date:		02-May-1994			
Region:		Nanaimo, Vancouver Island			
Ministry Contact:		DAVIES, ROBERT J			
Notation Notes:		Environmental Assessments And Proposed Remediation Payless Station #7, Courtenay, B.C.			
Required Actions:		No Actions Entered			
Requirement Due Date:					
Requirement Received Date:					

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
Participant:	Canadian Turbo Inc (Calgary)			Role:	REQUESTED BY
Participant:	Seacor Environmental Engineering Inc (Vancouver (West 6th Avenue))			Role:	SUBMITTED BY
<u>Registry Notations</u>					
Event ID:	6078				
Notation Type and Act:	REMEDATION PLAN REPORT SUBMITTED. Administrative				
Initiated Date:	07-Sep-1994				
Approved Date:	07-Sep-1994				
Region:	Nanaimo, Vancouver Island				
Ministry Contact:	DAVIES, ROBERT J				
Notation Notes:	Plan To Remediate To Level B **Note: Many records provided by the department have a truncated [Notation Notes] field.				
Required Actions:	No Actions Entered				
Requirement Due Date:					
Requirement Received Date:					
Participant:	Hongkong Bank Of Canada Ltd. (Head Office)			Role:	SUBMITTED BY
<u>Registry Notations</u>					
Event ID:	6082				
Notation Type and Act:	LETTER OF COMFORT ISSUED. Administrative				
Initiated Date:	02-Nov-1994				
Approved Date:	02-Nov-1994				
Region:	Nanaimo, Vancouver Island				
Ministry Contact:	DAVIES, ROBERT J				
Notation Notes:	No Notes Entered **Note: Many records provided by the department have a truncated [Notation Notes] field.				
Required Actions:	No Actions Entered				
Requirement Due Date:					
Requirement Received Date:					
Participant:	Canadian Turbo Inc (Calgary)			Role:	REQUESTED BY
<u>Registry Notations</u>					
Event ID:	6070				
Notation Type and Act:	WASTE MANAGEMENT APPROVAL ISSUED. Legal Requirement				
Initiated Date:	26-Apr-1993				
Approved Date:	26-Apr-1993				
Region:	Nanaimo, Vancouver Island				
Ministry Contact:	OLDHAM, GEORGE (TED) E				
Notation Notes:	Pursuant To Section 41.1 Of Waste Management Act - Authorized To Construct And Operate A Soil Bioremediation Facility Located At The Pidgeon Lake Landfill (Payless - 1972) **Note: Many records provided by the department have a truncated [Notation Notes] field.				
Required Actions:	No Actions Entered				
Requirement Due Date:					
Requirement Received Date:					
Participant:	Payless Gas Company Ltd.			Role:	REQUESTED BY
<u>Registry Notations</u>					
Event ID:	6077				
Notation Type and Act:	REMEDATION COMPLETION REPORT SUBMITTED. Administrative				
Initiated Date:	29-Jun-1994				
Approved Date:	29-Jun-1994				
Region:	Nanaimo, Vancouver Island				
Ministry Contact:	DAVIES, ROBERT J				
Notation Notes:	Target Remedial Level C				

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
Required Actions:		Requisition For Environmental Closure Payless Station #7, 2770 Cliffe Avenue, Courtenay, B.C.			
Requirement Due Date:		No Actions Entered			
Requirement Received Date:					
Participant:	Canadian Turbo Inc (Calgary)			Role:	REQUESTED BY
Participant:	Seacor Environmental Engineering Inc (Vancouver (West 6th Avenue))			Role:	SUBMITTED BY
<u>Site Participants</u>					
Participant:	Levelton Engineering Associates Ltd (Courtenay)			Start Date:	Aug-08-1994
Participation Type:	ORG			End Date:	
Notes:	KAY BARAN				
Participants Role:	Environmental Consultant/Contractor				
<u>Site Participants</u>					
Participant:	Canadian Turbo Inc (Calgary)			Start Date:	Jan-05-1994
Participation Type:	ORG			End Date:	
Notes:					
Participants Role:	Former Property Owner				
Participants Role:	Notice Recipient(Wmaa20.21(3))-Dont Flag				
<u>Site Participants</u>					
Participant:	Department Of Fisheries And Oceans (Nanaimo)			Start Date:	May-27-1994
Participation Type:	ORG			End Date:	
Notes:					
Participants Role:	Associated Federal Government Contact				
<u>Site Participants</u>					
Participant:	Davies, Robert J			Start Date:	Mar-31-1993
Participation Type:	EMP			End Date:	Mar-31-2004
Notes:					
Participants Role:	Alternate Ministry Contact				
<u>Site Participants</u>					
Participant:	Cpi Construction & Remediation Services Ltd. (Calgary, Alberta)			Start Date:	Mar-26-1993
Participation Type:	ORG			End Date:	
Notes:	JAN FELLENUIS				
Participants Role:	Environmental Consultant/Contractor				
<u>Site Participants</u>					
Participant:	Regional District Of Comox-Strathcona (Courtenay)			Start Date:	Mar-31-1993
Participation Type:	ORG			End Date:	
Notes:					

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
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Participants Role:		Municipal/Regional Contact			
<u>Site Participants</u>					
Participant:	Oldham, George (Ted) E			Start Date:	Mar-31-1993
Participation Type:	EMP			End Date:	Mar-31-1997
Notes:					
Participants Role:		Alternate Ministry Contact			
<u>Site Participants</u>					
Participant:	Patten, Barry			Start Date:	May-27-1994
Participation Type:	EMP			End Date:	Mar-31-2003
Notes:					
Participants Role:		Main Ministry Contact			
<u>Site Participants</u>					
Participant:	Seacor Environmental Engineering Inc (Vancouver (West 6th Avenue))			Start Date:	Jan-05-1994
Participation Type:	ORG			End Date:	
Notes:	W.N. DIDDENS				
Participants Role:		Environmental Consultant/Contractor			
<u>Site Participants</u>					
Participant:	Hongkong Bank Of Canada Ltd. (Head Office)			Start Date:	Sep-07-1994
Participation Type:	ORG			End Date:	
Notes:					
Participants Role:		Secured Creditor			
<u>Site Participants</u>					
Participant:	Corporation Of The City Of Courtenay (Courtenay)			Start Date:	May-27-1994
Participation Type:	ORG			End Date:	
Notes:					
Participants Role:		Municipal/Regional Contact			
<u>Site Participants</u>					
Participant:	Pidgeon Lake Landfill			Start Date:	Mar-31-1993
Participation Type:	ORG			End Date:	
Notes:					
Participants Role:		Fill Recipient			
<u>Site Participants</u>					
Participant:	Analytical Service Laboratories Ltd (Vancouver)			Start Date:	Mar-26-1993
Participation Type:	ORG			End Date:	
Notes:					

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
Participants Role:		Analytical Lab			
<u>Site Participants</u>					
Participant:	Parhar Holdings			Start Date:	Aug-08-1994
Participation Type:	ORG			End Date:	
Notes:					
Participants Role:		Notice Recipient(Wmaa20.21(3))-Dont Flag			
Participants Role:		Property Owner			
<u>Site Participants</u>					
Participant:	Payless Gas Company Ltd.			Start Date:	Mar-26-1993
Participation Type:	ORG			End Date:	
Notes:					
		1972 AND 1993			
Participants Role:		Potentially Affected Party			
Participants Role:		Former Operator			
Participants Role:		Notice Recipient(Wmaa20.21(3))-Dont Flag			
<u>Site Participants</u>					
Participant:	Orchard And Company (Duncan, B.C.)			Start Date:	Dec-08-1994
Participation Type:	ORG			End Date:	
Notes:					
Participants Role:		Lawyer/Solicitor			
<u>Site Participants</u>					
Participant:	Funk, Marilyn			Start Date:	May-02-1994
Participation Type:	EMP			End Date:	Jan-01-2000
Notes:					
Participants Role:		Alternate Ministry Contact			
<u>Documents on File</u>					
Document or Report Title:		Environmental Assessment And Proposed Remediation Payless Station #7 Courtney Bc			
Authored Date:		02-May-1994			
Submitted Date:		02-May-1994			
Document Entry Notes:					
Nothing Noted **Note: Many records provided by the department have a truncated [Document Entry Notes] field.					
Participant and Role:		Davies, Robert J - Reviewer			
Participant and Role:		Canadian Turbo Inc (Calgary) - Commissioner			
Participant and Role:		Seacor Environmental Engineering Inc (Vancouver (West 6th Avenue)) - Author			
<u>Documents on File</u>					
Document or Report Title:		Requisition For Environmental Closure Payless Station #7 2770 Cliffe Avenue Courtney Bc			
Authored Date:		27-Jun-1994			

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
Submitted Date:		29-Jun-1994			
Document Entry Notes:					
Nothing Noted **Note: Many records provided by the department have a truncated [Document Entry Notes] field.					
Participant and Role:		Canadian Turbo Inc (Calgary) - Commissioner			
Participant and Role:		Seacor Environmental Engineering Inc (Vancouver (West 6th Avenue)) - Author			
Participant and Role:		Davies, Robert J - Reviewer			
Documents on File					
Document or Report Title:		Requisition For Soil Disposal Pidgeon Lake Landfill Bio-Cells (Payless No. 7) Cumberland Bc			
Authored Date:		19-Sep-1994			
Submitted Date:		28-Sep-1994			
Document Entry Notes:					
Nothing Noted **Note: Many records provided by the department have a truncated [Document Entry Notes] field.					
Participant and Role:		Seacor Environmental Engineering Inc (Vancouver (West 6th Avenue)) - Author			
Participant and Role:		Canadian Turbo Inc (Calgary) - Commissioner			
Participant and Role:		Davies, Robert J - Reviewer			
Documents on File					
Document or Report Title:		Proposed Commercial/Residential Building 2770 Cliffe Avenue Courtney Bc (Supervision Of Environmental Remediation During Construction)			
Authored Date:		16-Aug-1994			
Submitted Date:		07-Sep-1994			
Document Entry Notes:					
Nothing Noted **Note: Many records provided by the department have a truncated [Document Entry Notes] field.					
Participant and Role:		Levelton Engineering Associates Ltd (Courtenay) - Author			
Participant and Role:		Davies, Robert J - Reviewer			
Participant and Role:		Parhar Holdings - Commissioner			
Suspected Land Use - Notes					
Land Use Description:		Petrol Prod., Dispense Facility, Inc. Serv Sta./Cardlot			
Notes:		No Entry			
Suspected Land Use - Notes					
Land Use Description:		Petrol Prod., /Produce Water Strg Abvegrnd/Undergrnd Tank			
Notes:		No Entry			
Parcel Descriptions					
Date Added:		10/7/1997		Crown Land PIN#:	
LTO PID(s):		003-679-209		Crown Land File#:	

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
Land Description:		LOT 11, SECTION 67, COMOX DISTRICT, PLAN 7471 **Note: Many records provided by the department have a truncated [Land Description] field.			
41	1 of 2	NW/62.1	12.0 / -31.92	Driftwood Mall Courtenay BC V9N 2L8	EHS
Order No:	20191024121			Nearest Intersection:	
Status:	C			Municipality:	
Report Type:	BC Premium Report			Client Prov/State:	BC
Report Date:	29-OCT-19			Search Radius (km):	.25
Date Received:	24-OCT-19			X:	-124.982885
Previous Site Name:				Y:	49.675078
Lot/Building Size:					
Additional Info Ordered:	Fire Insur. Maps and/or Site Plans; Title Searches				
41	2 of 2	NW/62.1	12.0 / -31.92	Driftwood Mall Courtenay BC V9N 2L8	EHS
Order No:	20191024121			Nearest Intersection:	
Status:	C			Municipality:	
Report Type:	BC Premium Report			Client Prov/State:	BC
Report Date:	29-OCT-19			Search Radius (km):	.25
Date Received:	24-OCT-19			X:	-124.982885
Previous Site Name:				Y:	49.675078
Lot/Building Size:					
Additional Info Ordered:	Fire Insur. Maps and/or Site Plans; Title Searches				
42	1 of 1	NW/45.3	7.8 / -36.09	IMPERIAL OIL LIMITED 99-088, VANANDA BC	AMS
Authorization No:	14021			Compliance:	
File No:				Address Type:	
File No Version:				Program Area:	Authorizations - South Region
Status:	Active			FS:	
Status as of:				Section Code:	
Date Amended:				Nearest Municip:	Nanaimo
Date Issued:	9/1/1994			Latitude:	49.675855
SIC Code:				Longitude:	124.981765
Waste Type:				Case Manager:	
Expiry Date:				Current Assignee:	
Office:				Doing Business as:	
CPIX:	L			Signing Authority:	
Admin Area:	Southern Interior			Billing Address:	
Risk Level:				MEM No:	
PIN or PID:				Major Mines Per No:	
EA Certificate No:					
Permit Type Code:					
Permit Type:	Petroleum Storage and Distribution Facilities Storm Water Regulation -				
Authorization Type:	Petroleum Storage and Distribution Facilities Storm Water Regulation				
Primary BCENICID:	412110 Storage - Fuel				
Secondary BCENICID:					
WDR Regulation:	Schedule 2				
WDR Description:	Petroleum Storage				
Region Case Mngr:					
Facility Operator:					
Fac Operator Phone:					
Fac Operator Email:					
MEM Description:					
PID PIN Crown File No:					
SIC:					

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
Mailing Address:		PO BOX 8 VANANDA, BC V0N 3K0			
Facility Type Description:					
Legal Address:					
Legal Land Description:		99-088, VANANDA			
Location:		99-088, VANANDA			
*Note:					
Authorization Details					
Company:		IMPERIAL OIL LIMITED			
Waste Type:					
43	1 of 3	NW/53.3	7.8 / -36.09	Imperial Oil Limited Courtenay 2650 Cliffe Avenue BC	GEN
Generator No:		BCG14323		Status Date:	02-Oct-2009
Status:		Active		Registration Dt:	02-Oct-2009
Region:		VANCOUVER ISLAND			
Mailing Addr:					
Waste Generation Site:		Courtenay 2650 Cliffe Avenue			
Comments:		See Notes:			
Year:		2019; 2021			
Waste Detail(s)					
TDG Pin No:		UN1993		Generation Code:	Intermittently
TDG Class:		3		Handling Code:	Off Site Management
Reg Status Date:		02-Oct-2009		Gen Business Type:	
Physical State:		Liquid		Certified By Name:	William Ng
Amount in Storage:		L		Date Certifier Signed:	14-Sep-2009
Amount Per 30 Days:		500 L			
Registered Waste:		Flammable Liquids, N.O.S.			
Waste Detail(s)					
TDG Pin No:		BC0010		Generation Code:	Intermittently
TDG Class:		9		Handling Code:	Off Site Management
Reg Status Date:		02-Oct-2009		Gen Business Type:	
Physical State:		Solid		Certified By Name:	Francis Galbraith
Amount in Storage:		500 KG		Date Certifier Signed:	31-Oct-2012
Amount Per 30 Days:		KG			
Registered Waste:		Contaminated Soil With-(Hydrocarbons/Oil Btex) **Note: Many records provided by the department have a truncated [Registered Waste] field.			
43	2 of 3	NW/53.3	7.8 / -36.09	ENEX FUELS LTD 2650 CLIFFE AVE COURTENAY BC V9N2L6	RST
Headcode:		00924800			
Headcode Desc:		OILS FUEL			
Phone:		8669733639			
List Name:		Info-direct(TM) BUSINESS FILE			
Description:					
43	3 of 3	NW/53.3	7.8 / -36.09	QUANTUM MURRAY LP 2650 CLIFFE AVENUE, COURTNEY, BC BC	GEN2

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
Waste Manifests - 2013					
Manifest No:	BH752012			Date Shipped:	11-15-2013
TDG Code:	BC0007			Date Received:	11-15-2013
TDG Class:	9.0-MISCELLANEOUS			Qty Shipped:	6000 L
TDG Group:	III-Moderately Dangerous			Qty Rcvd:	6000 L
Packing Code:	03-Bulk			Trans Lic No:	LT0029
Handling Code:	01-Storage			Waste Trans:	MCRAE'S ENVIRONMENTAL SERVICES LTD.
Waste Receiver:	NEWALTA CORPORATION			Trans Addr:	7783 PROGRESS WAY, DELTA, BC
Receiving Address:	1080 MAUGHAN RD, NANAIMO, BC				
Waste Name:	(L17 OILY WATER SLUDGE/DEBRIS) CERAMIC BEADS, WASTE OIL FILTER CAKE, ALUMINIUM, SAND				
Manifest No:	BH752012			Date Shipped:	11-15-2013
TDG Code:	BC0007			Date Received:	11-15-2013
TDG Class:	9.0-MISCELLANEOUS			Qty Shipped:	2000 L
TDG Group:	III-Moderately Dangerous			Qty Rcvd:	2000 L
Packing Code:	03-Bulk			Trans Lic No:	LT0029
Handling Code:	01-Storage			Waste Trans:	MCRAE'S ENVIRONMENTAL SERVICES LTD.
Waste Receiver:	NEWALTA CORPORATION			Trans Addr:	7783 PROGRESS WAY, DELTA, BC
Receiving Address:	1080 MAUGHAN RD, NANAIMO, BC				
Waste Name:	(L17 OILY WATER SLUDGE/DEBRIS) CERAMIC BEADS, WASTE OIL FILTER CAKE, ALUMINIUM, SAND				
Manifest No:	BH908929			Date Shipped:	11-14-2013
TDG Code:	BC0007			Date Received:	11-14-2013
TDG Class:	9.0-MISCELLANEOUS			Qty Shipped:	5500 L
TDG Group:	III-Moderately Dangerous			Qty Rcvd:	5500 L
Packing Code:	03-Bulk			Trans Lic No:	LT0029
Handling Code:	01-Storage			Waste Trans:	MCRAE'S ENVIRONMENTAL SERVICES LTD.
Waste Receiver:	NEWALTA CORPORATION			Trans Addr:	7783 PROGRESS WAY, DELTA, BC
Receiving Address:	1080 MAUGHAN RD, NANAIMO, BC				
Waste Name:	(L17 OILY WATER SLUDGE/DEBRIS) CERAMIC BEADS, WASTE OIL FILTER CAKE, ALUMINIUM, SAND				
Manifest No:	BH908903			Date Shipped:	11-13-2013
TDG Code:	BC0007			Date Received:	11-13-2013
TDG Class:	9.0-MISCELLANEOUS			Qty Shipped:	2000 L
TDG Group:	III-Moderately Dangerous			Qty Rcvd:	9080 L
Packing Code:	03-Bulk			Trans Lic No:	LT0029
Handling Code:	01-Storage			Waste Trans:	MCRAE'S ENVIRONMENTAL SERVICES LTD.
Waste Receiver:	NEWALTA CORPORATION			Trans Addr:	7783 PROGRESS WAY, DELTA, BC
Receiving Address:	1080 MAUGHAN RD, NANAIMO, BC				
Waste Name:	(L17 OILY WATER SLUDGE/DEBRIS) CERAMIC BEADS, WASTE OIL FILTER CAKE, ALUMINIUM, SAND				
Manifest No:	BH909911			Date Shipped:	11-13-2013
TDG Code:	BC0007			Date Received:	11-14-2013
TDG Class:	9.0-MISCELLANEOUS			Qty Shipped:	7500 L
TDG Group:	III-Moderately Dangerous			Qty Rcvd:	7500 L
Packing Code:	03-Bulk			Trans Lic No:	LT0029
Handling Code:	01-Storage			Waste Trans:	MCRAE'S ENVIRONMENTAL SERVICES LTD.
Waste Receiver:	NEWALTA CORPORATION			Trans Addr:	7783 PROGRESS WAY, DELTA, BC
Receiving Address:	1080 MAUGHAN RD, NANAIMO, BC				
Waste Name:	(L17 OILY WATER SLUDGE/DEBRIS) CERAMIC BEADS, WASTE OIL FILTER CAKE, ALUMINIUM, SAND				

44

1 of 1

NW/24.8

8.2 / -35.68

Imperial Oil Limited
Courtenay 2650 Cliff Ave
BC

GEN

Generator No: BCG14323
Status: Active
Region: VANCOUVER ISLAND
Mailing Addr:
Waste Generation Site: Courtenay 2650 Cliff Ave
Comments: See Notes:
Year: 2019; 2021

Status Date: 02-Oct-2009
Registration Dt: 02-Oct-2009

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
<u>Waste Detail(s)</u>					
TDG Pin No:	BC0007			Generation Code:	Generated One Time Only
TDG Class:	9			Handling Code:	Off Site Management
Reg Status Date:	02-Oct-2009			Gen Business Type:	
Physical State:	Sludge			Certified By Name:	Stephen Pinto - Quantum Murray
Amount in Storage:	L			Date Certifier Signed:	07-Nov-2013
Amount Per 30 Days:	100 L				
Registered Waste:	(L17 Oily Water Sludge/Debris)Ceramic Beads, Waste Oil Filter Cake, Aluminium, Sand **Note: Many records provided by the department have a truncated [Registered Waste] field.				
<u>Waste Detail(s)</u>					
TDG Pin No:	BC0011			Generation Code:	Generated One Time Only
TDG Class:	9			Handling Code:	Off Site Management
Reg Status Date:	02-Oct-2009			Gen Business Type:	
Physical State:	Liquid			Certified By Name:	Stephen Pinto - Quantum Murray
Amount in Storage:	L			Date Certifier Signed:	07-Nov-2013
Amount Per 30 Days:	5000 L				
Registered Waste:	Leachable Toxic Waste- N/R - (Oily Water)Water Contaminated With Diesel **Note: Many records provided by the department have a truncated [Registered Waste] field.				
45	1 of 2	NW/40.3	8.7 / -35.14	478008 Bc Ltd. Courtenay 2500 Cliffe Street BC	GEN
Generator No:	BCG13385			Status Date:	15-Dec-2008
Status:	Active			Registration Dt:	15-Dec-2008
Region:	VANCOUVER ISLAND				
Mailing Addr:					
Waste Generation Site:	Courtenay 2500 Cliffe Street				
Comments:					
Year:	2019; 2021				
<u>Waste Detail(s)</u>					
TDG Pin No:	UN3077			Generation Code:	Generated One Time Only
TDG Class:	9			Handling Code:	Secure Landfill
Reg Status Date:	15-Dec-2008			Gen Business Type:	
Physical State:	Solid			Certified By Name:	Matthew Douthwright
Amount in Storage:	1230 KG			Date Certifier Signed:	09-Dec-2008
Amount Per 30 Days:	KG				
Registered Waste:	Environmentally Hazardous Substances, Solid, N.O.S.				
45	2 of 2	NW/40.3	8.7 / -35.14	2500 Cliffe Avenue, Courtenay 2500 CLIFFE AVENUE No Entry COURTENAY BC	SREG
Site ID:	18353			Registered:	11-Sep-2015
Victoria File No:	26250-20/18353			Updated:	23-Sep-2015
Env Rmd ID:				Detail Removed:	21-Sep-2015
Regional File No:	No File			Common Name:	
Region:				Postal Code:	V9N 5M6
Record Status:	NOT ASSIGNED			Latitude DMS:	49d 40m 35.1s
Status as of:	Jun 2022			Longitude DMS:	124d 58m 55.7s
Cleanup Status:				Latitude:	49.676419
Category:	Unranked			Longitude:	124.982144
Location Desc:	LATS/LONGS CONFIRMED USING GOOGLE AND ICIS SEPT 9, 2015				
Addr (BC Data Catalogue):					
Site Note:	There are no Associated Sites for this site.				

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
<u>Registry Notations</u>					
Event ID:	78785				
Notation Type and Act:	NOTICE OF INDEPENDENT REMEDIATION INITIATION SUBMITTED. Environmental Management Act: General				
Initiated Date:	09-Sep-2015				
Approved Date:	09-Sep-2015				
Region:	Nanaimo, Vancouver Island				
Ministry Contact:	SAMWAYS, JENNIFER				
Notation Notes:	Start: 2015-09-14 **Note: Many records provided by the department have a truncated [Notation Notes] field.				
Required Actions:	No Actions Entered				
Requirement Due Date:					
Requirement Received Date:					
Participant:	Terrawest Environmental Inc		Role:	SUBMITTED BY	
<u>Registry Notations</u>					
Event ID:	78906				
Notation Type and Act:	SITE RISK CLASSIFIED - SITE IS NON-HIGH RISK. Environmental Management Act: General				
Initiated Date:	09-Sep-2015				
Approved Date:	09-Sep-2015				
Region:	Nanaimo, Vancouver Island				
Ministry Contact:	JERADE, LILIANA				
Notation Notes:	No Notes Entered **Note: Many records provided by the department have a truncated [Notation Notes] field.				
Required Actions:	No Actions Entered				
Requirement Due Date:					
Requirement Received Date:					
<u>Site Participants</u>					
Participant:	Terrawest Environmental Inc		Start Date:	Sep-09-2015	
Participation Type:	ORG		End Date:		
Notes:					
Participants Role:	Environmental Consultant/Contractor				
<u>Site Participants</u>					
Participant:	478008 B.C. Ltd		Start Date:	Sep-09-2015	
Participation Type:	ORG		End Date:		
Notes:					
Participants Role:	Property Owner				
<u>Site Participants</u>					
Participant:	Site Information Advisor		Start Date:	Sep-09-2015	
Participation Type:	EMP		End Date:	Jun-14-2021	
Notes:					
Participants Role:	Ministry Contact				
<u>Parcel Descriptions</u>					
Date Added:	9/9/2015		Crown Land PIN#:		
LTO PID(s):	015-980-651		Crown Land File#:		
Land Description:	LOT A, (DD ED45064), SECTION 66, COMOX DISTRICT, PLAN 7471 **Note: Many records provided by the department have a truncated [Land Description] field.				
46	1 of 3	NW/45.2	9.0 / -34.92	COLUMBIA FUELS INC 2440 CLIFFE AVE	RST

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
COURTENAY BC V9N2L6					
Headcode: Headcode Desc: Propane Gas Phone: 2503343377 List Name: Description:					
46	2 of 3	NW/45.2	9.0 / -34.92	COLUMBIA FUELS 2440 CLIFFE AVE COURTENAY BC V9N 2L6	RST
Headcode: 924800 Headcode Desc: Oils-Fuel Phone: 2503343377 List Name: Description:					
46	3 of 3	NW/45.2	9.0 / -34.92	2440f Cliffe Avenue, Courtenay 2440F CLIFFE AVENUE No Entry COURTENAY BC	SREG
Site ID: 12139 Victoria File No: 26250-20/12139 Env Rmd ID: Regional File No: No File Region: Record Status: NOT ASSIGNED Status as of: Jun 2022 Cleanup Status: Category: Unranked Location Desc: Addr (BC Data Catalogue): Site Note:					
Registered: 19-Mar-2010 Updated: 25-Aug-2011 Detail Removed: 19-Aug-2011 Common Name: Postal Code: V9N 2L6 Latitude DMS: 49d 40m 36.0s Longitude DMS: 124d 58m 58.0s Latitude: 49.676667 Longitude: 124.982778					
Registry Notations					
Event ID: 56358 Notation Type and Act: NOTIFICATION RECEIVED ABOUT LIKELY OR ACTUAL SUBSTANCE MIGRATION TO NEIGHBOURING SITE. Environmental Management Act: General Initiated Date: 03-Mar-2010 Approved Date: 03-Mar-2010 Region: Nanaimo, Vancouver Island Ministry Contact: SAMWAYS, JENNIFER Notation Notes: No Notes Entered **Note: Many records provided by the department have a truncated [Notation Notes] field. Required Actions: No Actions Entered Requirement Due Date: Requirement Received Date:					
Participant: Terrawest Environmental Inc Role: SUBMITTED BY					
Registry Notations					
Event ID: 56819 Notation Type and Act: NOTICE OF INDEPENDENT REMEDIATION INITIATION SUBMITTED. Environmental Management Act: General Initiated Date: 17-May-2010 Approved Date: 17-May-2010 Region: Nanaimo, Vancouver Island Ministry Contact: SAMWAYS, JENNIFER Notation Notes: Start: 2010-05-12 **Note: Many records provided by the department have a truncated [Notation Notes] field.					

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
Required Actions:		No Actions Entered			
Requirement Due Date:					
Requirement Received Date:					
Participant:	Terrawest Environmental Inc			Role:	SUBMITTED BY
<u>Registry Notations</u>					
Event ID:	60977				
Notation Type and Act:	NOTICE OF INDEPENDENT REMEDIATION COMPLETION SUBMITTED. Environmental Management Act: General				
Initiated Date:	16-Aug-2011				
Approved Date:	16-Aug-2011				
Region:	Nanaimo, Vancouver Island				
Ministry Contact:	SAMWAYS, JENNIFER				
Notation Notes:	Completed: 2011-08-15 **Note: Many records provided by the department have a truncated [Notation Notes] field.				
Required Actions:	No Actions Entered				
Requirement Due Date:					
Requirement Received Date:					
Participant:	Terrawest Environmental Inc			Role:	SUBMITTED BY
<u>Registry Notations</u>					
Event ID:	56909				
Notation Type and Act:	CONTAMINATED SOIL RELOCATION AGREEMENT REQUESTED. Environmental Management Act: General				
Initiated Date:	27-May-2010				
Approved Date:	27-May-2010				
Region:	Nanaimo, Vancouver Island				
Ministry Contact:	HEWLETT, LUCY				
Notation Notes:	Source Site Of Soil Relocation **Note: Many records provided by the department have a truncated [Notation Notes] field.				
Required Actions:	No Actions Entered				
Requirement Due Date:					
Requirement Received Date:					
Participant:	Columbia Energy			Role:	REQUESTED BY
<u>Registry Notations</u>					
Event ID:	57272				
Notation Type and Act:	CONTAMINATED SOIL RELOCATION AGREEMENT APPROVED. Environmental Management Act: General				
Initiated Date:	08-Jul-2010				
Approved Date:	08-Jul-2010				
Region:	Nanaimo, Vancouver Island				
Ministry Contact:	HANEMAYER, VINCENT (SURREY) C				
Notation Notes:	Relocation Of Approximately 2,500 Cubic Metres Of Contaminated Soil Located At 2440f Cliffe Avenue, Courtenay (The Source Site) To 9401 Trans Canada Highway, Chemainus (The Receiving Site).				
Required Actions:	No Actions Entered				
Requirement Due Date:					
Requirement Received Date:					
Participant:	Hanemayer, Vincent (Surrey) C			Role:	ISSUED BY
Participant:	Columbia Energy			Role:	RECEIVED BY
<u>Site Participants</u>					
Participant:	Columbia Energy			Start Date:	Mar-03-2010
Participation Type:	ORG			End Date:	
Notes:					
Participants Role:	Operator				

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
<hr/>					
<u>Site Participants</u>					
Participant:	Terrawest Environmental Inc.			Start Date:	May-19-2010
Participation Type:	ORG			End Date:	
Notes:					
Participants Role:	Environmental Consultant/Contractor				
<u>Site Participants</u>					
Participant:	Hewlett, Lucy			Start Date:	May-27-2010
Participation Type:	EMP			End Date:	
Notes:					
Participants Role:	Alternate Ministry Contact				
<u>Site Participants</u>					
Participant:	Terrawest Environmental Inc			Start Date:	Aug-16-2011
Participation Type:	ORG			End Date:	
Notes:					
Participants Role:	Environmental Consultant/Contractor				
<u>Site Participants</u>					
Participant:	Terrawest Environmental Inc			Start Date:	Mar-03-2010
Participation Type:	ORG			End Date:	
Notes:					
Participants Role:	Environmental Consultant/Contractor				
<u>Site Participants</u>					
Participant:	Site Information Advisor			Start Date:	Mar-03-2010
Participation Type:	EMP			End Date:	Jun-14-2021
Notes:					
Participants Role:	Main Ministry Contact				
<u>Documents on File</u>					
Document or Report Title:	Summary Of Site Condition				
Authored Date:	19-May-2010				
Submitted Date:	27-May-2010				
Document Entry Notes:					
Nothing Noted **Note: Many records provided by the department have a truncated [Document Entry Notes] field.					
Participant and Role:	Terrawest Environmental Inc. - Author				
<u>Associated Sites</u>					
Associated Site ID:	7265			Effective Date:	5/27/2010
Notes:	SITE 12139 IS SOURCE SITE AND SITE 7265 IS RECEIVING SITE				

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
<u>Parcel Descriptions</u>					
Date Added:	3/16/2010			Crown Land PIN#:	
LTO PID(s):	017-660-785			Crown Land File#:	
Land Description:	STRATA LOT 1, SECTION 66, COMOX DISTRICT, STRATA PLAN VIS2250, TOGETHERWITH AN INTEREST IN THE COMMON PROPERTY IN PROPORTION TO THE UNIT ENTITLEMENTOF THE STRATA LOT AS SHOWN ON FORM 1 **Note: Many records provided by the department have a truncated [Land Description] field.				

<u>47</u>	1 of 4	NW/48.9	10.2 / -33.64	COURTENAY SHELL 2591 CLIFFE AVE COURTENAY BC V9N 2L5	RST
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Headcode: 01186800
Headcode Desc: SERVICE STATIONS-GASOLINE, OIL & NATURAL GAS
Phone:
List Name:
Description:

<u>47</u>	2 of 4	NW/48.9	10.2 / -33.64	SHELL CANADA PRODUCTS 2591 CLIFFE AVE COURTENAY BC V9N 2L5	RST
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Headcode: 1186800
Headcode Desc: Service Stations-Gasoline, Oil & Natural Gas
Phone: 2503343433
List Name:
Description:

<u>47</u>	3 of 4	NW/48.9	10.2 / -33.64	COURTENAY SHELL 2591 CLIFFE AVE COURTENAY BC V9N2L5	RST
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Headcode: 01186800
Headcode Desc: SERVICE STATIONS GASOLINE OIL & NATURAL
Phone: 2503343433
List Name:
Description:

<u>47</u>	4 of 4	NW/48.9	10.2 / -33.64	SHELL CANADA PRODUCTS LIMITED 2591 CLIFFE AVE, COURTNEY, BC BC	GEN2
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Waste Manifests - 2011

Manifest No:	BH835817	Date Shipped:	12-19-2011
TDG Code:	BC0007	Date Received:	12-19-2011
TDG Class:	9.0-MISCELLANEOUS	Copy 3 Date:	12-20-2011
TDG Group:	III-Moderately Dangerous	Qty Shipped:	950 L
Packing Code:	03-Bulk	Qty Rcvd:	950 L
Handling Code:	01-Storage	Trans Lic No:	LT0029
Waste Receiver:	NEWALTA CORPORATION	Waste Trans:	MCRAE'S ENVIRONMENTAL SERVICES LTD.
Receiving Addr:	1080 MAUGHAN RD, NANAIMO, BC	Trans Addr:	7783 PROGRESS WAY, DELTA, BC
Waste Name:	(L17 OILY WATER SLUDGE/DEBRIS)CERAMIC BEADS, WASTE OIL FILTER CAKE, ALUMINIUM, SAND		

Manifest No:	BH835817	Date Shipped:	12-19-2011
TDG Code:	BC0007	Date Received:	12-19-2011
TDG Class:	9.0-MISCELLANEOUS	Copy 3 Date:	12-20-2011
TDG Group:	III-Moderately Dangerous	Qty Shipped:	2240 L

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
Packing Code: 03-Bulk Qty Rcvd: 2240 L Handling Code: 01-Storage Trans Lic No: LT0029 Waste Receiver: NEWALTA CORPORATION Waste Trans: MCRAE'S ENVIRONMENTAL SERVICES LTD. Receiving Addr: 1080 MAUGHAN RD, NANAIMO, BC Trans Addr: 7783 PROGRESS WAY, DELTA, BC Waste Name: (L17 OILY WATER SLUDGE/DEBRIS) CERAMIC BEADS, WASTE OIL FILTER CAKE, ALUMINIUM, SAND					
Manifest No: BH272391 Date Shipped: 06-22-2011 TDG Code: BC0007 Date Received: 06-22-2011 TDG Class: 9.0-MISCELLANEOUS Copy 3 Date: 06-28-2011 TDG Group: III-Moderately Dangerous Qty Shipped: 200 L Packing Code: 03-Bulk Qty Rcvd: 200 L Handling Code: 01-Storage Trans Lic No: LT0029 Waste Receiver: NEWALTA CORPORATION Waste Trans: MCRAE'S ENVIRONMENTAL SERVICES LTD. Receiving Addr: 1080 MAUGHAN RD, NANAIMO, BC Trans Addr: 7783 PROGRESS WAY, DELTA, BC Waste Name: (L17 OILY WATER SLUDGE/DEBRIS) CERAMIC BEADS, WASTE OIL FILTER CAKE, ALUMINIUM, SAND					
Manifest No: BH272391 Date Shipped: 06-22-2011 TDG Code: BC0007 Date Received: 06-22-2011 TDG Class: 9.0-MISCELLANEOUS Copy 3 Date: 06-28-2011 TDG Group: III-Moderately Dangerous Qty Shipped: 2000 L Packing Code: 01-Drum Qty Rcvd: 2000 L Handling Code: 01-Storage Trans Lic No: LT0029 Waste Receiver: NEWALTA CORPORATION Waste Trans: MCRAE'S ENVIRONMENTAL SERVICES LTD. Receiving Addr: 1080 MAUGHAN RD, NANAIMO, BC Trans Addr: 7783 PROGRESS WAY, DELTA, BC Waste Name: (L17 OILY WATER SLUDGE/DEBRIS) CERAMIC BEADS, WASTE OIL FILTER CAKE, ALUMINIUM, SAND					
Manifest No: BG706522 Date Shipped: 03-08-2011 TDG Code: BC0007 Date Received: 03-08-2011 TDG Class: 9.0-MISCELLANEOUS Copy 3 Date: 03-10-2011 TDG Group: III-Moderately Dangerous Qty Shipped: 5600 L Packing Code: 03-Bulk Qty Rcvd: 5600 L Handling Code: 01-Storage Trans Lic No: LT0029 Waste Receiver: NEWALTA CORPORATION Waste Trans: MCRAE'S ENVIRONMENTAL SERVICES LTD. Receiving Addr: 1080 MAUGHAN RD, NANAIMO, BC Trans Addr: 7783 PROGRESS WAY, DELTA, BC Waste Name: (L17 OILY WATER SLUDGE/DEBRIS) CERAMIC BEADS, WASTE OIL FILTER CAKE, ALUMINIUM, SAND					
48	1 of 1	NW/88.8	11.2 / -32.69	MACLEODS HARDWARE/EDMO INVESTMENTS LTD. 2599 CLIFFE AVE, COURTENAY, BC, CA V9N 2L5 BC	PES
Registration No: 2118 Expiry Date: 04/01/1992 Registration Type: Provides Service: Category: 1 - GENERAL Regions of Operation: Pesticides to be used: Treatment Description:					
49	1 of 1	NW/42.3	8.0 / -35.85	2400 Cliffe Avenue, Courtenay 2400 CLIFFE AVENUE No Entry COURTENAY BC	SREG
Site ID: 22300 Registered: 24-Mar-2019 Victoria File No: 26250-20/22300 Updated: 13-May-2021 Env Rmd ID: Detail Removed: 10-May-2021 Regional File No: No File Common Name: Region: Postal Code: V9N2L6 Record Status: NOT ASSIGNED Latitude DMS: 49d 40m 39.0s Status as of: Jun 2022 Longitude DMS: 124d 58m 58.0s Cleanup Status: Latitude: 49.677500 Category: Not Applicable Longitude: 124.982778 Location Desc: LOCATION CONFIRMED USING GOOGLE EARTH. AND VERIFIED USING LTSA PARCELMAP 2021-03-26					

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
Addr (BC Data Catalogue):					
Site Note:					
Registry Notations					
Event ID:	100348				
Notation Type and Act:	CASE MANAGEMENT ITEM. Administrative				
Initiated Date:	12-Apr-2021				
Approved Date:	12-Apr-2021				
Region:	Nanaimo, Vancouver Island				
Ministry Contact:	YAN, PETER				
Notation Notes:	Access Denied By The Property Owner.				
Required Actions:	Submit Communication Record By April 27, 2021				
Requirement Due Date:					
Requirement Received Date:					
Participant:	Slr Consulting (Canada) Ltd		Role:	SUBMITTED BY	
Participant:	Yan, Peter		Role:	REQUESTED BY	
Registry Notations					
Event ID:	100114				
Notation Type and Act:	SITE RISK CLASSIFIED - SITE IS HIGH RISK. Environmental Management Act: General				
Initiated Date:	16-Nov-2018				
Approved Date:	16-Nov-2018				
Region:	Nanaimo, Vancouver Island				
Ministry Contact:	YAN, PETER				
Notation Notes:	Source Parcel Is 2350 Cliffe Avenue; Site Id 1907 Hydrocarbons In Soil Vapour Exceeded Upper Cap Concentrations **Note: Many records provided by the department have a truncated [Notation Notes] field.				
Required Actions:	Submit Summary Of Site Conditions And Remedial Plan And Schedule For High Risk Conditions By June 13, 2019				
Requirement Due Date:					
Requirement Received Date:					
Participant:	Slr Consulting (Canada) Ltd		Role:	SUBMITTED BY	
Registry Notations					
Event ID:	93029				
Notation Type and Act:	NOTIFICATION RECEIVED ABOUT LIKELY OR ACTUAL SUBSTANCE MIGRATION FROM NEIGHBOURING SITE. Environmental Management Act: General				
Initiated Date:	16-Nov-2018				
Approved Date:	16-Nov-2018				
Region:	Nanaimo, Vancouver Island				
Ministry Contact:	FREDERICK, PABLO				
Notation Notes:	Source Parcel Is 2350 Cliffe Avenue; Site Id 1907 **Note: Many records provided by the department have a truncated [Notation Notes] field.				
Required Actions:	No Actions Entered				
Requirement Due Date:					
Requirement Received Date:					
Participant:	Slr Consulting (Canada) Ltd		Role:	SUBMITTED BY	
Site Participants					
Participant:	Amb Consulting Group Ltd		Start Date:	Nov-16-2018	
Participation Type:	ORG		End Date:		
Notes:					
Participants Role:	Property Owner				

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
<u>Site Participants</u>					
Participant:	Frederick, Pablo			Start Date:	Nov-16-2018
Participation Type:	EMP			End Date:	Jun-14-2021
Notes:					
Participants Role:	Ministry Contact				
<u>Site Participants</u>					
Participant:	Slr Consulting (Canada) Ltd			Start Date:	Nov-16-2018
Participation Type:	ORG			End Date:	
Notes:					
Participants Role:	Environmental Consultant/Contractor				
<u>Site Participants</u>					
Participant:	Yan, Peter			Start Date:	Nov-16-2018
Participation Type:	EMP			End Date:	
Notes:					
Participants Role:	Ministry Contact				
<u>Associated Sites</u>					
Associated Site ID:	1907			Effective Date:	3/19/2019 11:43:15 AM
Notes:	ASSOCIATIONS: SOURCE SITE ID: 1907 AFFECTED PARCEL SITE ID: 22300				
<u>Parcel Descriptions</u>					
Date Added:	1/5/1998			Crown Land PIN#:	
LTO PID(s):	018-461-662			Crown Land File#:	
Land Description:	LOT B, SECTION 66, COMOX DISTRICT, PLAN VIP57515 **Note: Many records provided by the department have a truncated [Land Description] field.				
<u>50</u>	1 of 1	NW/43.9	9.1 / -34.76	MOHAWK OIL CO. LTD.	EM
				BC	
Monitoring Loc ID:	E224744			Calc Statistics Ind:	No
Permit ID:	14702			Client Location ID:	11
Prmt Rlshp:	STORAGE			Office CD:	10
Contaminated Site ID:	1907			Well Ident Plate No:	
Discharge Media CD:	3			Location Area Ind:	No
Discharge Media:	GROUND			Mobile Location Ind:	No
Smpl Cnt:	0			ECO Region CD:	
Rslt Cnt:	0			Watershed CD:	
Frt Smp Dt:				Feature Code:	EP10040100
Lst Smp Dt:				Geometry:	
Established Date:	19970128			Elevation:	
Closed Date:				Latitude:	49.677800000000005
Location Type CD:	39			Longitude:	124.983
Location Type:	STORAGE			X:	-124.98299999956456
Location Purpose CD:	5			Y:	49.67780000000812
Location Purpose:	NONE OF THE ABOVE			Geo Ref Source CD:	DGPS
Source Class CD:	30187008				
Source Class Narrative:					
Monitoring Loc Comment:					
Legal Description:	Lot A, Section 66, Comox Land District, Plan VIP57515				

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
Description:		Biocell Approval: store and treat 200 m3 of special waste BTEX HCS at 2350 Cliffe Ave. Courtenay BC			
51	1 of 2	NW/94.1	11.1 / -32.78	MINUTEMAN PRESS 9-2401 Cliffe Ave Courtenay BC V9N 2L5	SCT
Established:					
Plant Size (ft²):		0			
Employment:		3			
--Details--					
Description:		Commercial Printing, Lithographic			
SIC/NAICS Code:		2752			
Description:		Other Printing			
SIC/NAICS Code:		323119			
51	2 of 2	NW/94.1	11.1 / -32.78	MOUNTAIN VALLEY PAVING 3-2401 CLIFFE AVE SUITE 159, COURTENAY, BC, CA V9N 2L5 BC	PES
Registration No:		3545		Expiry Date:	04/01/1998
Registration Type:				Provides Service:	
Category:		INDUSTRIAL VEGETATION & NOXIOUS WEED - PAVERS			
Regions of Operation:					
Pesticides to be used:					
Treatment Description:					
52	1 of 6	NW/20.7	10.6 / -33.30	Mohawk Courtenay Service 2350 CLIFFE AVENUE No Entry COURTENAY BC	SREG
Site ID:		1907		Registered:	18-Nov-1997
Victoria File No:		26250-20/1907		Updated:	13-May-2021
Env Rmd ID:				Detail Removed:	10-May-2021
Regional File No:		26250-20/1907		Common Name:	
Region:				Postal Code:	V9N 2L6
Record Status:		NOT ASSIGNED		Latitude DMS:	49d 40m 40.1s
Status as of:		Jun 2022		Longitude DMS:	124d 58m 59.7s
Cleanup Status:				Latitude:	49.677819
Category:		Medium Site, Simple Contamination		Longitude:	124.983239
Location Desc:		LOCATION DERIVED FROM GPS PROJECT ENVIC RVR #P103117A			
Addr (BC Data Catalogue):					
Site Note:					
Registry Notations					
Event ID:		23218			
Notation Type and Act:		REMEDIATION PLAN REPORT SUBMITTED. Administrative			
Initiated Date:		21-May-1996			
Approved Date:		21-May-1996			
Region:		Nanaimo, Vancouver Island			
Ministry Contact:		GUTHER, MIKE J			
Notation Notes:		Revised Remedial Action Plan, Mohawk Service Station, 2350 Cliffe Avenue, Courtenay, B.C.			
Required Actions:		No Actions Entered			
Requirement Due Date:					
Requirement Received Date:					

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
Participant:	Seacor Environmental Engineering Inc (Nanaimo (Skinner Street))			Role:	SUBMITTED BY
Participant:	Guther, Mike J			Role:	REVIEWED BY
<u>Registry Notations</u>					
Event ID:	23220				
Notation Type and Act:	SITE INVESTIGATION REPORT SUBMITTED. Administrative				
Initiated Date:	16-May-1994				
Approved Date:	16-May-1994				
Region:	Nanaimo, Vancouver Island				
Ministry Contact:	DAVIES, ROBERT J				
Notation Notes:	Environmental Assessment And Proposed Remedial Plans, Mohawk Station #1020, 2350 Cliffe Avenue, Courtenay, Bc.				
Required Actions:	No Actions Entered				
Requirement Due Date:					
Requirement Received Date:					
Participant:	Seacor Environmental Engineering Inc (Nanaimo (Skinner Street))			Role:	SUBMITTED BY
Participant:	Davies, Robert J			Role:	REVIEWED BY
<u>Registry Notations</u>					
Event ID:	23539				
Notation Type and Act:	HISTORICAL SITE NOTIFICATION ISSUED (WMA 26.3(3)). Waste Management Act: Contaminated Sites Notations				
Initiated Date:	12-Sep-1997				
Approved Date:	No Entry				
Region:	Nanaimo, Vancouver Island				
Ministry Contact:	DAVIES, ROBERT J				
Notation Notes:	Auto-Created By The Mailout Process **Note: Many records provided by the department have a truncated [Notation Notes] field.				
Required Actions:	No Actions Entered				
Requirement Due Date:					
Requirement Received Date:					
<u>Registry Notations</u>					
Event ID:	39661				
Notation Type and Act:	NOTICE OF INDEPENDENT REMEDIATION INITIATION SUBMITTED (WMA 28(2)). Waste Management Act: Contaminated Sites Notations				
Initiated Date:	27-Aug-2001				
Approved Date:	No Entry				
Region:	Nanaimo, Vancouver Island				
Ministry Contact:	COLLISON-BAKER, JOHN				
Notation Notes:	Clean Up Related To Replacement Of Underground Storage Tanks **Note: Many records provided by the department have a truncated [Notation Notes] field.				
Required Actions:	No Actions Entered				
Requirement Due Date:					
Requirement Received Date:					
Participant:	Husky Oil Ltd (Calgary)			Role:	SUBMITTED BY
<u>Registry Notations</u>					
Event ID:	57787				
Notation Type and Act:	SITE RISK CLASSIFIED - SITE IS NON-HIGH RISK. Environmental Management Act: General				
Initiated Date:	21-Sep-2010				
Approved Date:	21-Sep-2010				

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
Region:		Nanaimo, Vancouver Island			
Ministry Contact:		O'GRADY, TYLER			
Notation Notes:		No Notes Entered **Note: Many records provided by the department have a truncated [Notation Notes] field.			
Required Actions:		No Actions Entered			
Requirement Due Date:					
Requirement Received Date:					
Participant:	Slr Consulting (Canada) Ltd			Role:	SUBMITTED BY
<u>Registry Notations</u>					
Event ID:		100445			
Notation Type and Act:		CASE MANAGEMENT ITEM. Administrative			
Initiated Date:		29-Apr-2021			
Approved Date:		29-Apr-2021			
Region:		Nanaimo, Vancouver Island			
Ministry Contact:		YAN, PETER			
Notation Notes:		Access Denied By The Affected Parcel (Site 22300). Communication Record Submitted.			
Required Actions:		No Actions Entered			
Requirement Due Date:					
Requirement Received Date:					
Participant:	Slr Consulting (Canada) Ltd			Role:	SUBMITTED BY
<u>Registry Notations</u>					
Event ID:		6911			
Notation Type and Act:		CASE MANAGEMENT ITEM. Administrative			
Initiated Date:		03-Mar-1994			
Approved Date:		03-Mar-1994			
Region:		Nanaimo, Vancouver Island			
Ministry Contact:		DAVIES, ROBERT J			
Notation Notes:		Notification Of Seacor'S Phase Ii Environmental Assessment And Identification Of Special Waste Soils.			
Required Actions:		No Actions Entered			
Requirement Due Date:					
Requirement Received Date:					
Participant:	Mohawk Canada Limited (Head Office)			Role:	SUBMITTED BY
<u>Registry Notations</u>					
Event ID:		6914			
Notation Type and Act:		CASE MANAGEMENT ITEM. Administrative			
Initiated Date:		14-Jun-1994			
Approved Date:		14-Jun-1994			
Region:		Nanaimo, Vancouver Island			
Ministry Contact:		DAVIES, ROBERT J			
Notation Notes:		Soils From Biocell Meet Moe Level C Criteria; Permission Given To Dispose At Pigeon Lake Landfill **Note: Many records provided by the department have a truncated [Notation Notes] field.			
Required Actions:		No Actions Entered			
Requirement Due Date:					
Requirement Received Date:					
Participant:	Seacor Environmental Engineering Inc (Nanaimo (Skinner Street))			Role:	SUBMITTED BY
<u>Registry Notations</u>					
Event ID:		23212			
Notation Type and Act:		CASE MANAGEMENT ITEM. Administrative			
Initiated Date:		30-May-1996			
Approved Date:		30-May-1996			

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
Region:		Nanaimo, Vancouver Island			
Ministry Contact:		BOLLANS, RON A			
Notation Notes:		Authorized To Construct And Operate An Engineered Biocell At Pidgeon Lake Landfill **Note: Many records provided by the department have a truncated [Notation Notes] field.			
Required Actions:		No Actions Entered			
Requirement Due Date:					
Requirement Received Date:					
Participant:	Seacor Environmental Engineering Inc (Nanaimo (Skinner Street))			Role:	REQUESTED BY
<u>Registry Notations</u>					
Event ID:		23214			
Notation Type and Act:		CASE MANAGEMENT ITEM. Administrative			
Initiated Date:		16-Jul-1996			
Approved Date:		16-Jul-1996			
Region:		Nanaimo, Vancouver Island			
Ministry Contact:		BOLLANS, RON A			
Notation Notes:		Mohawk Authorized To Store And Treat 1180m3 Of Hydrocarbon Contaminated Soil **Note: Many records provided by the department have a truncated [Notation Notes] field.			
Required Actions:		No Actions Entered			
Requirement Due Date:					
Requirement Received Date:					
Participant:	Mohawk Canada Limited (Head Office)			Role:	REQUESTED BY
<u>Registry Notations</u>					
Event ID:		23213			
Notation Type and Act:		CASE MANAGEMENT ITEM. Administrative			
Initiated Date:		05-Jun-1996			
Approved Date:		05-Jun-1996			
Region:		Nanaimo, Vancouver Island			
Ministry Contact:		GUTHER, MIKE J			
Notation Notes:		Update Of Ex-Situ Remedial Program, Mohawk Service Station, 2350 Cliffe Avenue, Courtenay, B.C.			
Required Actions:		No Actions Entered			
Requirement Due Date:					
Requirement Received Date:					
Participant:	Seacor Environmental Engineering Inc (Nanaimo (Skinner Street))			Role:	SUBMITTED BY
Participant:	Guthier, Mike J			Role:	REVIEWED BY
<u>Registry Notations</u>					
Event ID:		23216			
Notation Type and Act:		REMEDIATION PLAN REPORT SUBMITTED. Administrative			
Initiated Date:		01-Mar-1996			
Approved Date:		01-Mar-1996			
Region:		Nanaimo, Vancouver Island			
Ministry Contact:		DAVIES, ROBERT J			
Notation Notes:		Proposed Remedial Action Plan, Mohawk Station No. 1020, 2350 Cliffe Avenue, Courtenay, Bc.			
Required Actions:		No Actions Entered			
Requirement Due Date:					
Requirement Received Date:					
Participant:	Davies, Robert J			Role:	REVIEWED BY
Participant:	Seacor Environmental Engineering Inc (Nanaimo (Skinner Street))			Role:	SUBMITTED BY

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
<u>Registry Notations</u>					
Event ID:		23219			
Notation Type and Act:		CASE MANAGEMENT ITEM. Administrative			
Initiated Date:		25-Mar-1996			
Approved Date:		25-Mar-1996			
Region:		Nanaimo, Vancouver Island			
Ministry Contact:		DAVIES, ROBERT J			
Notation Notes:		Phase I - Ex-Situ Remediation Program, Mohawk Station No. 1020, 2350 Cliffe Avenue, Courtenay, Bc.			
Required Actions:		No Actions Entered			
Requirement Due Date:					
Requirement Received Date:					
Participant:	Davies, Robert J		Role:	REVIEWED BY	
Participant:	Seacor Environmental Engineering Inc (Nanaimo (Skinner Street))		Role:	SUBMITTED BY	
<u>Registry Notations</u>					
Event ID:		24997			
Notation Type and Act:		OTHER WASTE SYSTEM NUMBERS. Administrative			
Initiated Date:		17-May-1996			
Approved Date:		17-May-1996			
Region:		Nanaimo, Vancouver Island			
Ministry Contact:		GUTHER, MIKE J			
Notation Notes:		Initial Generator Registration (For #01337) Dated 96-05-17.			
Required Actions:		No Actions Entered			
Requirement Due Date:					
Requirement Received Date:					
<u>Registry Notations</u>					
Event ID:		57701			
Notation Type and Act:		NOTIFICATION RECEIVED ABOUT LIKELY OR ACTUAL SUBSTANCE MIGRATION TO NEIGHBOURING SITE. Environmental Management Act: General			
Initiated Date:		13-Sep-2010			
Approved Date:		13-Sep-2010			
Region:		Nanaimo, Vancouver Island			
Ministry Contact:		SAMWAYS, JENNIFER			
Notation Notes:		No Notes Entered **Note: Many records provided by the department have a truncated [Notation Notes] field.			
Required Actions:		No Actions Entered			
Requirement Due Date:					
Requirement Received Date:					
Participant:	Slr Consulting (Canada) Ltd		Role:	SUBMITTED BY	
<u>Registry Notations</u>					
Event ID:		100112			
Notation Type and Act:		SITE RISK CLASSIFIED - SITE IS NON-HIGH RISK. Environmental Management Act: General			
Initiated Date:		16-Nov-2018			
Approved Date:		16-Nov-2018			
Region:		Nanaimo, Vancouver Island			
Ministry Contact:		YAN, PETER			
Notation Notes:		No Notes Entered **Note: Many records provided by the department have a truncated [Notation Notes] field.			
Required Actions:		No Actions Entered			
Requirement Due Date:					
Requirement Received Date:					
Participant:	Slr Consulting (Canada) Ltd		Role:	SUBMITTED BY	

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
<u>Registry Notations</u>					
Event ID:		100113			
Notation Type and Act:		SITE RISK CLASSIFIED - AFFECTED SITE IS HIGH RISK. Environmental Management Act: General			
Initiated Date:		16-Nov-2018			
Approved Date:		16-Nov-2018			
Region:		Nanaimo, Vancouver Island			
Ministry Contact:		YAN, PETER			
Notation Notes:		Affected Parcel Is 2400 Cliffe Avenue; Site Id 22300 Hydrocarbons In Soil Vapour Exceeded Upper Cap Concentrations **Note: Many records provided by the department have a truncated [Notation Notes] field.			
Required Actions:		Submit Summary Of Site Conditions And Remedial Plan And Schedule For High Risk Conditions By June 13, 2019			
Requirement Due Date:					
Requirement Received Date:					
Participant:	Slr Consulting (Canada) Ltd		Role:	SUBMITTED BY	
<u>Registry Notations</u>					
Event ID:		12680			
Notation Type and Act:		APPROVAL IN PRINCIPLE REQUESTED. Waste Management Act: Fee Regulation S.35(2)			
Initiated Date:		04-Mar-1996			
Approved Date:		04-Mar-1996			
Region:		Nanaimo, Vancouver Island			
Ministry Contact:		DAVIES, ROBERT J			
Notation Notes:		No Notes Entered **Note: Many records provided by the department have a truncated [Notation Notes] field.			
Required Actions:		No Actions Entered			
Requirement Due Date:					
Requirement Received Date:					
Participant:	Seacor Environmental Engineering Inc (Nanaimo (Skinner Street))		Role:	SUBMITTED BY	
Participant:	Davies, Robert J		Role:	REVIEWED BY	
Participant:	Mohawk Canada Limited (Head Office)		Role:	REQUESTED BY	
<u>Registry Notations</u>					
Event ID:		23217			
Notation Type and Act:		CASE MANAGEMENT ITEM. Administrative			
Initiated Date:		06-May-1996			
Approved Date:		06-May-1996			
Region:		Nanaimo, Vancouver Island			
Ministry Contact:		GUTHER, MIKE J			
Notation Notes:		Proposed Engineered Biocell Construction, Pidgeon Lake Landfill, Cumberland, B.C., Soils Originating From Mohawk Service Station, 2350 Cliffe Avenue, Courtenay, B.C.			
Required Actions:		No Actions Entered			
Requirement Due Date:					
Requirement Received Date:					
Participant:	Seacor Environmental Engineering Inc (Nanaimo (Skinner Street))		Role:	SUBMITTED BY	
Participant:	Guthier, Mike J		Role:	REVIEWED BY	
<u>Registry Notations</u>					
Event ID:		93025			
Notation Type and Act:		NOTIFICATION RECEIVED ABOUT LIKELY OR ACTUAL SUBSTANCE MIGRATION TO NEIGHBOURING SITE. Environmental Management Act: General			
Initiated Date:		16-Nov-2018			
Approved Date:		16-Nov-2018			
Region:		Nanaimo, Vancouver Island			

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
Ministry Contact:		FREDERICK, PABLO			
Notation Notes:		Affected Parcel Is 2400 Cliffe Avenue; Site Id 22300 **Note: Many records provided by the department have a truncated [Notation Notes] field.			
Required Actions:		No Actions Entered			
Requirement Due Date:					
Requirement Received Date:					
Participant:	Slr Consulting (Canada) Ltd			Role:	SUBMITTED BY
<u>Registry Notations</u>					
Event ID:		6912			
Notation Type and Act:		CASE MANAGEMENT ITEM. Administrative			
Initiated Date:		30-May-1994			
Approved Date:		30-May-1994			
Region:		Nanaimo, Vancouver Island			
Ministry Contact:		DAVIES, ROBERT J			
Notation Notes:		Notification Of Bioremediation Process **Note: Many records provided by the department have a truncated [Notation Notes] field.			
Required Actions:		No Actions Entered			
Requirement Due Date:					
Requirement Received Date:					
Participant:	Mohawk Canada Limited (Head Office)			Role:	SUBMITTED BY
<u>Registry Notations</u>					
Event ID:		6913			
Notation Type and Act:		CONCENTRATION CRITERIA APPROACH USED. Administrative			
Initiated Date:		30-May-1994			
Approved Date:		30-May-1994			
Region:		Nanaimo, Vancouver Island			
Ministry Contact:		DAVIES, ROBERT J			
Notation Notes:		No Notes Entered **Note: Many records provided by the department have a truncated [Notation Notes] field.			
Required Actions:		No Actions Entered			
Requirement Due Date:					
Requirement Received Date:					
<u>Registry Notations</u>					
Event ID:		23211			
Notation Type and Act:		REMEDIATION PLAN REPORT SUBMITTED. Administrative			
Initiated Date:		23-Apr-1996			
Approved Date:		23-Apr-1996			
Region:		Nanaimo, Vancouver Island			
Ministry Contact:		DAVIES, ROBERT J			
Notation Notes:		Proposed Phase Ii Remedial Strategy, Mohawk Station No. 1020, 2350 Cliffe Avenue, Courtenay, Bc.			
Required Actions:		No Actions Entered			
Requirement Due Date:					
Requirement Received Date:					
Participant:	Seacor Environmental Engineering Inc (Nanaimo (Skinner Street))			Role:	SUBMITTED BY
Participant:	Guther, Mike J			Role:	REVIEWED BY
<u>Registry Notations</u>					
Event ID:		23629			
Notation Type and Act:		OTHER WASTE SYSTEM NUMBERS. Administrative			
Initiated Date:		20-May-1994			
Approved Date:		20-May-1994			
Region:		Nanaimo, Vancouver Island			

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
Ministry Contact:		FUNK, MARILYN			
Notation Notes:		Initial Generator Registration And Generator Registration Update (For 01337) Dated 96-05-17, 94-05-20 And 96-06-11.			
Required Actions:		No Actions Entered			
Requirement Due Date:					
Requirement Received Date:					
<u>Registry Notations</u>					
Event ID:		23221			
Notation Type and Act:		REMEDATION PLAN REPORT SUBMITTED. Administrative			
Initiated Date:		16-May-1994			
Approved Date:		16-May-1994			
Region:		Nanaimo, Vancouver Island			
Ministry Contact:		DAVIES, ROBERT J			
Notation Notes:		Environmental Assessment And Proposed Remediation Plans, Mohawk Station #1020, 2350 Cliffe Avenue, Courtenay, Bc.			
Required Actions:		No Actions Entered			
Requirement Due Date:					
Requirement Received Date:					
Participant:	Davies, Robert J			Role:	REVIEWED BY
Participant:	Seacor Environmental Engineering Inc (Nanaimo (Skinner Street))			Role:	SUBMITTED BY
<u>Registry Notations</u>					
Event ID:		24998			
Notation Type and Act:		OTHER WASTE SYSTEM NUMBERS. Administrative			
Initiated Date:		11-Jun-1996			
Approved Date:		11-Jun-1996			
Region:		Nanaimo, Vancouver Island			
Ministry Contact:		GUTHER, MIKE J			
Notation Notes:		Generator Registration Update (For #01337) Dated 96-06-11.			
Required Actions:		No Actions Entered			
Requirement Due Date:					
Requirement Received Date:					
<u>Registry Notations</u>					
Event ID:		57788			
Notation Type and Act:		SITE RISK CLASSIFIED - AFFECTED SITE IS NON-HIGH RISK. Environmental Management Act: General			
Initiated Date:		21-Sep-2010			
Approved Date:		21-Sep-2010			
Region:		Nanaimo, Vancouver Island			
Ministry Contact:		O'GRADY, TYLER			
Notation Notes:		Affected Site Is 2400 Cliffe Avenue, Courtenay.			
Required Actions:		No Actions Entered			
Requirement Due Date:					
Requirement Received Date:					
Participant:	Slr Consulting (Canada) Ltd			Role:	SUBMITTED BY
<u>Site Participants</u>					
Participant:	Davies, Robert J			Start Date:	Mar-03-1994
Participation Type:	EMP			End Date:	Mar-31-2004
Notes:					
Participants Role:		Ministry Contact			

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
<u>Site Participants</u>					
Participant:	Guther, Mike J			Start Date:	Mar-25-1995
Participation Type:	EMP			End Date:	Mar-29-2002
Notes:					
Participants Role:	Alternate Ministry Contact				
<u>Site Participants</u>					
Participant:	Bollans, Ron A			Start Date:	May-30-1996
Participation Type:	EMP			End Date:	Mar-29-2002
Notes:					
Participants Role:	Alternate Ministry Contact				
<u>Site Participants</u>					
Participant:	City Of Courtenay			Start Date:	Jul-22-1996
Participation Type:	ORG			End Date:	
Notes:					
Participants Role:	Municipal/Regional Contact				
<u>Site Participants</u>					
Participant:	Site Information Advisor			Start Date:	Sep-13-2010
Participation Type:	EMP			End Date:	Jun-14-2021
Notes:					
Participants Role:	Alternate Ministry Contact				
<u>Site Participants</u>					
Participant:	O'Grady, Tyler			Start Date:	Sep-21-2010
Participation Type:	EMP			End Date:	Jun-14-2021
Notes:					
Participants Role:	Alternate Ministry Contact				
<u>Site Participants</u>					
Participant:	Seacor Environmental Engineering Inc (Nanaimo (Skinner Street))			Start Date:	Jan-24-1994
Participation Type:	ORG			End Date:	
Notes:	CONTACT: JEFF LINKE				
Participants Role:	Environmental Consultant/Contractor				
<u>Site Participants</u>					
Participant:	Husky Oil Ltd (Calgary)			Start Date:	Aug-27-2001
Participation Type:	ORG			End Date:	
Notes:					
Participants Role:	Property Interest Holder				
<u>Site Participants</u>					
Participant:	Collison-Baker, John			Start Date:	Aug-27-2001

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
<hr/>					
Participation Type:	EMP			End Date:	
Notes:					
Participants Role:		Alternate Ministry Contact			
<u>Site Participants</u>					
Participant:	Mohawk Canada Limited (Head Office)			Start Date:	Mar-01-1964
Participation Type:	ORG			End Date:	
Notes:		OWNER/OPERATOR UNTIL 94-10-31, TENANT AS OF THIS DATE			
Participants Role:		Operator			
Participants Role:		Leasee/Renter/Tenant			
Participants Role:		Notice Recipient(Wmaa20.21(3))-Dont Flag			
Participants Role:		Former Property Owner			
<u>Site Participants</u>					
Participant:	Johniuk Jeans Ltd.			Start Date:	Dec-01-1993
Participation Type:	ORG			End Date:	
Notes:					
Participants Role:		Notice Recipient(Wmaa20.21(3))-Dont Flag			
Participants Role:		Property Owner			
<u>Site Participants</u>					
Participant:	Funk, Marilyn			Start Date:	May-20-1994
Participation Type:	EMP			End Date:	Jan-01-2000
Notes:					
Participants Role:		Alternate Ministry Contact			
<u>Site Participants</u>					
Participant:	Analytical Service Laboratories Ltd (Vancouver)			Start Date:	Jun-14-1994
Participation Type:	ORG			End Date:	
Notes:					
Participants Role:		Analytical Lab			
<u>Site Participants</u>					
Participant:	Frederick, Pablo			Start Date:	Nov-16-2018
Participation Type:	EMP			End Date:	Jun-14-2021
Notes:					
Participants Role:		Ministry Contact			
<u>Site Participants</u>					
Participant:	Yan, Peter			Start Date:	Nov-16-2018
Participation Type:	EMP			End Date:	
Notes:					
Participants Role:		Ministry Contact			

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
<u>Site Participants</u>					
Participant:	Regional District Of Comox-Strathcona (Courtenay)			Start Date:	Jun-14-1994
Participation Type:	ORG			End Date:	
Notes:	CONTACT: JOHN COOPER				
Participants Role:	Municipal/Regional Contact				
<u>Site Participants</u>					
Participant:	Slr Consulting (Canada) Ltd			Start Date:	Sep-13-2010
Participation Type:	ORG			End Date:	
Notes:					
Participants Role:	Environmental Consultant/Contractor				
<u>Site Participants</u>					
Participant:	Hickory Investments Inc			Start Date:	Nov-01-1994
Participation Type:	ORG			End Date:	
Notes:					
Participants Role:	Notice Recipient(Wmaa20.21(3))-Dont Flag				
Participants Role:	Property Owner				
<u>Site Participants</u>					
Participant:	Sloan, Michael			Start Date:	Aug-27-2001
Participation Type:	EMP			End Date:	Mar-29-2002
Notes:					
Participants Role:	Alternate Ministry Contact				
<u>Documents on File</u>					
Document or Report Title:	Proposed Remedial Action Plan - Seacor Environmental Engineering Inc.				
Authored Date:	28-Feb-1996				
Submitted Date:	04-Mar-1996				
Document Entry Notes:					
Nothing Noted **Note: Many records provided by the department have a truncated [Document Entry Notes] field.					
Participant and Role:	Mohawk Canada Limited (Head Office) - Commissioner				
Participant and Role:	Seacor Environmental Engineering Inc (Nanaimo (Skinner Street)) - Author				
Participant and Role:	Davies, Robert J - Reviewer				
<u>Documents on File</u>					
Document or Report Title:	Environmental Assessment And Proposed Remediation Plans, Mohawk Station #1020, 2350 Cliffe Avenue, Courtenay, B.C.				
Authored Date:	16-May-1994				
Submitted Date:	16-May-1994				
Document Entry Notes:					

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
Nothing Noted **Note: Many records provided by the department have a truncated [Document Entry Notes] field.					
Participant and Role:	Davies, Robert J - Reviewer				
Participant and Role:	Mohawk Canada Limited (Head Office) - Commissioner				
Participant and Role:	Seacor Environmental Engineering Inc (Nanaimo (Skinner Street)) - Author				
<u>Documents on File</u>					
Document or Report Title:	Proposed Phase II Remedial Strategy, Mohawk Station No. 1020, 2350 Cliffe Avenue, Courtenay, B.C.				
Authored Date:	23-Apr-1996				
Submitted Date:	23-Apr-1996				
Document Entry Notes:					
Nothing Noted **Note: Many records provided by the department have a truncated [Document Entry Notes] field.					
Participant and Role:	Davies, Robert J - Reviewer				
Participant and Role:	Mohawk Canada Limited (Head Office) - Commissioner				
Participant and Role:	Seacor Environmental Engineering Inc (Nanaimo (Skinner Street)) - Author				
<u>Documents on File</u>					
Document or Report Title:	Revised Remedial Action Plan, Mohawk Service Station, 2350 Cliffe Avenue, Courtenay, B.C.				
Authored Date:	21-May-1996				
Submitted Date:	21-May-1996				
Document Entry Notes:					
Nothing Noted **Note: Many records provided by the department have a truncated [Document Entry Notes] field.					
Participant and Role:	Mohawk Canada Limited (Head Office) - Commissioner				
Participant and Role:	Guther, Mike J - Reviewer				
Participant and Role:	Seacor Environmental Engineering Inc (Nanaimo (Skinner Street)) - Author				
<u>Documents on File</u>					
Document or Report Title:	Update Of Ex-Situ Remedial Program, Mohawk Service Station 2350 Cliffe Avenue, Courtenay, B.C.				
Authored Date:	05-Jun-1996				
Submitted Date:	05-Jun-1996				
Document Entry Notes:					
Nothing Noted **Note: Many records provided by the department have a truncated [Document Entry Notes] field.					
Participant and Role:	Guther, Mike J - Reviewer				
Participant and Role:	Mohawk Canada Limited (Head Office) - Commissioner				
Participant and Role:	Seacor Environmental Engineering Inc (Nanaimo (Skinner Street)) - Author				
<u>Documents on File</u>					

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
Document or Report Title: Proposed Engineered Biocell Construction Pidgeon Lake Landfill, Cumberland, B.C. Soils Originating From Mohawk Service Station, 2350 Cliffe Avenue					
Authored Date: 02-May-1996					
Submitted Date: 06-May-1996					
Document Entry Notes:					
Nothing Noted **Note: Many records provided by the department have a truncated [Document Entry Notes] field.					
Participant and Role: Mohawk Canada Limited (Head Office) - Commissioner					
Participant and Role: Guthier, Mike J - Reviewer					
Participant and Role: Seacor Environmental Engineering Inc (Nanaimo (Skinner Street)) - Author					
Documents on File					
Document or Report Title: Phase I - Ex-Situ Remediation Program, Mohawk Station No. 1020, 2350 Cliffe Avenue, Courtenay, B.C.					
Authored Date: 25-Mar-1995					
Submitted Date: 25-Mar-1995					
Document Entry Notes:					
Nothing Noted **Note: Many records provided by the department have a truncated [Document Entry Notes] field.					
Participant and Role: Seacor Environmental Engineering Inc (Nanaimo (Skinner Street)) - Author					
Participant and Role: Guthier, Mike J - Reviewer					
Participant and Role: Mohawk Canada Limited (Head Office) - Commissioner					
Associated Sites					
Associated Site ID: 22300					
Effective Date: 3/19/2019 11:43:15 AM					
Notes: ASSOCIATIONS: SOURCE SITE ID: 1907 AFFECTED PARCEL SITE ID: 22300					
Suspected Land Use - Notes					
Land Use Description: Petrol Prod., Dispense Facility, Inc. Serv Sta./Cardlot					
Notes: No Entry					
Suspected Land Use - Notes					
Land Use Description: Petrol Prod., /Produce Water Strg Abvegrnd/Undergrnd Tank					
Notes: No Entry					
Parcel Descriptions					
Date Added: 1/5/1998					
Crown Land PIN#:					
LTO PID(s): 018-461-654					
Crown Land File#:					
Land Description: LOT A, SECTION 66, COMOX DISTRICT, PLAN VIP57515 **Note: Many records provided by the department have a truncated [Land Description] field.					
Parcel Descriptions					
Date Added: 1/4/1996					
Crown Land PIN#:					
LTO PID(s): 003-795-039					
Crown Land File#:					

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
Land Description:		LOT 2, SECTION 66, COMOX DISTRICT, PLAN 7471, EXCEPT THAT PART IN PLAN 47930 **Note: Many records provided by the department have a truncated [Land Description] field.			
<u>Parcel Descriptions</u>					
Date Added:	1/5/1998			Crown Land PIN#:	
LTO PID(s):	018-461-662			Crown Land File#:	
Land Description:	LOT B, SECTION 66, COMOX DISTRICT, PLAN VIP57515 **Note: Many records provided by the department have a truncated [Land Description] field.				
52	2 of 6	NW/20.7	10.6 / -33.30	MOHAWK COURTENAY SERVICE 2350 CLIFFE AVE COURTENAY BC V9N2L6	RST
Headcode:		1186800			
Headcode Desc:		Service Stations-Gasoline, Oil & Natural Gas			
Phone:		2503342811			
List Name:					
Description:					
52	3 of 6	NW/20.7	10.6 / -33.30	MOHAWK LUBRICANTS LTD. 2350 CLIFFE AVE COURTENAY BC V9N 2L6	REC
Company NO:		BCG01337			
Year:		1995			
Region:		VANCOUVER ISLAND			
<u>--Details--</u>					
Type of Waste:		gasoline, petrol			
52	4 of 6	NW/20.7	10.6 / -33.30	Mohawk Lubricants Ltd. Courtenay 2350 Cliffe Ave BC	GEN
Generator No:		BCG01337		Status Date:	19-Jun-2003
Status:		Active		Registration Dt:	13-Jan-1995
Region:		VANCOUVER ISLAND			
Mailing Addr:					
Waste Generation Site:		Courtenay 2350 Cliffe Ave			
Comments:		formerly mohawk canada limited,mohawk lubricants limited, mohawk services			
Year:		2019; 2021			
<u>Waste Detail(s)</u>					
TDG Pin No:		BC0010		Generation Code:	Generated One Time Only
TDG Class:		9.2		Handling Code:	Biological Treatment
Reg Status Date:		19-Jun-2003		Gen Business Type:	
Physical State:		Solid		Certified By Name:	Mirica Mazus
Amount in Storage:		110000 KG		Date Certifier Signed:	22-Apr-1998
Amount Per 30 Days:		0 KG			
Registered Waste:		Contaminated Soil With-(Hydrocarbons/Oil Btex) **Note: Many records provided by the department have a truncated [Registered Waste] field.			
<u>Waste Detail(s)</u>					
TDG Pin No:		UN1307		Generation Code:	Generated One Time Only
TDG Class:		9.2		Handling Code:	Storage

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
Reg Status Date: 19-Jun-2003 Physical State: Solid Amount in Storage: 1000000 KG Amount Per 30 Days: 0 KG Registered Waste: Xylenes3.3ii **Note: Many records provided by the department have a truncated [Registered Waste] field.					
52	5 of 6	NW/20.7	10.6 / -33.30	COURTENAY HUSKY 2350 CLIFFE AVE COURTENAY BC V9N2L6	RST
Headcode: 01186800 Headcode Desc: SERVICE STATIONS GASOLINE OIL & NATURAL Phone: 2503342811 List Name: Description:					
52	6 of 6	NW/20.7	10.6 / -33.30	HUSKY OIL LIMITED 2350 CLIFFE AVE, COURTNEY, BC BC	GEN2
Waste Manifests - 2011					
Manifest No: BH835775 TDG Code: BC0007 TDG Class: 9.0-MISCELLANEOUS TDG Group: III-Moderately Dangerous Packing Code: 03-Bulk Handling Code: 01-Storage Waste Receiver: NEWALTA CORPORATION Receiving Addr: 1080 MAUGHAN RD, NANAIMO, BC Waste Name: (L17 OILY WATER SLUDGE/DEBRIS)CERAMIC BEADS, WASTE OIL FILTER CAKE, ALUMINIUM, SAND					
Date Shipped: 12-08-2011 Date Received: 12-08-2011 Copy 3 Date: 12-20-2011 Qty Shipped: 960 L Qty Rcvd: 960 L Trans Lic No: LT0029 Waste Trans: MCRAE'S ENVIRONMENTAL SERVICES LTD. Trans Addr: 7783 PROGRESS WAY, DELTA, BC					
Manifest No: BH835775 TDG Code: BC0007 TDG Class: 9.0-MISCELLANEOUS TDG Group: III-Moderately Dangerous Packing Code: 03-Bulk Handling Code: 01-Storage Waste Receiver: NEWALTA CORPORATION Receiving Addr: 1080 MAUGHAN RD, NANAIMO, BC Waste Name: (L17 OILY WATER SLUDGE/DEBRIS)CERAMIC BEADS, WASTE OIL FILTER CAKE, ALUMINIUM, SAND					
Date Shipped: 12-08-2011 Date Received: 12-08-2011 Copy 3 Date: 12-20-2011 Qty Shipped: 520 L Qty Rcvd: 520 L Trans Lic No: LT0029 Waste Trans: MCRAE'S ENVIRONMENTAL SERVICES LTD. Trans Addr: 7783 PROGRESS WAY, DELTA, BC					
53	1 of 1	NW/62.2	12.2 / -31.69	COMOX TIMBER LTD. 211 - 2270 CLIFFE AVENUE COURTENAY BC V9N2L4	AMS
Authorization No: 5607 File No: PR-5607(02) File No Version: Status: Status as of: Dec-98 Date Amended: Date Issued: SIC Code: Waste Type: Expiry Date: Office: CPIX: Admin Area: Risk Level: PIN or PID:					
Compliance: Address Type: Program Area: FS: Section Code: Nearest Municip: Latitude: Longitude: Case Manager: Current Assignee: Doing Business as: Signing Authority: Billing Address: MEM No: Major Mines Per No:					

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
EA Certificate No: Permit Type Code: Permit Type: Authorization Type: Primary BCENICID: Secondary BCENICID: WDR Regulation: WDR Description: Region Case Mngr: Facility Operator: Fac Operator Phone: Fac Operator Email: MEM Description: PID PIN Crown File No: SIC: Mailing Address: Facility Type Description: Legal Address: Legal Land Description: Location: *Note:					
**Note: data in the [Facility Address] field for some records is truncated from the source.					
<u>Authorization Details</u>					
Company: Waste Type:					

54	1 of 2	NW/19.9	10.3 / -33.62	7-Eleven Gas Bar - Courtenay 2295 CLIFFE AVENUE No Entry COURTENAY BC	SREG
Site ID: 1940 Victoria File No: 26250-20/1940 Env Rmd ID: Regional File No: 26250-20/1940 Region: Record Status: NOT ASSIGNED Status as of: Jun 2022 Cleanup Status: Category: Unranked Location Desc: LOCATION DERIVED FROM GPS PROJECT ENVIC RVR #P103118A. CONFIRMED 2021-12-21 USING LTSA/PARCELMAP Addr (BC Data Catalogue): Site Note: There are no Associated Sites for this site.					
Registered: 27-Oct-1997 Updated: 25-Mar-2022 Detail Removed: 22-Mar-2022 Common Name: Postal Code: V9N 2L8 Latitude DMS: 49d 40m 42.1s Longitude DMS: 124d 59m 03.8s Latitude: 49.678364 Longitude: 124.984394					

<u>Registry Notations</u>					
Event ID: 103270 Notation Type and Act: SITE RISK CLASSIFIED - SITE IS NON-HIGH RISK. Environmental Management Act: General Initiated Date: 16-Dec-2021 Approved Date: 16-Dec-2021 Region: Nanaimo, Vancouver Island Ministry Contact: YAN, PETER Notation Notes: No Notes Entered **Note: Many records provided by the department have a truncated [Notation Notes] field. Required Actions: No Actions Entered Requirement Due Date: Requirement Received Date:					
Participant:	Parsons Inc.	Role:	SUBMITTED BY		

<u>Registry Notations</u>					
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Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
<hr/>					
Event ID:		7007			
Notation Type and Act:		SITE INVESTIGATION REPORT SUBMITTED. Administrative			
Initiated Date:		21-Dec-1988			
Approved Date:		21-Dec-1988			
Region:		Nanaimo, Vancouver Island			
Ministry Contact:		PATTEN, BARRY			
Notation Notes:		Preliminary Investigation Of Sub-Surface Gasoline Contamination 7-Eleven Gas Bar Courtenay, Bc **Note: Many records provided by the department have a truncated [Notation Notes] field.			
Required Actions:		No Actions Entered			
Requirement Due Date:					
Requirement Received Date:					
Participant:	Southland Corporation Canada, Inc. (Burnaby, B.C.)		Role:	SUBMITTED BY	
 <u>Registry Notations</u>					
Event ID:		7009			
Notation Type and Act:		MONITORING REPORT SUBMITTED. Administrative			
Initiated Date:		22-Feb-1991			
Approved Date:		22-Feb-1991			
Region:		Nanaimo, Vancouver Island			
Ministry Contact:		PATTEN, BARRY			
Notation Notes:		No Notes Entered **Note: Many records provided by the department have a truncated [Notation Notes] field.			
Required Actions:		No Actions Entered			
Requirement Due Date:					
Requirement Received Date:					
Participant:	Southland Corporation Canada, Inc. (Burnaby, B.C.)		Role:	SUBMITTED BY	
 <u>Registry Notations</u>					
Event ID:		7010			
Notation Type and Act:		MONITORING REPORT SUBMITTED. Administrative			
Initiated Date:		27-Jun-1991			
Approved Date:		27-Jun-1991			
Region:		Nanaimo, Vancouver Island			
Ministry Contact:		PATTEN, BARRY			
Notation Notes:		No Notes Entered **Note: Many records provided by the department have a truncated [Notation Notes] field.			
Required Actions:		No Actions Entered			
Requirement Due Date:					
Requirement Received Date:					
Participant:	Southland Corporation Canada, Inc. (Burnaby, B.C.)		Role:	SUBMITTED BY	
 <u>Registry Notations</u>					
Event ID:		22956			
Notation Type and Act:		HISTORICAL SITE NOTIFICATION ISSUED (WMA 26.3(3)). Waste Management Act: Contaminated Sites			
Initiated Date:		18-Aug-1997			
Approved Date:		No Entry			
Region:		Nanaimo, Vancouver Island			
Ministry Contact:		PATTEN, BARRY			
Notation Notes:		Auto-Created By The Mailout Process **Note: Many records provided by the department have a truncated [Notation Notes] field.			
Required Actions:		No Actions Entered			
Requirement Due Date:					
Requirement Received Date:					

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
<u>Registry Notations</u>					
Event ID:		102943			
Notation Type and Act:		SITE DISCLOSURE STATEMENT RECEIVED. Environmental Management Act: General			
Initiated Date:		13-Oct-2021			
Approved Date:		No Entry			
Region:		Nanaimo, Vancouver Island			
Ministry Contact:		WILLIAMS, DANIEL			
Notation Notes:		Notation Generated In Site Disclosure On 2021-10-28 By Dmwillia **Note: Many records provided by the department have a truncated [Notation Notes] field.			
Required Actions:		No Actions Entered			
Requirement Due Date:					
Requirement Received Date:					
Participant:	Parsons Inc.		Role:	SITE PROFILE SUBMITTED BY	
<u>Registry Notations</u>					
Event ID:		103160			
Notation Type and Act:		NOTICE OF INDEPENDENT REMEDIATION INITIATION SUBMITTED. Environmental Management Act: General			
Initiated Date:		17-Sep-2021			
Approved Date:		17-Sep-2021			
Region:		Nanaimo, Vancouver Island			
Ministry Contact:		WILLIAMS, DANIEL			
Notation Notes:		Initiation: 2021-09-17 Estmiated Completion: 2021-10-01 Intended Excavation Of Soil Exceeding Land Use Standards For Fitment Of Larger Ust, Disposed At Upland Landfill.			
Required Actions:		No Actions Entered			
Requirement Due Date:					
Requirement Received Date:					
Participant:	Parsons Inc.		Role:	SUBMITTED BY	
<u>Registry Notations</u>					
Event ID:		50903			
Notation Type and Act:		NOTICE OF INDEPENDENT REMEDIATION INITIATION SUBMITTED. Environmental Management Act: General			
Initiated Date:		07-Jun-2007			
Approved Date:		07-Jun-2007			
Region:		Nanaimo, Vancouver Island			
Ministry Contact:		ROSSER, CRAIG L			
Notation Notes:		No Notes Entered **Note: Many records provided by the department have a truncated [Notation Notes] field.			
Required Actions:		No Actions Entered			
Requirement Due Date:					
Requirement Received Date:					
Participant:	O'Connor Associates Environmental Inc (Langley (94a Avenue))		Role:	SUBMITTED BY	
<u>Registry Notations</u>					
Event ID:		50904			
Notation Type and Act:		NOTICE OF INDEPENDENT REMEDIATION COMPLETION SUBMITTED. Environmental Management Act: General			
Initiated Date:		07-Jun-2007			
Approved Date:		07-Jun-2007			
Region:		Nanaimo, Vancouver Island			
Ministry Contact:		ROSSER, CRAIG L			
Notation Notes:		No Notes Entered **Note: Many records provided by the department have a truncated [Notation Notes] field.			
Required Actions:		No Actions Entered			
Requirement Due Date:					
Requirement Received Date:					

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
Participant:	O'Connor Associates Environmental Inc (Langley (94a Avenue))			Role:	SUBMITTED BY
Registry Notations					
Event ID:	22159				
Notation Type and Act:	CASE MANAGEMENT ITEM. Administrative				
Initiated Date:	25-Sep-1991				
Approved Date:	25-Sep-1991				
Region:	Nanaimo, Vancouver Island				
Ministry Contact:	PATTEN, BARRY				
Notation Notes:	Groundwater Analyses **Note: Many records provided by the department have a truncated [Notation Notes] field.				
Required Actions:	No Actions Entered				
Requirement Due Date:					
Requirement Received Date:					
Participant:	Southland Corporation Canada, Inc. (Burnaby, B.C.)			Role:	SUBMITTED BY
Registry Notations					
Event ID:	102944				
Notation Type and Act:	SITE DISCLOSURE STATEMENT RECEIVED - FURTHER SITE INVESTIGATION REQUIRED. Environmental Management Act: General				
Initiated Date:	13-Oct-2021				
Approved Date:	No Entry				
Region:	Nanaimo, Vancouver Island				
Ministry Contact:	WILLIAMS, DANIEL				
Notation Notes:	Auto Inserted From Site Disclosure **Note: Many records provided by the department have a truncated [Notation Notes] field.				
Required Actions:	No Actions Entered				
Requirement Due Date:					
Requirement Received Date:					
Registry Notations					
Event ID:	7008				
Notation Type and Act:	REMEDIATION PLAN REPORT SUBMITTED. Administrative				
Initiated Date:	21-Dec-1988				
Approved Date:	21-Dec-1988				
Region:	Nanaimo, Vancouver Island				
Ministry Contact:	PATTEN, BARRY				
Notation Notes:	Included With Site Investigation Report **Note: Many records provided by the department have a truncated [Notation Notes] field.				
Required Actions:	No Actions Entered				
Requirement Due Date:					
Requirement Received Date:					
Participant:	Southland Corporation Canada, Inc. (Burnaby, B.C.)			Role:	SUBMITTED BY
Site Participants					
Participant:	7-Eleven Canada Inc.			Start Date:	Oct-13-2021
Participation Type:	ORG			End Date:	
Notes:					
Participants Role:	Property Owner				
Site Participants					

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
Participant: Participation Type: Notes:	Jenkins, Chris EMP			Start Date: End Date:	Nov-30-1988 Apr-18-1997
Participants Role:	Alternate Ministry Contact				
<u>Site Participants</u>					
Participant: Participation Type: Notes:	Provincial Emergency Program ORG			Start Date: End Date:	Nov-30-1988
Participants Role:	Associated Provincial Government Contact				
<u>Site Participants</u>					
Participant: Participation Type: Notes:	Yan, Peter EMP			Start Date: End Date:	Dec-16-2021
Participants Role:	Ministry Contact				
<u>Site Participants</u>					
Participant: Participation Type: Notes:	Patten, Barry EMP			Start Date: End Date:	Nov-30-1988 Mar-31-2003
Participants Role:	Alternate Ministry Contact				
<u>Site Participants</u>					
Participant: Participation Type: Notes:	O'Connor Associates Environmental Inc (Langley (94a Avenue)) ORG			Start Date: End Date:	Nov-29-1988
	CONTACT: J.G. AGAR				
Participants Role:	Environmental Consultant/Contractor				
<u>Site Participants</u>					
Participant: Participation Type: Notes:	Williams, Daniel EMP			Start Date: End Date:	Sep-17-2021
Participants Role:	Ministry Contact				
<u>Site Participants</u>					
Participant: Participation Type: Notes:	Southland Corporation Canada, Inc. (Burnaby, B.C.) ORG			Start Date: End Date:	Aug-01-1989
	7-ELEVEN; CONTACT: C.G. GROFF				
Participants Role:	Operator				
Participants Role:	Notice Recipient(Wmaa20.21(3))-Dont Flag				
Participants Role:	Property Owner				

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
<u>Site Participants</u>					
Participant:	Site Information Advisor			Start Date:	Jun-07-2007
Participation Type:	EMP			End Date:	Jun-14-2021
Notes:					
Participants Role:	Alternate Ministry Contact				
<u>Site Participants</u>					
Participant:	Parsons Inc.			Start Date:	Sep-17-2021
Participation Type:	ORG			End Date:	
Notes:					
Participants Role:	Site Disclosure Form Completer				
Participants Role:	Site Disclosure Form Contact				
<u>Site Participants</u>					
Participant:	Courtenay Fire Department			Start Date:	Nov-30-1988
Participation Type:	ORG			End Date:	
Notes:	CONTACT: L. BURNS				
Participants Role:	Municipal/Regional Contact				
<u>Documents on File</u>					
Document or Report Title:	Investigation Of Subsurface Gasoline Contamination 7-Eleven Gas Bar Courtenay, British Columbia				
Authored Date:	14-Dec-1988				
Submitted Date:	21-Dec-1988				
Document Entry Notes:					
Nothing Noted **Note: Many records provided by the department have a truncated [Document Entry Notes] field.					
Participant and Role:	Patten, Barry - Reviewer				
Participant and Role:	O'Connor Associates Environmental Inc (Langley (94a Avenue)) - Author				
Participant and Role:	Southland Corporation Canada, Inc. (Burnaby, B.C.) - Commissioner				
<u>Documents on File</u>					
Document or Report Title:	Site Monitoring Report				
Authored Date:	24-Jun-1991				
Submitted Date:	27-Jun-1991				
Document Entry Notes:					
Nothing Noted **Note: Many records provided by the department have a truncated [Document Entry Notes] field.					
Participant and Role:	Patten, Barry - Reviewer				
Participant and Role:	O'Connor Associates Environmental Inc (Langley (94a Avenue)) - Author				
Participant and Role:	Southland Corporation Canada, Inc. (Burnaby, B.C.) - Commissioner				
<u>Documents on File</u>					

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
Document or Report Title:		Site Monitoring Report			
Authored Date:		18-Feb-1991			
Submitted Date:		22-Feb-1991			
Document Entry Notes:					
Nothing Noted **Note: Many records provided by the department have a truncated [Document Entry Notes] field.					
Participant and Role:		Patten, Barry - Reviewer			
Participant and Role:		O'Connor Associates Environmental Inc (Langley (94a Avenue)) - Author			
Participant and Role:		Southland Corporation Canada, Inc. (Burnaby, B.C.) - Commissioner			
<u>Suspected Land Use - Notes</u>					
Land Use Description:		Petrol Prod., Dispense Facility, Inc. Serv Sta./Cardlot			
Notes:		No Entry			
<u>Suspected Land Use - Notes</u>					
Land Use Description:		Petrol Prod., /Produce Water Strg Abvegrnd/Undergrnd Tank			
Notes:		No Entry			
<u>Suspected Land Use - Notes</u>					
Land Use Description:		Petro Prod Dispense (Othr Comp Gas) Inc. Serv Sta./Cardlot			
Notes:		Inserted For Site Profile Dated 2021-09-23			
<u>Parcel Descriptions</u>					
Date Added:		12/28/1995	Crown Land PIN#:		
LTO PID(s):		014-493-705	Crown Land File#:		
Land Description:		LOT 2, SECTION 66, COMOX DISTRICT, PLAN 48919 **Note: Many records provided by the department have a truncated [Land Description] field.			
54	2 of 2	NW/19.9	10.3 / -33.62	7-Eleven Canada, Inc. Courtenay 2295 Cliffe Ave BC	GEN
Generator No:		BCG97885	Status Date:		23-Oct-2018
Status:		Active	Registration Dt:		23-Oct-2018
Region:		VANCOUVER ISLAND			
Mailing Addr:					
Waste Generation Site:		Courtenay 2295 Cliffe Ave			
Comments:		Transported By: Terrapure Environmental 1400			
Year:		2019; 2021			
<u>Waste Detail(s)</u>					
TDG Pin No:		UN1993	Generation Code:		Generated One Time Only
TDG Class:		3	Handling Code:		Off Site Management
Reg Status Date:		23-Oct-2018	Gen Business Type:		
Physical State:		Liquid	Certified By Name:		Jose Rios
Amount in Storage:		L	Date Certifier Signed:		23-Oct-2018
Amount Per 30 Days:		5700 L			
Registered Waste:		Flammable Liquid, N.O.S.(Waste Petroleum Product) **Note: Many records provided by the department have a truncated [Registered Waste] field.			

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
55	1 of 1	NW/64.4	13.8 / -30.08	BRIAN MCLEAN CHEVROLET 2145 CLIFFE AVE, COURTENAY, BC BC	GEN2

Waste Manifests - 2013

Manifest No: BJ725768
TDG Code: BC0007
TDG Class: 9.0-MISCELLANEOUS
TDG Group: III-Moderately Dangerous
Packing Code: 03-Bulk
Handling Code: 01-Storage
Waste Receiver: NEWALTA CORPORATION
Receiving Address: 1080 MAUGHAN RD, NANAIMO, BC
Waste Name: (L17 OILY WATER SLUDGE/DEBRIS) CERAMIC BEADS, WASTE OIL FILTER CAKE, ALUMINIUM, SAND

Date Shipped:
Date Received: 12-06-2013
Qty Shipped: 3500 L
Qty Rcvd: 3500 L
Trans Lic No: LT1103
Waste Trans: COAST ENVIRONMENTAL LTD.
Trans Addr: 2673 SOOKE RD, VICTORIA, BC

Manifest No: BJ725768
TDG Code: BC0007
TDG Class: 9.0-MISCELLANEOUS
TDG Group: III-Moderately Dangerous
Packing Code: 03-Bulk
Handling Code: 01-Storage
Waste Receiver: NEWALTA CORPORATION
Receiving Address: 1080 MAUGHAN RD, NANAIMO, BC
Waste Name: (L17 OILY WATER SLUDGE/DEBRIS) CERAMIC BEADS, WASTE OIL FILTER CAKE, ALUMINIUM, SAND

Date Shipped:
Date Received: 12-06-2013
Qty Shipped: 150 L
Qty Rcvd: 150 L
Trans Lic No: LT1103
Waste Trans: COAST ENVIRONMENTAL LTD.
Trans Addr: 2673 SOOKE RD, VICTORIA, BC

Waste Manifests - 2012

Manifest No: BH981033
TDG Code: BC0007
TDG Class: 9.0-MISCELLANEOUS
TDG Group: III-Moderately Dangerous
Packing Code: 03-Bulk
Handling Code: 01-Storage
Waste Receiver: NEWALTA CORPORATION
Receiving Addr: 1080 MAUGHAN RD, NANAIMO, BC
Waste Name: (L17 OILY WATER SLUDGE/DEBRIS) CERAMIC BEADS, WASTE OIL FILTER CAKE, ALUMINIUM, SAND

Date Shipped: 11-29-2012
Date Received: 11-30-2012
Copy 3 Date: 12-05-2012
Qty Shipped: 150 L
Qty Rcvd: 150 L
Trans Lic No: LT1103
Waste Trans: COAST ENVIRONMENTAL LTD.
Trans Addr: 2673 SOOKE RD, VICTORIA, BC

Waste Manifests - 2011

Manifest No: BG827336
TDG Code: BC0007
TDG Class: 9.0-MISCELLANEOUS
TDG Group: III-Moderately Dangerous
Packing Code: 03-Bulk
Handling Code: 01-Storage
Waste Receiver: NEWALTA CORPORATION
Receiving Addr: 1080 MAUGHAN RD, NANAIMO, BC
Waste Name: (L17 OILY WATER SLUDGE/DEBRIS) CERAMIC BEADS, WASTE OIL FILTER CAKE, ALUMINIUM, SAND

Date Shipped: 03-24-2011
Date Received: 03-24-2011
Copy 3 Date: 03-29-2011
Qty Shipped: 3200 L
Qty Rcvd: 3200 L
Trans Lic No: LT1103
Waste Trans: COAST ENVIRONMENTAL LTD.
Trans Addr: PO BOX 755, DUNCAN, BC

Manifest No: BG827336
TDG Code: UN3082
TDG Class: 0-NON TDG REGULATED
TDG Group: N/A-Not Applicable
Packing Code: 03-Bulk
Handling Code: 01-Storage
Waste Receiver: NEWALTA CORPORATION
Receiving Addr: 1080 MAUGHAN RD, NANAIMO, BC
Waste Name: WASTE ENVIRONMENTALLY HAZARDOUS SUBSTANCES, N.O.S.

Date Shipped: 03-24-2011
Date Received: 03-24-2011
Copy 3 Date: 03-29-2011
Qty Shipped: 300 L
Qty Rcvd: 300 L
Trans Lic No: LT1103
Waste Trans: COAST ENVIRONMENTAL LTD.
Trans Addr: PO BOX 755, DUNCAN, BC

56	1 of 1	SE/65.6	8.4 / -35.53	Kensington Union Bay Properties Ltd.	SREG
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Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
				ISLAND HIGHWAY 19A AT HART (WASHER) CREEK UNION BAY BC	
Site ID:	4291			Registered:	12-May-1998
Victoria File No:	26250-20/4291			Updated:	25-Mar-2022
Env Rmd ID:				Detail Removed:	23-Mar-2022
Regional File No:	26250-20/4291			Common Name:	
Region:				Postal Code:	No Entry
Record Status:	NOT ASSIGNED			Latitude DMS:	49d 35m 23.4s
Status as of:	Jun 2022			Longitude DMS:	124d 53m 12.6s
Cleanup Status:				Latitude:	49.589833
Category:	Large Site, Complex Contamination			Longitude:	124.886833
Location Desc:	LOCATION CONFIRMED USING GOOGLE MAPS ON 17 MAY, 2018				
Addr (BC Data Catalogue):					
Site Note:					

Registry Notations

Event ID: 59560
Notation Type and Act: REMEDIATION PLAN REPORT SUBMITTED. Administrative
Initiated Date: 30-Mar-2011
Approved Date: 30-Mar-2011
Region: Nanaimo, Vancouver Island
Ministry Contact: HEWLETT, LUCY
Notation Notes: Site Mitigation Plan **Note: Many records provided by the department have a truncated [Notation Notes] field.
Required Actions: No Actions Entered
Requirement Due Date:
Requirement Received Date:

Participant: Keystone Environmental Ltd. **Role:** SUBMITTED BY

Registry Notations

Event ID: 96679
Notation Type and Act: CASE MANAGEMENT ITEM. Administrative
Initiated Date: 12-Feb-2020
Approved Date: 12-Feb-2020
Region: Nanaimo, Vancouver Island
Ministry Contact: HANEMAYER, VINCENT (SURREY) C
Notation Notes: Pid 030-110-254 And Crown Lease 101888 Owned By The Crown Have Been Issued A New Site Id:23289 **Note: Many records provided by the department have a truncated [Notation Notes] field.
Required Actions: No Actions Entered
Requirement Due Date:
Requirement Received Date:

Registry Notations

Event ID: 23420
Notation Type and Act: SITE PROFILE - FURTHER INVESTIGATION REQUIRED BY THE MINISTRY. Waste Management Act: Contaminated Sites Notations
Initiated Date: 07-Sep-1997
Approved Date: No Entry
Region: Nanaimo, Vancouver Island
Ministry Contact: GUTHER, MIKE J
Notation Notes: Auto Inserted From Site Profile **Note: Many records provided by the department have a truncated [Notation Notes] field.
Required Actions: No Actions Entered
Requirement Due Date:
Requirement Received Date:

Registry Notations

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
<hr/>					
Event ID:		47680			
Notation Type and Act:		DETERMINATION OF CONTAMINATED SITE REQUESTED. Environmental Management Act: General			
Initiated Date:		23-Jun-2005			
Approved Date:		23-Jun-2005			
Region:		Nanaimo, Vancouver Island			
Ministry Contact:		KNOX, GRAHAM G			
Notation Notes:		Determination Requested For Area 'B' Of Site 4291.			
Required Actions:		No Actions Entered			
Requirement Due Date:					
Requirement Received Date:					
Participant:	Knox, Graham G		Role:	RECEIVED BY	
Participant:	Kensington Island Properties Partnership		Role:	REQUESTED BY	
<u>Registry Notations</u>					
Event ID:		48229			
Notation Type and Act:		NOTICE OF INDEPENDENT REMEDIATION INITIATION SUBMITTED. Environmental Management Act: General			
Initiated Date:		06-Sep-2005			
Approved Date:		06-Sep-2005			
Region:		Nanaimo, Vancouver Island			
Ministry Contact:		PATTERSON, ROBERTA A			
Notation Notes:		Pid: 006-641-792, 005-947-472, 004-761-120, 006-719-317, 006-719-139, 006-671-233, 006-639-194 **Note: Many records provided by the department have a truncated [Notation Notes] field.			
Required Actions:		No Actions Entered			
Requirement Due Date:					
Requirement Received Date:					
Participant:	Seacor Environmental Engineering Inc (Vancouver (West 8th Avenue))		Role:	ISSUED BY	
Participant:	Patterson, Roberta A		Role:	RECEIVED BY	
<u>Registry Notations</u>					
Event ID:		48608			
Notation Type and Act:		PRELIMINARY DETERMINATION OF CONTAMINATED SITE ISSUED - SITE NOT CONTAMINATED.			
		Environmental Management Act: General			
Initiated Date:		31-Oct-2005			
Approved Date:		31-Oct-2005			
Region:		Nanaimo, Vancouver Island			
Ministry Contact:		LARSEN, KEVIN (SURREY) L			
Notation Notes:		No Notes Entered **Note: Many records provided by the department have a truncated [Notation Notes] field.			
Required Actions:		No Actions Entered			
Requirement Due Date:					
Requirement Received Date:					
Participant:	Walton, Doug G		Role:	ISSUED BY	
Participant:	Kensington Island Properties Partnership		Role:	RECEIVED BY	
<u>Registry Notations</u>					
Event ID:		50637			
Notation Type and Act:		SITE PROFILE REVIEWED - FURTHER INVESTIGATION REQUIRED BY THE MINISTRY. Environmental Management Act: General			
Initiated Date:		03-Apr-2007			
Approved Date:		No Entry			
Region:		Nanaimo, Vancouver Island			
Ministry Contact:		HANEMAYER, VINCENT (SURREY) C			
Notation Notes:		Detailed Site Investigation Required. Release Of The Zoning Application Granted 3 April, 2007. Release Of Development And Revised Rezoning Released 23 April, 2009 Because In The Opinion Of The Director The Release Of The Subject Application Would Not Pose Significant Risk Or Threat.			

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
Required Actions:		No Actions Entered			
Requirement Due Date:					
Requirement Received Date:					
Participant:	West Fraser Mills Ltd (Vancouver)			Role:	RECEIVED BY
Participant:	Kensington Island Properties Partnership			Role:	RECEIVED BY
Registry Notations					
Event ID:	66482				
Notation Type and Act:	CASE MANAGEMENT ITEM. Administrative				
Initiated Date:	06-Dec-2012				
Approved Date:	06-Dec-2012				
Region:	Nanaimo, Vancouver Island				
Ministry Contact:	HEWLETT, LUCY				
Notation Notes:	Letter Response To Moe Requirements.				
Required Actions:	No Actions Entered				
Requirement Due Date:					
Requirement Received Date:					
Participant:	Azimuth Consulting Group Inc (Vancouver)			Role:	SUBMITTED BY
Registry Notations					
Event ID:	90569				
Notation Type and Act:	SITE PROFILE RECEIVED. Environmental Management Act: General				
Initiated Date:	03-May-2018				
Approved Date:	No Entry				
Region:	Nanaimo, Vancouver Island				
Ministry Contact:	LARSEN, KELLI				
Notation Notes:	Notation Generated In Site Profile On 2018-05-16 By Kellarse **Note: Many records provided by the department have a truncated [Notation Notes] field.				
Required Actions:	No Actions Entered				
Requirement Due Date:					
Requirement Received Date:					
Participant:	Slr Consulting (Canada) Ltd			Role:	SITE PROFILE SUBMITTED BY
Registry Notations					
Event ID:	94305				
Notation Type and Act:	REMEDIATION PLAN SUBMITTED WITHOUT RISK ASSESSMENT REVIEW REQUESTED. Environmental Management Act: General				
Initiated Date:	06-Jun-2019				
Approved Date:	06-Jun-2019				
Region:	Nanaimo, Vancouver Island				
Ministry Contact:	BROOKE, JULIA				
Notation Notes:	Updated Forms, Documents, Application Received June 21, 2019. Includes Supplementary Detailed Site Investigation Of Comprehensive Development Areas 1,2 And 3 East Of Highway 19a, Union Bay Bc; Summary Of Site Condition, Draft Aip And Csa.				
Required Actions:	No Actions Entered				
Requirement Due Date:					
Requirement Received Date:					
Participant:	Slr Consulting (Canada) Ltd			Role:	SUBMITTED BY
Registry Notations					
Event ID:	94777				
Notation Type and Act:	APPROVAL IN PRINCIPLE ISSUED. Environmental Management Act: General				
Initiated Date:	02-Aug-2019				
Approved Date:	02-Aug-2019				

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
Region:		Nanaimo, Vancouver Island			
Ministry Contact:		SKELLY, KERRI L			
Notation Notes:		Pid: 028-731-492 Legal Description: Lot 2, District Lot 28, Nelson District, Plan Epp15507 Pid: 028-731-565 Legal Description: Lot 3, District Lot 154, Nanaimo District, Section 32, Township 1, And District Lot 28, Nelson District, Plan Epp15507 Pid: 028-731-531 **Note: Many records provided by the department have a truncated [Notation Notes] field.			
Required Actions:		1. Remediation, Including Monitoring, Inspections And Maintenance Of Any Works, Must Be Undertaken By The Responsible Person In The Manner And Schedule Specified In The Plan Listed In Schedule D And As Summarized Below Or As Specified In A Modification Of The Plan Approved By The Director. 2. Soil Management: (A) The Maximum Amount Of Soil That Exceeds Industrial Land Use To Be Managed In A Temporary Stockpile On Site Is 5,000 M3. Up To Two Temporary Stockpiles Will Be Managed And Each Must Include A Base Pvc Liner And Pvc Cover For Containment. The Stockpiles Must Be Located Within Lot 1 As Shown In Schedule A; (B) The Soil Temporarily Stored In The Stockpiles Must Be Discharged To The Following Areas: I) Soil Containment Beneath A Vegetated Soil Cap Located Within Lot 1 (Part 1) As Defined In Schedule A? 5,000 M3 Ii) Soil Containment Beneath A Vegetated Soil Cap Located Within Lot 1 (Part 2) As Defined In Schedule A? 10,100 M3 Iii) Noise Mitigation Berm Beneath A Vegetated Soil Cap Located Within Lot 2 As Shown In Schedule A ? 6,000 M3 (C) All Existing And Accessible Groundwater Monitoring Wells Must Be Re-Sampled Where Available To Assess Current Groundwater Quality Within 90 Days Following The Issuance Of This Approval In Principle; (D) A Sentinel Well Network Must Be Installed Downgradient Of The Soil Containment Areas Within 90 Days Following Completion Of The Soil Containment Facilities And Must Comprise Of A Minimum Of 6 New Groundwater Monitoring Wells To Be Sampled Twice Per Year Seasonally While The Approval In Principle Is In Effect; (E) Results Of The Groundwater Sampling Must Be Included With The Summary Of Remedial Activities Provided In Accordance With Condition 11; And (F) The Works Must Be Regularly Inspected And Maintained In Good Working Order. See Document For Further Requirements			
Requirement Due Date:					
Requirement Received Date:					
Participant:	Skelly, Kerri L	Role:	ISSUED BY		
Participant:	Kensington Island Properties Partnership	Role:	RECEIVED BY		
<u>Registry Notations</u>					
Event ID:		96635			
Notation Type and Act:		SITE RISK CLASSIFIED - SITE IS HIGH RISK. Environmental Management Act: General			
Initiated Date:		31-Aug-2019			
Approved Date:		31-Aug-2019			
Region:		Nanaimo, Vancouver Island			
Ministry Contact:		YAN, PETER			
Notation Notes:		This Site Risk Classification Report Is Associated With Soil Remediation Activities That Were Conducted On Comox Valley Regional Development Areas Cda 2 And Cda 3. Soils In Excess Of Upper Cap Thresholds Were Relocated To The Portion Of Cda 1 To The East Of Cda 3.			
Required Actions:		No Actions Entered			
Requirement Due Date:					
Requirement Received Date:					
<u>Registry Notations</u>					
Event ID:		23419			
Notation Type and Act:		SITE PROFILE RECEIVED. Waste Management Act: Contaminated Sites Notations			
Initiated Date:		03-Sep-1997			
Approved Date:		No Entry			
Region:		Nanaimo, Vancouver Island			
Ministry Contact:		GUTHER, MIKE J			
Notation Notes:		Notation Generated In Site Profile On 97-09-08 By Behalsey **Note: Many records provided by the department have a truncated [Notation Notes] field.			
Required Actions:		No Actions Entered			

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
Requirement Due Date:					
Requirement Received Date:					
<u>Registry Notations</u>					
Event ID:	93862				
Notation Type and Act:	NOTICE OF INDEPENDENT REMEDIATION INITIATION SUBMITTED. Environmental Management Act: General				
Initiated Date:	08-May-2019				
Approved Date:	08-May-2019				
Region:	Nanaimo, Vancouver Island				
Ministry Contact:	FREDERICK, PABLO				
Notation Notes:	Start: 2019-01-16 Commercial, Residential, Urban Park **Note: Many records provided by the department have a truncated [Notation Notes] field.				
Required Actions:	No Actions Entered				
Requirement Due Date:					
Requirement Received Date:					
Participant:	Slr Consulting (Canada) Ltd			Role:	SUBMITTED BY
<u>Registry Notations</u>					
Event ID:	93907				
Notation Type and Act:	SITE RISK CLASSIFICATION PENDING. Environmental Management Act: General				
Initiated Date:	07-May-2019				
Approved Date:	07-May-2019				
Region:	Nanaimo, Vancouver Island				
Ministry Contact:	YAN, PETER				
Notation Notes:	Surficial Soil Exceeding Upper Cap Concentrations For Metal Excavated From Cda 2&3 Stockpiled On Cda1. Further Remedial Options May Include Onsite Containment Or Offsite Disposal Within 90 Days. Submit Updated Srccr By August 31, 2019.				
Required Actions:					
Requirement Due Date:					
Requirement Received Date:					
Participant:	Yan, Peter			Role:	REQUESTED BY
Participant:	Slr Consulting (Canada) Ltd			Role:	SUBMITTED BY
<u>Registry Notations</u>					
Event ID:	22598				
Notation Type and Act:	SITE INVESTIGATION REPORT ACCEPTED. Administrative				
Initiated Date:	14-Aug-1996				
Approved Date:	14-Aug-1996				
Region:	Nanaimo, Vancouver Island				
Ministry Contact:	GUTHER, MIKE J				
Notation Notes:	Receipt Of Three Area Reports By Norecol Dames And Moore **Note: Many records provided by the department have a truncated [Notation Notes] field.				
Required Actions:	No Actions Entered				
Requirement Due Date:					
Requirement Received Date:					
<u>Registry Notations</u>					
Event ID:	47526				
Notation Type and Act:	APPROVAL IN PRINCIPLE REQUESTED. Environmental Management Act: General				
Initiated Date:	02-Jun-2005				
Approved Date:	02-Jun-2005				
Region:	Nanaimo, Vancouver Island				
Ministry Contact:	BROOKE, JULIA A				
Notation Notes:	No Notes Entered **Note: Many records provided by the department have a truncated [Notation Notes] field.				
Required Actions:	No Actions Entered				
Requirement Due Date:					

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
Requirement Received Date:					
Participant:	Kensington Island Properties Partnership			Role:	REQUESTED BY
Participant:	West Fraser Mills Ltd (Vancouver)			Role:	REQUESTED BY
<u>Registry Notations</u>					
Event ID:	49536				
Notation Type and Act:	NOTICE OF INDEPENDENT REMEDIATION INITIATION SUBMITTED. Environmental Management Act: General				
Initiated Date:	10-Aug-2006				
Approved Date:	10-Aug-2006				
Region:	Nanaimo, Vancouver Island				
Ministry Contact:	ROSSER, CRAIG L				
Notation Notes:	Covers Pids: 006-671-233, 006-639-194 And Pin: 101888 **Note: Many records provided by the department have a truncated [Notation Notes] field.				
Required Actions:	No Actions Entered				
Requirement Due Date:					
Requirement Received Date:					
Participant:	Rosser, Craig L			Role:	RECEIVED BY
Participant:	Seacor Environmental Engineering Inc (Nanaimo)			Role:	ISSUED BY
<u>Registry Notations</u>					
Event ID:	90570				
Notation Type and Act:	SITE PROFILE REVIEWED - FURTHER INVESTIGATION REQUIRED BY THE MINISTRY. Environmental Management Act: General				
Initiated Date:	16-May-2018				
Approved Date:	No Entry				
Region:	Nanaimo, Vancouver Island				
Ministry Contact:	LARSEN, KELLI				
Notation Notes:	At The Time Of The Site Profile Submission, It Was Determined That The 2006 Approval In Principle Was Not Valid For The Proposed Development.				
Required Actions:	Detailed Site Investigation				
Requirement Due Date:					
Requirement Received Date:					
<u>Registry Notations</u>					
Event ID:	96634				
Notation Type and Act:	NOTICE OF INDEPENDENT REMEDIATION COMPLETION SUBMITTED. Environmental Management Act: General				
Initiated Date:	04-Feb-2020				
Approved Date:	04-Feb-2020				
Region:	Nanaimo, Vancouver Island				
Ministry Contact:	FREDERICK, PABLO				
Notation Notes:	Completed: 2020-01-31 Industrial: Coal Shipping Wharf, Coal Washer And Coke Ovens **Note: Many records provided by the department have a truncated [Notation Notes] field.				
Required Actions:	No Actions Entered				
Requirement Due Date:					
Requirement Received Date:					
Participant:	Keystone Environmental Ltd			Role:	SUBMITTED BY
<u>Registry Notations</u>					
Event ID:	22595				
Notation Type and Act:	SITE INVESTIGATION REPORT SUBMITTED. Administrative				
Initiated Date:	14-Aug-1996				

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
Approved Date: 14-Aug-1996 Region: Nanaimo, Vancouver Island Ministry Contact: GUTHER, MIKE J Notation Notes: Phase II Environmental Site Assessment, Area 2 Report, Union Bay, British Columbia, Weldwood Of Canada Limited **Note: Many records provided by the department have a truncated [Notation Notes] field. Required Actions: No Actions Entered Requirement Due Date: Requirement Received Date:					
Participant:	Guthier, Mike J			Role:	REVIEWED BY
Participant:	Weldwood Of Canada Limited (Vancouver)			Role:	REQUESTED BY
Participant:	Norecol, Dames & Moore Inc (Vancouver)			Role:	SUBMITTED BY
<u>Registry Notations</u>					
Event ID: 22591 Notation Type and Act: SITE INVESTIGATION REPORT SUBMITTED. Administrative Initiated Date: 14-Aug-1996 Approved Date: 14-Aug-1996 Region: Nanaimo, Vancouver Island Ministry Contact: GUTHER, MIKE J Notation Notes: Phase II Environmental Site Assessment, Area 3 Report, Union Bay, British Columbia, Weldwood Of Canada Limited **Note: Many records provided by the department have a truncated [Notation Notes] field. Required Actions: No Actions Entered Requirement Due Date: Requirement Received Date:					
Participant:	Weldwood Of Canada Limited (Vancouver)			Role:	REQUESTED BY
Participant:	Norecol, Dames & Moore Inc (Vancouver)			Role:	SUBMITTED BY
Participant:	Guthier, Mike J			Role:	REVIEWED BY
<u>Registry Notations</u>					
Event ID: 50510 Notation Type and Act: SITE PROFILE RECEIVED. Environmental Management Act: General Initiated Date: 26-Mar-2007 Approved Date: No Entry Region: Nanaimo, Vancouver Island Ministry Contact: HANEMAYER, VINCENT (SURREY) C Notation Notes: Notation Generated In Site Profile On 2007-03-30 By Kellarse **Note: Many records provided by the department have a truncated [Notation Notes] field. Required Actions: No Actions Entered Requirement Due Date: Requirement Received Date:					
Participant:	Seacor Environmental Engineering Inc (Nanaimo)			Role:	SITE PROFILE SUBMITTED BY
<u>Registry Notations</u>					
Event ID: 90967 Notation Type and Act: CASE MANAGEMENT ITEM. Administrative Initiated Date: 26-Jun-2018 Approved Date: 26-Jun-2018 Region: Nanaimo, Vancouver Island Ministry Contact: LARSEN, KELLI Notation Notes: Release Letter Issued June 26, 2018 For Subdivision (Scenario 2). Future Permits Required To Redevelop The Site. Required Actions: No Actions Entered					

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
Requirement Due Date:					
Requirement Received Date:					
<u>Registry Notations</u>					
Event ID:	66577				
Notation Type and Act:	CASE MANAGEMENT ITEM. Administrative				
Initiated Date:	07-Dec-2012				
Approved Date:	07-Dec-2012				
Region:	Nanaimo, Vancouver Island				
Ministry Contact:	HEWLETT, LUCY				
Notation Notes:	Letter Re: Quarter 4; 2012 Progress Report Union Bay Waste Coal Pile, Union Bay, Bc **Note: Many records provided by the department have a truncated [Notation Notes] field.				
Required Actions:	No Actions Entered				
Requirement Due Date:					
Requirement Received Date:					
Participant:	West Fraser Mills Ltd (Vancouver)			Role:	SUBMITTED BY
<u>Registry Notations</u>					
Event ID:	96633				
Notation Type and Act:	NOTICE OF INDEPENDENT REMEDIATION INITIATION SUBMITTED. Environmental Management Act: General				
Initiated Date:	04-Feb-2020				
Approved Date:	04-Feb-2020				
Region:	Nanaimo, Vancouver Island				
Ministry Contact:	FREDERICK, PABLO				
Notation Notes:	Start: 2019-12-01 Industrial: Coal Shipping Wharf, Coal Washer And Coke Ovens **Note: Many records provided by the department have a truncated [Notation Notes] field.				
Required Actions:	No Actions Entered				
Requirement Due Date:					
Requirement Received Date:					
Participant:	Keystone Environmental Ltd			Role:	SUBMITTED BY
<u>Registry Notations</u>					
Event ID:	22597				
Notation Type and Act:	PRELIMINARY SITE INVESTIGATION REPORT: INTERNAL REVIEW REQUESTED. Waste Management Act: Contaminated Sites Notations				
Initiated Date:	28-Sep-1997				
Approved Date:	28-Sep-1997				
Region:	Nanaimo, Vancouver Island				
Ministry Contact:	GUTHER, MIKE J				
Notation Notes:	Was Received 96-08-14, But Applied For Review (Of Preliminary Site Investigation) 97-09-28. Phase Ii Environmental Site Assessments, Area 1, 2 And 3, Union Bay, Bc, Weldwood Of Canada Limited. This Document Contains All Three Separate Reports Combined Into One.				
Required Actions:	No Actions Entered				
Requirement Due Date:					
Requirement Received Date:					
Participant:	Weldwood Of Canada Limited (Vancouver)			Role:	REQUESTED BY
Participant:	Norecol, Dames & Moore Inc (Vancouver)			Role:	SUBMITTED BY
Participant:	Guthier, Mike J			Role:	REVIEWED BY
<u>Registry Notations</u>					
Event ID:	22596				
Notation Type and Act:	SITE INVESTIGATION REPORT SUBMITTED. Administrative				
Initiated Date:	14-Aug-1996				

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
Approved Date: 14-Aug-1996 Region: Nanaimo, Vancouver Island Ministry Contact: GUTHER, MIKE J Notation Notes: Phase II Environmental Site Assessment, Area 1 Report, Union Bay, British Columbia, Weldwood Of Canada Limited **Note: Many records provided by the department have a truncated [Notation Notes] field. Required Actions: No Actions Entered Requirement Due Date: Requirement Received Date:					
Participant:	Guther, Mike J			Role:	REVIEWED BY
Participant:	Norecol, Dames & Moore Inc (Vancouver)			Role:	SUBMITTED BY
Participant:	Weldwood Of Canada Limited (Vancouver)			Role:	REQUESTED BY
<u>Registry Notations</u>					
Event ID: 31482 Notation Type and Act: PRELIMINARY SITE INVESTIGATION REPORT: INTERNAL REVIEW REQUESTED. Waste Management Act: Contaminated Sites Notations Initiated Date: 22-May-1998 Approved Date: 22-May-1998 Region: Nanaimo, Vancouver Island Ministry Contact: GUTHER, MIKE J Notation Notes: This Report Has Been Revised Due To Deficiencies Noted. A Further Revision To This Report Was Proposed To Address Deficiencies. Letters Sent In 04/2000 To Strong Western And Transportation & Highways Indicating That Bc Environment Has Not Received A Revised Report To Date. Bc Environment Has Concluded The Review. The Reports Do Not Comply With Sections 58 And 59 Of The Contaminated Sites Reg. Accordingly, The Manager Is Unable To Determine The Status Of The Site. Required Actions: No Actions Entered Requirement Due Date: Requirement Received Date:					
Participant:	Norecol, Dames & Moore (Vancouver)			Role:	SUBMITTED BY
Participant:	Guther, Mike J			Role:	RECEIVED BY
<u>Registry Notations</u>					
Event ID: 57706 Notation Type and Act: MONITORING REPORT SUBMITTED. Administrative Initiated Date: 10-Sep-2010 Approved Date: 10-Sep-2010 Region: Nanaimo, Vancouver Island Ministry Contact: HEWLETT, LUCY Notation Notes: No Notes Entered **Note: Many records provided by the department have a truncated [Notation Notes] field. Required Actions: No Actions Entered Requirement Due Date: Requirement Received Date:					
Participant:	Crown Land Restoration Branch			Role:	SUBMITTED BY
<u>Registry Notations</u>					
Event ID: 48665 Notation Type and Act: FINAL DETERMINATION OF CONTAMINATED SITE ISSUED - SITE NOT CONTAMINATED. Environmental Management Act: General Initiated Date: 23-Jul-2005 Approved Date: 28-Nov-2005 Region: Nanaimo, Vancouver Island Ministry Contact: WALTON, DOUG G Notation Notes: No Notes Entered **Note: Many records provided by the department have a truncated [Notation Notes] field. Required Actions: No Actions Entered Requirement Due Date:					

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
Requirement Received Date:					
Participant:	Kensington Island Properties Partnership			Role:	RECEIVED BY
Participant:	Walton, Doug G			Role:	ISSUED BY
Registry Notations					
Event ID:	49708				
Notation Type and Act:	APPROVAL IN PRINCIPLE ISSUED. Environmental Management Act: General				
Initiated Date:	22-Sep-2006				
Approved Date:	22-Sep-2006				
Region:	Nanaimo, Vancouver Island				
Ministry Contact:	ODENSE, REMI				
Notation Notes:	No Notes Entered **Note: Many records provided by the department have a truncated [Notation Notes] field.				
Required Actions:	No Actions Entered				
Requirement Due Date:					
Requirement Received Date:					
Participant:	Kensington Island Properties Partnership			Role:	RECEIVED BY
Participant:	Walton, Doug G			Role:	ISSUED BY
Registry Notations					
Event ID:	66576				
Notation Type and Act:	MONITORING REPORT SUBMITTED. Administrative				
Initiated Date:	07-Dec-2012				
Approved Date:	07-Dec-2012				
Region:	Nanaimo, Vancouver Island				
Ministry Contact:	HEWLETT, LUCY				
Notation Notes:	No Notes Entered **Note: Many records provided by the department have a truncated [Notation Notes] field.				
Required Actions:	No Actions Entered				
Requirement Due Date:					
Requirement Received Date:					
Participant:	Keystone Environmental			Role:	SUBMITTED BY
Site Participants					
Participant:	Brown, David F			Start Date:	Aug-14-1996
Participation Type:	EMP			End Date:	Mar-31-2004
Notes:					
Participants Role:	Alternate Ministry Contact				
Site Participants					
Participant:	528428 Bc Limited			Start Date:	Mar-10-1997
Participation Type:	ORG			End Date:	
Notes:					
Participants Role:	Notice Recipient(Wmaa20.21(3))-Dont Flag				
Participants Role:	Property Owner				
Site Participants					
Participant:	Frederick, Pablo			Start Date:	May-08-2019
Participation Type:	EMP			End Date:	Jun-14-2021
Notes:					

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
Participants Role:		Ministry Contact			
<u>Site Participants</u>					
Participant:	Weldwood Of Canada Limited (Vancouver)		Start Date:	Jul-11-1995	
Participation Type:	ORG		End Date:	Mar-09-1997	
Notes:					
Participants Role:		Former Property Owner			
Participants Role:		Notice Recipient(Wmaa20.21(3))-Dont Flag			
<u>Site Participants</u>					
Participant:	Zenon Laboratories (Burnaby)		Start Date:	Jul-21-1995	
Participation Type:	ORG		End Date:		
Notes:					
Participants Role:		Analytical Lab			
<u>Site Participants</u>					
Participant:	Brooke, Julia A		Start Date:	Jun-02-2005	
Participation Type:	EMP		End Date:		
Notes:					
Participants Role:		Alternate Ministry Contact			
<u>Site Participants</u>					
Participant:	Patterson, Roberta A		Start Date:	Sep-06-2005	
Participation Type:	EMP		End Date:	Dec-05-2006	
Notes:					
Participants Role:		Alternate Ministry Contact			
<u>Site Participants</u>					
Participant:	Seacor Environmental Engineering Inc (Nanaimo)		Start Date:	Aug-10-2006	
Participation Type:	ORG		End Date:		
Notes:					
Participants Role:		Site Profile Completor			
Participants Role:		Environmental Consultant/Contractor			
Participants Role:		Site Profile Contact			
<u>Site Participants</u>					
Participant:	Land And Water Bc Inc		Start Date:	Mar-26-2007	
Participation Type:	ORG		End Date:		
Notes:					
Participants Role:		Property Owner			
<u>Site Participants</u>					
Participant:	Kensington Island Properties Partnership		Start Date:	Mar-10-1997	

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
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Participation Type:	ORG			End Date:	
Notes:					
Participants Role:		Notice Recipient(Wmaa20.21(3))-Dont Flag			
Participants Role:		Property Owner			
<u>Site Participants</u>					
Participant:	Hanemayer, Vincent (Surrey) C			Start Date:	Mar-26-2007
Participation Type:	EMP			End Date:	
Notes:					
Participants Role:		Ministry Contact			
<u>Site Participants</u>					
Participant:	Keystone Environmental Ltd.			Start Date:	Oct-01-2010
Participation Type:	ORG			End Date:	
Notes:					
Participants Role:		Environmental Consultant/Contractor			
<u>Site Participants</u>					
Participant:	Slr Consulting (Canada) Ltd			Start Date:	Feb-23-2018
Participation Type:	ORG			End Date:	
Notes:					
Participants Role:		Site Profile Contact			
Participants Role:		Site Profile Completor			
<u>Site Participants</u>					
Participant:	Yan, Peter			Start Date:	May-07-2019
Participation Type:	EMP			End Date:	
Notes:					
Participants Role:		Ministry Contact			
<u>Site Participants</u>					
Participant:	Skelly, Kerri L			Start Date:	Aug-02-2019
Participation Type:	EMP			End Date:	
Notes:					
Participants Role:		Alternate Ministry Contact			
<u>Site Participants</u>					
Participant:	Norecol, Dames & Moore Inc (Vancouver)			Start Date:	Jul-11-1995
Participation Type:	ORG			End Date:	
Notes:					
Participants Role:		Environmental Consultant/Contractor			
<u>Site Participants</u>					
Participant:	Seacor Environmental Engineering Inc			Start Date:	Sep-06-2005

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
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Participation Type: Notes:	(Vancouver (West 6th Avenue)) ORG			End Date:	
Participants Role:	Environmental Consultant/Contractor				
<u>Site Participants</u>					
Participant: Participation Type: Notes:	Hewlett, Lucy EMP			Start Date: End Date:	Sep-10-2010
Participants Role:	Alternate Ministry Contact				
<u>Site Participants</u>					
Participant: Participation Type: Notes:	Caslys Consulting Ltd ORG			Start Date: End Date:	Mar-01-2015
Participants Role:	Environmental Consultant/Contractor				
<u>Site Participants</u>					
Participant: Participation Type: Notes:	Keystone Environmental Ltd ORG			Start Date: End Date:	Feb-04-2020
Participants Role:	Environmental Consultant/Contractor				
<u>Site Participants</u>					
Participant: Participation Type: Notes:	Strong Western (Vancouver) ORG			Start Date: End Date:	Jul-14-1997
	ADVISORS				
Participants Role:	Developer/Associated Company				
Participants Role:	Site Profile Completor				
Participants Role:	Site Profile Contact				
<u>Site Participants</u>					
Participant: Participation Type: Notes:	Regional District Of Comox-Strathcona (Courtenay) ORG			Start Date: End Date:	Jan-01-1996
Participants Role:	Landfill Operator/Owner				
Participants Role:	Municipal/Regional Contact				
<u>Site Participants</u>					
Participant: Participation Type: Notes:	Knox, Graham G EMP			Start Date: End Date:	Jun-23-2005 Jan-29-2006
Participants Role:	Alternate Ministry Contact				

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
<u>Site Participants</u>					
Participant:	Azimuth Consulting Group Inc (Vancouver)			Start Date:	Aug-01-2009
Participation Type:	ORG			End Date:	
Notes:					
Participants Role:	Environmental Consultant/Contractor				
<u>Site Participants</u>					
Participant:	West Fraser Mills Ltd (Vancouver)			Start Date:	Jun-02-2005
Participation Type:	ORG			End Date:	
Notes:					
Participants Role:	Property Owner				
<u>Site Participants</u>					
Participant:	Seacor Environmental Engineering Inc (Vancouver (West 8th Avenue))			Start Date:	Jun-20-2005
Participation Type:	ORG			End Date:	
Notes:					
Participants Role:	Environmental Consultant/Contractor				
<u>Site Participants</u>					
Participant:	Walton, Doug G			Start Date:	Jul-23-2005
Participation Type:	EMP			End Date:	Jun-14-2021
Notes:					
Participants Role:	Alternate Ministry Contact				
<u>Site Participants</u>					
Participant:	Odense, Remi			Start Date:	Sep-22-2006
Participation Type:	EMP			End Date:	Jun-14-2021
Notes:					
Participants Role:	Alternate Ministry Contact				
<u>Site Participants</u>					
Participant:	Crown Land Restoration Branch			Start Date:	Aug-01-2009
Participation Type:	ORG			End Date:	
Notes:					
Participants Role:	Property Owner				
<u>Site Participants</u>					
Participant:	Keystone Environmental			Start Date:	Dec-07-2012
Participation Type:	ORG			End Date:	
Notes:					
Participants Role:	Environmental Consultant/Contractor				
<u>Site Participants</u>					

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
Participant: Participation Type: Notes:	Larsen, Kelli EMP			Start Date: End Date:	May-03-2018
Participants Role:	Ministry Contact				
<u>Site Participants</u>					
Participant: Participation Type: Notes:	Brooke, Julia EMP			Start Date: End Date:	Jun-06-2019
Participants Role:	Ministry Contact				
<u>Site Participants</u>					
Participant: Participation Type: Notes:	Norecol, Dames & Moore (Vancouver) ORG			Start Date: End Date:	May-14-1998
Participants Role:	Environmental Consultant/Contractor				
<u>Site Participants</u>					
Participant: Participation Type: Notes:	34083 Yukon Inc. ORG			Start Date: End Date:	May-03-2018
Participants Role:	Property Owner				
<u>Site Participants</u>					
Participant: Participation Type: Notes:	Guthrie, Mike J EMP			Start Date: End Date:	Dec-06-1995 Mar-29-2002
Participants Role:	Alternate Ministry Contact				
<u>Site Participants</u>					
Participant: Participation Type: Notes:	Larsen, Kevin (Surrey) L EMP			Start Date: End Date:	Jul-23-2005 Sep-01-2006
Participants Role:	Alternate Ministry Contact				
<u>Site Participants</u>					
Participant: Participation Type: Notes:	Seacor Environmental Engineering Inc (Nanaimo (Skinner Street)) ORG			Start Date: End Date:	May-31-2005
Participants Role:	Environmental Consultant/Contractor				
<u>Site Participants</u>					
Participant: Participation Type: Notes:	Site Information Advisor EMP			Start Date: End Date:	Aug-10-2006 Jun-14-2021

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
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Participants Role:		Alternate Ministry Contact			
<u>Site Participants</u>					
Participant:		Keystone Environmental Ltd (Richmond)		Start Date:	Sep-24-2012
Participation Type:		ORG		End Date:	
Notes:					
Participants Role:		Environmental Consultant/Contractor			
<u>Documents on File</u>					
Document or Report Title:		One-Dimensional Geochemical Model Union Bay Waste Coas Pile Union Bay, Bc Project No. 9842 (1.0)			
Authored Date:		01-Jun-2011			
Submitted Date:		01-Jun-2011			
Document Entry Notes:					
Nothing Noted **Note: Many records provided by the department have a truncated [Document Entry Notes] field.					
Participant and Role:		Keystone Environmental Ltd. - Author			
<u>Documents on File</u>					
Document or Report Title:		Remediation Plan Update - Union Bay Estates Comprehensive Development Areas 1,2 And 3 East Of Highway 19a, Union Bay, Bc			
Authored Date:		24-May-2019			
Submitted Date:		27-May-2019			
Document Entry Notes:					
Nothing Noted **Note: Many records provided by the department have a truncated [Document Entry Notes] field.					
Participant and Role:		Brooke, Julia A - Reviewer			
Participant and Role:		Slr Consulting (Canada) Ltd - Author			
<u>Documents on File</u>					
Document or Report Title:		Letter Re: Modification Of Remdiation Plan Site 4291, Application Id 10178 - Union Bay Estates, 5400 Island Highway South, Union Bay.			
Authored Date:		21-Aug-2020			
Submitted Date:		21-Aug-2020			
Document Entry Notes:					
Nothing Noted **Note: Many records provided by the department have a truncated [Document Entry Notes] field.					
Participant and Role:		Mccammon, Alan (Surrey) W - Author			
Participant and Role:		Kensington Island Properties Partnership - Recipient			
<u>Documents on File</u>					
Document or Report Title:		Union Bay Approval In Principle Area - Summary Of Remedial Activities - August 2020 To October 2021 Site Id 4291			
Authored Date:		29-Oct-2021			
Submitted Date:		29-Oct-2021			

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
Document Entry Notes:					
Nothing Noted **Note: Many records provided by the department have a truncated [Document Entry Notes] field.					
Participant and Role:		Slr Consulting (Canada) Ltd - Author			
<u>Documents on File</u>					
Document or Report Title:		Final Report Re-Evaluation Of Data, Site Investigation, Areas 1, 2, And 3 Union Bay, British Columbia, Job N0 38933-001-310			
Authored Date:		14-May-1998			
Submitted Date:		20-May-1998			
Document Entry Notes:					
Nothing Noted **Note: Many records provided by the department have a truncated [Document Entry Notes] field.					
Participant and Role:		Norecol, Dames & Moore (Vancouver) - Author			
<u>Documents on File</u>					
Document or Report Title:		Phase Ii Environmental Site Assessment, Area 1 Report, Union Bay, British Columbia, Weldwood Of Canada Limited			
Authored Date:		06-Dec-1995			
Submitted Date:		14-Aug-1996			
Document Entry Notes:					
Nothing Noted **Note: Many records provided by the department have a truncated [Document Entry Notes] field.					
Participant and Role:		Guther, Mike J - Reviewer			
Participant and Role:		Norecol, Dames & Moore Inc (Vancouver) - Author			
Participant and Role:		Weldwood Of Canada Limited (Vancouver) - Commissioner			
<u>Documents on File</u>					
Document or Report Title:		Phase Ii Environmental Site Assessment, Area 1, 2 And 3, Union Bay, British Columbia, Weldwood Of Canada Limited			
Authored Date:		06-Dec-1995			
Submitted Date:		14-Aug-1996			
Document Entry Notes:					
Document Contains All Of Three Separate Reports Bound Under One Cover **Note: Many records provided by the department have a truncated [Document Entry Notes] field.					
Participant and Role:		Norecol, Dames & Moore Inc (Vancouver) - Author			
Participant and Role:		Guther, Mike J - Reviewer			
Participant and Role:		Weldwood Of Canada Limited (Vancouver) - Commissioner			
<u>Documents on File</u>					
Document or Report Title:		Letter Of Addendum #2,			
Authored Date:		29-Jun-2005			

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
Submitted Date:		29-Jun-2005			
Document Entry Notes:					
Nothing Noted **Note: Many records provided by the department have a truncated [Document Entry Notes] field.					
Participant and Role:		Seacor Environmental Engineering Inc (Nanaimo (Skinner Street)) - Author			
Documents on File					
Document or Report Title:		Remedial Options Evaluation, Union Bay Waste Coal Pile, Union Bay, Bc, Bc Moe Site Id: 4291			
Authored Date:		31-Aug-2006			
Submitted Date:		31-Aug-2006			
Document Entry Notes:					
Nothing Noted **Note: Many records provided by the department have a truncated [Document Entry Notes] field.					
Participant and Role:		Seacor Environmental Engineering Inc (Nanaimo (Skinner Street)) - Author			
Documents on File					
Document or Report Title:		Off-Site Coal Recovery Evaluation Union Bay Waste Coal Pile, Union Bay, Bc Site Id 4291, Our File No. 9842			
Authored Date:		24-Sep-2012			
Submitted Date:		18-Oct-2012			
Document Entry Notes:					
Nothing Noted **Note: Many records provided by the department have a truncated [Document Entry Notes] field.					
Participant and Role:		Keystone Environmental Ltd (Richmond) - Author			
Documents on File					
Document or Report Title:		Union Bay Comprehensive Development Area - Remediation Plan Update Site Id 4291			
Authored Date:		24-Jul-2020			
Submitted Date:		24-Jul-2020			
Document Entry Notes:					
Nothing Noted **Note: Many records provided by the department have a truncated [Document Entry Notes] field.					
Participant and Role:		Slr Consulting (Canada) Ltd - Author			
Documents on File					
Document or Report Title:		Letter Re: Site 4291 Union Bay Aip Extension Request			
Authored Date:		18-Jun-2021			
Submitted Date:		18-Jun-2021			
Document Entry Notes:					
Nothing Noted **Note: Many records provided by the department have a truncated [Document Entry Notes] field.					
Participant and Role:		Slr Consulting (Canada) Ltd - Author			
Documents on File					

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
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Document or Report Title:		Union Bay-Iron Staining Classification (2009-2014) Summary Report			
Authored Date:		01-Mar-2015			
Submitted Date:		21-May-2015			
Document Entry Notes:					
Nothing Noted **Note: Many records provided by the department have a truncated [Document Entry Notes] field.					
Participant and Role:		Caslys Consulting Ltd - Author			
<u>Documents on File</u>					
Document or Report Title:		Phase II Environmental Site Assessment, Area 2 Report, Union Bay, British Columbia, Weldwood Of Canada Limited			
Authored Date:		06-Dec-1995			
Submitted Date:		14-Aug-1996			
Document Entry Notes:					
Nothing Noted **Note: Many records provided by the department have a truncated [Document Entry Notes] field.					
Participant and Role:		Norecol, Dames & Moore Inc (Vancouver) - Author			
Participant and Role:		Weldwood Of Canada Limited (Vancouver) - Commissioner			
Participant and Role:		Guther, Mike J - Reviewer			
<u>Documents on File</u>					
Document or Report Title:		Phase II Environmental Site Assessment, Area 3 Report, Union Bay, British Columbia, Weldwood Of Canada Limited			
Authored Date:		06-Dec-1995			
Submitted Date:		14-Aug-1996			
Document Entry Notes:					
Nothing Noted **Note: Many records provided by the department have a truncated [Document Entry Notes] field.					
Participant and Role:		Guther, Mike J - Reviewer			
Participant and Role:		Weldwood Of Canada Limited (Vancouver) - Commissioner			
Participant and Role:		Norecol, Dames & Moore Inc (Vancouver) - Author			
<u>Documents on File</u>					
Document or Report Title:		Remediation Plan - Kensington Properties Union Bay, Bc, Moe Site Id 4291			
Authored Date:		27-Oct-2006			
Submitted Date:		30-Oct-2006			
Document Entry Notes:					
Nothing Noted **Note: Many records provided by the department have a truncated [Document Entry Notes] field.					
Participant and Role:		Seacor Environmental Engineering Inc (Nanaimo) - Author			
<u>Documents on File</u>					

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
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Document or Report Title:		Remedial Options Feasibility Report, Union Bay Waste Coal Pile, Union Bay, Bc			
Authored Date:		01-Apr-2012			
Submitted Date:		04-May-2012			
Document Entry Notes:					
Nothing Noted **Note: Many records provided by the department have a truncated [Document Entry Notes] field.					
Participant and Role:		Keystone Environmental Ltd. - Author			
<u>Documents on File</u>					
Document or Report Title:		Response To Ministry Of Environment Comments (October 26, 2012) Union Bay Waste Coal Pile, Union Bay, Bc Site Id 4291 Our File No. 9842			
Authored Date:		21-Jan-2013			
Submitted Date:		21-Jan-2013			
Document Entry Notes:					
Nothing Noted **Note: Many records provided by the department have a truncated [Document Entry Notes] field.					
Participant and Role:		Keystone Environmental Ltd. - Author			
<u>Documents on File</u>					
Document or Report Title:		Status Update And Amendments - Approval In Principle, Site 4291, 34083 Yukon Inc., Union Bay			
Authored Date:		23-Feb-2018			
Submitted Date:		12-Apr-2019			
Document Entry Notes:					
Nothing Noted **Note: Many records provided by the department have a truncated [Document Entry Notes] field.					
Participant and Role:		Slr Consulting (Canada) Ltd - Author			
<u>Documents on File</u>					
Document or Report Title:		Summary Of Site Condition			
Authored Date:		18-Jun-2019			
Submitted Date:		21-Jun-2019			
Document Entry Notes:					
Nothing Noted **Note: Many records provided by the department have a truncated [Document Entry Notes] field.					
Participant and Role:		Slr Consulting (Canada) Ltd - Author			
<u>Documents on File</u>					
Document or Report Title:		Stage 1 Preliminary Site Investigation For The Kensington Property - Area 3 Union Bay			
Authored Date:		20-Jun-2005			
Submitted Date:		23-Jun-2005			
Document Entry Notes:					
Nothing Noted **Note: Many records provided by the department have a truncated [Document Entry Notes] field.					
Participant and Role:		Seacor Environmental Engineering Inc (Vancouver (West 8th Avenue)) - Author			

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
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<u>Documents on File</u>					
Document or Report Title:		Stage 1 Preliminary Site Investigation, Detailed Site Investigation, Problem Formulation And Remediation Plan, Union Bay Waste Coal Pile And Kensington			
Authored Date:		31-May-2005			
Submitted Date:		31-May-2006			
Document Entry Notes:					
Nothing Noted **Note: Many records provided by the department have a truncated [Document Entry Notes] field.					
Participant and Role:		Seacor Environmental Engineering Inc (Nanaimo (Skinner Street)) - Author			
<u>Documents on File</u>					
Document or Report Title:		Letter Of Addendum #3,			
Authored Date:		06-Jul-2005			
Submitted Date:		06-Jul-2005			
Document Entry Notes:					
Nothing Noted **Note: Many records provided by the department have a truncated [Document Entry Notes] field.					
Participant and Role:		Seacor Environmental Engineering Inc (Nanaimo (Skinner Street)) - Author			
<u>Documents on File</u>					
Document or Report Title:		Revised Problem Formulation And Preliminary Quantitative Risk Assessment, Union Bay Waste Coal Pile, Union Bay, Bc, Bc Site 4291			
Authored Date:		08-Sep-2006			
Submitted Date:		08-Sep-2006			
Document Entry Notes:					
Nothing Noted **Note: Many records provided by the department have a truncated [Document Entry Notes] field.					
Participant and Role:		Seacor Environmental Engineering Inc (Nanaimo (Skinner Street)) - Author			
<u>Documents on File</u>					
Document or Report Title:		Letter Re: Union Bay - Response To Moe Requirements Listed In Their Letter Of 26 October, 2012 Regarding The Remediation Options Feasibility Report An			
Authored Date:		06-Dec-2012			
Submitted Date:		06-Dec-2012			
Document Entry Notes:					
Nothing Noted **Note: Many records provided by the department have a truncated [Document Entry Notes] field.					
Participant and Role:		Azimuth Consulting Group Inc (Vancouver) - Author			
<u>Documents on File</u>					
Document or Report Title:		Union Bay Waste-Coal Pile-Conceptual Model Of Inorganic-Contaminant Migration			
Authored Date:		10-Jan-2009			
Submitted Date:		10-Jan-2009			

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
Document Entry Notes:					
Nothing Noted **Note: Many records provided by the department have a truncated [Document Entry Notes] field.					
Participant and Role:		Minesite Drainage Assessment Group (Vancouver) - Author			
<u>Documents on File</u>					
Document or Report Title:		Quarter 5, April 2014 Progress Report Union Bay, Waste Coal Pile, Union Bay, Bc Site Id 4291 Our File No. 9842			
Authored Date:		08-Apr-2014			
Submitted Date:		08-Apr-2014			
Document Entry Notes:					
Nothing Noted **Note: Many records provided by the department have a truncated [Document Entry Notes] field.					
Participant and Role:		Keystone Environmental Ltd. - Author			
<u>Documents on File</u>					
Document or Report Title:		Quarter 6, June 2014 Progress Report Union Bay Waste Coal Pile, Union Bay, Bc Site Id 4291 Our File No. 9842			
Authored Date:		27-Jun-2014			
Submitted Date:		27-Jun-2014			
Document Entry Notes:					
Nothing Noted **Note: Many records provided by the department have a truncated [Document Entry Notes] field.					
Participant and Role:		Keystone Environmental Ltd. - Author			
<u>Documents on File</u>					
Document or Report Title:		Response To Bc Moe Comments On The Stage 1 Preliminary Site Investigation In Application For A Determination For The Kensington Property - Area 3			
Authored Date:		24-Aug-2005			
Submitted Date:		24-Aug-2005			
Document Entry Notes:					
Nothing Noted **Note: Many records provided by the department have a truncated [Document Entry Notes] field.					
Participant and Role:		Seacor Environmental Engineering Inc (Vancouver (West 8th Avenue)) - Author			
<u>Documents on File</u>					
Document or Report Title:		Letter Of Addendum #1,			
Authored Date:		23-Jun-2005			
Submitted Date:		23-Jun-2005			
Document Entry Notes:					
Nothing Noted **Note: Many records provided by the department have a truncated [Document Entry Notes] field.					
Participant and Role:		Seacor Environmental Engineering Inc (Nanaimo (Skinner Street)) - Author			
<u>Documents on File</u>					

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
Document or Report Title:		Supplemental Detailed Site Investigation, Union Bay Waste Coal Pile, Union Bay, Bc Bc Moe Site Id: 4291			
Authored Date:		31-Aug-2006			
Submitted Date:		31-Aug-2006			
Document Entry Notes:		Nothing Noted **Note: Many records provided by the department have a truncated [Document Entry Notes] field.			
Participant and Role:		Seacor Environmental Engineering Inc (Nanaimo (Skinner Street)) - Author			
<u>Documents on File</u>					
Document or Report Title:		Response To Moe Comments			
Authored Date:		15-Sep-2006			
Submitted Date:		15-Sep-2006			
Document Entry Notes:		Nothing Noted **Note: Many records provided by the department have a truncated [Document Entry Notes] field.			
Participant and Role:		Seacor Environmental Engineering Inc (Nanaimo (Skinner Street)) - Author			
<u>Documents on File</u>					
Document or Report Title:		Hydrogeological Data Gap Investigation Union Bay Waste Coal Pile Union Bay, Bc			
Authored Date:		01-Oct-2010			
Submitted Date:		17-May-2011			
Document Entry Notes:		Nothing Noted **Note: Many records provided by the department have a truncated [Document Entry Notes] field.			
Participant and Role:		Keystone Environmental Ltd. - Author			
<u>Documents on File</u>					
Document or Report Title:		Final Report, Baseline Biological Monitoring Program For The Marine Environment At Union Bay, B.C. - Integrated Report			
Authored Date:		03-May-2012			
Submitted Date:		04-May-2012			
Document Entry Notes:		Nothing Noted **Note: Many records provided by the department have a truncated [Document Entry Notes] field.			
Participant and Role:		Azimuth Consulting Group Inc (Vancouver) - Author			
<u>Documents on File</u>					
Document or Report Title:		Quarter 4; 2012 Progress Report Union Bay Waste Coal Pile, Union Bay Bc; Site Id 4291			
Authored Date:		07-Dec-2012			
Submitted Date:		07-Dec-2012			
Document Entry Notes:		Nothing Noted **Note: Many records provided by the department have a truncated [Document Entry Notes] field.			
Participant and Role:		Keystone Environmental - Author			

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
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<u>Documents on File</u>					
Document or Report Title:		Letter Re: Quarter 4; 2012 Progress Report Union Bay Waste Coal Pile, Union Bay, Bc			
Authored Date:		07-Dec-2012			
Submitted Date:		07-Dec-2012			
Document Entry Notes:					
Nothing Noted **Note: Many records provided by the department have a truncated [Document Entry Notes] field.					
Participant and Role:		West Fraser Mills Ltd (Vancouver) - Author			
<u>Documents on File</u>					
Document or Report Title:		Quarter 3, September 2013 Progress Report Union Bay Waste Coal Pile, Union Bay, Bc Site Id 4291 Our File No. 9842			
Authored Date:		04-Sep-2013			
Submitted Date:		04-Sep-2013			
Document Entry Notes:					
Nothing Noted **Note: Many records provided by the department have a truncated [Document Entry Notes] field.					
Participant and Role:		Keystone Environmental Ltd. - Author			
<u>Documents on File</u>					
Document or Report Title:		Quarter 4, December 2013 Progress Report Union Bay Waste Coal Pile, Union Bay, Bc Site Id 4291 Our File No. 9842			
Authored Date:		13-Dec-2013			
Submitted Date:		13-Dec-2013			
Document Entry Notes:					
Nothing Noted **Note: Many records provided by the department have a truncated [Document Entry Notes] field.					
Participant and Role:		Keystone Environmental Ltd. - Author			
<u>Documents on File</u>					
Document or Report Title:		Supplementary Detailed Site Investigation - Union Bay Estates Comprehensive Development Areas 1, 2 And 3 East Of Highway 19a, Union Bay, Bc			
Authored Date:		19-Jun-2019			
Submitted Date:		19-Jun-2019			
Document Entry Notes:					
Nothing Noted **Note: Many records provided by the department have a truncated [Document Entry Notes] field.					
Participant and Role:		Slr Consulting (Canada) Ltd - Author			
<u>Documents on File</u>					
Document or Report Title:		Union Bay Comprehensive Development Area - Summary Of Remedial Activities August 2019 To July 2020			
Authored Date:		31-Aug-2020			
Submitted Date:		01-Sep-2020			

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
Document Entry Notes:					
Nothing Noted **Note: Many records provided by the department have a truncated [Document Entry Notes] field.					
Participant and Role:		Slr Consulting (Canada) Ltd - Author			
<u>Documents on File</u>					
Document or Report Title:		Final Report, Baseline Biological Monitoring Program For The Marine Environment At Union Bay, British Columbia - August 2009 Monitoring Report			
Authored Date:		01-Jun-2009			
Submitted Date:		10-Sep-2010			
Document Entry Notes:					
Nothing Noted **Note: Many records provided by the department have a truncated [Document Entry Notes] field.					
Participant and Role:		Azimuth Consulting Group Inc (Vancouver) - Author			
<u>Documents on File</u>					
Document or Report Title:		Site Mitigation Plan Union Bay Waste Coal Pile, Union Bay, Bc			
Authored Date:		01-Mar-2011			
Submitted Date:		30-Mar-2011			
Document Entry Notes:					
Nothing Noted **Note: Many records provided by the department have a truncated [Document Entry Notes] field.					
Participant and Role:		Keystone Environmental Ltd. - Author			
<u>Documents on File</u>					
Document or Report Title:		Response To Comments From Ministry Of Environment Dated August 20, 2012, Union Bay Waste Coal Pile, Union Bay, Bc Site Id 4291			
Authored Date:		24-Sep-2012			
Submitted Date:		18-Oct-2012			
Document Entry Notes:					
Nothing Noted **Note: Many records provided by the department have a truncated [Document Entry Notes] field.					
Participant and Role:		Keystone Environmental Ltd (Richmond) - Author			
<u>Documents on File</u>					
Document or Report Title:		Updates To The Remediation Plan, Union Bay Estates Development Site Pids 028-731-492 (Part), 028-731-565, 028-731-531			
Authored Date:		10-Mar-2022			
Submitted Date:		10-Mar-2022			
Document Entry Notes:					
Nothing Noted **Note: Many records provided by the department have a truncated [Document Entry Notes] field.					
Participant and Role:		Slr Consulting (Canada) Ltd - Author			

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
<u>Associated Sites</u>					
Associated Site ID:	23289			Effective Date:	2/12/2020 8:39:17 AM
Notes:	SITE 23289 WAS FORMERLY PART OF SITE ID 4291. THE CROWN-OWNED PORTIONS OF THIS SITE HAVE BEEN SEPARATED FROM SITE 4291 AND ISSUED A NEW SITE ID.				
<u>Suspected Land Use - Notes</u>					
Land Use Description:	Coal Coke Manufacture, Wholesale Bulk Storage Or Shipping				
Notes:	Inserted For Site Profile Dated 2018-03-29				
<u>Suspected Land Use - Notes</u>					
Land Use Description:	Coal/Lignite Mining/Milling/Wholesale Bulk Storage/Shipping				
Notes:	Inserted For Site Profile Dated 97-06-05				
<u>Suspected Land Use - Notes</u>					
Land Use Description:	Industrial Waste Storage, Recycling Or Landfilling				
Notes:	Inserted For Site Profile Dated 2007-03-22				
<u>Parcel Descriptions</u>					
Date Added:	9/16/2010 12:58:29 AM			Crown Land PIN#:	
LTO PID(s):	028-330-633			Crown Land File#:	
Land Description:	LOT A DISTRICT LOT 28 NELSON DISTRICT PLAN EPP9011 **Note: Many records provided by the department have a truncated [Land Description] field.				
<u>Parcel Descriptions</u>					
Date Added:	1/16/2021 10:23:37 AM			Crown Land PIN#:	
LTO PID(s):	030-955-238			Crown Land File#:	
Land Description:	LOT A DISTRICT LOT 28 NELSON DISTRICT PLAN EPP95931 **Note: Many records provided by the department have a truncated [Land Description] field.				
<u>Parcel Descriptions</u>					
Date Added:	3/1/2012 12:50:59 AM			Crown Land PIN#:	
LTO PID(s):	028-780-574			Crown Land File#:	
Land Description:	LOT 2 DISTRICT LOT 28 NELSON DISTRICT PLAN EPP17930 **Note: Many records provided by the department have a truncated [Land Description] field.				
<u>Parcel Descriptions</u>					
Date Added:	3/3/2012 10:45:20 PM			Crown Land PIN#:	
LTO PID(s):	028-780-582			Crown Land File#:	
Land Description:	LOT 3 DISTRICT LOTS 28 AND 31 NELSON DISTRICT PLAN EPP17930 **Note: Many records provided by the department have a truncated [Land Description] field.				
<u>Parcel Descriptions</u>					
Date Added:	7/19/2000			Crown Land PIN#:	
LTO PID(s):	--			Crown Land File#:	101888
Land Description:	NANAIMO LAND DISTRICT, DISTRICT LOT 155, BLOCKS B, C AND D, LEASE 101888.				
<u>Parcel Descriptions</u>					
Date Added:	1/31/2006			Crown Land PIN#:	

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
LTO PID(s): Land Description:	006-639-194			Crown Land File#: DISTRICT LOT 154, NANAIMO DISTRICT **Note: Many records provided by the department have a truncated [Land Description] field.	
<u>Parcel Descriptions</u>					
Date Added: LTO PID(s): Land Description:	12/15/2011 12:37:46 AM 028-731-549			Crown Land PIN#: Crown Land File#: LOT 4 SECTIONS 31 AND 32 TOWNSHIP 1 AND DISTRICT LOT 28 NELSON DISTRICT PLAN EPP15507 EXCEPT PLAN EPP78068 **Note: Many records provided by the department have a truncated [Land Description] field.	
<u>Parcel Descriptions</u>					
Date Added: LTO PID(s): Land Description:	7/1/2017 8:01:11 AM 030-110-254			Crown Land PIN#: Crown Land File#: LOT A DISTRICT LOT 28 NELSON DISTRICT AND DISTRICT LOT 154 NANAIMO DISTRICT PLAN EPP56910 **Note: Many records provided by the department have a truncated [Land Description] field.	
<u>Parcel Descriptions</u>					
Date Added: LTO PID(s): Land Description:	1/20/2018 10:30:28 AM 030-340-918			Crown Land PIN#: Crown Land File#: LOT A DISTRICT LOT 28 NELSON DISTRICT PLAN EPP78068 **Note: Many records provided by the department have a truncated [Land Description] field.	
<u>Parcel Descriptions</u>					
Date Added: LTO PID(s): Land Description:	1/31/2006 005-947-472			Crown Land PIN#: Crown Land File#: LOT 1, SECTION 32, TOWNSHIP 1, NELSON DISTRICT, PLAN 5161 **Note: Many records provided by the department have a truncated [Land Description] field.	
<u>Parcel Descriptions</u>					
Date Added: LTO PID(s): Land Description:	1/31/2006 004-761-120			Crown Land PIN#: Crown Land File#: THE FRACTIONAL SOUTH WEST 1/4 OF THE NORTH WEST 1/4 OF SECTION 32, TOWNSHIP 1 NELSON DISTRICT, EXCEPT (A) THAT PART IN PLAN 20 RW CONTAINING 0.07 ACRES MORE OR LESS; (B) THAT PART SHOWN RED ON PLAN IN AFPB 10.59.4905C CONTAINING 0.5 ACRES MORE OR LESS; (C) **Note: Many records provided by the department have a truncated [Land Description] field.	
<u>Parcel Descriptions</u>					
Date Added: LTO PID(s): Land Description:	1/31/2006 006-719-139			Crown Land PIN#: Crown Land File#: THOSE PARTS OF DISTRICT LOT 28, NELSON DISTRICT INCLUDED IN PLAN 20 RW EXCEPT PART IN PLAN EPP15507 AND EPP17930 **Note: Many records provided by the department have a truncated [Land Description] field.	
<u>Parcel Descriptions</u>					
Date Added: LTO PID(s): Land Description:	1/31/2006 006-671-233			Crown Land PIN#: Crown Land File#: PARCEL A (DD 379841I), DISTRICT LOT 28, NELSON DISTRICT, EXCEPT PARTS IN PLANS EPP9011 AND EPP15507 **Note: Many records provided by the department have a truncated [Land Description] field.	
<u>Parcel Descriptions</u>					
Date Added:	12/15/2011 12:50:31 AM			Crown Land PIN#:	

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
LTO PID(s): Land Description:	028-731-492			Crown Land File#: LOT 1 DISTRICT LOT 154 NANAIMO DISTRICT SECTIONS 31 AND 32 TOWNSHIP 1 AND DISTRICT LOT 28 NELSON DISTRICT PLAN EPP15507 EXCEPT PLANS EPP56910 AND EPP95931 **Note: Many records provided by the department have a truncated [Land Description] field.	
<u>Parcel Descriptions</u>					
Date Added: LTO PID(s): Land Description:	3/1/2012 12:50:59 AM 028-780-540			Crown Land PIN#: Crown Land File#: THAT PART OF PARCEL A (DD 379841I) DISTRICT LOT 28 NELSON DISTRICT, EXCEPT PARTS IN PLANS EPP9011 AND EPP15507, INCLUDED WITHIN THE BOUNDARIES OF LOT 3, PLAN EPP17930 **Note: Many records provided by the department have a truncated [Land Description] field.	
<u>Parcel Descriptions</u>					
Date Added: LTO PID(s): Land Description:	1/31/2006 006-641-792			Crown Land PIN#: Crown Land File#: THAT PART OF THE SOUTH WEST 1/4 OF THE NORTH WEST 1/4 OF FRACTIONAL SECTION 32, TOWNSHIP 1, NELSON DISTRICT SHOWN OUTLINED IN RED ON PLAN 1310R **Note: Many records provided by the department have a truncated [Land Description] field.	
<u>Parcel Descriptions</u>					
Date Added: LTO PID(s): Land Description:	1/31/2006 006-719-317			Crown Land PIN#: Crown Land File#: THAT PART OF SECTION 32, TOWNSHIP 1, NELSON DISTRICT, INCLUDED IN PLAN 20 RW **Note: Many records provided by the department have a truncated [Land Description] field.	
<u>Parcel Descriptions</u>					
Date Added: LTO PID(s): Land Description:	12/15/2011 12:45:12 AM 028-731-531			Crown Land PIN#: Crown Land File#: LOT 3 DISTRICT LOT 154 NANAIMO DISTRICT, SECTION 32 TOWNSHIP 1 AND DISTRICT LOT 28 NELSON DISTRICT PLAN EPP15507 **Note: Many records provided by the department have a truncated [Land Description] field.	
<u>Parcel Descriptions</u>					
Date Added: LTO PID(s): Land Description:	12/15/2011 12:51:02 AM 028-731-565			Crown Land PIN#: Crown Land File#: LOT 2 DISTRICT LOT 28 NELSON DISTRICT PLAN EPP15507 **Note: Many records provided by the department have a truncated [Land Description] field.	
<u>Parcel Descriptions</u>					
Date Added: LTO PID(s): Land Description:	3/1/2012 12:50:59 AM 028-780-566			Crown Land PIN#: Crown Land File#: LOT 1 DISTRICT LOT 28 NELSON DISTRICT PLAN EPP17930 **Note: Many records provided by the department have a truncated [Land Description] field.	
<u>Current Site Profile Information</u>					
Date Entered:	Aug-06-1997				
Date Completed:	Mar-29-2018				
Decision Date:	May-16-2018				
Date Received:	May-03-2018				
Date Registrar Recorded:					
Date Answer Completed:	Mar-29-2018				
Reg Date Entered:					
Investigation?:	Yes				

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
Local Authority:		Ministry Of Transportation And Highways			
Local Authority Date Recorded:		Apr-26-2018			
Site Profile Comments:		No Comment			

Site Profile Note All Questions

Important Note:

SPECIAL NOTE REGARDING SITE PROFILE QUESTIONS

In the bulk data provided by the Ministry of the Environment, the Current Site Profile information for any given site ONLY INCLUDES QUESTIONS TO WHICH THE ANSWER IS YES. Here, for informational purposes only, we provide the list of ALL current site profile questions.

All Questions:

AREAS OF POTENTIAL CONCERN

- Petroleum, Solvent Or Other Polluting Substance Spills To The Environment Greater Than 100 Litres?
- Residue Left After Removal Of Piled Materials Such As Chemicals, Coal, Ore, Smelter Slag, Air Quality Control System Baghouse Dust?
- Discarded Barrels, Drums Or Tanks?
- Contamination Resulting From Migration Of Substances From Other Properties?

FILL MATERIALS

- Fill Dirt, Soil, Gravel, Sand Or Like Materials From A Contaminated Site Or From A Source Used For Any Of The Activities Listed Under Schedule 2?
- Discarded Or Waste Granular Materials Such As Sand Blasting Grit, Asphalt Paving Or Roofing Material, Spent Foundry Casting Sands, Mine Ore, Waste Rock Or Float?
- Dredged Sediments, Or Sediments And Debris Materials Originating From Locations Adjacent To Foreshore Industrial Activities, Or Municipal Sanitary Or Stormwater Discharges?

WASTE DISPOSAL

- Materials Such As Household Garbage, Mixed Municipal Refuse, Or Demolition Debris?
- Waste Or Byproducts Such As Tank Bottoms, Residues, Sludge, Or Flocculation Precipitates From Industrial Processes Or Wastewater Treatment?
- Waste Products From Smelting Or Mining Activities, Such As Smelter Slag, Mine Tailings, Or Cull Materials From Coal Processing?
- Waste Products From Natural Gas And Oil Well Drilling Activities, Such As Drilling Fluids And Muds?
- Waste Products From Photographic Developing Or Finishing Laboratories; Asphalt Tar Manufacturing; Boilers, Incinerators Or Other Thermal Facilities (Eg. Ash); Appliance, Small Equipment Or Engine Repair Or Salvage; Dry Cleaning Operations (Eg. Solvents); For From The Cleaning Or Repair Of Parts Of Boats, Ships, Barges, Automobiles Or Trucks, Including Sandblasting Grit Or Paint Scrapings? *[1]

*[1] Note prior to 2009, question 5 was worded as follows: "Waste Products From Photographic Developing Or Finishing Laboratories; Asphalt Tar Manufacturing; Boilers, Incinerators Or Other Thermal Facilities (Eg. Ash); Appliance, Small Equipment Or Engine Repair Or Salvage; Dry Cleaning Operations (Eg. Solvents); Or Automobile And Truck Parts Cleaning Or Repair?"

TANKS OR CONTAINERS USED OR STORED, OTHER THAN TANKS USED FOR RESIDENTIAL HEATING FUEL*[2]

- Underground Fuel Or Chemical Storage Tanks Other Than Storage Tanks For Compressed Gases? *[2A]
- Above Ground Fuel Or Chemical Storage Tanks Other Than Storage Tanks For Compressed Gases? *[2B]

*[2] Note prior to 2009, this section was referred to "Tanks Or Containers Used Or Stored".

*[2A] Note prior to 2009, question 1 was worded as follows: "Underground Fuel Or Chemical Storage Tanks?"

*[2B] Note prior to 2009, question 2 was worded as follows: "Above Ground Fuel Or Chemical Storage Tanks?"

HAZARDOUS WASTES OR HAZARDOUS SUBSTANCES *[3]

- Pcb-Containing Electrical Transformers Or Capacitors Either At Grade, Attached Above Ground To Poles, Located Within Buildings, Or Stored?
- Waste Asbestos Or Asbestos Containing Materials Such As Pipe Wrapping, Blown-In Insulation Or Panelling Buried?
- Paints, Solvents, Mineral Spirits Or Waste Pest Control Products Or Pest Control Product Containers Stored In Volumes Greater Than 205 Litres?

*[3] Note, prior to 2009, this section was referred to "Special (Hazardous) Wastes Or Substances".

LEGAL OR REGULATORY ACTIONS OR CONSTRAINTS

- Government Orders Or Other Notifications Pertaining To Environmental Conditions Or Quality Of Soil, Water, Groundwater Or Other Environmental Media?
- Liens To Recover Costs, Restrictive Covenants On Land Use, Or Other Charges Or Encumbrances, Stemming From Contaminants Or Wastes

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
Remaining Onsite Or From Other Environmental Conditions? - Government Notifications Relating To Past Or Recurring Environmental Violations At The Site Or Any Facility Located On The Site?					
<u>Site Profile Note - Questions</u>					
Category Precursor:		Is there currently or to the best of your knowledge has there previously been on the site any deposit of:			
Category and Question:		Fill Materials - Discarded Or Waste Granular Materials Such As Sand Blasting Grit, Asphalt Paving Or Roofing Material, Spent Foundry Casting Sands, Mine Ore, Waste Rock Or Float? Yes			
<u>Site Profile Note - Questions</u>					
Category Precursor:		To the best of your knowledge are there currently any of the following pertaining to the site:			
Category and Question:		Legal Or Regulatory Actions Or Constraints - Liens To Recover Costs, Restrictive Covenants On Land Use, Or Other Charges Or Encumbrances, Stemming From Contaminants Or Wastes Remaining Onsite Or From Other Environmental Conditions? Yes			
<u>Site Profile Note - Questions</u>					
Category Precursor:		Is there currently or to the best of your knowledge has there previously been on the site any landfilling, deposit, spillage or dumping of the following materials:			
Category and Question:		Waste Disposal (Questions As Of January 1 2009) - Waste Products From Photographic Developing Or Finishing Laboratories; Asphalt Tar Manufacturing; Boilers, Incinerators Or Other Thermal Facilities (Eg. Ash); Appliance, Small Equipment Or Engine Repair Or Salvage; Dry Cleaning Operations (Eg. Solvents); For From The Cleaning Or Repair Of Parts Of Boats, Ships, Barges, Automobiles Or Trucks, Including Sandblasting Grit Or Paint Scrapings? Yes			
<u>Site Profile Note - Questions</u>					
Category Precursor:		Is there currently or to the best of your knowledge has there previously been on the site any landfilling, deposit, spillage or dumping of the following materials:			
Category and Question:		Waste Disposal (Questions As Of January 1 2009) - Waste Products From Smelting Or Mining Activities, Such As Smelter Slag, Mine Tailings, Or Cull Materials From Coal Processing? Yes			
<u>Site Profile Note - Questions</u>					
Category Precursor:		Is there currently or to the best of your knowledge has there previously been on the site any:			
Category and Question:		Areas Of Potential Concern - Residue Left After Removal Of Piled Materials Such As Chemicals, Coal, Ore, Smelter Slag, Air Quality Control System Baghouse Dust? Yes			
57	1 of 1	NW/9.2	13.0 / -30.88	Imperial Oil Cardlock 2050 CLIFFE STREET No Entry COURTENAY BC	SREG
Site ID:		1710	Registered: 01-Jun-1998		
Victoria File No:		No File	Updated:		
Env Rmd ID:			Detail Removed:		
Regional File No:		26250-20/1710	Common Name:		
Region:			Postal Code:		
Record Status:		NOT ASSIGNED	Latitude DMS:		
Status as of:		Jun 2022	Longitude DMS:		
Cleanup Status:			Latitude:		
Category:		Unranked	Longitude:		
Location Desc:		LAT/LONG DERIVED BY BC ENVIRONMENT REFERENCING THE TRANSPORTATION CENTERLINE NETWORK (TCN), NAD 83			
Addr (BC Data Catalogue):					
Site Note:		There are no Associated Sites for this site.			
<u>Registry Notations</u>					
Event ID:		5987			

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
Notation Type and Act:		SITE INVESTIGATION REPORT SUBMITTED. Administrative			
Initiated Date:		22-Feb-1994			
Approved Date:		22-Feb-1994			
Region:		Nanaimo, Vancouver Island			
Ministry Contact:		DAVIES, ROBERT J			
Notation Notes:		Courtenay Esso Cardlock 2050 Cliffe Street Courtenay, British Columbia **Note: Many records provided by the department have a truncated [Notation Notes] field.			
Required Actions:		No Actions Entered			
Requirement Due Date:					
Requirement Received Date:					
Participant:	Imperial Oil Limited (Head Office)		Role:	REQUESTED BY	
Participant:	O'Connor Associates Environmental Inc (Langley (92a Avenue))		Role:	SUBMITTED BY	
Participant:	Davies, Robert J		Role:	REVIEWED BY	
<u>Registry Notations</u>					
Event ID:		5988			
Notation Type and Act:		CASE MANAGEMENT ITEM. Administrative			
Initiated Date:		05-Apr-1994			
Approved Date:		05-Apr-1994			
Region:		Nanaimo, Vancouver Island			
Ministry Contact:		DAVIES, ROBERT J			
Notation Notes:		Approval To Remove Excavated Soil From Site And Deposit In Landfill **Note: Many records provided by the department have a truncated [Notation Notes] field.			
Required Actions:		No Actions Entered			
Requirement Due Date:					
Requirement Received Date:					
Participant:	O'Connor Associates Environmental Inc (Langley (92a Avenue))		Role:	REQUESTED BY	
Participant:	Regional District Of Comox-Strathcona (Courtenay)		Role:	RECEIVED BY	
Participant:	Davies, Robert J		Role:	ISSUED BY	
<u>Site Participants</u>					
Participant:	O'Connor Associates Environmental Inc (Langley (92a Avenue))		Start Date:	Nov-11-1993	
Participation Type:	ORG		End Date:		
Notes:					
Participants Role:	Environmental Consultant/Contractor				
<u>Site Participants</u>					
Participant:	Imperial Oil Limited (Head Office)		Start Date:	Nov-19-1993	
Participation Type:	ORG		End Date:		
Notes:					
Participants Role:	Operator				
Participants Role:	Notice Recipient(Wmaa20.21(3))-Dont Flag				
Participants Role:	Property Owner				
<u>Site Participants</u>					

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
<hr/>					
Participant:	Analytical Service Laboratories Ltd (Vancouver)			Start Date:	Nov-15-1993
Participation Type:	ORG			End Date:	
Notes:					
Participants Role:	Analytical Lab				
<u>Site Participants</u>					
Participant:	Regional District Of Comox-Strathcona (Courtenay)			Start Date:	Apr-05-1994
Participation Type:	ORG			End Date:	
Notes:					
Participants Role:	Municipal/Regional Contact				
<u>Site Participants</u>					
Participant:	Corporation Of The City Of Courtenay (Courtenay)			Start Date:	Feb-22-1994
Participation Type:	ORG			End Date:	
Notes:					
Participants Role:	Municipal/Regional Contact				
<u>Site Participants</u>					
Participant:	Davies, Robert J			Start Date:	Dec-06-1993
Participation Type:	EMP			End Date:	Mar-31-2004
Notes:					
Participants Role:	Main Ministry Contact				
<u>Documents on File</u>					
Document or Report Title:	Environmental Investigation Report: Courtenay Esso Cardlock				
Authored Date:	06-Dec-1993				
Submitted Date:	22-Feb-1994				
Document Entry Notes:					
Nothing Noted **Note: Many records provided by the department have a truncated [Document Entry Notes] field.					
Participant and Role:	Davies, Robert J - Reviewer				
Participant and Role:	Imperial Oil Limited (Edmonton (Products Division)) - Commissioner				
Participant and Role:	O'Connor Associates Environmental Inc (Langley (92a Avenue)) - Author				
<u>Documents on File</u>					
Document or Report Title:	Permission To Dispose Of Soils From Imperial Oil Cardlock, 2050 Cliffe Street, Courtenay, Bc				
Authored Date:	31-Mar-1994				
Submitted Date:	06-Apr-1994				
Document Entry Notes:					
Excavation Taking Place For New Warehouse **Note: Many records provided by the department have a truncated [Document Entry Notes] field.					
Participant and Role:	Davies, Robert J - Reviewer				

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
Participant and Role:		O'Connor Associates Environmental Inc (Langley (92a Avenue)) - Author			
Participant and Role:		Imperial Oil Limited (Edmonton (Products Division)) - Commissioner			
<u>Suspected Land Use - Notes</u>					
Land Use Description: Notes:		Petrol Prod., Dispense Facility, Inc. Serv Sta./Cardlot No Entry			
<u>Suspected Land Use - Notes</u>					
Land Use Description: Notes:		Petrol Prod., /Produce Water Strg Abvegrnd/Undergrnd Tank Ust			
<u>Parcel Descriptions</u>					
Date Added:		11/22/1995	Crown Land PIN#:		
LTO PID(s):		018-519-873	Crown Land File#:		
Land Description:		LOT 1, SECTIONS 66 AND 67, COMOX DISTRICT, PLAN VIP57701 **Note: Many records provided by the department have a truncated [Land Description] field.			
58	1 of 1	NW/23.6	11.5 / -32.39	Wayne Mackenzie Designer 105-1995 Cliffe Ave. Courtenay BC V9N 2L2	SCT
Established: Plant Size (ft²): Employment:		01-FEB-80			
--Details--					
Description: SIC/NAICS Code:		Jewellery Stores 448310			
Description: SIC/NAICS Code:		Jewellery and Silverware Manufacturing 339910			
Description: SIC/NAICS Code:		Jewellery and Silverware Manufacturing 339910			
Description: SIC/NAICS Code:		Jewellery and Watch Wholesaler-Distributors 414410			
59	1 of 1	NW/36.4	8.2 / -35.69	City Of Courtenay Courtenay 1 110 20th Street BC	GEN
Generator No:		BCG12367	Status Date:		08-May-2006
Status:		Active	Registration Dt:		08-May-2006
Region:		VANCOUVER ISLAND			
Mailing Addr:					
Waste Generation Site:		Courtenay 1 110 20th Street			
Comments:					
Year:		2019; 2021			
<u>Waste Detail(s)</u>					
TDG Pin No:		UN3077	Generation Code:		Generated One Time Only
TDG Class:		9	Handling Code:		Biological Treatment

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
Reg Status Date:		08-May-2006		Gen Business Type:	
Physical State:		Solid		Certified By Name:	Ian Farquharson
Amount in Storage:		30000 KG		Date Certifier Signed:	05-Oct-2005
Amount Per 30 Days:		0 KG			
Registered Waste:		Environmentally Hazardous Substances, Solid, N.O.S.			

60	1 of 1	NW/92.6	14.0 / -29.90	1959 Cliffe Ave, Courtenay 1959 CLIFFE AVENUE No Entry COURTENAY BC	SREG
Site ID:		6615		Registered:	16-Jun-2000
Victoria File No:		No File		Updated:	15-Jun-2021
Env Rmd ID:				Detail Removed:	14-Jun-2021
Regional File No:		26250-20/6615		Common Name:	
Region:				Postal Code:	No Entry
Record Status:		NOT ASSIGNED		Latitude DMS:	49d 40m 54.4s
Status as of:		Jun 2022		Longitude DMS:	124d 59m 08.6s
Cleanup Status:				Latitude:	49.681778
Category:		Unranked		Longitude:	124.985722
Location Desc:		APPROX 50 M SE OF INTERSECTION OF 19TH ST & CLIFFE AVE, COURTENAY LAT/LONG VERIFIED USING PARCELMAP BC AND GOOGLE MAPS 2021-06-14			
Addr (BC Data Catalogue):					
Site Note:		There are no Associated Sites for this site.			

Registry Notations

Event ID: 36192
Notation Type and Act: NOTICE OF INDEPENDENT REMEDIATION COMPLETION SUBMITTED (WMA 28(2)). Waste Management Act: Contaminated Sites Notations
Initiated Date: 05-Jul-2000
Approved Date: 05-Jul-2000
Region: Nanaimo, Vancouver Island
Ministry Contact: BOLLANS, RON A
Notation Notes: No Notes Entered **Note: Many records provided by the department have a truncated [Notation Notes] field.
Required Actions: No Actions Entered
Requirement Due Date:
Requirement Received Date:

Participant: Eba Engineering Consultants Ltd (Courtenay) **Role:** SUBMITTED BY

Registry Notations

Event ID: 35673
Notation Type and Act: NOTICE OF INDEPENDENT REMEDIATION INITIATION SUBMITTED (WMA 28(2)). Waste Management Act: Contaminated Sites Notations
Initiated Date: 18-May-2000
Approved Date: 18-May-2000
Region: Nanaimo, Vancouver Island
Ministry Contact: BOLLANS, RON A
Notation Notes: No Notes Entered **Note: Many records provided by the department have a truncated [Notation Notes] field.
Required Actions: No Actions Entered
Requirement Due Date:
Requirement Received Date:

Participant: Eba Engineering Consultants Ltd (Courtenay) **Role:** SUBMITTED BY

Site Participants

Participant: Cocker, William F.
Participation Type: PER
Notes:
Start Date: May-18-2000
End Date:
Participants Role: Property Owner

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
<u>Site Participants</u>					
Participant:	Eba Engineering Consultants Ltd (Courtenay)			Start Date:	May-18-2000
Participation Type:	ORG			End Date:	
Notes:	CHRIS CHU				
Participants Role:	Environmental Consultant/Contractor				
<u>Site Participants</u>					
Participant:	Sloan, Michael			Start Date:	May-18-2000
Participation Type:	EMP			End Date:	Mar-29-2002
Notes:					
Participants Role:	Alternate Ministry Contact				
<u>Site Participants</u>					
Participant:	Bollans, Ron A			Start Date:	May-18-2000
Participation Type:	EMP			End Date:	Mar-29-2002
Notes:					
Participants Role:	Alternate Ministry Contact				
<u>Site Participants</u>					
Participant:	Miller, Aaron W			Start Date:	May-18-2000
Participation Type:	EMP			End Date:	May-15-2002
Notes:					
Participants Role:	Main Ministry Contact				
<u>Documents on File</u>					
Document or Report Title:	Environmental Assessment Of Soils Removal Of Underground Storage Tank 1959 Cliffe Avenue, Courtenay, Bc				
Authored Date:	25-May-2000				
Submitted Date:	31-May-2000				
<u>Document Entry Notes:</u>					
This Document Was Submitted As A Closure Report And Is For Information Use Only **Note: Many records provided by the department have a truncated [Document Entry Notes] field.					
Participant and Role:	Eba Engineering Consultants Ltd (Courtenay) - Author				
Participant and Role:	Cocker, William F. - Commissioner				
<u>Parcel Descriptions</u>					
Date Added:	5/26/2000			Crown Land PIN#:	
LTO PID(s):	005-799-350			Crown Land File#:	
Land Description:	LOT 1, SECTION 68, COMOX DISTRICT, PLAN 6821 **Note: Many records provided by the department have a truncated [Land Description] field.				

Unplottable Summary

Total: 7 Unplottable sites

DB	Company Name/Site Name	Address	City	Postal
GEN	Veyron Properties Group Ltd.	Courtenay 3250	BC	
NEES	Unknown tractor trailer	29th Street and the Inland Island Hwy., Courtenay	Courtenay BC	
NEES	Unknown tractor trailer	29th Street and the Inland Island Hwy., Courtenay	Courtenay BC	
NEES	SHELL CANADA		MARINE DR, ROYSTON; COURTNEY BC	
NEES	Individual	Across from Wal-Mart, Island Hwy, Comox	Comox BC	
NEES	Unknown	On Island Hwy shoulder ni Front of Glacier View Plaza	Courtenay BC	
PES	MCCREA HARDWARE LTD	#8-468 29TH ST, COURTENAY, BC, CA V9N 7Z6	BC	

Unplottable Report

Site: Veyron Properties Group Ltd.
Courtenay 3250 BC

Database:
GEN

Generator No: BCG19356
Status: Active
Region: VANCOUVER ISLAND
Mailing Addr:
Waste Generation Site: Courtenay 3250
Comments:
Year: 2021

Status Date: 28-Mar-2014
Registration Dt: 28-Mar-2014

Waste Detail(s)

TDG Pin No: UN2590
TDG Class: 9
Reg Status Date: 28-Mar-2014
Physical State: Solid
Amount in Storage: KG
Amount Per 30 Days: 2000 KG
Registered Waste: Asbestos, White **Note: Many records provided by the department have a truncated [Registered Waste] field.

Generation Code: Generated One Time Only
Handling Code: Off Site Management
Gen Business Type:
Certified By Name: Brett Giese - Veyron
Date Certifier Signed: 27-Mar-2014

Site: Unknown tractor trailer
29th Street and the Inland Island Hwy., Courtenay Courtenay BC

Database:
NEES

Incident Date: 4/6/01 0:55
Contaminant: diesel
Amount:
Units:
Quantity: Unknown
Cause: Overturn
Source: Transport Truck
Reason: Unknown
Sector: Transportation

Site: Unknown tractor trailer
29th Street and the Inland Island Hwy., Courtenay Courtenay BC

Database:
NEES

Incident Date: 4/6/01 0:55
Contaminant: petroleum product (NOS)
Amount: 25
Units: Tonnes (Metric)
Quantity: Estimate
Cause: Overturn
Source: Transport Truck
Reason: Unknown
Sector: Transportation

Site: SHELL CANADA
MARINE DR, ROYSTON; COURTNEY BC

Database:
NEES

Incident Date: 12/13/88
Contaminant: HYDRAULIC OIL
Amount:
Units:
Quantity:

Cause:
Source: TANK TRUCK
Reason:
Sector: PETROLEUM

Site: *Individual*
Across from Wal-Mart, Island Hwy, Comox Comox BC

Database:
NEES

Incident Date: 9/11/01 11:19
Contaminant: sewage
Amount:
Units:
Quantity: Unknown
Cause: Discharge
Source: Other
Reason: Intent
Sector: Residential

Site: *Unknown*
On Island Hwy shoulder ni Front of Glacier View Plaza Courtenay BC

Database:
NEES

Incident Date: 5/1/01 0:00
Contaminant: undetermined contaminant
Amount:
Units:
Quantity: Potential
Cause: Unknown
Source: Unknown
Reason: Unknown
Sector: Unknown

Site: *MCCREA HARDWARE LTD*
#8-468 29TH ST, COURTENAY, BC, CA V9N 7Z6 BC

Database:
PES

Registration No: 913
Registration Type:
Category: 1 - GENERAL
Regions of Operation:
Pesticides to be used:
Treatment Description:

Expiry Date: 04/01/1998
Provides Service:

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, 2022

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: Feb 28, 2022

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-May 31, 2022

BC Oil and Gas Commission Incidents:

Provincial [BCIN](#)

A list of oil and gas pipeline incidents in British Columbia made available by BC Oil and Gas Commission. An incident is defined as a present or imminent event or circumstance, resulting from oil and gas activity that is outside the scope of normal operations which may or may not be an emergency. Includes pipeline spills, releases, and damage to active and discontinued pipelines; does not include incidents that did not result in damage to the pipeline or a release of contents.

Government Publication Date: Mar 31, 2022

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*

Dry Cleaning Facilities:

Federal [CDRY](#)

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 2020

Chemical Register:

Private [CHM](#)

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-May 31, 2022

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 2012 -Sep 2022

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-May 31, 2022

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*

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-Jul 31, 2022

Environmental Issues Inventory System:

Federal

EIIS

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 EIIS 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-Aug 31, 2022

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. Includes fire training sites and sites at which Per- and Polyfluoroalkyl Substances (PFAS) are a concern.

Government Publication Date: Jun 2000-Sep 2022

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: 1993-2021

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 2019

Federal Identification Registry for Storage Tank Systems (FIRSTS):

Federal

FRST

A list of federally regulated Storage tanks from the Federal Identification Registry for Storage Tank Systems (FIRSTS). FIRSTS is Environment and Climate Change Canada's database of storage tank systems subject to the Storage Tank for Petroleum Products and Allied Petroleum Products Regulations. The main objective of the Regulations is to prevent soil and groundwater contamination from storage tank systems located on federal and aboriginal lands. Storage tank systems that do not have a valid identification number displayed in a readily visible location on or near the storage tank system may be refused product delivery.

Government Publication Date: May 31, 2018

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-Mar 31, 2021

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 2019

Hazardous Waste Facilities:

Provincial

HWF

A list of Hazardous Waste Facilities in British Columbia made available by the Ministry of Jobs, Trade and Technology in the BC Data Catalogue.

Government Publication Date: Jan 31, 2022

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: 1997-2019

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: Jun 2022**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 Canada Energy Regulator (CER) - previously 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-Jun 30, 2021**National Energy Board Wells:**

Federal

NEBP

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 Gas Commission Wells:**

Provincial

OGCW

List of well surface and bottom hole locations made available by the BC Oil & Gas Commission. Provides non-confidential information about the surface hole locations and sub-surface bottom hole locations of wells, including the current status and drilling information.

Government Publication Date: Dec 2020**Oil and Gas Commission Facilities:**

Provincial

OGF

A list of oil and gas facilities. Facilities are an oil and gas activity, defined in the Oil and Gas Activities Act as a system of vessels, piping, valves, tanks and other equipment used to gather, process, measure, store or dispose of petroleum, natural gas, water or a substance referred to in paragraph (d) or (e) of the definition of pipeline. This list is made available by the BC Oil and Gas Commission.

Government Publication Date: May 31, 2020**Oil and Gas Wells:**

Private

OGWW

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-Aug 31, 2022**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-Apr 2022

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

REC2

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-May 31, 2022

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: Jun 2022

Surrey Tank Construction Permits:

Provincial

STNK

A list of building permits issued for the removal, construction, and decommissioning of storage tanks in the City of Surrey. This list is made available by the City of Surrey Building Division of the Department of Planning and Development.

Government Publication Date: May 2022

Sump Locations:

Provincial

SUMP

Locations of sump sites used for drilling waste disposal. All operators in British Columbia are required to handle and dispose of drilling waste in accordance with the requirements of the Oil and Gas Waste Regulation and the Oil and Gas Handbook. The Waste Disposal application requires that each company maintain an inventory of sump/pit data. A pit is an earthen excavation for purposes of containing drilling waste. A sump is a grouping of one or more pits found at a geographic location. This list is made available by the BC Oil and Gas Commission.

Government Publication Date: Jul 2022

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 - Dec 2020

Vancouver Heating Oil Underground Storage Tanks:

Provincial

VTNK

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 - Aug 2022

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. The Groundwater Wells and Aquifers application may not include all groundwater wells as registration with the Province was voluntary until February 2016. The Ministry notes that the data is provided on an "as is" basis, may be subject to change.

Government Publication Date: Jul 2022

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 C. ERIS REPORT – PS#3 KILMARNOCK DRIVE



DATABASE REPORT

Project Property:	<i>CVRD South Sewer CVRD South Sewer Courtenay BC</i>
Project No:	<i>1536</i>
Report Type:	<i>Quote - Custom-Build Your Own Report</i>
Order No:	<i>23072601133</i>
Requested by:	<i>Current Environmental Ltd.</i>
Date Completed:	<i>November 6, 2023</i>

Environmental Risk Information Services

A division of Glacier Media Inc.

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Table of Contents

Table of Contents.....	2
Executive Summary.....	3
Executive Summary: Report Summary.....	4
Executive Summary: Site Report Summary - Project Property.....	6
Executive Summary: Site Report Summary - Surrounding Properties.....	7
Executive Summary: Summary By Data Source.....	8
Map.....	9
Aerial.....	10
Topographic Map.....	11
Detail Report.....	12
Unplottable Summary.....	16
Unplottable Report.....	17
Appendix: Database Descriptions.....	18
Definitions.....	25

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Executive Summary

Property Information:

Project Property: CVRD South Sewer
CVRD South Sewer Courtenay BC

Project No: 1536

Order Information:

Order No: 23072601133
Date Requested: July 26, 2023
Requested by: Current Environmental Ltd.
Report Type: Quote - Custom-Build Your Own Report

Historical/Products:

ERIS Xplorer [ERIS Xplorer](#)

Executive Summary: Report Summary

Database	Name	Searched	Project Property	Boundary to 0.20km	Total
AMS	Authorization Management System (formerly WASTE)	Y	0	0	0
ARIS	Assessment Report Indexing System	Y	0	0	0
AUWR	Automobile Wrecking & Supplies	Y	0	0	0
BCIN	BC Oil and Gas Commission Incidents	Y	0	0	0
BOGW	BC Oil and Gas Wells	Y	0	0	0
CDRY	Dry Cleaning Facilities	Y	0	0	0
CHM	Chemical Register	Y	0	0	0
CNG	Compressed Natural Gas Stations	Y	0	0	0
COAL	Coal Tar Sites	Y	0	0	0
CONV	Compliance and Enforcement Summary	Y	0	0	0
DIS	Wastewater Discharge Inventory	Y	0	0	0
EEM	Environmental Effects Monitoring	Y	0	0	0
EHS	ERIS Historical Searches	Y	0	0	0
EIIS	Environmental Issues Inventory System	Y	0	0	0
EM	Environmental Monitoring Locations	Y	0	0	0
FCON	Federal Convictions	Y	0	0	0
FCS	Contaminated Sites on Federal Land	Y	0	0	0
FISH	Commercial Fisheries	Y	0	0	0
FOFT	Fisheries & Oceans Fuel Tanks	Y	0	0	0
FRST	Federal Identification Registry for Storage Tank Systems (FIRSTS)	Y	0	0	0
GEN	Waste Generators Summary	Y	0	0	0
GEN2	Generators - Special Waste Information System (SWIS)	Y	0	0	0
GHG	Greenhouse Gas Emissions from Large Facilities	Y	0	0	0
HWF	Hazardous Waste Facilities	Y	0	0	0
IAFT	Indian & Northern Affairs Fuel Tanks	Y	0	0	0
LUM	Lumber Mills	Y	0	0	0
MINE	Canadian Mine Locations	Y	0	0	0
MNR	Minerals Deposits Database	Y	0	0	0
NATE	National Analysis of Trends in Emergencies System (NATES)	Y	0	0	0
NCPL	Non-Compliance Reports	Y	0	0	0
NDFT	National Defense & Canadian Forces Fuel Tanks	Y	0	0	0
NDSP	National Defense & Canadian Forces Spills	Y	0	0	0
NDWD	National Defence & Canadian Forces Waste Disposal Sites	Y	0	0	0
NEBI	National Energy Board Pipeline Incidents	Y	0	0	0
NEBP	National Energy Board Wells	Y	0	0	0
NEES	National Environmental Emergencies System (NEES)	Y	0	0	0

Database	Name	Searched	Project Property	Boundary to 0.20km	Total
NPCB	National PCB Inventory	Y	0	0	0
NPR2	National Pollutant Release Inventory 1993-2020	Y	0	0	0
NPRI	National Pollutant Release Inventory - Historic	Y	0	0	0
OGCW	Oil Gas Commission Wells	Y	0	0	0
OGF	Oil and Gas Commission Facilities	Y	0	0	0
OGWW	Oil and Gas Wells	Y	0	0	0
PAP	Canadian Pulp and Paper	Y	0	0	0
PCB	Inventory of PCB Storage Sites	Y	0	0	0
PCFT	Parks Canada Fuel Storage Tanks	Y	0	0	0
PES	Pesticide Register	Y	0	0	0
PFCH	NPRI Reporters - PFAS Substances	Y	0	0	0
PFHA	Potential PFAS Handlers from NPRI	Y	0	0	0
PRAI	Private Aggregate Inventory	Y	0	0	0
PUAI	Public Aggregate Inventory	Y	0	0	0
REC	Waste Receivers Summary	Y	0	0	0
REC2	Receivers - Special Waste Information System (SWIS)	Y	0	0	0
RST	Retail Fuel Storage Tanks	Y	0	0	0
SCT	Scott's Manufacturing Directory	Y	0	0	0
SREG	Site Registry	Y	0	1	1
STNK	Surrey Tank Construction Permits	Y	0	0	0
SUMP	Sump Locations	Y	0	0	0
TCFT	Transport Canada Fuel Storage Tanks	Y	0	0	0
VTNK	Vancouver Heating Oil Underground Storage Tanks	Y	0	0	0
WDS	Waste Disposal Site Inventory	Y	0	0	0
WWIS	Water Well Information System	Y	0	1	1
Total:			0	2	2

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

Map Key	DB	Company/Site Name	Address	Dir/Dist (m)	Elev Diff (m)	Page Number
1	SREG	ISLAND HWY S FROM ARGYLE RD TO JONES ST	ISLAND HIGHWAY SOUTH BETWEEN ARGYLE ROAD TO JONES STREET, COMOX BC <i>Site ID Updated: 27025 </i>	S/6.7	2.93	12
2	WWIS		BC	SE/85.4	-4.27	12

Executive Summary: Summary By Data Source

SREG - Site Registry

A search of the SREG database, dated Sep 2023 has found that there are 1 SREG site(s) within approximately 0.20 kilometers of the project property.

<u>Site</u>	<u>Address</u>	<u>Distance (m)</u>	<u>Map Key</u>
ISLAND HWY S FROM ARGYLE RD TO JONES ST	ISLAND HIGHWAY SOUTH BETWEEN ARGYLE ROAD TO JONES STREET, COMOX BC <i>Site ID Updated: 27025 </i>	6.7	<u>1</u>

WWIS - Water Well Information System

A search of the WWIS database, dated Aug 2023 has found that there are 1 WWIS site(s) within approximately 0.20 kilometers of the project property.

<u>Site</u>	<u>Address</u>	<u>Distance (m)</u>	<u>Map Key</u>
	BC	85.4	<u>2</u>



Map: 0.2 Kilometer Radius

Order Number: 23072601133

Address: CVRD South Sewer, Courtenay, BC

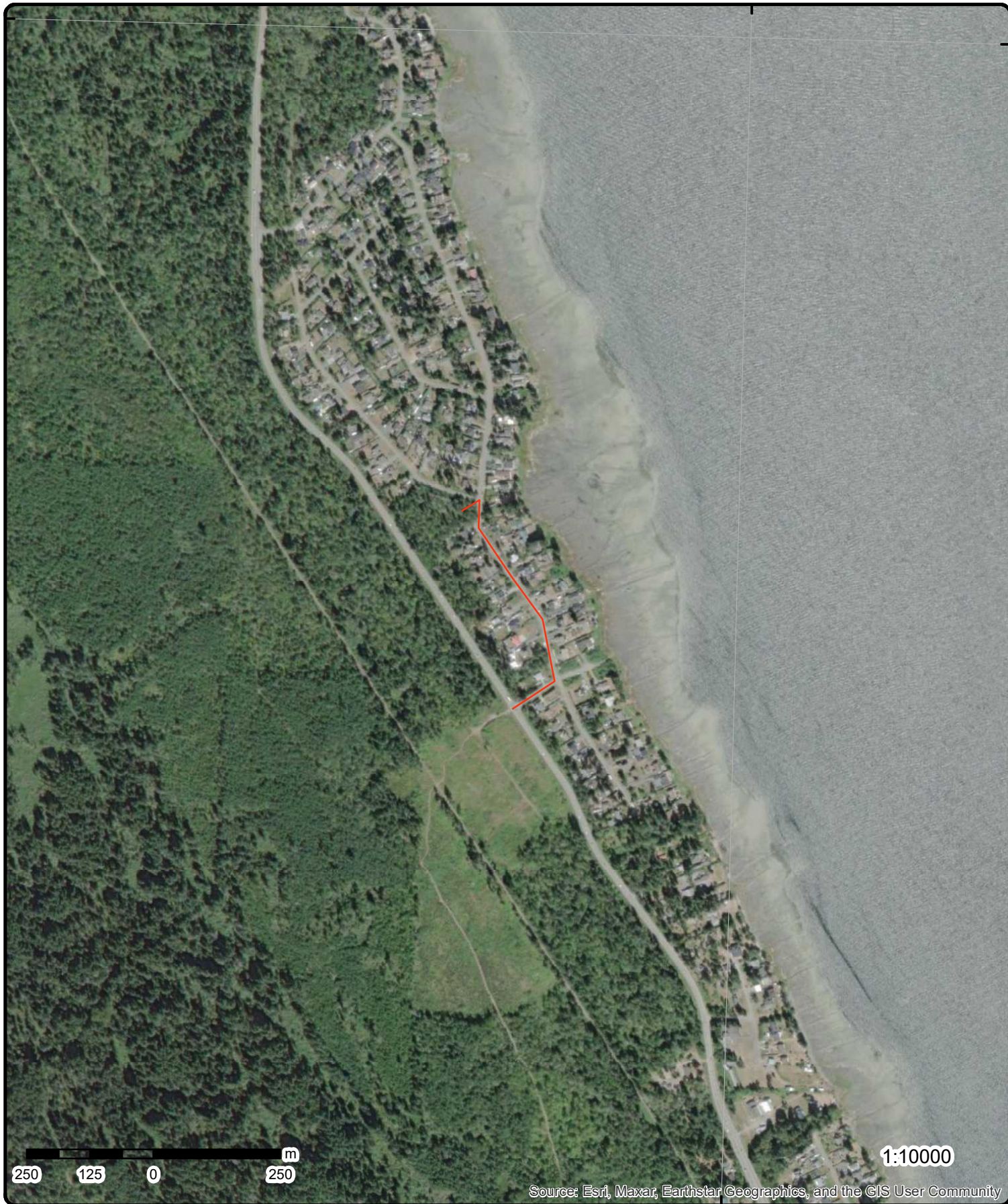


Project Property	Freeways; Highways	Beach	Shopping & Sports Area
Buffer Outline	Traffic Circle; Ramp	Airport	University/College
Eris Sites with Higher Elevation	Major Arterial; Minor Arterial	Industrial Area	Cemetery; Golf Course
Eris Sites with Same Elevation	Local Road	Military Base	Parkt (National)
Eris Sites with Lower Elevation	Service Road; Traffic Circle; Ramp	Aircraft Roads	Park (City/County)
Eris Sites with Unknown Elevation	Rail	Native Reservation	
		Hospital	

49°37'30"N

124°54'W

49°37'30"N



Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community

Aerial

Year: 2020

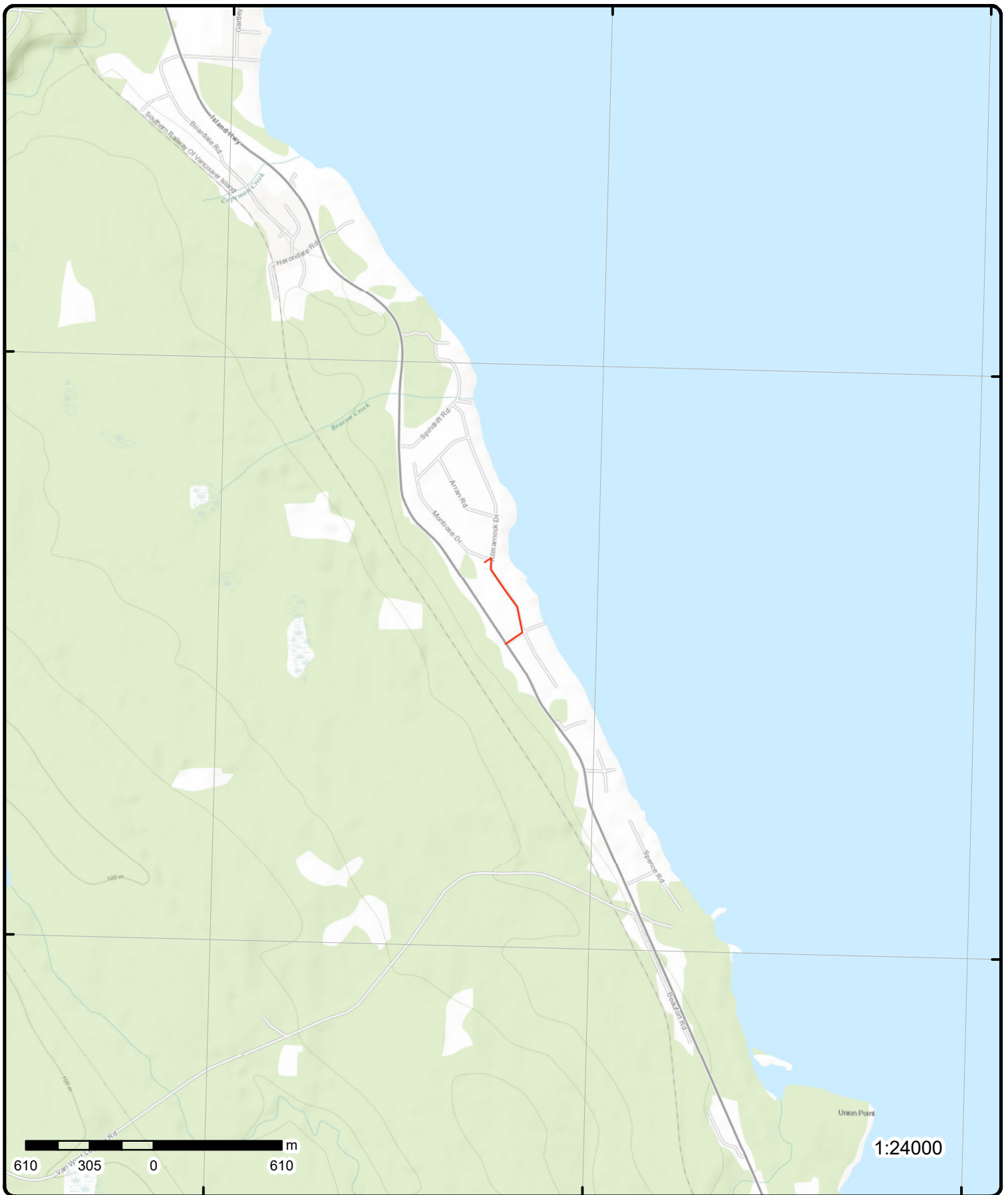
Order Number: 23072601133

Address: CVRD South Sewer, Courtenay, BC



Source: ESRI World Imagery

© ERIS Information Limited Partnership



Topographic Map

Address: CVRD South Sewer, BC

Source: ESRI World Topographic Map

Order Number: 23072601133



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Detail Report

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
1	1 of 1	S/6.7	14.5 / 2.93	ISLAND HWY S FROM ARGYLE RD TO JONES ST ISLAND HIGHWAY SOUTH BETWEEN ARGYLE ROAD TO JONES STREET, COMOX BC	SREG
<div> <div> Site ID: 27025 Env Rmd ID: 67271911 Region: Record Status: Status as of: Cleanup Status: Category: Registered: Victoria File No: 26250-20/27025 Regional File No: 26250-20/27025 Common Name: ISLAND HWY S FROM ARGYLE RD TO JONES ST Location Desc: LAT/LONG PROVIDED IN NIR, VERIFIED IN SITE Addr (BC Data Catalogue): ISLAND HIGHWAY SOUTH BETWEEN ARGYLE ROAD TO JONES STREET, COMOX Site Note: There are no PIDs nor Associated Sites for this site. Note: Site data and details for SREG records are sourced from: 1) the detailed Site Registry data made available via information request (current as of February 2023), and 2) point data of Environmental Remediation Sites available in the British Columbia Data Catalog (current as of September 2023). The detailed Site Registry data have been updated to the best of our ability as provided by the source, BC Government. </div> <div> Updated: Detail Removed: Postal Code: Latitude DMS: Longitude DMS: Latitude: 49.61297199964155 Longitude: -124.90586099970038 </div> </div>					
2	1 of 1	SE/85.4	7.3 / -4.27	BC	WWIS
<div> <div> Well Tag No: 12241 Filter Pack Size: Filter Pack Mtl: Surf Seal Flag: Surf Seal Mthd: Constr Start Dt: 1950-01-01 Water Depth: Est. Yield: Constr Mthd: SubClass of Well: Well Status: New Well Use Code: Class of Well Code: WATR_SPPLY Surface Seal Mtl Cd: Well ID: Consultant Company: Crew Driller Name: Gravel Packed From: Driller Company Cd: Driller Well ID: Meridian: Drilling Mthd: Existing Well Tag No: Observ. Well No: Owner's Well No: BCGS ID: Seq No: </div> <div> Status of Well Code: NEW Filter Pack Size Cd: Filter Pack Mtl Cd: Surf Seal Mtl: Surface Seal Depth ft: Constr End Dt: 1950-01-01 Final Well Depth: 18.00 Use: Class of Well: Water supply Orientation of Well: Yield Unit Code: UNK Constr Mthd Cd: Subclass of Well Cd: Surface Seal Mthd Cd: Constr Report Ind: Contractor Info 1: Gravel Packed Flag: Gravel Packed To: Drilling Company: Surfac Seal Thck (In): Drilling Mthd Cd: EXCAVATING Elevation: Chemistry Site ID: Well Owner: Accepted Status Cd: BCGS Mapsheet: District Lot: </div> </div>					

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
Land District:	NELSON			Range:	
Township:				PID:	
Lot:	28			Plan:	
Section:				Island:	
Constr Rpt Rcvd Ind:				Latitude:	49.613104
Longitude:	-124.903834			Zone:	10
Easting:	362470			Northing:	5497356
Legal Land Distr Cd:	34			Legal Misc:	
Well Diameter:				Ttl Dpth Drilled Ft Bgl:	
Bedrock Depth:				Aquifer No:	1143
Aquifer Lithology Cd:	Unconsolidated			Aquifer Lithology:	
Artesian Flow:				Artesian Units:	
Artesian P PSI:				Alteration End Date:	
Alteration Start Date:				Alt Specs Ind:	
Alt Specs Rcvd Ind:				Backfill Depth ft:	
Backfill Material:				Backfill Type:	
Capture Zone Flag:				Water Quality Colour:	
Water Quality Odour:				Water Utility Flag:	
UTM Accuracy Code:	C				
Location Accuracy:	C (50 m)	Digitized from 1:20,000 mapping			
Accepted Status:					
Class of Well Codclassified by:					
Observ. Well Status:					
Other Chemistry Data:					
Filter Pack Mtl Thickness:					
Yield Units:	UNKNOWN YIELD				
Water Supply System Name:					
Water Supply Well Name:					
Artesian Flow Unit Cd:					
Orientation of Well Cd:					
General Remarks:					
Well Details (Cont.)					
Permit No:				Sealant Mtl:	
Well ID Plate No:				Surface Seal Length:	
Cntrct Well Plate:				Well Subclass by:	
Well Sequence No:				Type of Well Cap:	
Observe Well No:				User Guid:	
Well Lic Gen Stat:				Well Disinfect Ind:	Not Disinfected
Old Well No:				When Created:	
Indian Reserve:				Date Entered:	
Legal Block:				Crew Helper Name:	
Liner Mtl Cd:				Chemistry Lab Data:	
Liner Mtl:				Field Lab Data:	
Lithology Flag:				Other Chem Data:	
Lith Measure Unit:				Type of Work:	
Lith Desc Count:				Contractor Info 2:	
Perforation Flag:				Who Updated:	
Plate Attached by:				When Updated:	
Product Tidal Flag:				Other Information:	
Quarter:				Who Created:	
Reports Flag:				Info Other:	
Ground Water Flag:				Info Site:	
Sieve Flag:				Accepted by:	
Site Flag:				Source Application:	
Other Flag:				Well ID Plate Atta:	
Pump Flag:				Clos End Date:	
Screen Flag:				Clos Mthd Cd:	
Screen Bottom Cd:				Clos Mthd:	
Screen Bottom:				Clos Reason:	
Screen Info Text:				Clos Start Date:	
Screen Intake Cd:				Development Hours:	
Screen Intake:				Develop Method Cd:	
Screen Length:				Develop Meth Desc:	

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
Screen Mfr: Screen Mtl Cd: Screen Mtl: Screen Opening Cd: Screen Opening: Screen Type Cd: Screen Type: Screen Wire: Boundary Effect Code: Closure Details: Development Notes: Well Location: Legal Miscellaneous: Analytic Solution Type: Testing Duration Hours: Testing Method: Specific Yield: Specific Storage 1 M: Hydraulic Conductivity: Transmissivity: Storativity: AVI Years:				Final Casing Stick: Gnd Elev Mthd Cd: Gnd Elev Mthd: Old Mapsheet: Coordinate X: Coordinate Z: Coordinate Y: Pump Desc:	UNKNOWN
Well Details (Cont 2)					
EMS ID: EMS: Filter Pack from: Filter Pack to: Liner Dia Inches: Liner from: Liner Thickness Inches: Decommission Backfill Mater: Decommission Details: Decommission End Date: Decommission Method Code: Decommission Reason: Decommission Sealant Mater: Decommission Start Date: Hydro Fracturing Performed: Hydro Fracturing Yield Increases: Intended Water Use Code: Licenced Status Code: Screen Intake Method Code: Static Level Before Test: Static Water Level Ft Btoc: Water Supply Sys Well Name: Well Orientation: Yield Estimation Duration: Yield Estimation Method Code: Yield Estimation Rate: Alternative Specs Submitted: Artesian Conditions: Artesian Pressure Head Ft Agl:				Liner to: Other Screen Bottom: Otr Screen Mater: Person Responsible: Drawdown: Co Persn Respsble: Consultant Name:	Unknown
		False			
		DOM			
		UNLICENSED			
		15.00			
		VERTICAL			
		False			
		False			
Lithology Information					
Lithology Seq No: Lithology Desc ID: Lithology: Lithology Cd: Lithology Desc: Lithology Colour Cd:				Who Created: When Created: When Updated: Who Updated: Depth: Overburden Depth:	From 0.00 To 0.00

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
<hr/>					
Lithology Colour:				Bedrock Depth:	
Lithology Mtl Cd:				Total Depth:	
Lithology Mtl:				Rel Hardness Cd:	
Material:	aquifer data: hard clay			Rel Hardness:	
Well Yield Unit Code:					
Lithology Observation:					
Lithology Edited Data:					
Lithology Raw Data:	aquifer data: hard clay				
Lithology Meas Unit:					
Water Bearing Est Flw Unt Cd:					
Water Bearing Est Flw Unt:					
Water Bearing Estimated Flow:					

Unplottable Summary

Total: 2 Unplottable sites

DB	Company Name/Site Name	Address	City	Postal
NEES	Individual	Across from Wal-Mart, Island Hwy, Comox	Comox BC	
NEES	Unknown	On Island Hwy shoulder ni Front of Glacier View Plaza	Courtenay BC	

Unplottable Report

Site: *Individual*
Across from Wal-Mart, Island Hwy, Comox Comox BC

Database:
[NEES](#)

Incident Date: 9/11/01 11:19
Contaminant: sewage
Amount:
Units:
Quantity: Unknown
Cause: Discharge
Source: Other
Reason: Intent
Sector: Residential

Site: *Unknown*
On Island Hwy shoulder ni Front of Glacier View Plaza Courtenay BC

Database:
[NEES](#)

Incident Date: 5/1/01 0:00
Contaminant: undetermined contaminant
Amount:
Units:
Quantity: Potential
Cause: Unknown
Source: Unknown
Reason: Unknown
Sector: Unknown

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, 2022

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: Feb 28, 2022

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-Feb 28, 2022

BC Oil and Gas Commission Incidents:

Provincial [BCIN](#)

A list of oil and gas pipeline incidents in British Columbia made available by BC Oil and Gas Commission. An incident is defined as a present or imminent event or circumstance, resulting from oil and gas activity that is outside the scope of normal operations which may or may not be an emergency. Includes pipeline spills, releases, and damage to active and discontinued pipelines; does not include incidents that did not result in damage to the pipeline or a release of contents.

Government Publication Date: Dec 31, 2022

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*

Dry Cleaning Facilities:

Federal [CDRY](#)

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 2021

Chemical Register:

Private [CHM](#)

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-Feb 28, 2023

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 2012 -Aug 2023

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-May 31, 2022

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*

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-Sep 30, 2023

Environmental Issues Inventory System:

Federal

EIIS

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 EIIS 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-Aug 31, 2023

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. Includes fire training sites and sites at which Per- and Polyfluoroalkyl Substances (PFAS) are a concern.

Government Publication Date: Jun 2000-Jun 2023

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: 1993-2022

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 2019

Federal Identification Registry for Storage Tank Systems (FIRSTS):

Federal

FRST

A list of federally regulated Storage tanks from the Federal Identification Registry for Storage Tank Systems (FIRSTS). FIRSTS is Environment and Climate Change Canada's database of storage tank systems subject to the Storage Tank for Petroleum Products and Allied Petroleum Products Regulations. The main objective of the Regulations is to prevent soil and groundwater contamination from storage tank systems located on federal and aboriginal lands. Storage tank systems that do not have a valid identification number displayed in a readily visible location on or near the storage tank system may be refused product delivery.

Government Publication Date: Oct 31, 2021

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 the "Waste Generators Summary" addresses may represent mailing addresses rather than waste/hazardous sites. This database is a summary of waste generators from the hazardous waste transport manifests from June 1993 to September 2010. This listing also includes active registered waste generators from the Generator Registration Data CD. 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.

Government Publication Date: 1993-Oct 31, 2022

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 2020

Hazardous Waste Facilities:

Provincial

HWF

A list of Hazardous Waste Facilities in British Columbia made available by the Ministry of Jobs, Trade and Technology in the BC Data Catalogue.

Government Publication Date: Jan 31, 2022

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: 1997-2021

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: Sep 2023**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-Oct 2022**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 Canada Energy Regulator (CER) - previously 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-Jun 30, 2021**National Energy Board Wells:**

Federal

NEBP

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 1993-2020:**

Federal

NPR2

The National Pollutant Release Inventory (NPRI) is Canada's public inventory of pollutant releases (to air, water and land), disposals, and transfers for recycling. The inventory, managed by Environment and Climate Change Canada, tracks over 300 substances. Under the authority of the Canadian Environmental Protection Act (CEPA), owners or operators of facilities that meet published reporting requirements are required to report to the NPRI.

Government Publication Date: Sep 2020**National Pollutant Release Inventory - Historic:**

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. This data holds historic records; current records are found in NPR2.

Government Publication Date: 1993-May 2017**Oil Gas Commission Wells:**

Provincial

OGCW

List of well surface and bottom hole locations made available by the BC Oil & Gas Commission. Provides non-confidential information about the surface hole locations and sub-surface bottom hole locations of wells, including the current status and drilling information.

Government Publication Date: Jun 2023**Oil and Gas Commission Facilities:**

Provincial

OGF

A list of oil and gas facilities. Facilities are an oil and gas activity, defined in the Oil and Gas Activities Act as a system of vessels, piping, valves, tanks and other equipment used to gather, process, measure, store or dispose of petroleum, natural gas, water or a substance referred to in paragraph (d) or (e) of the definition of pipeline. This list is made available by the BC Oil and Gas Commission.

Government Publication Date: Apr 30, 2023**Oil and Gas Wells:**

Private

OGWW

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-Aug 31, 2023**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-Jun 2023

NPRI Reporters - PFAS Substances:

Federal

PFCH

The National Pollutant Release Inventory (NPRI) is Canada's public inventory of releases, disposals, and transfers, tracking over 320 pollutants. Per- and polyfluoroalkyl substances (PFAS) are a group of over 4,700 human-made substances for which adverse environmental and health effects have been observed. This listing of PFAS substance reporters includes those NPRI facilities that reported substances that are found in either: a) the Comprehensive Global Database of PFASs compiled by the Organisation for Economic Co-operation and Development (OECD), b) the US Environmental Protection Agency (US EPA) Master List of PFAS Substances, c) the US EPA list of PFAS chemicals without explicit structures, or d) the US EPA list of PFAS structures (encompassing the largest set of structures having sufficient levels of fluorination to potentially impart PFAS-type properties).

Government Publication Date: Sep 2020

Potential PFAS Handlers from NPRI:

Federal

PFHA

The National Pollutant Release Inventory (NPRI) is Canada's public inventory of releases, disposals, and transfers, tracking over 320 pollutants. Per- and polyfluoroalkyl substances (PFAS) are a group of over 4,700 human-made substances for which adverse environmental and health effects have been observed. This list of potential PFAS handlers includes those NPRI facilities that reported business activity (NAICS code) included in the US Environmental Protection Agency (US EPA) list of Potential PFAS-Handling Industry Sectors, further described as operating in industry sectors where literature reviews indicate that PFAS may be handled and/or released. Inclusion of a facility in this listing does not indicate that PFAS are being manufactured, processed, used, or released by the facility - these are facilities that potentially handle PFAS based on their industrial profile.

Government Publication Date: Sep 2020

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

REC2

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-Feb 28, 2023

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: Sep 2023

Surrey Tank Construction Permits:

Provincial

STNK

A list of building permits issued for the removal, construction, and decommissioning of storage tanks in the City of Surrey. This list is made available by the City of Surrey Building Division of the Department of Planning and Development.

Government Publication Date: Jul 2023

Sump Locations:

Provincial

SUMP

Locations of sump sites used for drilling waste disposal. All operators in British Columbia are required to handle and dispose of drilling waste in accordance with the requirements of the Oil and Gas Waste Regulation and the Oil and Gas Handbook. The Waste Disposal application requires that each company maintain an inventory of sump/pit data. A pit is an earthen excavation for purposes of containing drilling waste. A sump is a grouping of one or more pits found at a geographic location. This list is made available by the BC Oil and Gas Commission.

Government Publication Date: Sep 2023

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 - Apr 2023

Vancouver Heating Oil Underground Storage Tanks:

Provincial

VTNK

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 - Aug 2023

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. The Groundwater Wells and Aquifers application may not include all groundwater wells as registration with the Province was voluntary until February 2016. The Ministry notes that the data is provided on an "as is" basis, may be subject to change.

Government Publication Date: Aug 2023

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.

Site Registry - Site Details Report

BC Registries and Online Services

SITE LOCATION

Site ID:	27025	Latitude:	49d 36m 46.7s
Victoria File:	26250-20/27025	Longitude:	124d 54m 21.1s
Regional File:			
Common Name:	ISLAND HWY S FROM ARGYLE RD TO JONES ST	Prov/State:	BC
Site Address:	ISLAND HIGHWAY SOUTH BETWEEN ARGYLE ROAD TO JONES STREET		
City:	COMOX		
Postal Code:			
Notations:	3	Participants:	5
Documents:	0	Susp. Land Use:	0
		Associated Sites:	0
		Parcel Descriptions:	0
Location Description:	LAT/LONG PROVIDED IN NIR, VERIFIED IN SITE		

NOTATIONS:

Notation Type:	NOTICE OF INDEPENDENT REMEDIATION INITIATION SUBMITTED
Notation Class:	ENVIRONMENTAL MANAGEMENT ACT: GENERAL
Initiated:	2023-02-02
Completed:	2023-02-02
Ministry Contact:	GROLLA, ETHAN
Note:	INITIATION DATE: 2023-01-24 ESTIMATED COMPLETION DATE: 2023-05-30
Required Actions:	
<i>Notation Participants</i>	
Name:	TETRA TECH EBA
Role:	SUBMITTED BY

Notation Type:	SITE RISK CLASSIFIED - SITE IS NON-HIGH RISK
Notation Class:	ENVIRONMENTAL MANAGEMENT ACT: GENERAL
Initiated:	2023-02-02
Completed:	2023-02-02
Ministry Contact:	SCHEIDT, EVAN
Note:	
Required Actions:	
<i>Notation Participants</i>	
Name:	TETRA TECH CANADA INC.
Role:	SUBMITTED BY

Notation Type: NOTICE OF INDEPENDENT REMEDIATION COMPLETION SUBMITTED
Notation Class: ENVIRONMENTAL MANAGEMENT ACT: GENERAL
Initiated: 2023-12-12
Completed: 2023-12-12
Ministry Contact: YOUNES, AYAH
Note:
Required Actions:

SITE PARTICIPANTS:

Participant: GROLLA, ETHAN
Role(s): EMPLOYEE
Start Date: 2023-02-02
End Date:
Notes:

Participant: BC MINISTRY OF TRANSPORTATION AND INFRASTRUCTURE
Role(s): ORGANIZATION
Start Date: 2023-02-02
End Date:
Notes:

Participant: TETRA TECH CANADA INC.
Role(s): ORGANIZATION
Start Date: 2023-02-02
End Date:
Notes:

Participant: TETRA TECH EBA
Role(s): ORGANIZATION
Start Date: 2023-02-02
End Date:
Notes:

Participant: YOUNES, AYAH
Role(s): EMPLOYEE
Start Date: 2023-12-12
End Date:
Notes:

No documents have been submitted for this site

No associated sites have been submitted for this site

No suspect land uses have been submitted for this site

No parcel descriptions have been submitted for this site

No site profile has been submitted for this site

End of Site Details Report

Disclaimer: Site Registry information has been filed in accordance with the provisions of the *Environmental Management Act*. While we believe the information to be reliable, BC Registries and Online Services and the Province of British

Columbia make no representation or warranty as to its accuracy or completeness. Persons using this information do so at their own risk.

APPENDIX D. CHANCE ARCHAEOLOGICAL FIND GUIDELINES

These Chance Find Guidelines aim to assist the Contractor if unanticipated archaeological finds (Chance Finds) are encountered during construction. The Contractor is advised that Chance Finds can potentially occur throughout the project alignment. These guidelines are in-line with professional best practices, standards of the BC Association of Professional Archaeologists (BCPA) and BC Archaeological Impact Assessment Guidelines (BC Archaeological Branch 1998).

Guidelines for Chance Finds

- 1) STOP WORK. If suspected archaeological materials or features are encountered, stop work in the immediate vicinity of the find and secure the area. Do not undertake further work that could disturb the find, including moving any soil from the vicinity of the site or adjacent spoil material, and protect any artifacts in place;
- 2) The Contractor shall wait for further direction from CVRD in consultation with the Project Archaeologist before resuming work in the vicinity;
- 3) Record the following:
 - a. Date (when the find was encountered)
 - b. Observer name
 - c. Location (GPS coordinates if possible)
 - d. Type of find (e.g. shell midden, artifact, human remains)
 - e. Description of disturbance (e.g. excavation, erosion, etc)
 - f. Photos with scale
- 4) Retain potential archaeological sediments on site
- 5) Delineate substrate that may contain cultural materials (e.g. temporary fencing)
- 6) Be prepared to initiate work in another location while archaeological work is completed. Based on the nature of the Chance Find, it may be determined by the Archaeological Monitor that there are no further concerns and activities may continue, or further assessment or mitigation may be required.
- 7) Treat human remains, regardless of condition, with respect at all times. Depending on the location and nature of discovery, the project Archaeologist may need to follow up with the RCMP.

APPENDIX E. OPERATIONAL SPILL RESPONSE PLAN

Follow these procedures if a spill of fuels, chemicals, or other hazardous materials occurs

Contacts

Report major spills (>100 L) of Class 3 Flammable liquids to EMBC (1-800-663-3456)

For deleterious substance spills of any volume to water call DFO (1-800-465-4336)

9-1-1 FOR EMERGENCY SERVICES

Response

For spills of any volume follow these steps:

- 1) ENSURE HUMAN SAFETY
- 2) STOP THE FLOW (when possible)
- 3) SECURE THE AREA
- 4) CONTAIN THE SPILL
- 5) NOTIFY
- 6) CLEAN-UP
- 7) REPORT
- 8) DE-BRIEF

1) ENSURE HUMAN SAFETY

- Assess the situation. Never rush in.
- Warn other people in the immediate vicinity.
- Determine what product has been spilled.
- If the spilled product is flammable ensure there are no ignition sources nearby.
- Wear appropriate personal protective equipment.

2) STOP THE FLOW

- Act quickly.
- Stop the flow or spill at its source.
- Close valves, shut off pumps, or plug holes/leaks.

3) SECURE THE AREA

- Inform the Environmental Monitor and Construction Supervisor of the spill.
 - Limit worker access to spill area.
 - Prevent public entry to the site.
-

Continued next page...

4) CONTAIN THE SPILL

- Prevent spillage from entering drainages (watercourses, ditches, culverts, drains).
- Use ample spill sorbent material to contain the spill.
- As necessary, use a dyke, pumping into containment structures, or other method to prevent discharge from the site.
- Make every effort to minimize contamination.

5) NOTIFY

- When necessary (spills of flammable materials >100L) the first external call should be made to: Emergency Management BC (EMBC) 1-800-663-3456 (24 hour)
- For deleterious substance spills of any volume to water call DFO 1-800-465-4336
- Provide necessary spill details to other external agencies.
- See Spill Reporting Notification Chart and Table of Reportable Levels of Certain Substances provided below.

6) CLEAN-UP

- The Environmental Monitor will be responsible to ensure that clean-up methods comply with Ministry of Environment requirements including the *Environmental Management Act* and Regulations, or relevant regulation.
- All material and equipment used in clean-up (e.g. used spill containment material, and sorbent pads) are to be disposed of appropriately.
- Soils or other materials contaminated by the spill will be treated as special wastes and be disposed of as required on a site-specific basis. Residue sampling may be required in association with soil contamination to ensure complete removal and/or treatment.

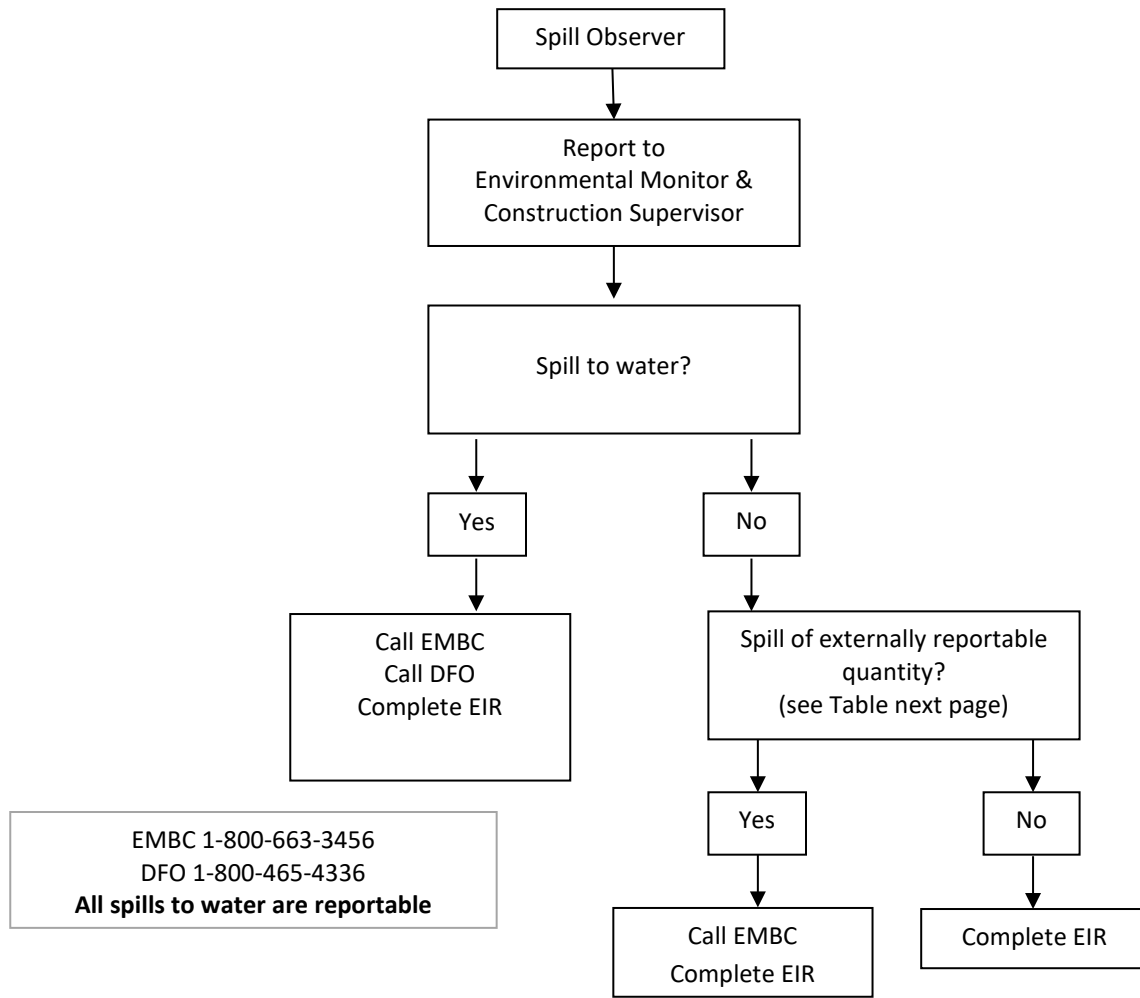
7) REPORT

- Complete an Environmental Incident Report (EIR).
- The EIR will be submitted to MoT/MoE/DFO as required (or any other pertinent regulatory agencies), and copies will be retained by the EM and Construction Supervisor.

8) DE-BRIEF

- Following the clean-up of a spill the Construction Supervisor will call a meeting with all personnel to discuss the following as a means to inform future prevention and spill management techniques:
 - Identify the source of the spill and whether it could have been avoided.
 - Review the sequence of events used to handle the spill, including what was done right/wrong.
 - Determine whether the equipment used to handle the spill was available when needed and in sufficient quantity.
 - Discuss how the spill response procedure could be improved.

Continued next page...

Spill Reporting Notification Chart

Continued next page...

Table of Reportable Levels of Certain Substances(Adapted from *Environmental Management Act – Spill Reporting Regulation*)

Item	Column 1 Substance spilled	Column 2 Specified amount
1	Explosives of Class 1 as defined in section 3.9 of the Federal Regulations	any
2	Flammable gases, other than natural gas, of Division 1 of Class 2 as defined in section 3.11 (a) of the Federal Regulations	10 kg, if the spill results from equipment failure, error or deliberate action or inaction
3	Non-flammable gases of Division 2 of Class 2 as defined in section 3.11 (d) of the Federal Regulations	10 kg, where spill results from equipment failure, error or deliberate action or inaction
4	Poisonous gases of Division 3 of Class 2 as defined in section 3.11 (b) of the Federal Regulations	5 kg, where spill results from equipment failure, error or deliberate action or inaction
5	Corrosive gases of Division 4 of Class 2 as defined in section 3.11 (c) of the Federal Regulations	5 kg, where spill results from equipment failure, error or deliberate action or inaction
6	Flammable liquids of Class 3 as defined in section 3.12 of the Federal Regulations	100 L
7	Flammable solids of Class 4 as defined in section 3.15 of the Federal Regulations	25 kg
8	Products or substances that are oxidizing substances of Division 1 of Class 5 as defined in section 3.17 (a) and 3.18 (a) of the Federal Regulations	50 kg
9	Products or substances that are organic compounds that contain the bivalent "-O-O-" structure of Division 2 of Class 5 as defined in sections 3.17 (b) and 3.18 (b) of the Federal Regulations	1 kg
10	Products or substances that are poisons of Division 1 of Class 6 as defined in section 3.19 (a) to (e) and 3.20 (a) of the Federal Regulations	5 kg
11	Organisms that are infectious or that are reasonably believed to be infectious and the toxins of these organisms as defined in sections 3.19 (f) and 3.20 (b) of the Federal Regulations	any
12	Radioactive materials of Class 7 as defined by section 3.24 of the Federal Regulations	All discharges or a radiation level exceeding 10 mSv/h at the package surface and 200 µSv/h at 1 m from the package surface
13	Products or substances of Class 8 as defined by section 3.25 of the Federal Regulations	5 kg
14	Miscellaneous products or substances of Division 1 of Class 9 as defined by section 3.27 (1) and (2) (a) of the Federal Regulations	50 kg
15	Miscellaneous products or substances of Division 2 of Class 9 as defined in section 3.27 (1) and (2) (b) of the Federal Regulations	1 kg
16	Miscellaneous products or substances of Division 3 of Class 9 as defined in section 3.27 (1) and (2) (c) of the Federal Regulations	5 kg
17	Waste asbestos as defined in section 1 of the Hazardous Waste Regulation	50 kg
18	Waste oil as defined in section 1 of the Hazardous Waste Regulation	100 l
19	Waste containing a pest control product as defined in section 1 of the Hazardous Waste Regulation	5 kg
20	A substance not covered by items 1 to 19 that can cause pollution	200 kg

21	Natural gas	10 kg, if there is a breakage in a pipeline or fitting operated above 100 psi that results in a sudden and uncontrolled release of natural gas
<p>*Refer to <i>Transportation of Dangerous Goods Regulation under the Transportation of Dangerous Goods Act</i> for substance definitions.</p> <p>** If there is any doubt regarding the substance spilled, specified amount, or whether it is reportable, take a cautious approach and report it.</p>		

END – Spill Response Plan