Core Area Stormwater Quality Program

2024 Report

Capital Regional District | Parks, Recreation & Environmental Services, Environmental Protection

Including the jurisdictions of:

City of Colwood
Township of Esquimalt
City of Langford
District of Oak Bay
District of Saanich
City of Victoria
Town of View Royal
Esquimalt First Nation
Songhees First Nation
Department of National Defence

Prepared by
Stormwater Quality Program

Capital Regional District
625 Fisgard Street, Victoria, BC V8W 2S6
T: 250.360.3000 | F: 250.360.3079
www.crd.bc.ca

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CORE AREA STORMWATER QUALITY PROGRAM
2024 REPORT

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Terms & Abbreviations

Ag	silver
As	arsenic
$CaCO_3$	calcium carbonate
Cd	cadmium
CCME	Canadian Council of Ministers of the Environment
CFU	colony-forming unit
Cn	contaminant concentration
Cr	chromium
CRD	Capital Regional District
Cu	copper
d/s	downstream
DIS	dissolved state
DND	Department of National Defence
ENV	BC Ministry of Environment and Parks
EPT	Ephemeroptera (mayflies), Plecoptera (stoneflies), and Trichoptera (caddisflies)
FC	fecal coliform
HBI	Hilsenhoff Biotic Index
Hg	mercury
HPAH	high molecular weight polycyclic aromatic hydrocarbons
ISQG	Interim Sediment Quality Guidelines
LPAH	low molecular weight polycyclic aromatic hydrocarbons
LWMP	Liquid Waste Management Program
MSQG	Marine Sediment Quality Guidelines
NH_3	ammonia
NO_2	nitrite
NO_3	nitrate
PAH	polycyclic aromatic hydrocarbon
Pb	lead
PEL	probable effects level
QA/QC	quality assurance/quality control
SPSO	sewage pump station overflow
SQG	sediment quality guidelines
TOC	total organic carbon
TOT	total state
TEU	toxic equivalent unit
u/s	upstream
WQG	water quality guidelines
Zn	zinc

CORE AREA STORMWATER QUALITY PROGRAM
2024 REPORT

1.0 INTRODUCTION

The Capital Regional District (CRD) Stormwater Quality Program (Program) works to identify and reduce contamination in stormwater, creeks and the ocean through monitoring, assessment, collaboration and education. In the core area, this work fulfills commitments in the Core Area Liquid Waste Management Plan (LWMP) and is done in partnership with participating municipalities and First Nations, with the goal of protecting human health and the environment. Program results are communicated to the participating partners and reports are available on the CRD website (www.crd.ca).

The program assesses stormwater discharges in the core area and assigns priority ratings for mitigative action for municipalities to consider. CRD staff identify contamination and impacts from stormwater through bacterial and chemical sampling. Where contamination is found, CRD staff work with municipal staff to find and eliminate the source. The storm drain systems are owned and operated by the municipalities and the municipalities have the responsibility to carry out remedial measures where possible. In addition, CRD staff also conduct sampling in twelve major watercourses and the near-shore marine environment.

This report summarizes the results of work completed in 2024 (early 2025 data is included when possible). Water and sediment quality data, including details about sampling locations and how discharges are rated for public health and environmental concern, are available in the Appendices. A summary of CRD educational and outreach activities as well as coordination of municipal, watershed or waterbody-focused groups related to pollution prevention, and environmental protection is provided in Section 3.0.

2.0 RESULTS AND DISCUSSION

2.1 Stormwater Discharge Evaluations

The Program evaluates water and/or sediment quality in approximately 550 core area stormwater discharges from the coastline between the Colwood-Metchosin border in the west and the Saanich-Central Saanich border in the east, including Esquimalt Lagoon, Esquimalt and Victoria harbours, the Gorge, Portage Inlet and the City of Langford coastline along Saanich Inlet (see Appendix A for locations).

2.1.1 Public Health Ratings

Each year, CRD staff sample a selection of stormwater discharges for analysis of bacterial levels. *E.coli* is measured as an indicator of fecal contamination and possible presence of pathogens. Staff assign a “public health concern rating” to each discharge based on the level of *E.coli* contamination in the discharge flow and potential for the public to contact the flow. While the CRD does not evaluate public health risk, these ratings are used to prioritize remedial and monitoring efforts for the discharges. This service allows appropriate jurisdictions to prioritize remedial measures where they will have the most benefit. High- and moderate-priority discharges are monitored by CRD staff in subsequent years. Appendix G describes the CRD public health concern rating system.

In 2024, CRD staff sampled 195 stormwater discharges twice for *E.coli* concentrations (in winter and summer). These discharges included those previously rated as high- and moderate-priority, with a subset of low-priority discharges (to monitor for change).

Fourty percent of the discharges had one or more *E.coli* counts greater than 400 colony forming units (CFU)/100 mL, a level that indicates sources of sewage or animal waste with potential to cause adverse effects for public members engaging in primary recreational activities (e.g., swimming, diving). However, many of these discharges had low flows or are located where there is little risk of public contact. Considering the likelihood of public contact, staff assigned the following public health concern ratings to facilitate prioritization:

- 123 low ratings
- 44 moderate ratings
- 28 high ratings (Table A, Figure B)

The number of high-rated discharges for public health has decreased over time (see Figure A). The decreasing trend highlights work done by CRD staff to identify contamination and the ongoing efforts by the municipalities to replace, repair and reline ageing conveyance infrastructure, and the work carried out with property owners to repair sewage to stormwater cross-connections.

While the trend has decreased, the number of high-rated discharges increased from 25 to 28 in 2024 compared to 2023 (Figure A and Table A). While some sources of contamination are eliminated or mitigated, ongoing monitoring efforts continue to identify new sources. The 2024 bacterial data indicate there are five newly-found sources of contamination. CRD staff will work to narrow down the sources in 2025.

In 2024, lower bacterial counts were measured in five of the high-rated discharges resulting in lower ratings. Continued decline is challenging due to aging wastewater and stormwater conveyance infrastructure. Additionally, privately-owned lateral pipes, building development, and renovations create the potential for new stormwater-sewage cross-connections.

Of the 28 high-rated discharges in the core area, 17 have remained high-rated for at least five years. The sources of contamination in these discharges are challenging or costly to repair or remediate. Some of these discharges have multiple sources of contamination in a single catchment, adding difficulty to finding the source of contaminants.

The public health concern ratings for each discharge and bacterial stormwater data, can be found in Appendices B and C.

Figure A. Number of Discharges Assigned a High Public Health Concern Rating Over Time

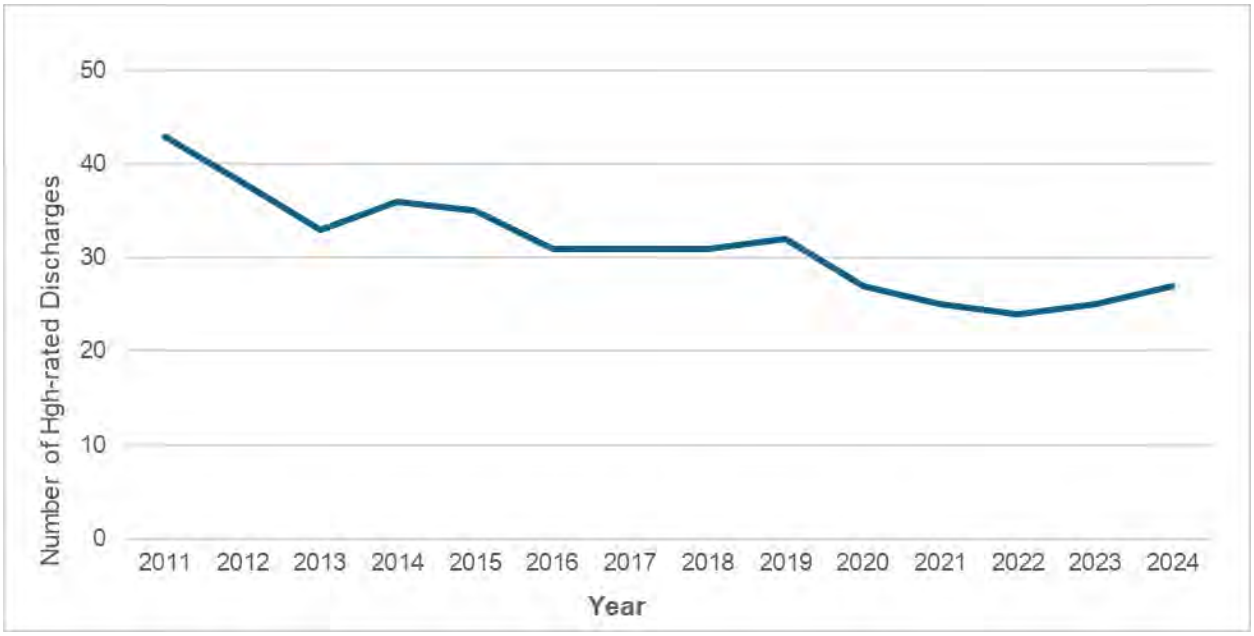


Table A. Number of Discharges with a High Public Health Concern Rating from 2011 to 2024

Year	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Number of Discharges Assessed	(186)	(114)	(150)	(142)	(152)	(164)	(167)	(168)	(175)	(180)	(175)	(183)	(166)	(195)
Colwood	1	0	0	1	0	0	0	1	0	0	0	0	0	0
View Royal	1	1	0	0	0	0	0	0	1	0	0	0	0	0
Esquimalt	7	7	8	7	5	6	6	7	5	4	3	4	5	5
Esquimalt private[1]	*	*	0	0	1	0	2	1	1	0	0	0	0	0
DND	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Saanich	2	3	4	5	5	6	4	1	3	4	4	2	1	2
Saanich private[1]	*	0	0	0	0	0	0	0	0	0	0	0	0	0
Victoria	20	17	13	12	14	11	11	15	14	13	12	13	15	16
Victoria private[1]	3	1	1	2	2	2	2	1	1	1	0	0	0	0
Oak Bay	9	9	7	9	8	6	6	5	6	5	6	3	4	5
Langford	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	**43**	**38**	**33**	**36**	**35**	**31**	**31**	**31**	**31**	**27**	**25**	**22**	**25**	**28**

Notes:
[1] Discharges that are not part of the municipal infrastructure are not under municipal jurisdiction and are separated out from the municipal totals.
*Private discharges included in the municipal totals.

Table B. Stormwater Discharges Assigned a High Public Health Concern Rating in 2023 and 2024

Jurisdiction	Stormwater Discharges Rated High for Public Health Concern	
	2023	2024
City of Colwood	-	-
Township of Esquimalt	744B, 780, 805, 806, 812	744B, 780, 805, 806, 812
Township of Esquimalt – private[1]	-	-
City of Langford	-	-
District of Oak Bay	245, 307, 318, 322	245, 307, 318, 320, 322
District of Saanich	503	503, 671
City of Victoria	209, 214, 216, 222, 230, 603, 607, 607A 611, 614, 636, 650, 758A, 775, 777A	209, 216, 222, 230, 603, 607, 610. 611, 613, 614, 619, 641, 645A, 650, 758A, 777A
City of Victoria – private[1]	-	-
Town of View Royal	-	-
Esquimalt First Nation	-	-
Songhees First Nation	-	-
DND	-	-

Notes:
[1] Discharges that are not part of the municipal infrastructure are not under municipal jurisdiction. Refer to Figure B and Figure C for stormwater discharge locations.

2.1.2 Environmental Concern

Through monitoring and ratings, CRD staff also prioritize stormwater discharges based on their potential for environmental impact. Data and priority listings are provided to local governments, who are responsible for addressing high-rated discharges based on their own priorities.

Environmental concern ratings are based on concentrations of metals and organic contaminants (polycyclic aromatic hydrocarbons [PAH] relative to sediment quality guidelines (for the protection of marine aquatic life). Contaminants are measured in sediment within the stormwater collection system (e.g., manholes, ditches and creeks). Discharges are sampled for consecutive years until the rating and contaminant(s) are considered confirmed through repeated findings. Once confirmed, the discharge is targeted for corrective action starting with an investigation to locate the contaminant source(s). Appendix G contains detailed information about the CRD environmental concern rating system. Stormwater sediment data and ratings can be found in Appendix E.

In 2024, CRD staff collected 21 stormwater sediment samples in the Core Area. Based on the concentrations of metals and PAHs, this data resulted in environmental concern ratings for 15 discharges, as follows:

- Six were assigned a low rating.
- Eight were assigned a moderate rating.
- One was assigned a high rating.

Discharge 866, which is a stream in Portage Park, was assigned a high-rating due to elevated zinc in the sediment. Elevated zinc has been measured occasionally over several years, possibly due to a historical source. Investigations by CRD and View Royal staff have not identified a source upstream. View Royal staff continue to clean out upstream manholes and catch basins.

While only one discharge was high-rated in 2024, several discharges are considered high-priority due to contamination found in previous years. These discharges are on the Corrective Action List as described below.

CORRECTIVE ACTION LIST

CRD staff make recommendations for corrective action to find and eliminate sources of chemical contamination in a catchment when a rating remains high for two consecutive years and the specific parameter(s) of concern are confirmed. Based on data up to 2024, CRD staff removed three discharges from the list and now recommend 16 discharges for corrective action in the core area (shown in Table C). Locations of discharges identified for corrective action, are shown in Figure B.

The number of discharges recommended for action has dropped from 21 in 2020 to 16 in 2024. Most of the remaining discharges have been a concern for more than ten years. Several of these are characterized by large catchments with industrial land use. Others are located along shorelines where historical practices or contaminated fill deposit may have resulted in contamination (e.g., discharges 614, 620, 627, 629, 634, 636). Spills are more common in these areas as well.

In 2024, staff removed the following discharges from the Corrective Action List:

- Discharge 250 – CRD staff started measuring elevated PAHs in sediment at the end of the pipe in 1996. Investigations revealed elevated PAHs in sediment from upstream manholes without a clear source of PAHs entering the pipe from land practices. In 2007, District of Oak Bay staff removed oil-contaminated soil, and a collapsed storm drain in the catchment (under Central Avenue between Island Road and St. Patrick Street), which was likely contributing to the contamination. Other contaminated soil may exist, as CRD staff continued to measure elevated PAHs in sediment upstream.

  While elevated PAHs are occasionally present in sediment from upstream manholes, it is unlikely that this sediment is impacting the marine environment, as sediment is difficult to find in the catchment and

water samples collected at the discharge do not indicate visual or analytical presence of PAHs. Due to tidal influence, sediment cannot be collected at the discharge or the next upstream manhole. CRD staff will continue to monitor this discharge, but it will no longer be on the Corrective Action List.

- Discharge 505 – CRD staff measured elevated mercury and lead in sediment near the discharge in 2017. Source investigations identified elevated mercury in sediment upstream of Cadboro Bay Road. Saanich cleaned the line and removed the sediment. Source investigations have not identified a current contaminant source related to land use. While recent samples show some mercury may still be present in upstream sediment samples, this sediment does not appear to be entering the marine environment. Water samples indicate that mercury is not elevated above background levels in upper Craigflower Creek. CRD will continue to monitor this discharge for changes, but it will no longer be on the Corrective Action List.

- Discharge 737 – This discharge intermittently displayed elevated zinc and PAHs for over a decade. Due to lower concentrations of PAH and zinc over three consecutive years, the CRD have assigned a moderate rating to this discharge. Furthermore, Esquimalt cleaned out catch basins in the area in 2024. Staff will continue to monitor it for change.

2.1.3 Aqueous Contaminants in Stormwater Discharges

CRD staff measured contaminants in water to provide more information about contaminant concentrations, sources, bioavailability, loadings, and to determine if a source is ongoing or dependent on precipitation. Data showing average concentrations of aqueous metals collected since 2018 are provided in Appendix E.

Data was compared to British Columbia's (BC) Approved and Working Guidelines for protection of marine aquatic life. While these guidelines are intended for the marine receiving environment, they were used as a screening tool to identify elevated levels of contaminants in stormwater entering the marine environment. Approved guidelines were available for seven metals and working guidelines were available for three metals. The following results were found in samples collected from 245 core area discharges over several years:

- Copper and zinc are the contaminants most often elevated above the BC aquatic life guidelines. Copper was elevated in 81% of discharges while zinc was elevated in 47%.

- One or more PAHs were detected in 30% of discharges, with the highest percentage of detections occurring in Oak Bay (seven of 17 discharges; or 47%).

- 82% of discharges measured did not exceed the PAH guidelines.

- Pyrene and benzo(a)pyrene were the PAHs most often above guidelines.

- Stormwater discharges along Victoria Harbour had the highest concentrations of metals and PAHs. The highest concentrations of metals and PAHs occurred in stormwater discharge 629 (Rock Bay). CRD and City of Victoria staff found and mitigated a source of contamination along Rock Bay Avenue. Samples taken in late 2024 indicate that aqueous metals concentrations have been reduced

While the impact of these storm drain discharges on the marine environment is uncertain, CRD staff have measured elevated zinc and copper in three locations in the marine receiving environment adjacent to storm drains in the Victoria Harbour (between Belleville Street and Jutland Road).

Table C. Discharges Recommended for Action in 2024 Due to Elevated Sediment Chemical Contaminant Concentrations Over Time

Jurisdiction	Discharges Recommended for Corrective Action	Total
City of Colwood	-	0
Township of Esquimalt	742, 749, 806	3
Township of Esquimalt – private[1]	-	0
City of Langford	6006	1
District of Oak Bay	306, 307, 310	3
District of Saanich	-	-
District of Saanich – private[1]	-	-
City of Victoria	603, 614, 620, 627, 629, 633, 634, 636	8
City of Victoria – private[1]	649	1
Town of View Royal	-	0
DND	-	0
Total		**16**

Notes:
[1] Discharges that drain from private property do not fall under municipal jurisdiction.

STORMWATER SOURCE CONTROL

The CRD Source Control education program increases awareness of products used on commercial and private sites that have the potential to leach into surrounding waterways. The use and maintenance of stormwater rehabilitation units (that capture the sediments before they reach the environment) has also increased over the past 10 years. The CRD and municipalities will continue to work together to identify and eliminate potential sources of contamination for these discharges.

Figure B - Core Area 2024

Stormwater Discharges Requiring Action for Public Health and Environmental Concerns
(Metchosin to Esquimalt Border)

Making a difference...together

Kilometres
0 0.5 1

Projection: UTM ZONE 10N NAD 83

Discharges Requiring Action

- ■ High Public Health Rating
- ▲ High Environmental Rating and/or Recommended for Action

- Municipal Boundaries
- DND Boundaries
- Streams and Rivers
- Roads
- Stormwater Monitoring Area

Figure C - Core Area 2024

Stormwater Discharges Requiring Action for Public Health and Environmental Concerns
(Esquimalt to Central Saanich Border)

Making a difference...together

Kilometres
0 1 2

Projection: UTM ZONE 10N NAD 83

Discharges Requiring Action

- High Public Health Rating
- High Environmental Rating and/or Recommended for Action

- Municipal Boundaries
- DND Boundaries
- Streams and Rivers
- Roads
- Stormwater Monitoring Area

CRD - Facilities Management & Engineering Services - Mar 17, 2025 - Technologist: sruljancich - Map Document: SWQCoreDischargeConcern2024.mxd

2.2 Contaminant Source Investigations

In 2024, CRD staff conducted contaminant and spill investigations in the catchment areas of eleven stormwater discharges. The results of these investigations are presented in Table D.

CRD and municipal staff found six sources of sewage or other contamination in the stormwater system. Two sources in Victoria and two in Saanich were identified and resolved in 2024. Other sources were found, and repairs are underway. Nine of the investigations are ongoing due to the presence of multiple contamination sources, lower bacterial counts, or lack of flows available to sample in 2024.

Cecelia Creek Spill – July 2024

The CRD provides support to municipalities when there are spills into the stormwater system or creeks. Reports of a white substance in Cecelia Creek started in early July 2024. Saanich and Victoria crews responded immediately with investigations of the source that included opening manholes and inspecting businesses. City of Victoria sent a mailout to the businesses in the area a few days after the spill occurred. CRD provided coordination and investigation assistance and collected samples in the creek and at the adjacent Banfield Park dock to look at the impact of the spills on people recreating in and on the water near the dock. Marine data collected at the dock was passed onto Island Health Authority (IHA). IHA reported that no impacts to public health were suspected based on the data collected.

While the source of the spill was not determined, the spills ceased at the end of July 2024. As a result of the investigations, Victoria and Saanich identified at least two sources of sewage and inputs of chlorinated water from a new splash pad upstream. Saanich suspended operation of the splash pad and initiated work to look at dechlorination methods that would allow the splash pad to operate in the future without impact to the creek. Work was also completed to reduce inputs of sewage into the creek and efforts are ongoing to repair old infrastructure in the catchment.

Discharge 629

Investigations in recent years in the catchment of discharge 629 (Rock Bay) showed upstream copper measurements that were more than 10,000 times greater than British Columbia Ministry of Environment and Parks (BC ENV) Water Quality Guidelines (WQG) for the protection of marine aquatic life. Concentrations of aluminum, cadmium, chromium, iron, lead and zinc were 10 to 100 times greater than guidelines. CRD and City of Victoria staff found and stopped a source of business waste that was being dumped into the stormwater system. Samples taken in late 2024 indicate that aqueous metals concentrations have been reduced in this discharge. CRD staff continue to monitor changes in contaminant levels.

Table D. 2024 Summary of CRD Stormwater Bacterial Source Investigations in the Core Area

Discharge #	Municipality	# of Sampling Events	Investigation Status
216	Victoria (Ross Bay)	1	Ongoing; Large source found and repaired; other sources exist.
250	Oak Bay (McNeil Bay)	1	Ongoing; bacterial counts low; PAH detected but low; multiple sources.
306	Oak Bay (Oak Bay Marina)	1	Complete; contaminants not detected at discharge as result of upstream spill.
318	Oak Bay (Willows Beach)	5	Ongoing; one source narrowed; multiple sources exist.
629	Victoria (Rock Bay)	2	Complete/Ongoing; large business source removed; contaminants lower; ongoing for other sources.

Discharge #	Municipality	# of Sampling Events	Investigation Status
641	Victoria/Saanich (Cecelia Creek)	3	Complete/Ongoing; several sources of sewage and contaminants found as result of spill investigation; other sources exist.
650	Victoria (Gorge)	3	Ongoing; inconclusive.
744B	Esquimalt (Gorge Creek)	3	Ongoing; Esquimalt fixed a source, replaced and relined sections of pipe in 2023; others source exists.
758A	Victoria (Banfield Park)	3	Ongoing; possible cross-connection found.
777A	Victoria/Esquimalt (West Bay)	3	Ongoing; sources narrowed; COV completed some repairs; counts lower.
812	Esquimalt (Sturdee Avenue)	2	Complete; counts lower.

Many of the discharges with elevated metals are in large catchments with commercial/industrial land use and along shorelines where historical practices or contaminated fill may have resulted in contamination (e.g., discharges 614, 620, 627, 629, 634, and 636). Spills are more common in these areas, and due to the intermittent nature and often small volumes, are challenging to narrow down and remediate.

2.3 Major Watercourse Monitoring

CRD staff monitor watercourses to provide information about watershed health to internal CRD, provincial and municipal staff, community groups and the public. In 2024, CRD staff continued to monitor Bee, Bowker, Cecelia, Colquitz, Colwood, Craigflower, Douglas, Hospital, Noble, Selleck and Tod creeks, Goldstream River and Mill Stream. See Appendix F for the watercourse data.

Each year, staff collect water quality data twice at the discharge of each creek, providing a snapshot of creek health conditions in the wet and dry seasons. In addition, staff conduct more comprehensive watershed health assessments in two to three core area watercourses each year, with the goal of assessing each watercourse in this manner every five years.

In 2024, CRD staff assessed the health of Bee Creek, Selleck Creek and Bowker Creek Watersheds more comprehensively through the following activities:

- measurement of water quality at least 5 times in 30 days in both summer and fall at various locations in the watersheds;
- measurement of additional water quality parameters, including metals; and
- collection of benthic invertebrate animals for assessment of biological community health.

CRD water quality data are compared to the BC ENV WQG for the protection of freshwater aquatic life. These data were also compared to data from the previous 5-in-30 assessment. Benthic invertebrate data are submitted to the Canadian Aquatic Biomonitoring Network (CABIN).

2.3.1 Watershed Monitoring Data

CRD data indicate that the water quality parameters of most concern in core area creeks are bacteria, phosphorus, turbidity and metals. Some sites also experience low dissolved oxygen and elevated temperature in the summer. This is consistent with what is seen throughout the region wherever there is increased anthropogenic activity. The BC ENV water quality objective for Vancouver Island streams for phosphorus was exceeded in all CRD creeks. This is likely due to human and animal activities in these watersheds.

BEE AND SELLECK CREEKS

Water Quality and Benthic Invertebrate Data

Weekly data collected over the summer and fall indicated that Bee and Selleck creeks are relatively healthy compared to other CRD creeks, however Bee Creek appears more impacted than Selleck based on elevated turbidity and suspended solids.

Both creeks have elevated nitrate compared to guidelines and other CRD streams; however, this is likely naturally occurring or the result of historical practices rather than due to current land use practices. Supporting evidence includes elevated nitrate in the springs that feed the creeks.

Selleck Creek

Except for nitrate and phosphorus (which is elevated in all CRD creeks), there were no exceedances of BC water quality guidelines in Selleck Creek. In 2019, iron and zinc concentrations were elevated twice during heavy rainfall sampling events. No exceedances of iron and zinc were measured in 2024; however, sampling was not carried out during heavy rainfall events.

Bee Creek

Bee Creek had elevated turbidity and suspended solids compared to chronic guidelines in both seasons. Turbidity and solids were generally higher in summer with two summer turbidity results and the average suspended solids concentration in exceedance of the WQGs. Concentrations and trends across both seasons were consistent with findings reported from the intensive 2014 and 2019 sampling programs.

The 2024 benthic invertebrate community data collected at the mouth of Bee Creek indicates that the creek is in good condition. The creek had similar representation of species compared to previous years data (2014 and 2019). Eight sensitive species from the Ephemeroptera (mayflies), Plecoptera (stoneflies) and Trichoptera (caddisflies) (EPT) groups were present. The Hilsenhoff Biotic Index (HBI) indicated that some organic pollution or nutrients continue to be present in the creek at low to moderate levels. This may be a result of the elevated suspended solids/turbidity and phosphorus likely due to urban development in the watershed. This may also be related to the naturally elevated nitrate.

BOWKER CREEK WATERSHED

Water Quality and Benthic Invertebrate Data

The 2024 water quality results for Bowker Creek continue to indicate impacts from sewage and upstream land use. Consistent with previous years, copper, dissolved oxygen, phosphorus and turbidity are at levels that are potentially harmful to aquatic life. Fecal coliform and *E.coli* measurements indicate sewage contamination is still present. Zinc and temperature did not exceed aquatic life guidelines, which is a notable improvement compared to previous years.

All four sampling locations had elevated copper, phosphorus, turbidity and *E.coli* counts. Other parameters that were outside guidelines at some of locations include dissolved oxygen (low at all stations except for the mouth of the creek and lowest near the headwaters at the University of Victoria), iron (elevated at the headwaters location only) and PAHs (elevated at Browning Park).

The 2024 benthic invertebrate community data collected at the mouth of Bowker Creek indicates that the creek is in fair condition with substantial organic pollution likely. There was no representation from the sensitive EPT groups, consistent with 2019 observations. The sample was dominated by midges and blackflies which are generally pollution tolerant; however, this sample had less oligochaete worms (which are also pollution tolerant). The HBI, which indicates the amount of organic and nutrient pollution in the stream, was similar to 2019 (5.93 versus 5.88); however, both were an improvement from 2014 (6.25). The HBI indicated that the mouth of the creek likely has substantial organic pollution which is evident by the presence of sewage and nutrients in the creek.

HYDROMETRIC DATA

Water quality is important in creeks, but hydrological changes and physical alteration are also important. Therefore, flow data are also collected continuously at fixed hydrometric stations in Cecelia, Colquitz (two sites), Colwood, Bowker and Douglas creeks. Hydrological data is stored in FlowWorks. For access to this data contact brudolph@crd.bc.ca.

In the spring of 2022, CRD staff hired SLR Consulting to conduct in-stream discharge measurements at the flow monitoring locations with the goal to refine or develop (where necessary) stage-discharge curves to ensure they are adequately predicting discharge. The consultants completed the project in March 2025.

3.0 CRD OUTREACH & ENGAGEMENT

The CRD provides coordinated residential and business education programs on behalf of the municipalities to provide consistent messaging around reducing and preventing sources of pollution to stormwater, streams and the ocean.

In addition, the CRD hosts an Inter-Municipal Integrated Watershed Working Group and chairs and coordinates several multi-stakeholder stewardship initiatives in the Core Area: the Gorge Waterway Initiative, Esquimalt Lagoon Stewardship Initiative and the Bowker Creek Initiative. These groups allow participants to share lessons learned and discuss topics related to stormwater pollution prevention and watershed and receiving environment protection and restoration.

In 2024, CRD outreach and engagement included the following activities:

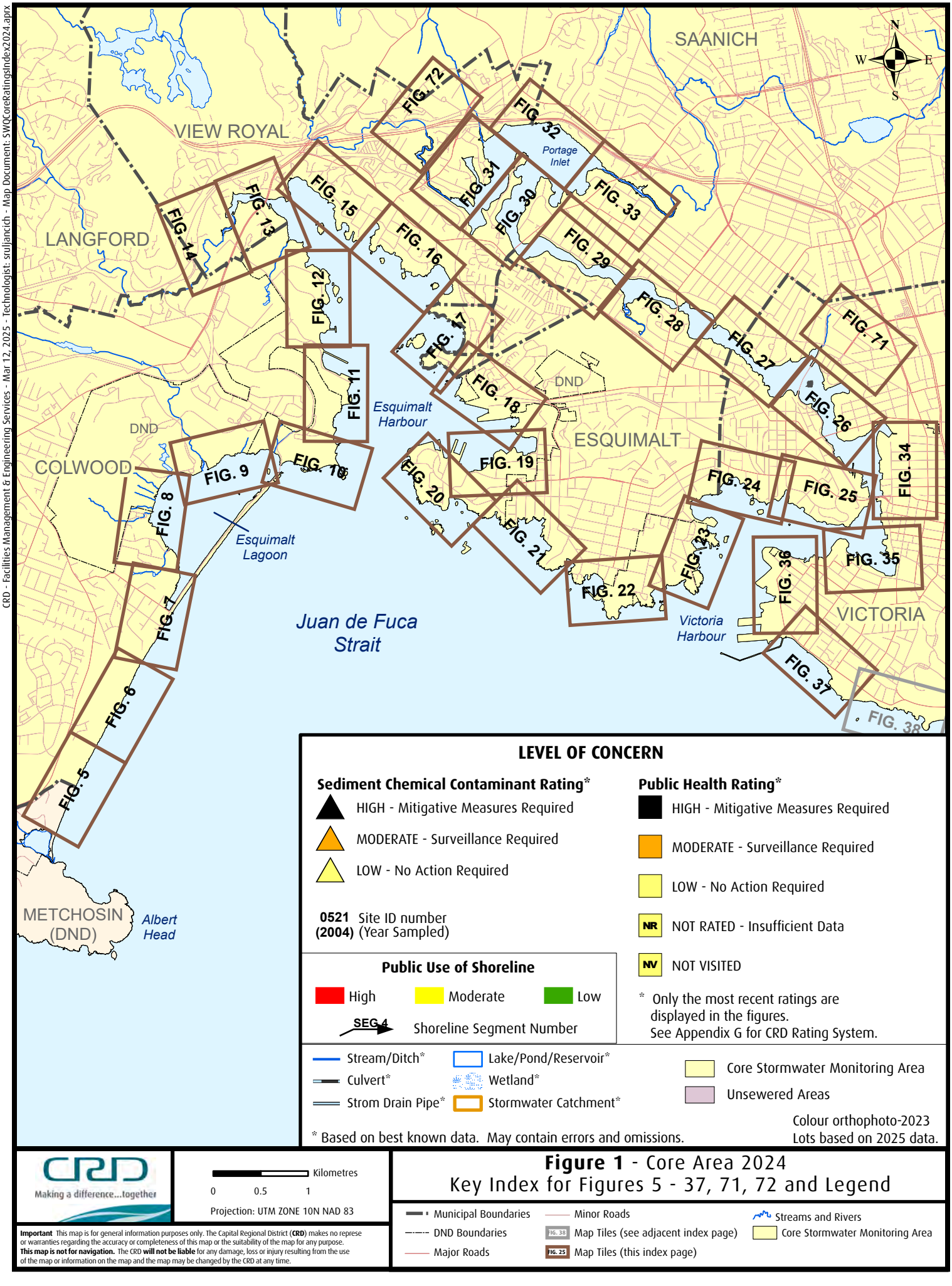
- an update to the stormwater pages on the CRD website which provides resources for both businesses and residents;
- a multi-media campaign including social media, digital and print components that focused on preventing stormwater pollution and managing rainfall;
- 11 free webinars for the residential audience including rainwater harvesting techniques, building a raingarden, planting native plants and more;
- two key line design workshops that help large property owners manage and optimize rainfall;
- a multi-media campaign for business owners on catch basin maintenance;
- attendance at 26 community events where stormwater education materials were distributed and pollution prevention discussions occurred;
- hosting three Harbours Stewardship Speaker Series events which were open to the public, with stormwater management and pollution prevention related topics including Salmon Safe Eco-Certification, Green Shores and Mitigating Inputs of Tire Wear Toxins to Protect Salmon Habitat; and
- hosting a workshop with the municipalities for input into an updated outreach and engagement strategy for development in 2025.

4.0 2025 PROGRAM

The Program will continue to work with municipal partners, First Nations and the community to achieve LWMP goals to identify stormwater discharges of public health and environmental concern and investigate the sources of contamination. CRD staff will continue to work with our partners to reduce pollution in stormwater discharges, creeks and the marine receiving environment. Focused water quality and benthic invertebrate sampling will be undertaken in Craigflower and Douglas creeks in 2025.

APPENDIX A

LOCATION OF STORMWATER DISCHARGES



LEVEL OF CONCERN

Sediment Chemical Contaminant Rating*

- HIGH - Mitigative Measures Required
- MODERATE - Surveillance Required
- LOW - No Action Required

0521 Site ID number
(2004) (Year Sampled)

Public Health Rating*

- HIGH - Mitigative Measures Required
- MODERATE - Surveillance Required
- LOW - No Action Required
- NR - NOT RATED - Insufficient Data
- NV - NOT VISITED

* Only the most recent ratings are displayed in the figures.
See Appendix G for CRD Rating System.

Public Use of Shoreline

High | Moderate | Low

SEG-4 Shoreline Segment Number

- Stream/Ditch*
- Culvert*
- Strom Drain Pipe*
- Lake/Pond/Reservoir*
- Wetland*
- Stormwater Catchment*
- Core Stormwater Monitoring Area
- Unsewered Areas

* Based on best known data. May contain errors and omissions.

Colour orthophoto-2023
Lots based on 2025 data.

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Kilometres
0 0.5 1
Projection: UTM ZONE 10N NAD 83

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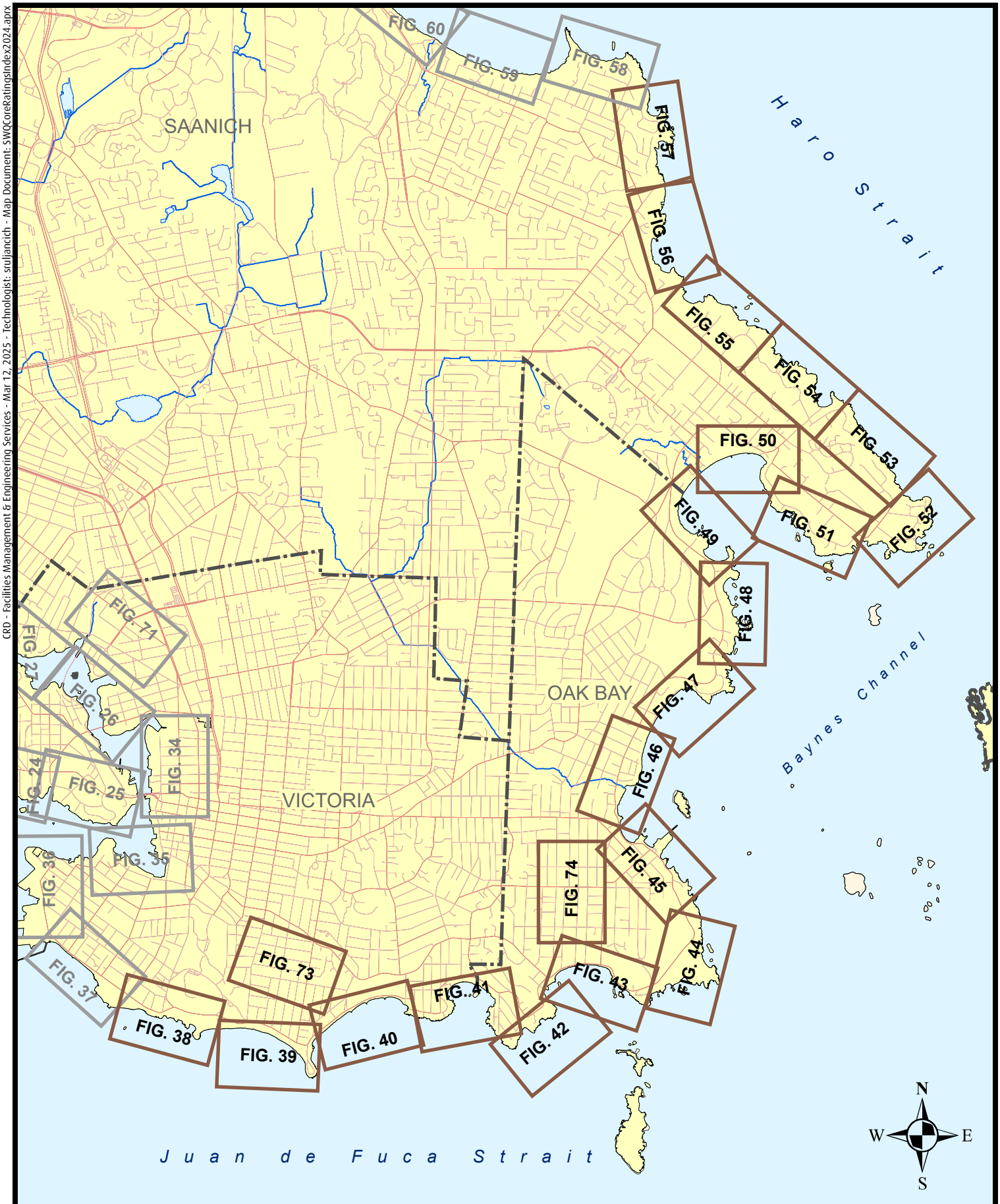
Figure 1 - Core Area 2024
Key Index for Figures 5 - 37, 71, 72 and Legend

- Municipal Boundaries
- DND Boundaries
- Major Roads
- Minor Roads
- FIG. 38 Map Tiles (see adjacent index page)
- FIG. 25 Map Tiles (this index page)
- Streams and Rivers
- Core Stormwater Monitoring Area



CRD - Facilities Management & Engineering Services - Mar 12, 2025 - Technologist: srulianich - Map Document: SWQCoreRatingsIndex2024.aprx

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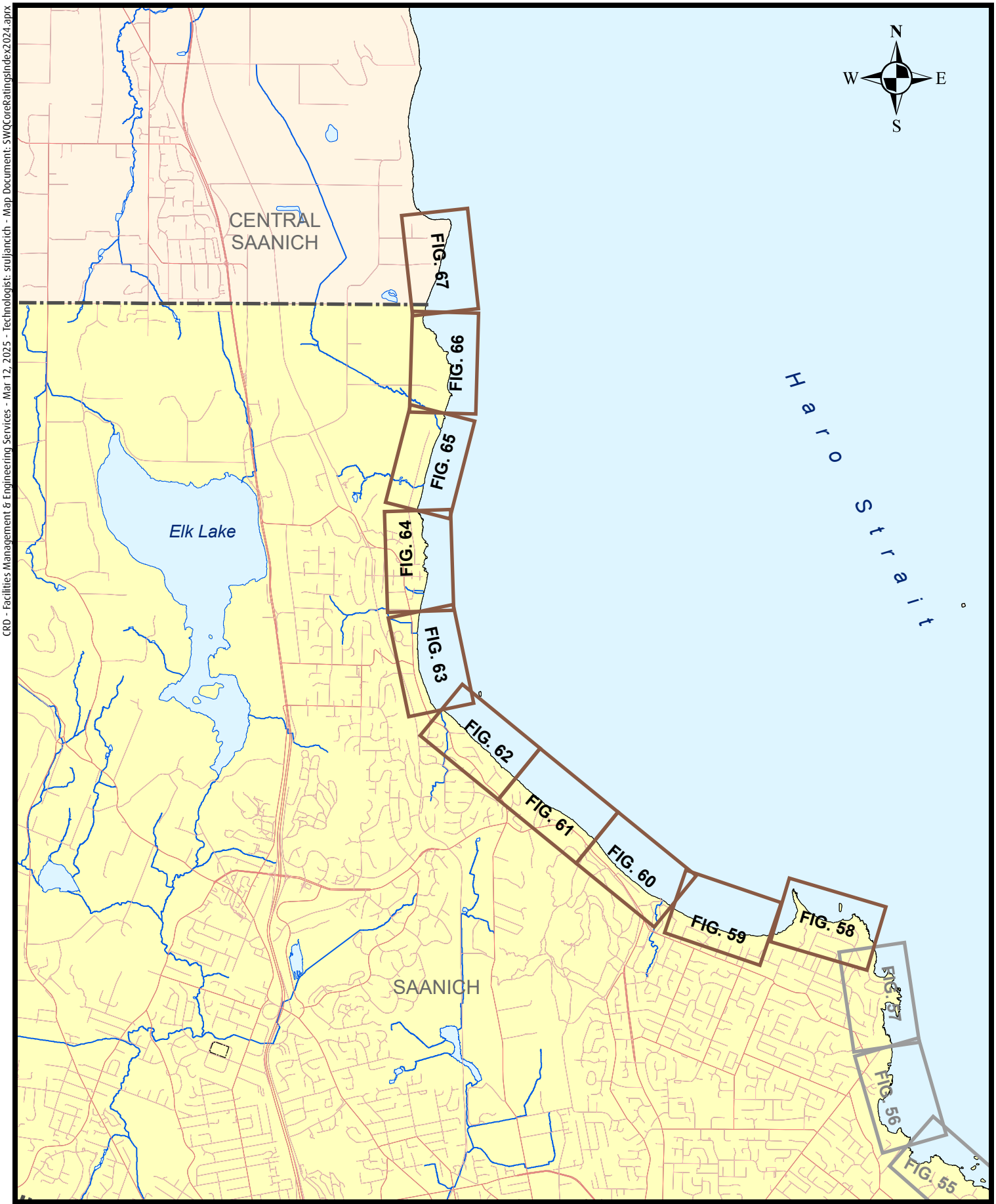
Kilometres
0 0.5 1
Projection: UTM ZONE 10N NAD 83

Figure 2 - Core Area 2024
Key Index for Figures 38 - 57, 73, 74

- Municipal Boundaries
- DND Boundaries
- Major Roads
- Minor Roads
- FIG. 25 Map Tiles (see adjacent index page)
- FIG. 45 Map Tiles (this index page)
- Streams and Rivers
- Core Stormwater Monitoring Area



CRD - Facilities Management & Engineering Services - Mar 12, 2025 - Technologist: srulianich - Map Document: SWQCoreRatingsIndex2024.aprx

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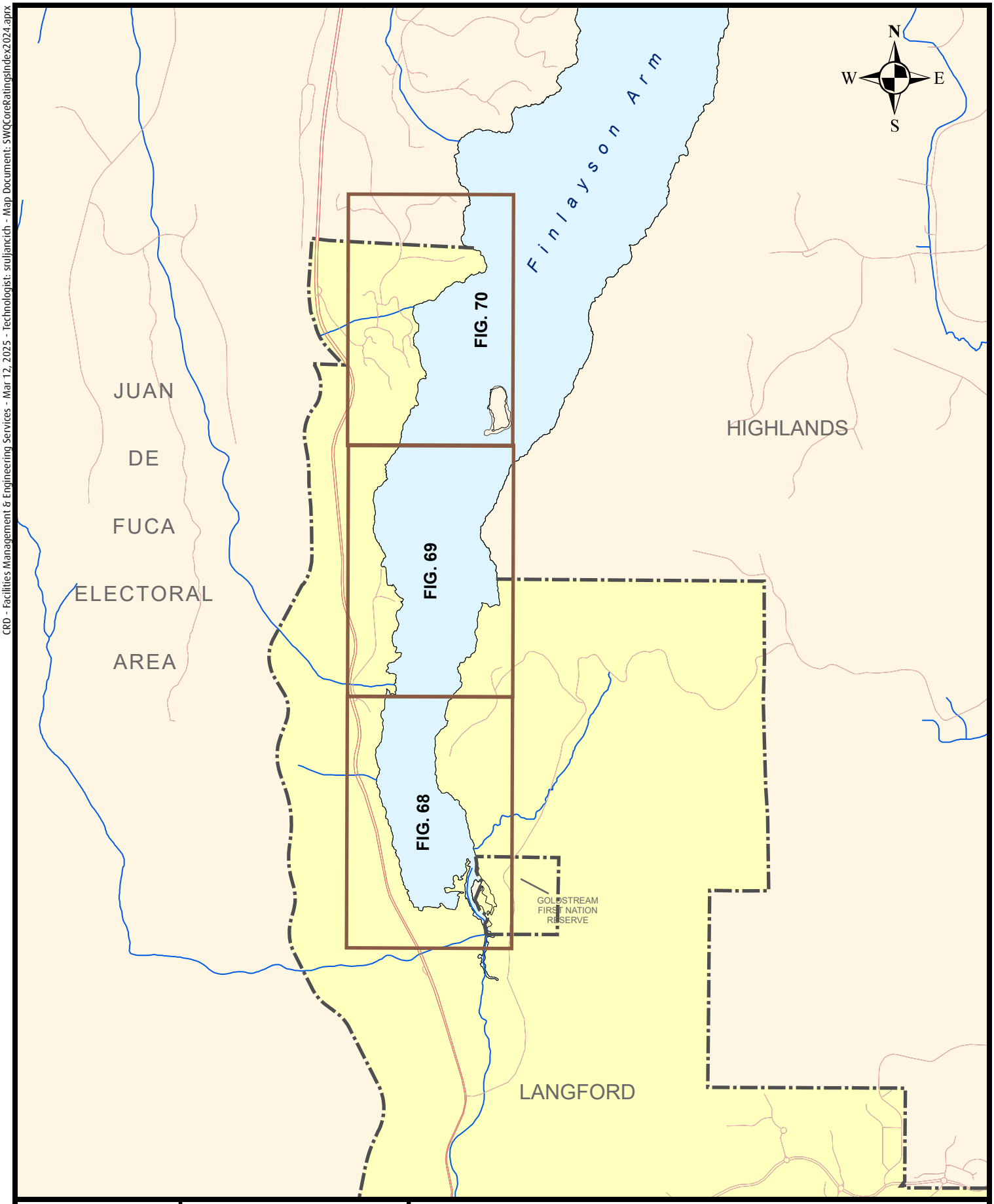
Kilometres
0 0.5 1
Projection: UTM ZONE 10N NAD 83

Figure 3 - Core Area 2024
Key Index for Figures 58 - 67

- Municipal Boundaries
- DND Boundaries
- Major Roads
- Minor Roads
- FIG. 56 Map Tiles (see adjacent index page)
- FIG. 60 Map Tiles (this index page)
- Streams and Rivers
- Core Stormwater Monitoring Area



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Kilometres
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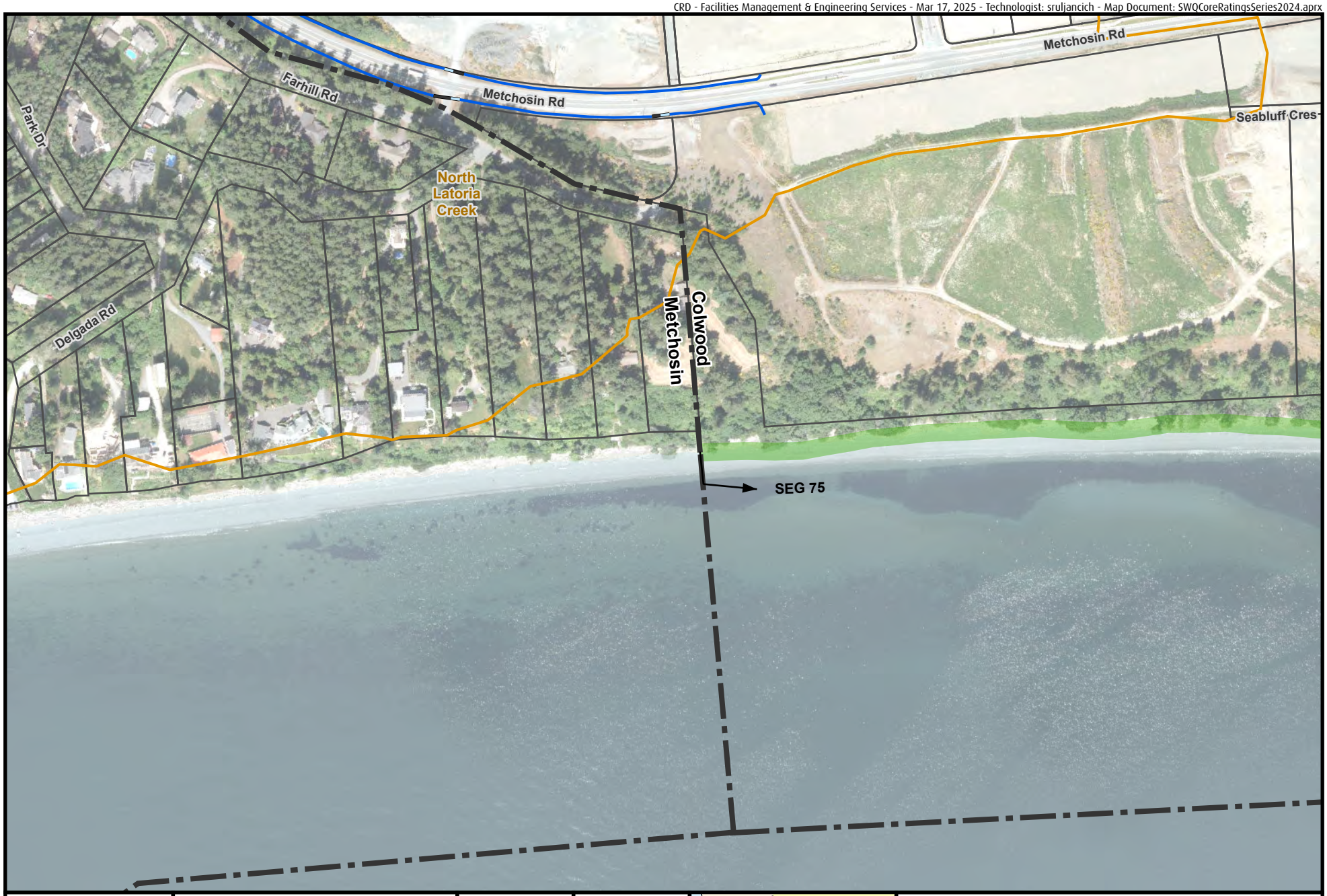
Projection: UTM ZONE 10N NAD 83

Figure 4 - Core Area 2024
Key Index for Figures 68 - 70

Municipal Boundaries
Major Roads
Minor Roads
FIG. 68 Map Tiles (this index page)
Streams and Rivers
Core Stormwater Monitoring Area



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0 25 50 100 150 Metres

Projection: UTM ZONE 10N NAD 83

W N S E

For Legend See Figure 1

For Area Key Index See Figure 1

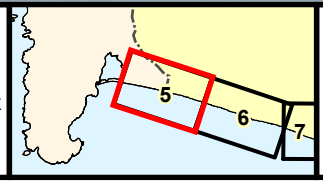
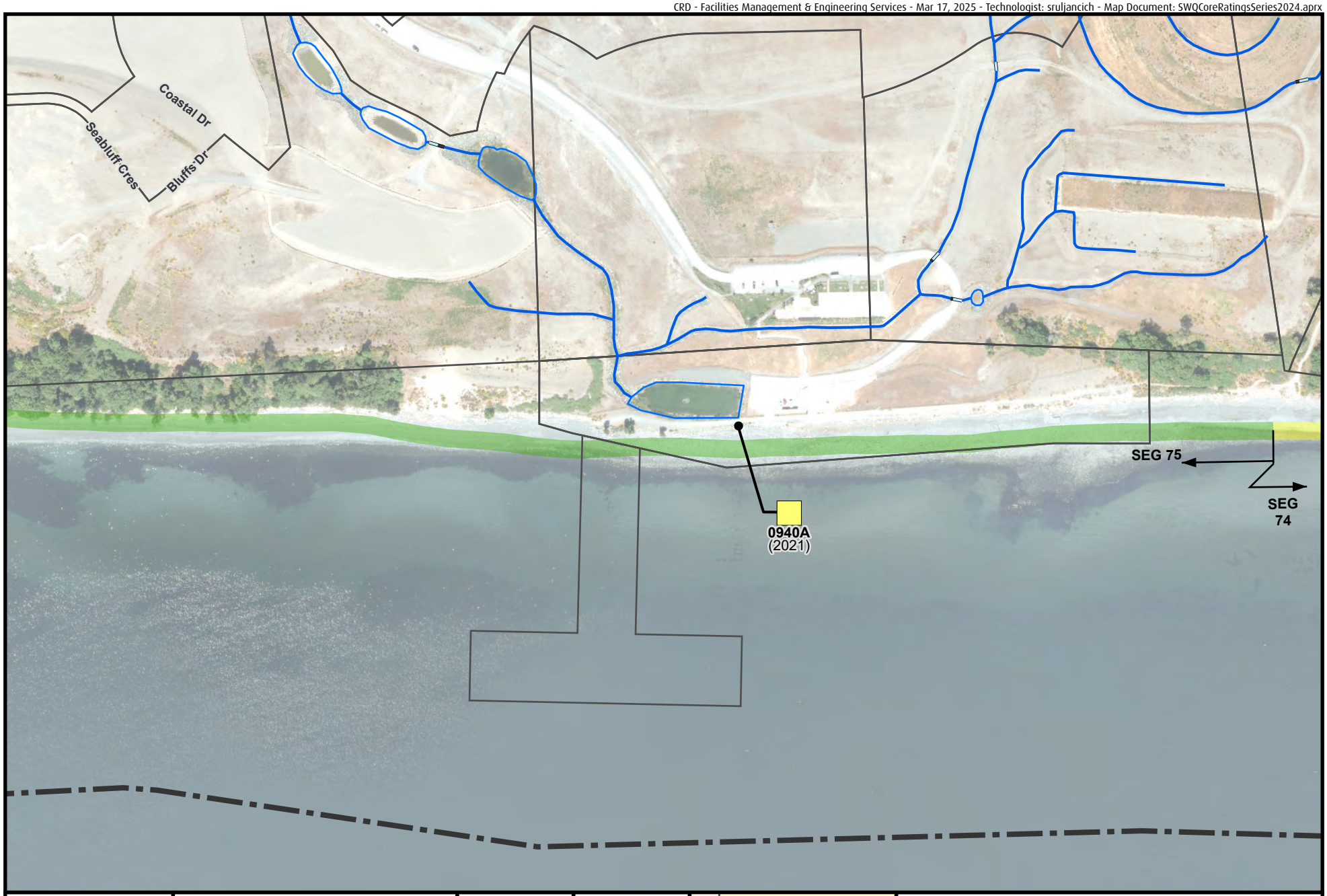


Figure 5

Stormwater Discharge Location and Level of Concern



Making a difference...together

0 25 50 100 150 Metres

Projection: UTM ZONE 10N NAD 83

For Legend See Figure 1

For Area Key Index See Figure 1

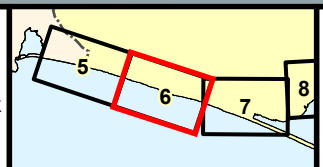
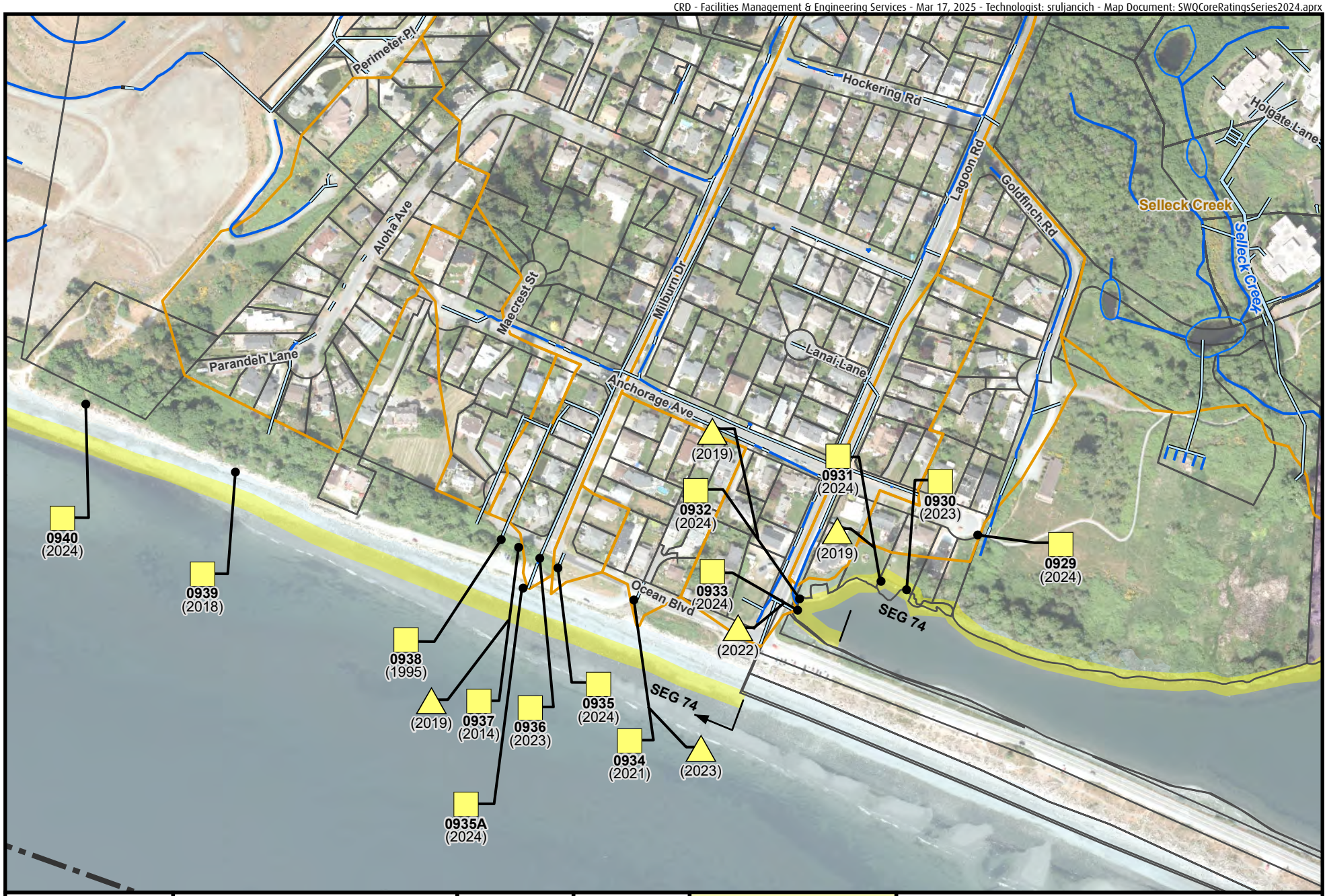


Figure 6

Stormwater Discharge Location and Level of Concern



Making a difference...together

0 25 50 100 150 Metres

Projection: UTM ZONE 10N NAD 83

For Legend See Figure 1

For Area Key Index See Figure 1

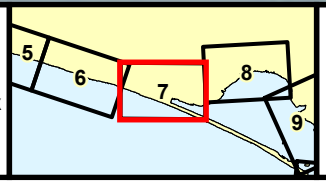
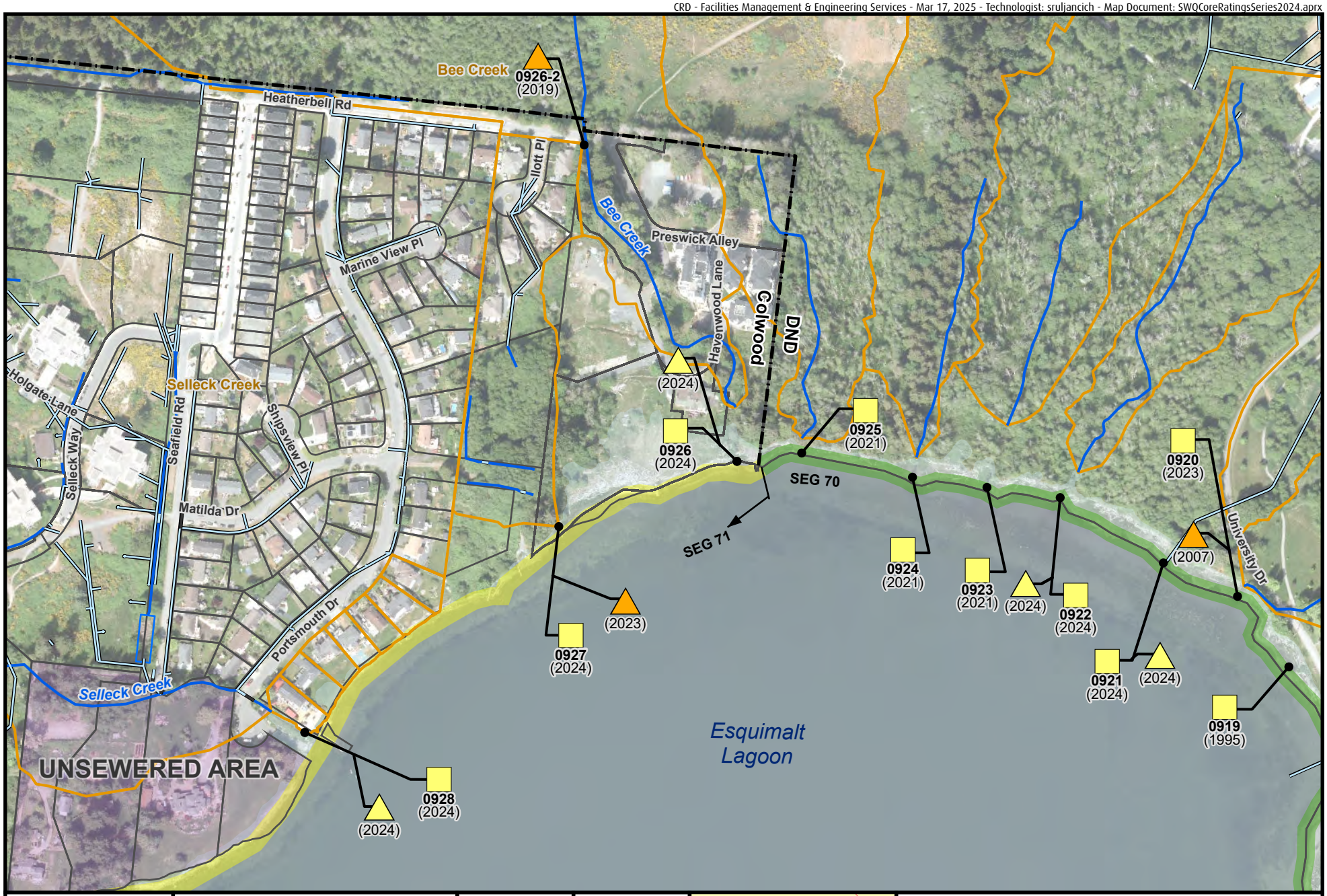


Figure 7

Stormwater Discharge Location and Level of Concern



CRD Making a difference...together

0 25 50 100 150 Metres

Projection: UTM ZONE 10N NAD 83

W S E N

For Legend See Figure 1

For Area Key Index See Figure 1

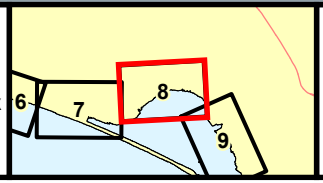
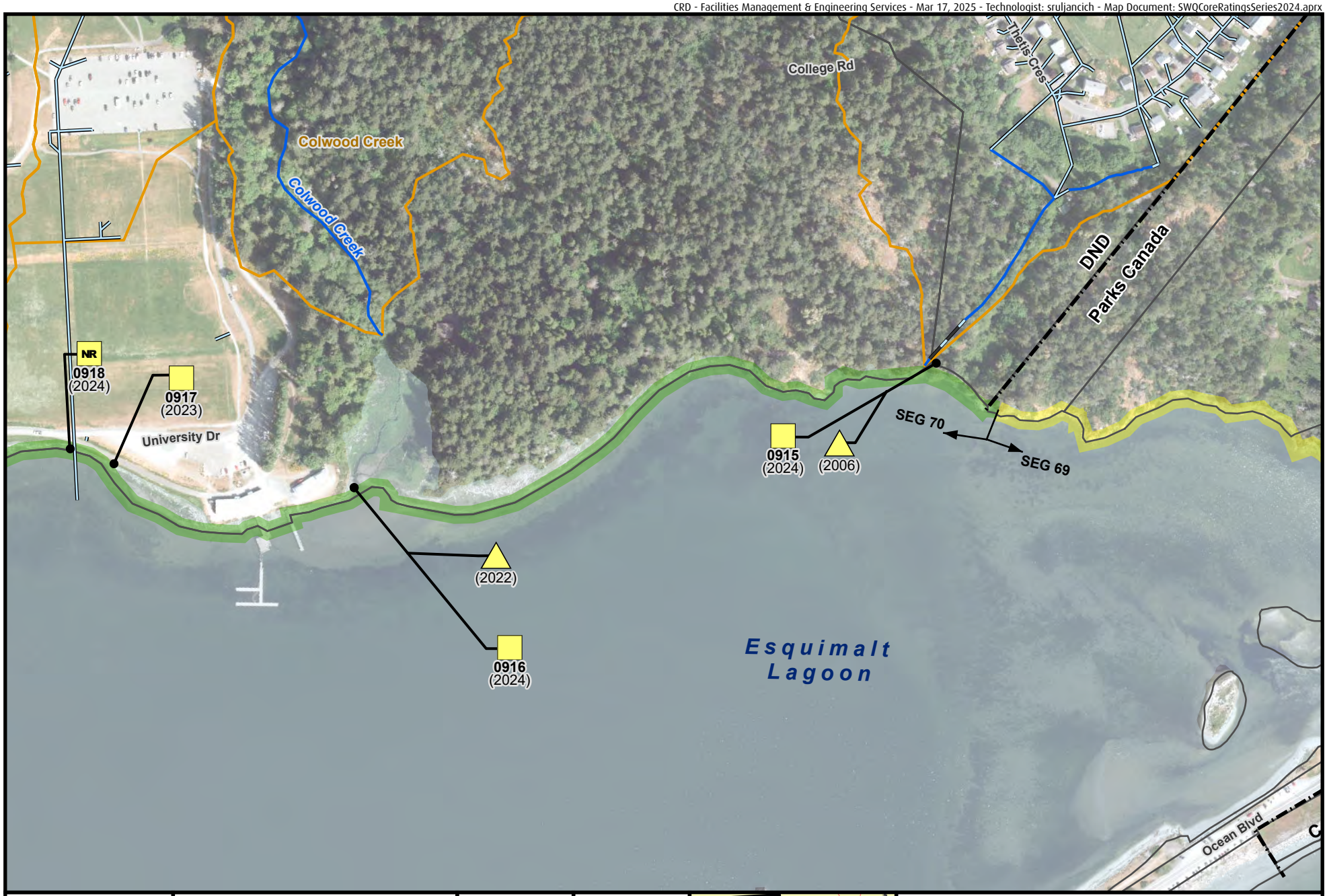


Figure 8

Stormwater Discharge Location and Level of Concern



Making a difference...together

0 25 50 100 150 Metres

Projection: UTM ZONE 10N NAD 83

N W E S

For Legend See Figure 1

For Area Key Index See Figure 1

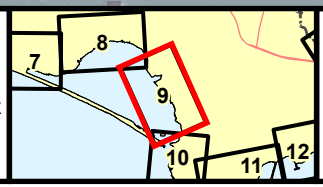
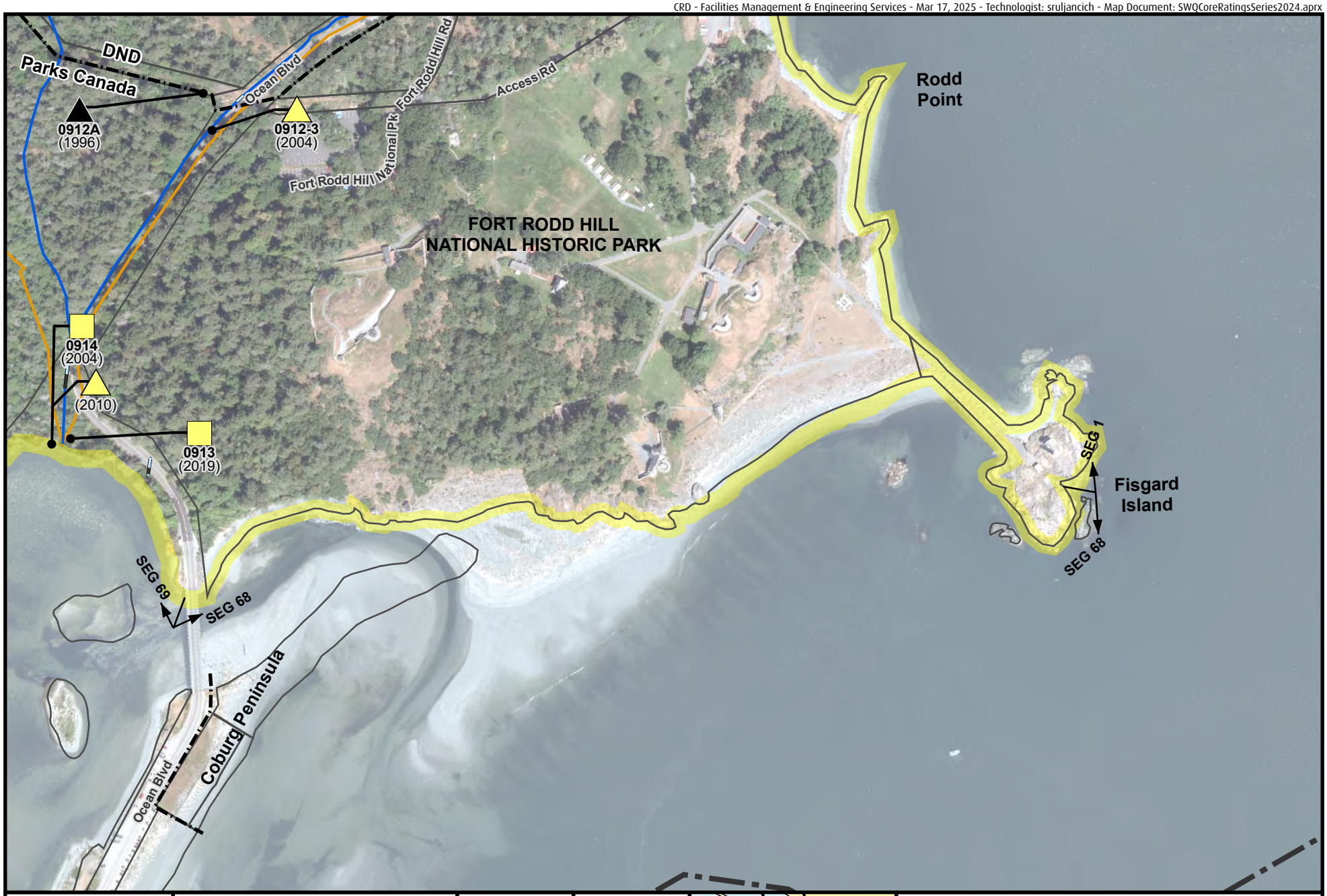


Figure 9

Stormwater Discharge Location and Level of Concern



Making a difference...together

0 25 50 100 150 Metres

Projection: UTM ZONE 10N NAD 83

N E S W

For Legend
See Figure 1

For Area Key Index
See
Figure 1

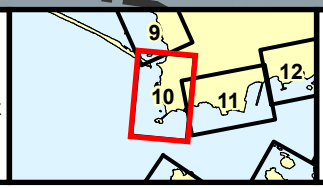
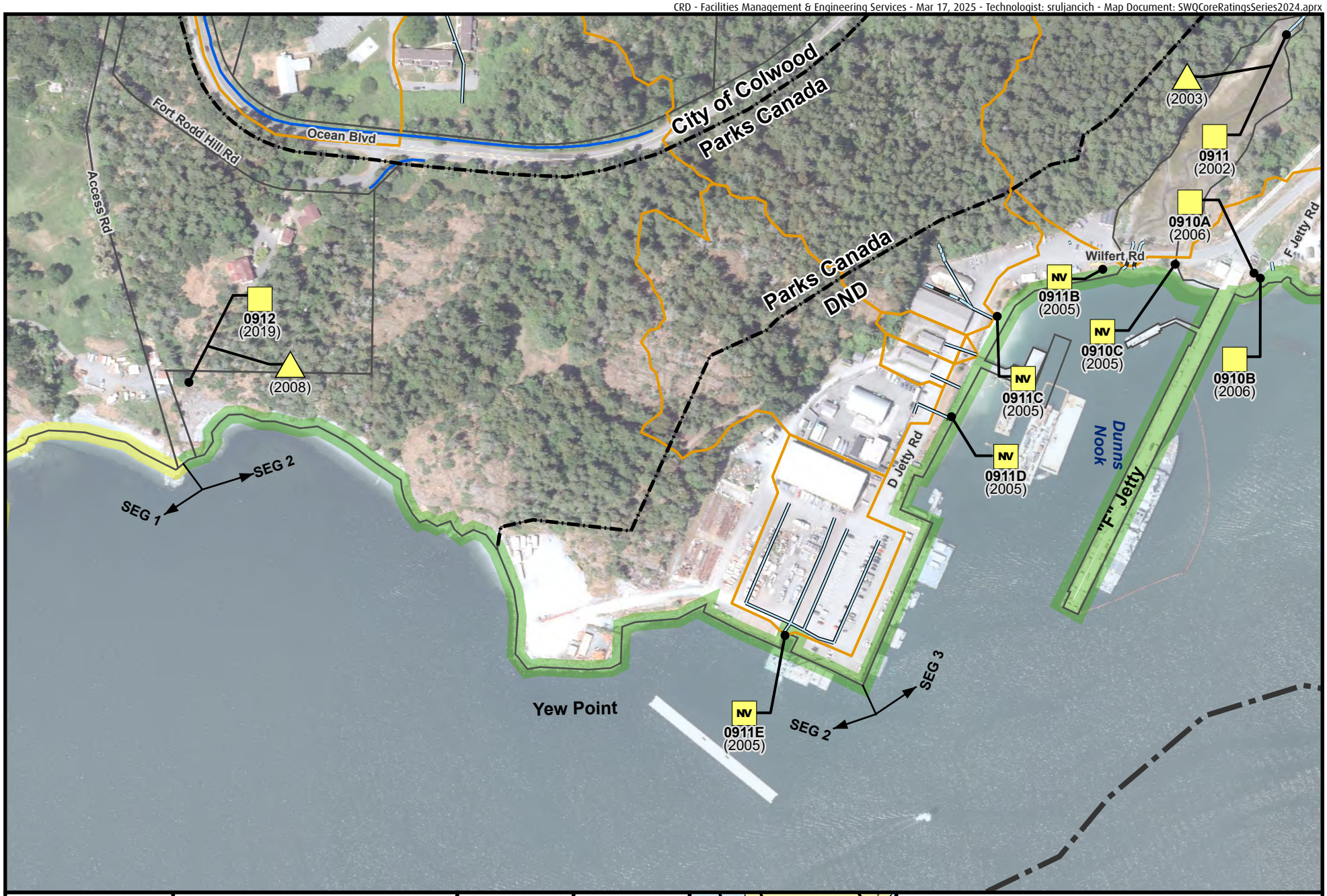


Figure 10

Stormwater Discharge Location and Level of Concern



Making a difference...together

0 25 50 100 150 Metres

Projection: UTM ZONE 10N NAD 83

W S E N

For Legend See Figure 1

For Area Key Index See Figure 1

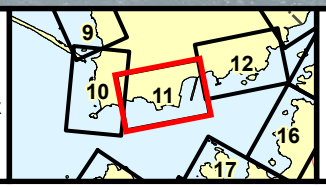
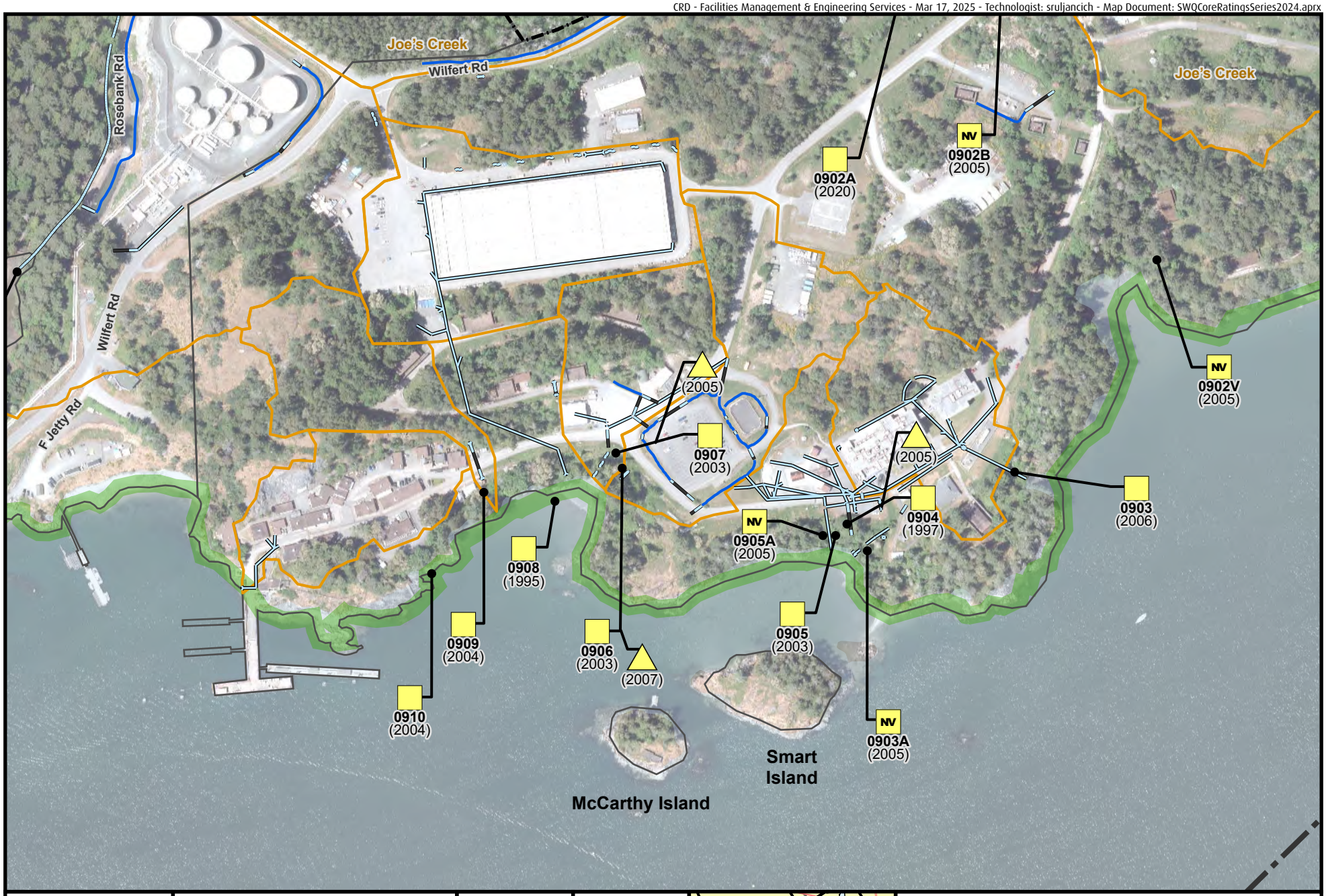


Figure 11

Stormwater Discharge Location and Level of Concern



Making a difference...together

0 25 50 100 150 Metres

Projection: UTM ZONE 10N NAD 83

W S E N

For Legend See Figure 1

For Area Key Index See Figure 1

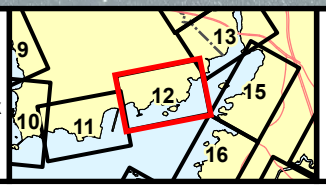
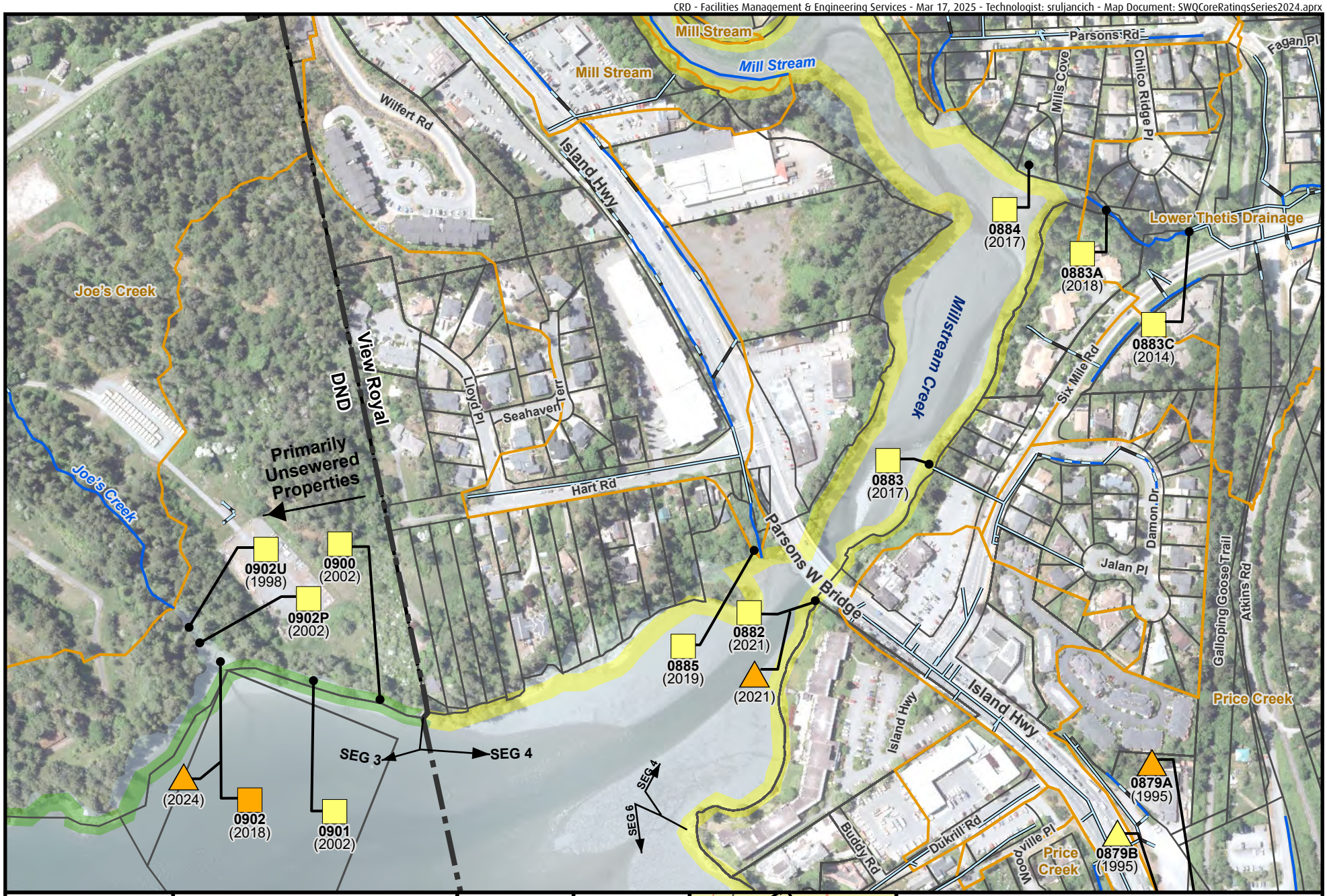


Figure 12

Stormwater Discharge Location and Level of Concern



CRD Making a difference...together

Metres
0 25 50 100 150
Projection: UTM ZONE 10N NAD 83

For Legend See Figure 1

For Area Key Index See Figure 1

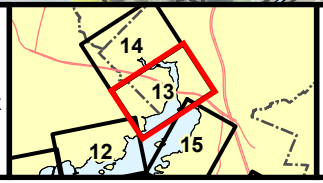
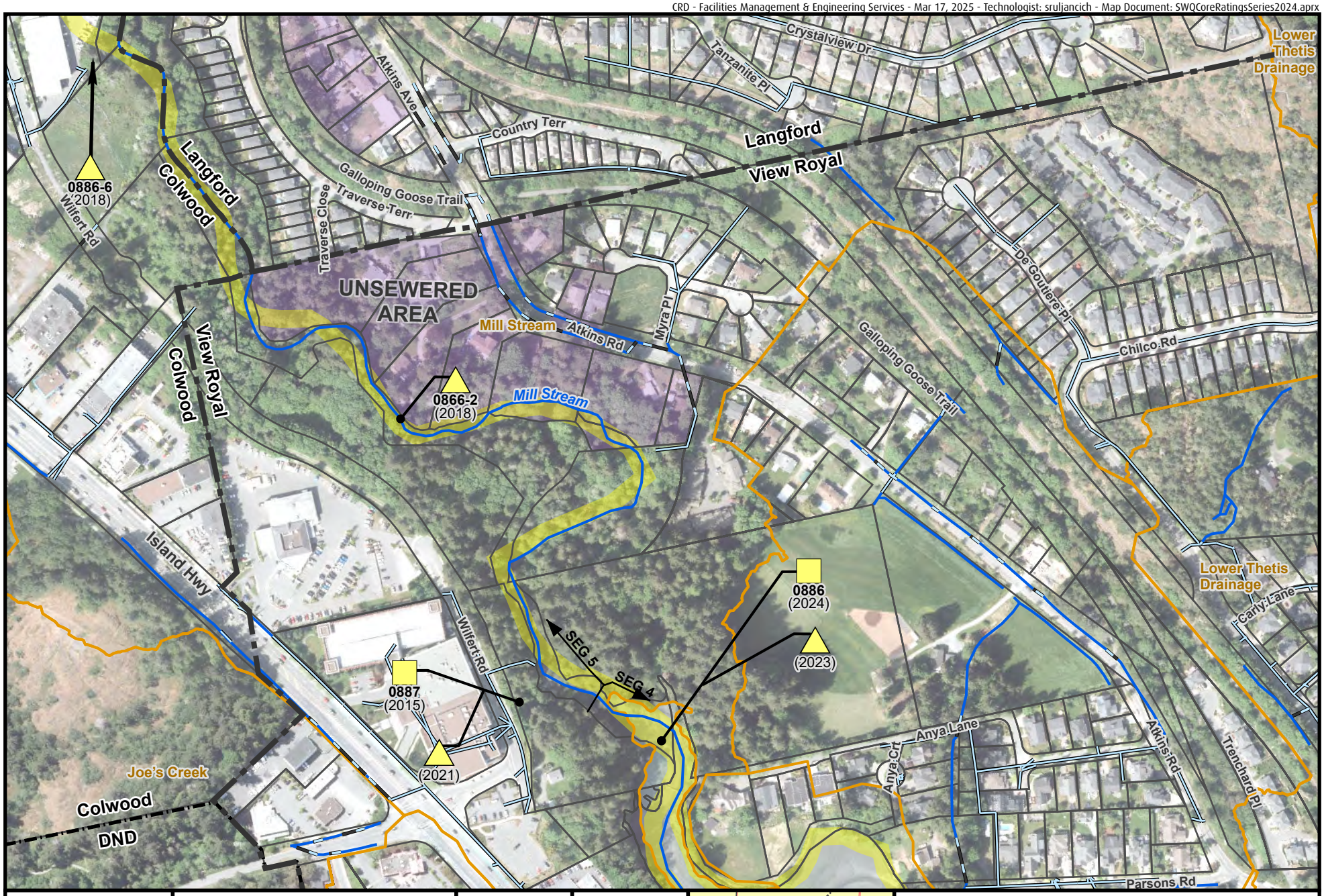


Figure 13

Stormwater Discharge Location and Level of Concern



CRD Making a difference...together

0 25 50 100 150 Metres

Projection: UTM ZONE 10N NAD 83

W S N E

For Legend See Figure 1

For Area Key Index See Figure 1

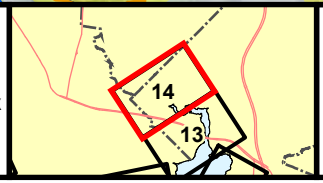
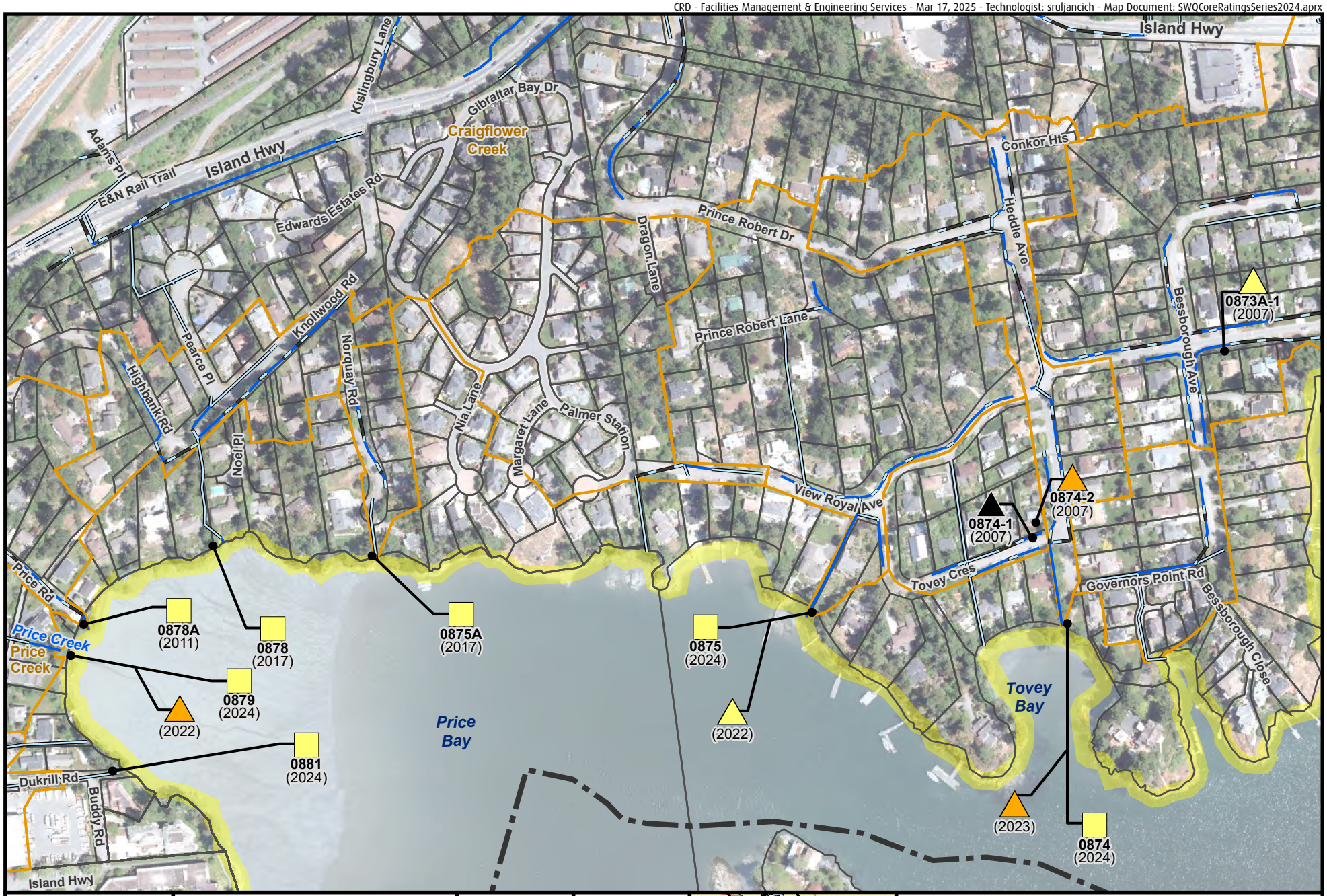


Figure 14

Stormwater Discharge Location and Level of Concern



CRD Making a difference...together

Metres
0 25 50 100 150
Projection: UTM ZONE 10N NAD 83

N E S W

For Legend See Figure 1

For Area Key Index See Figure 1

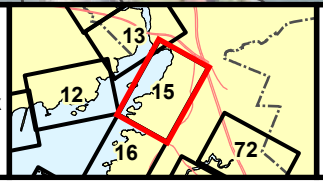


Figure 15

Stormwater Discharge Location and Level of Concern

CRD Making a difference...together

0 25 50 100 150 Metres

Projection: UTM ZONE 10N NAD 83

N W E S

For Legend See Figure 1

For Area Key Index See Figure 1

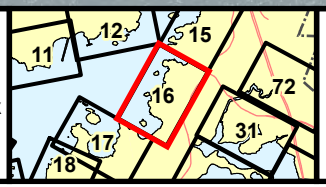


Figure 16

Stormwater Discharge Location and Level of Concern

Making a difference...together

0 25 50 100 150 Metres

Projection: UTM ZONE 10N NAD 83

For Legend See Figure 1

For Area Key Index See Figure 1

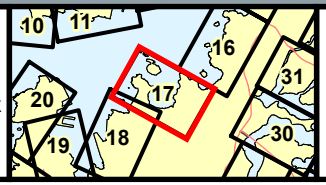
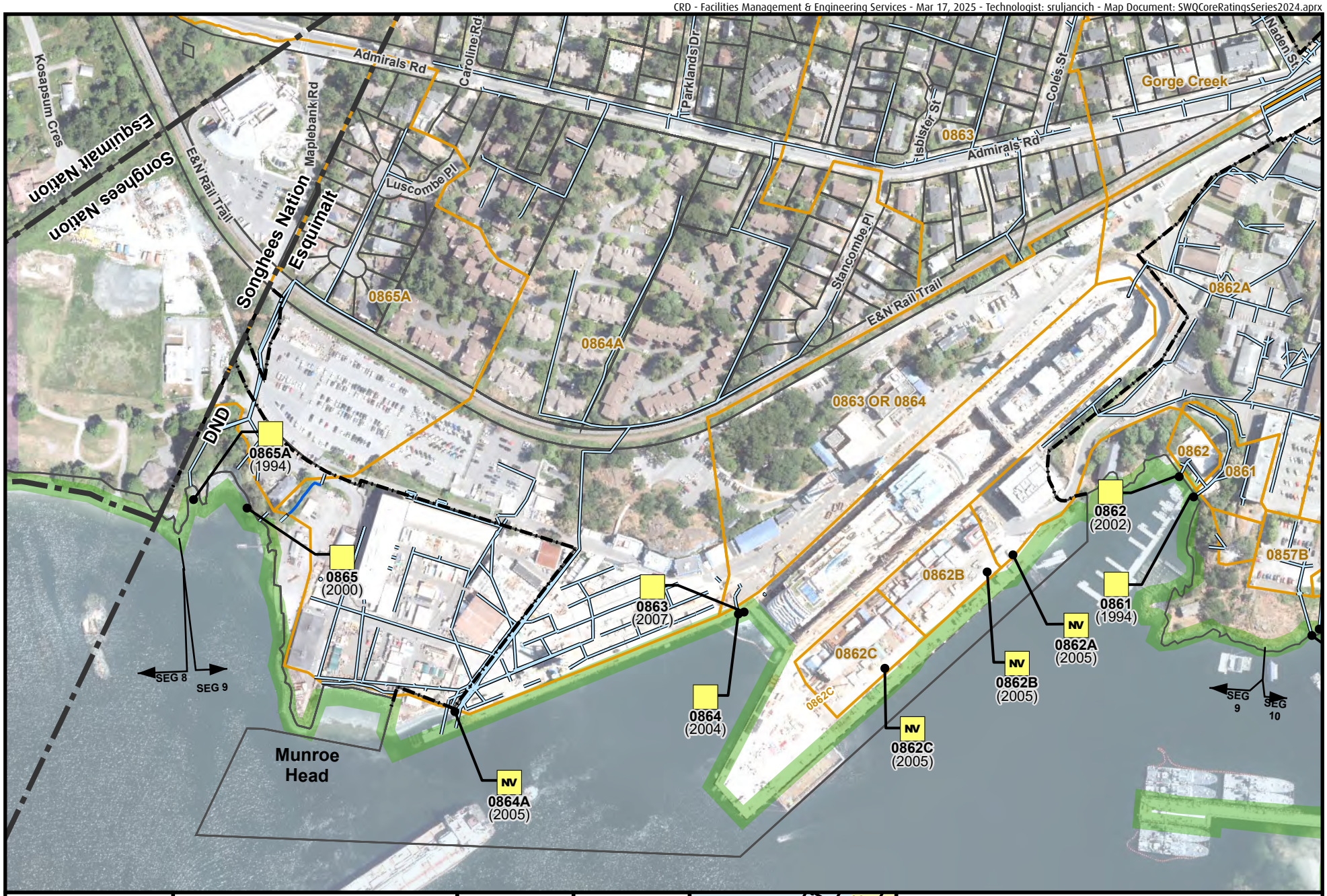


Figure 17

Stormwater Discharge Location and Level of Concern



CRD Making a difference...together

0 25 50 100 150 Metres

Projection: UTM ZONE 10N NAD 83

N E S W

For Legend See Figure 1

For Area Key Index See Figure 1

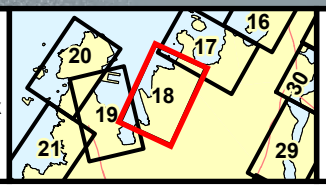


Figure 18

Stormwater Discharge Location and Level of Concern

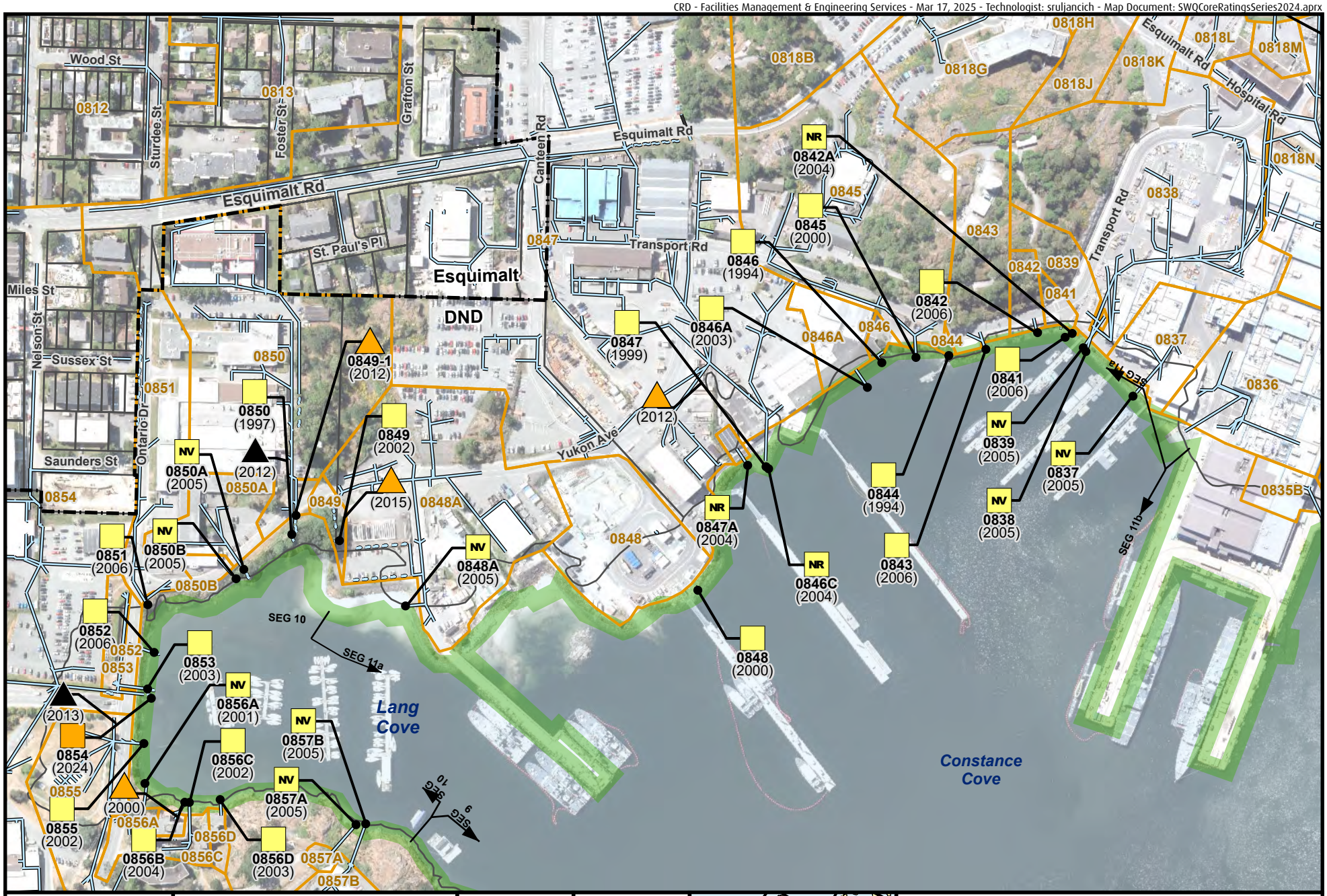
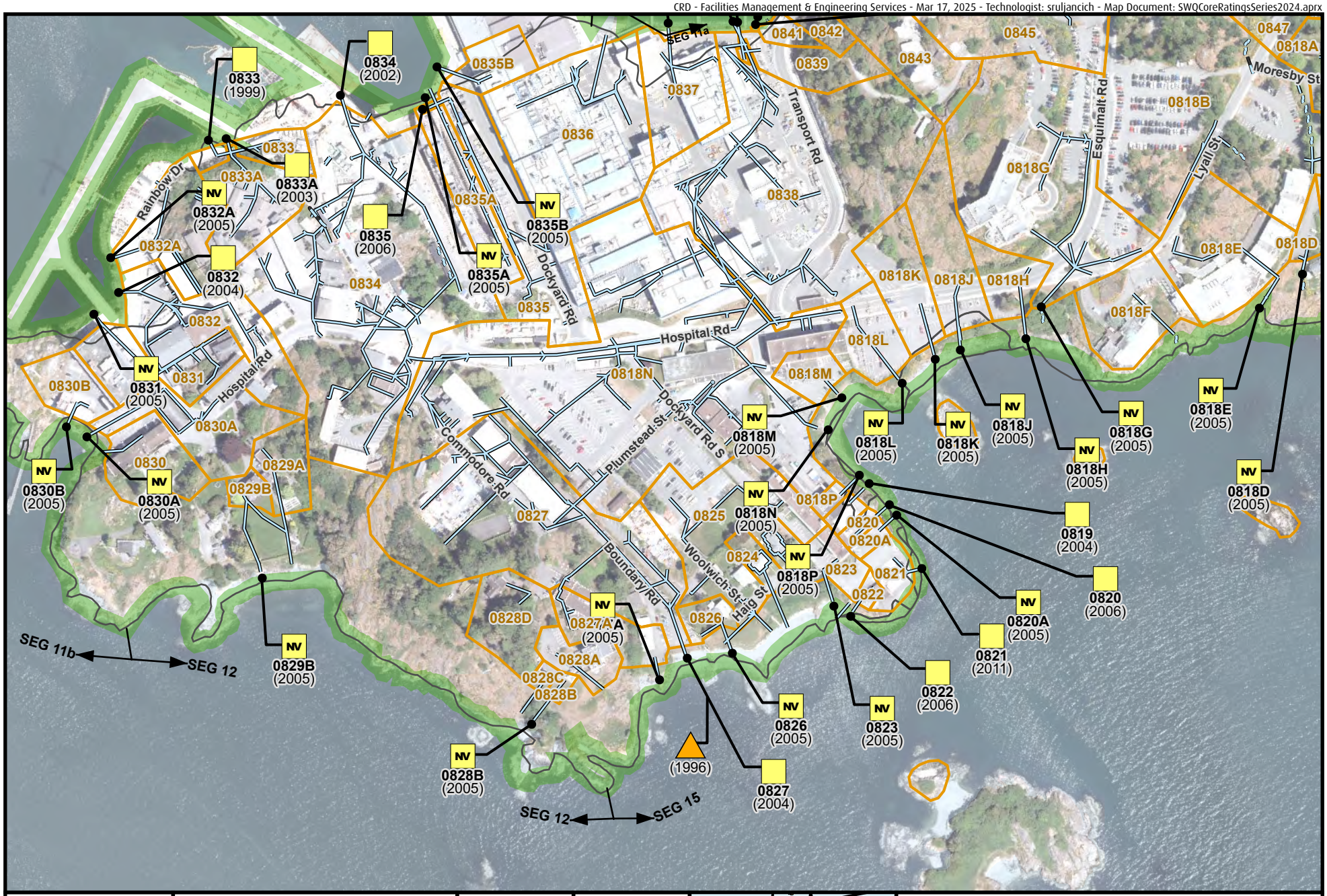


Figure 19

Stormwater Discharge Location and Level of Concern



Making a difference...together

0 25 50 100 150 Metres

Projection: UTM ZONE 10N NAD 83

N E S W

For Legend See Figure 1

For Area Key Index See Figure 1

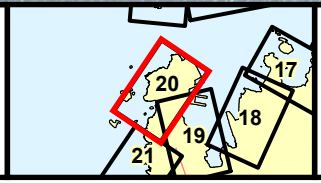
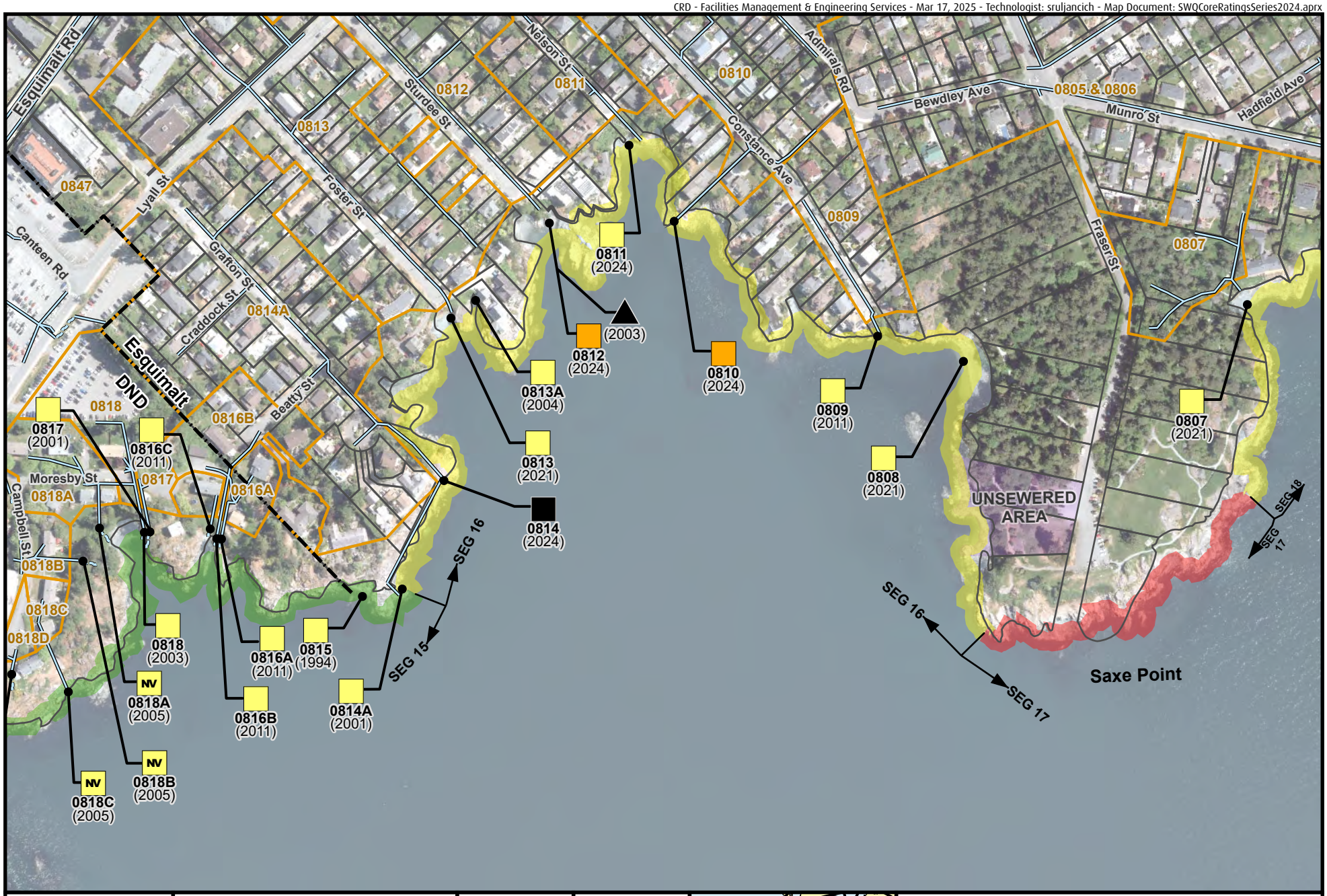


Figure 20

Stormwater Discharge Location and Level of Concern



Making a difference...together

0 25 50 100 150 Metres

Projection: UTM ZONE 10N NAD 83

N E S W

For Legend See Figure 1

For Area Key Index See Figure 1

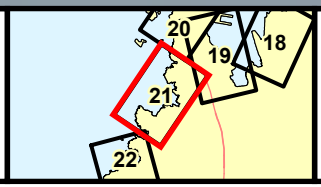
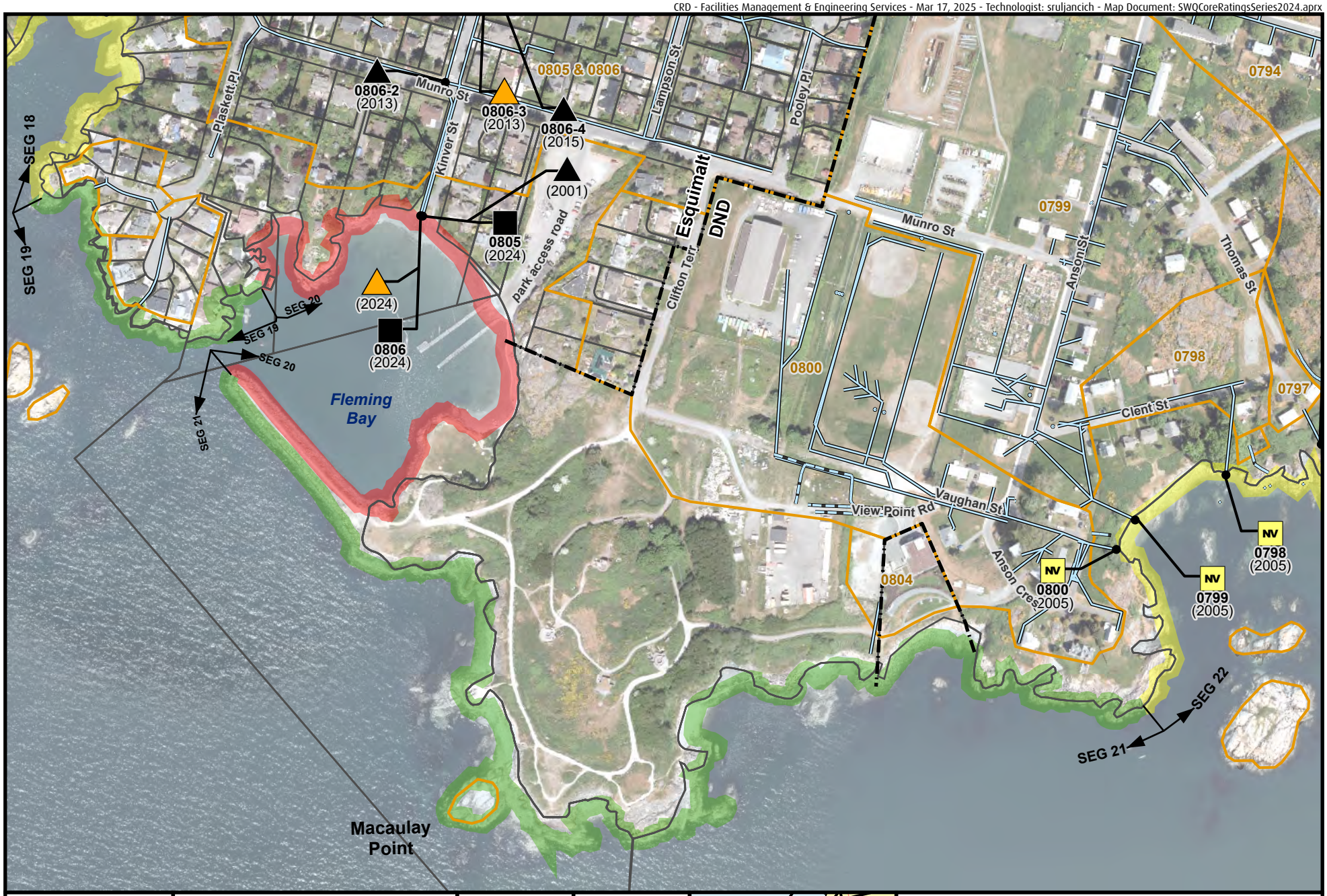


Figure 21

Stormwater Discharge Location and Level of Concern



Making a difference...together

0 25 50 100 150 Metres

Projection: UTM ZONE 10N NAD 83

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N W E S

For Legend See Figure 1

For Area Key Index See Figure 1

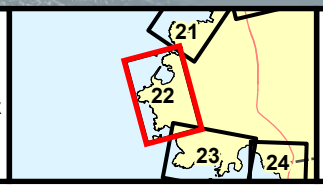
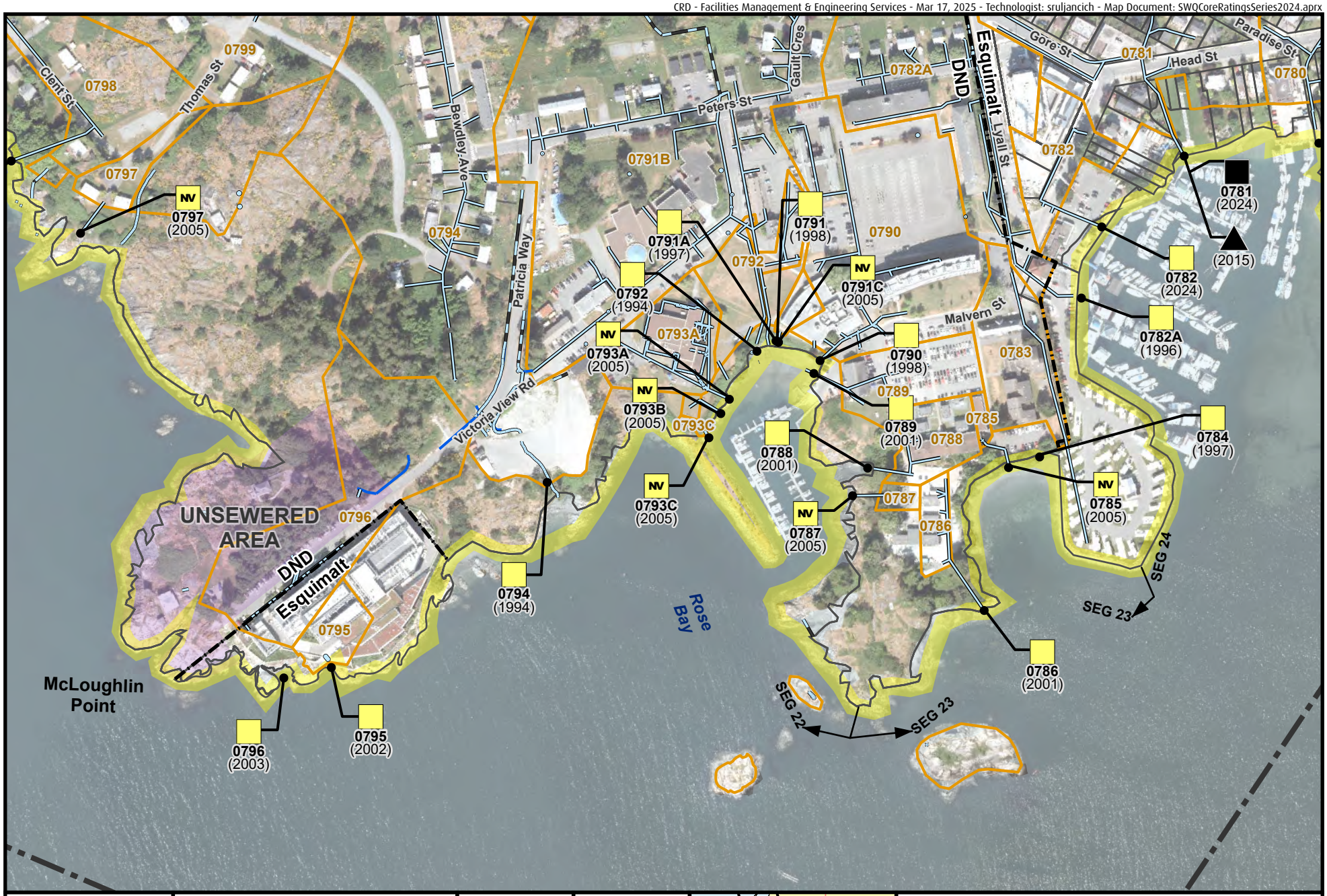


Figure 22

Stormwater Discharge Location and Level of Concern



CRD Making a difference...together

0 25 50 100 150 Metres

Projection: UTM ZONE 10N NAD 83

For Legend See Figure 1

For Area Key Index See Figure 1

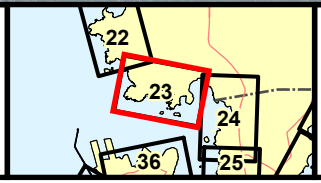


Figure 23

Stormwater Discharge Location and Level of Concern

Making a difference...together

0 25 50 100 150 Metres

Projection: UTM ZONE 10N NAD 83

N E S W

For Legend See Figure 1

For Area Key Index See Figure 1

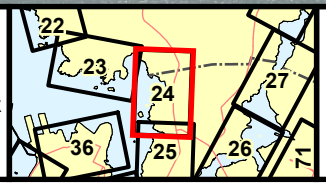
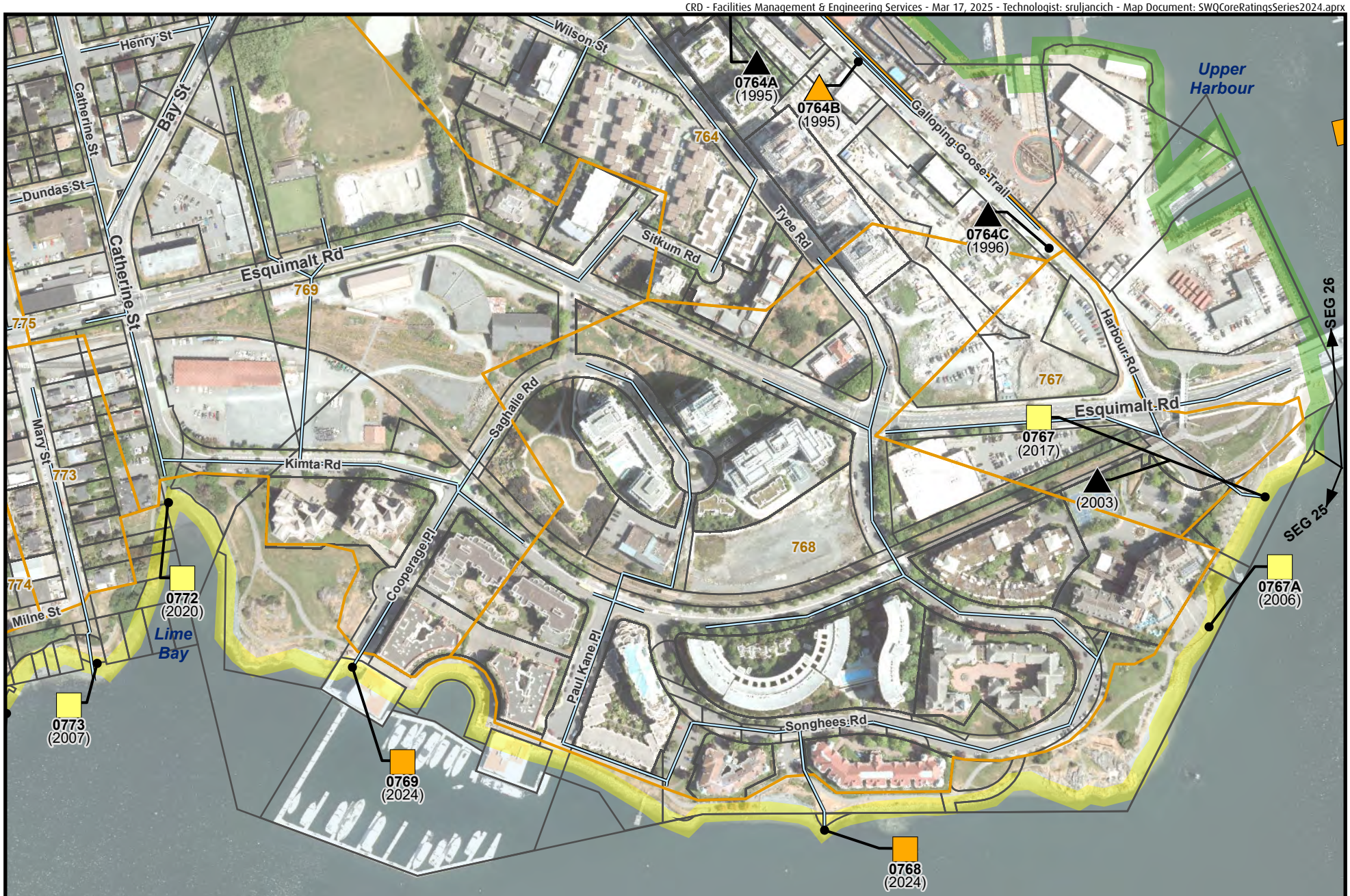


Figure 24

Stormwater Discharge Location and Level of Concern



Making a difference...together

0 25 50 100 150 Metres

Projection: UTM ZONE 10N NAD 83

N E S W

For Legend See Figure 1

For Area Key Index See Figure 1

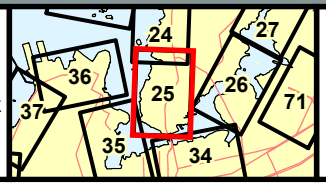
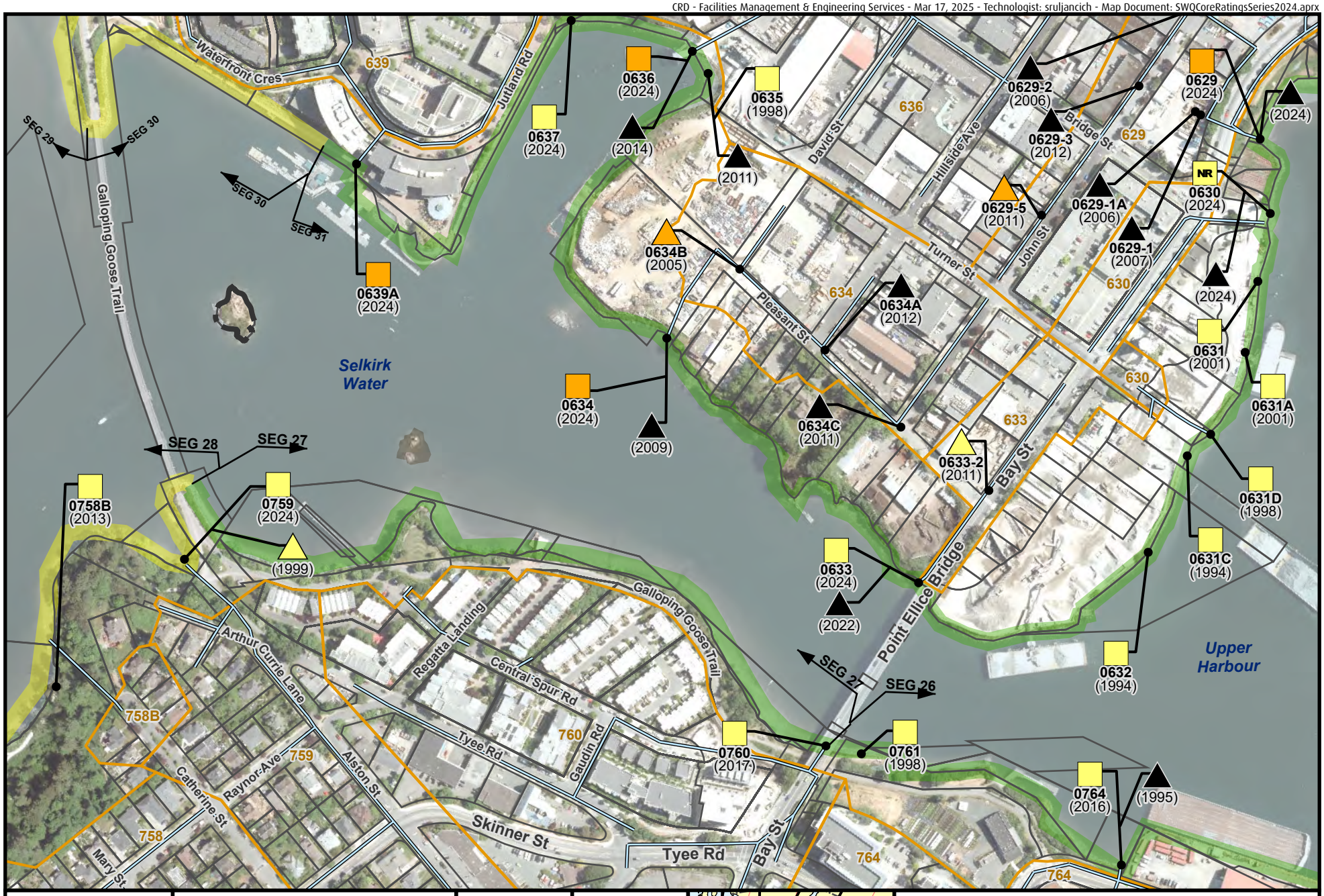


Figure 25

Stormwater Discharge Location and Level of Concern



CRD Making a difference...together

Metres
0 25 50 100 150
Projection: UTM ZONE 10N NAD 83

N W E S

For Legend See Figure 1

For Area Key Index See Figure 1

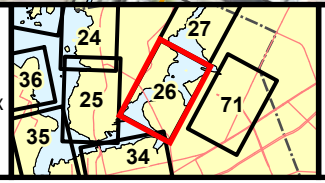
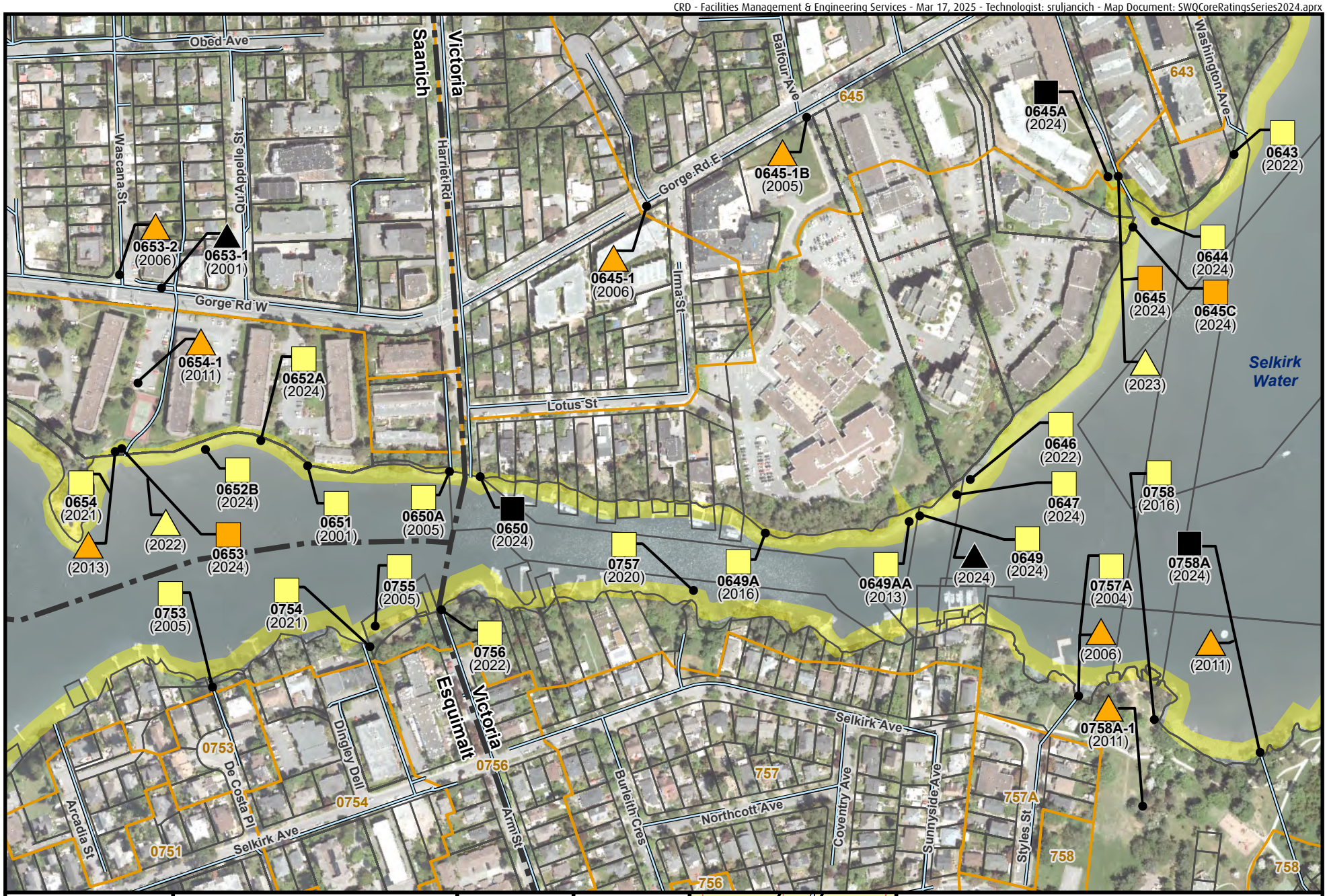


Figure 26

Stormwater Discharge Location and Level of Concern



Making a difference...together

0 25 50 100 150 Metres

Projection: UTM ZONE 10N NAD 83

N E S W

For Legend See Figure 1

For Area Key Index See Figure 1

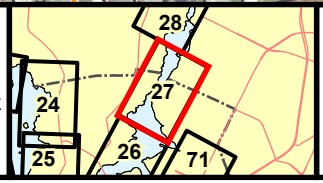
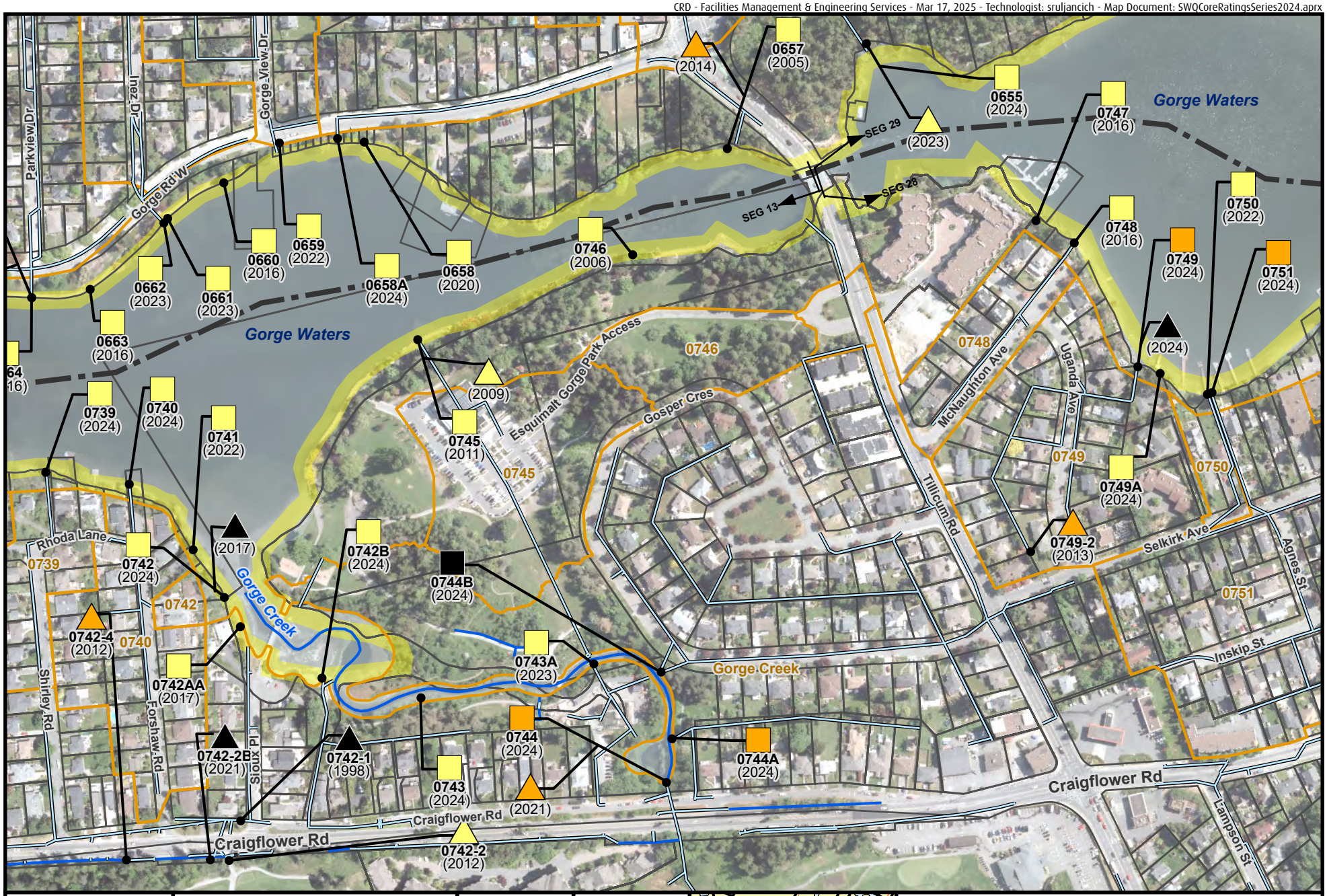


Figure 27

Stormwater Discharge Location and Level of Concern



Making a difference...together

0 25 50 100 150 Metres

Projection: UTM ZONE 10N NAD 83

N E S W

For Legend See Figure 1

For Area Key Index See Figure 1

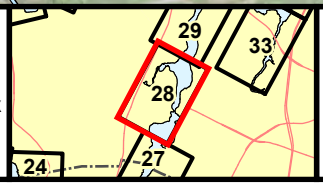
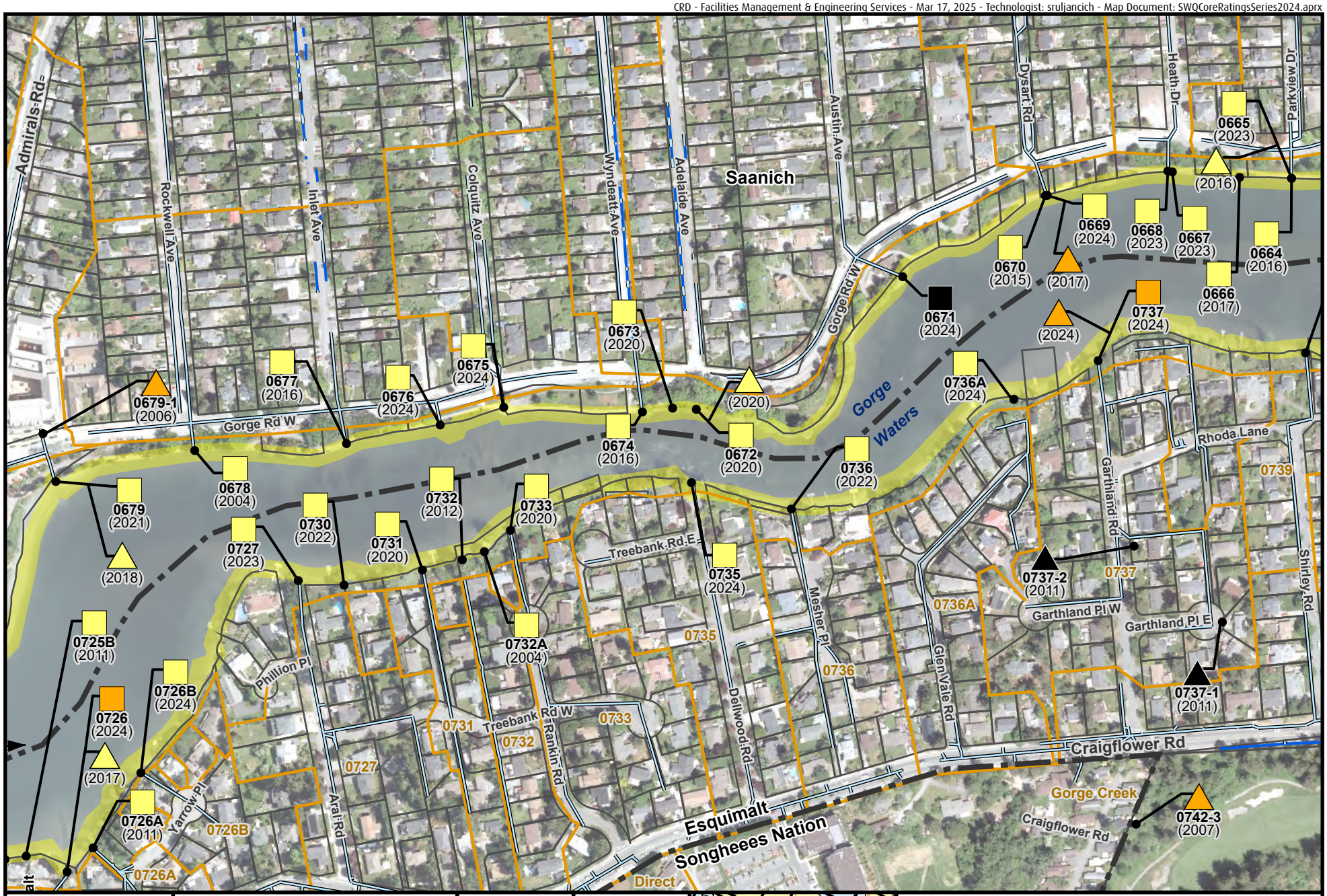


Figure 28

Stormwater Discharge Location and Level of Concern



CRD Making a difference...together

0 25 50 100 150 Metres

Projection: UTM ZONE 10N NAD 83

N E S W

For Legend See Figure 1

For Area Key Index See Figure 1

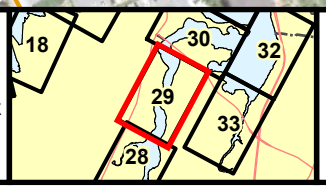
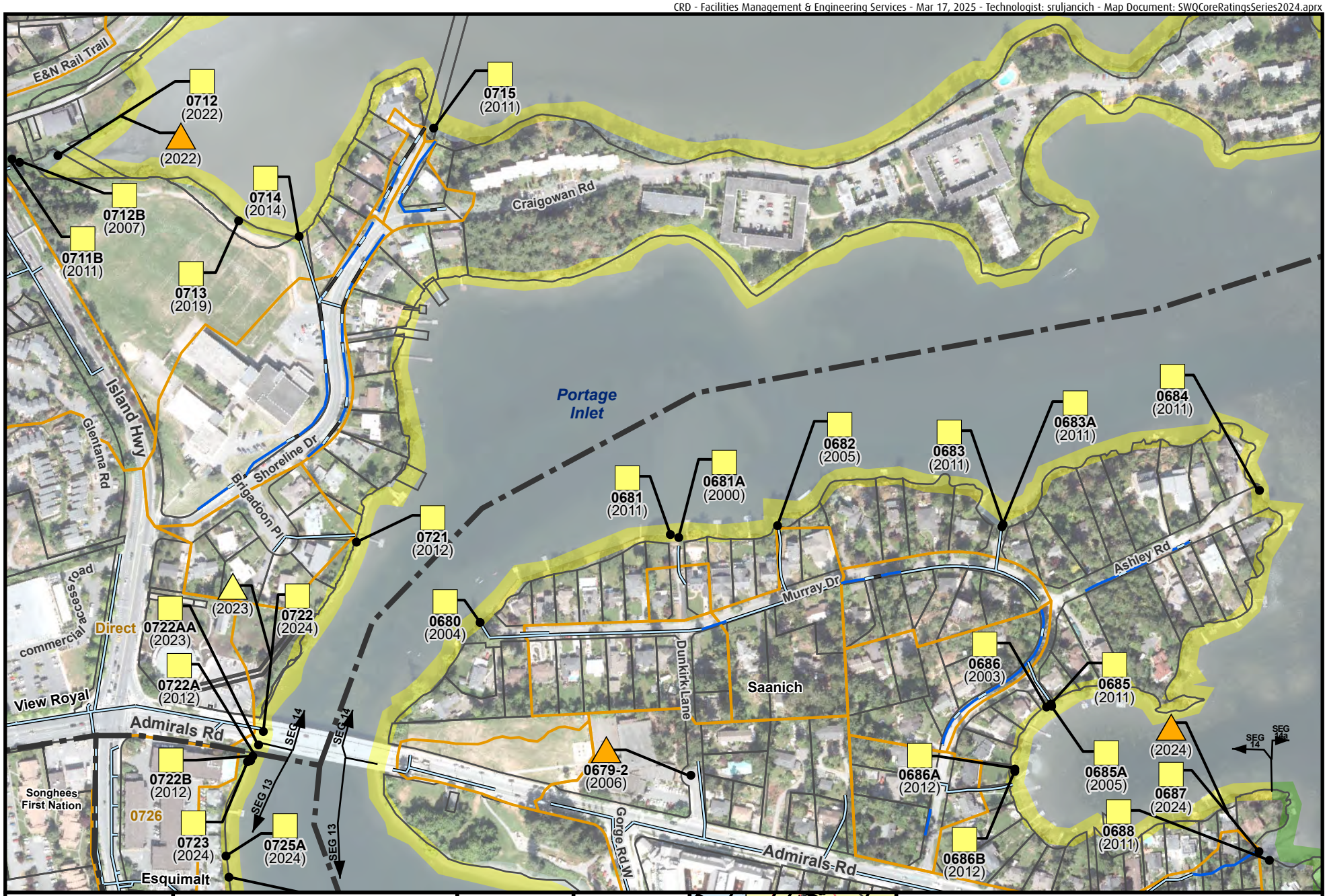


Figure 29

Stormwater Discharge Location and Level of Concern



Making a difference...together

0 25 50 100 150 Metres

Projection: UTM ZONE 10N NAD 83

For Legend See Figure 1

For Area Key Index See Figure 1

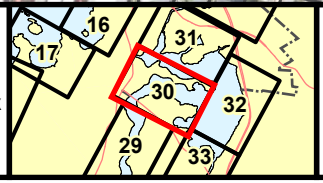
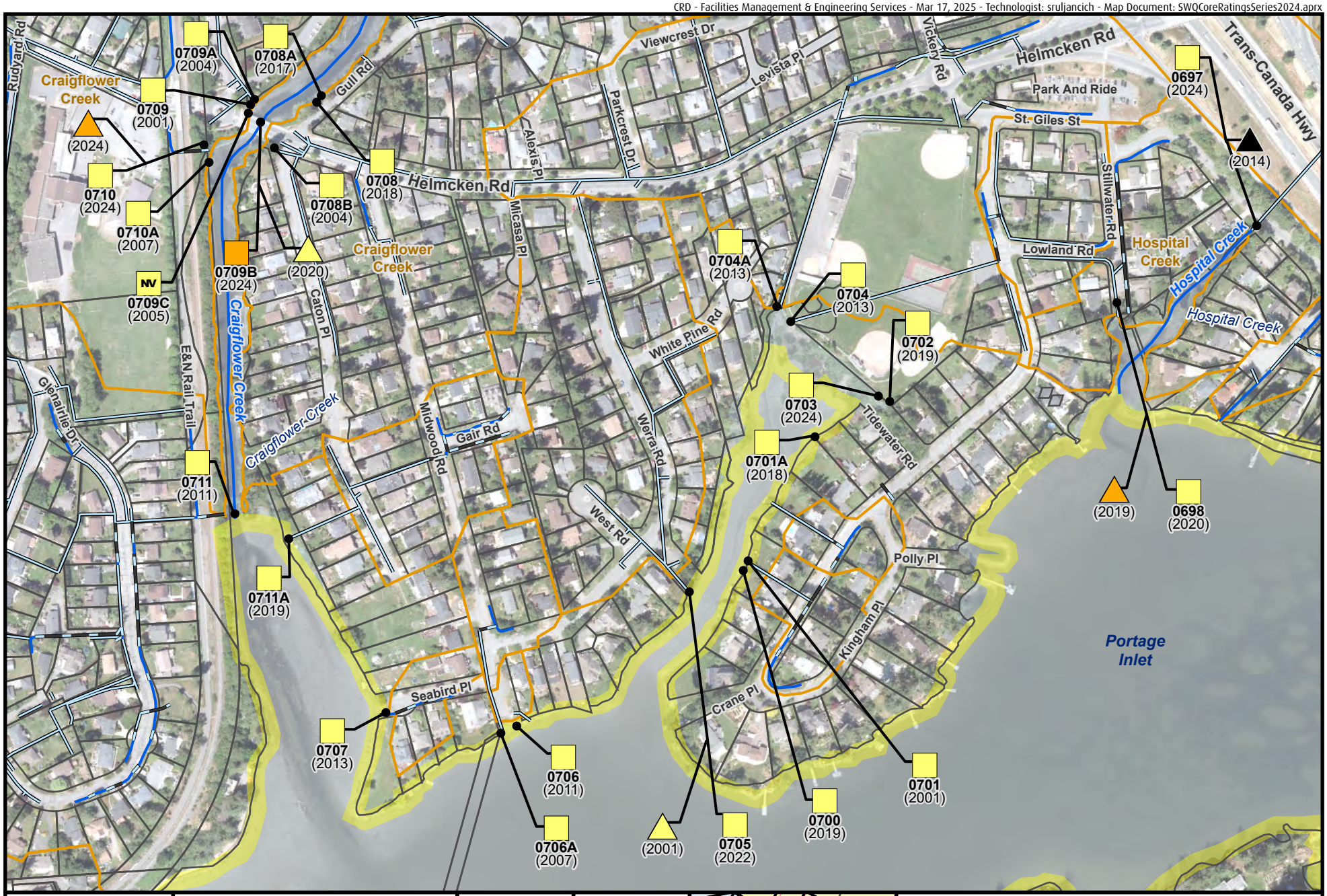


Figure 30

Stormwater Discharge Location and Level of Concern



For Legend See Figure 1

For Area Key Index See Figure 1

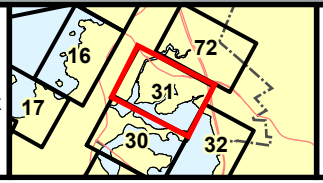


Figure 31

Stormwater Discharge Location and Level of Concern

CRD Making a difference...together

0 25 50 100 150 Metres

Projection: UTM ZONE 10N NAD 83

N W E S

For Legend See Figure 1

For Area Key Index See Figure 1

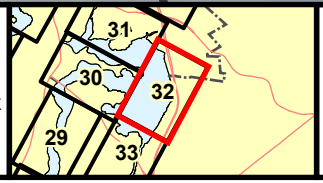
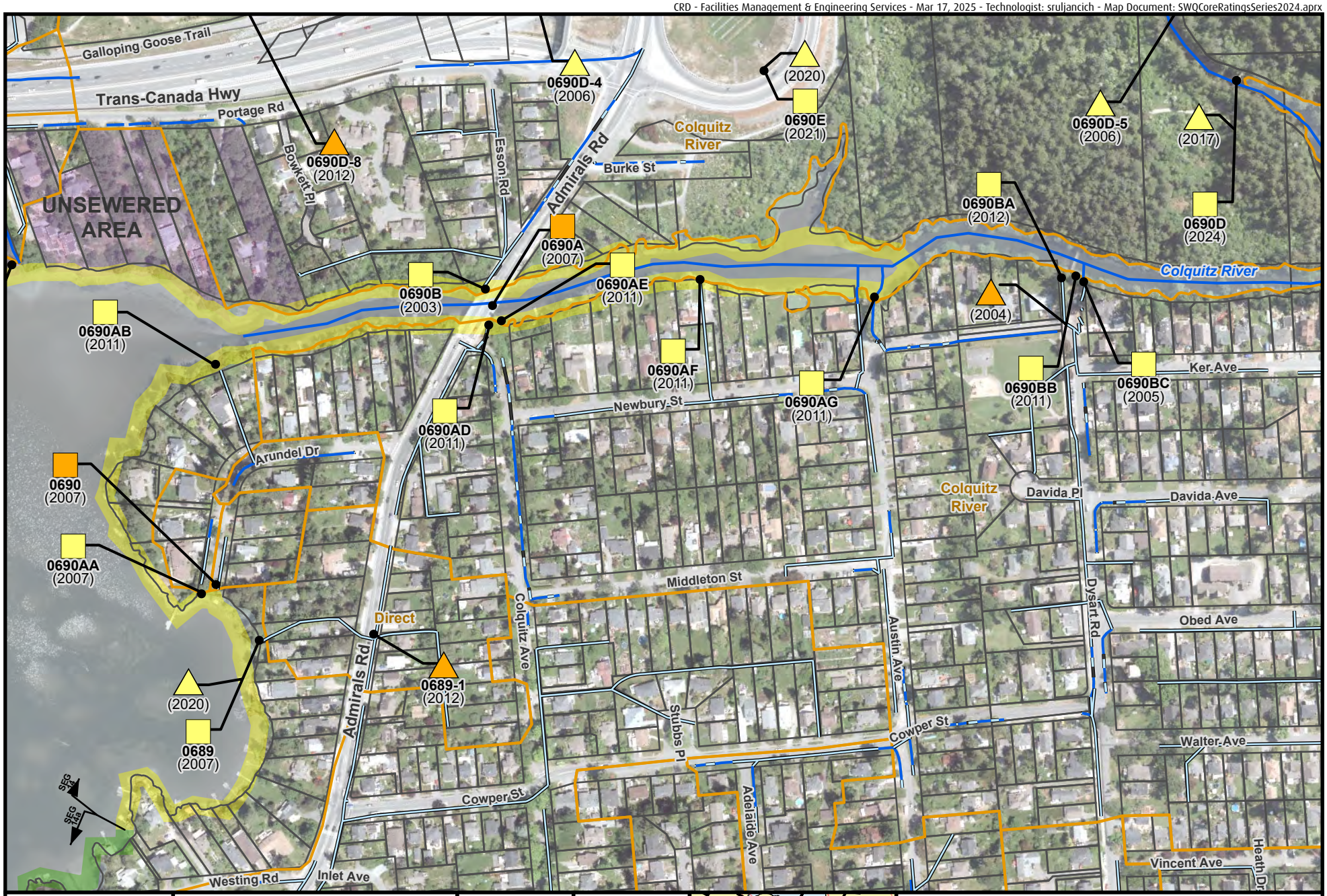


Figure 32

Stormwater Discharge Location and Level of Concern



Making a difference...together

0 25 50 100 150 Metres

Projection: UTM ZONE 10N NAD 83

N E S W

For Legend See Figure 1

For Area Key Index See Figure 1

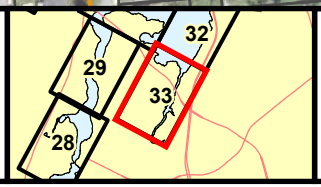
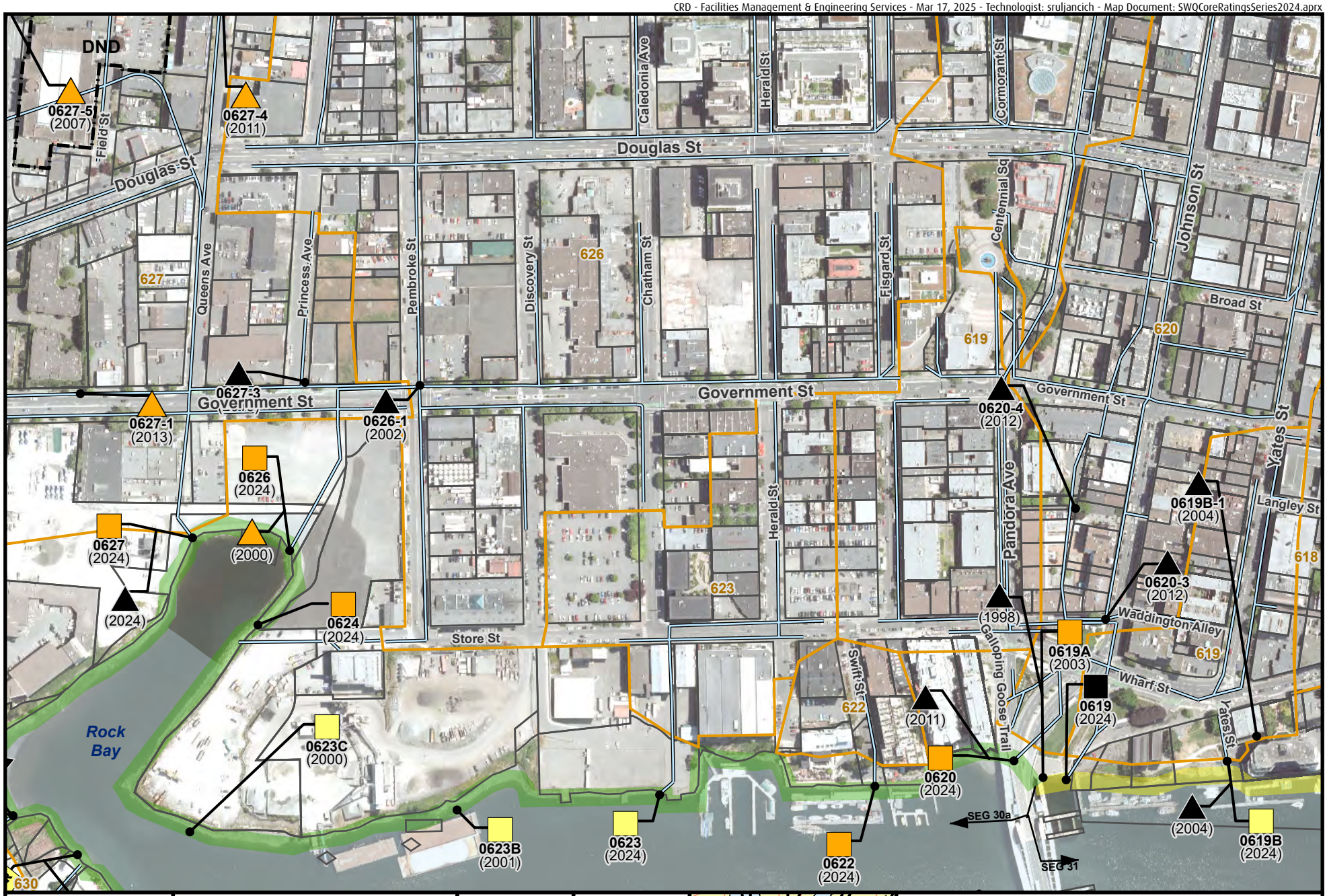


Figure 33

Stormwater Discharge Location and Level of Concern



Making a difference...together

0 25 50 100 150 Metres

Projection: UTM ZONE 10N NAD 83

Important This map is for general information purposes only. The Capital Regional District (**CRD**) makes no representations or warranties regarding the accuracy or completeness of this map or the suitability of the map for any purpose. **This map is not for navigation.** The CRD **will not be liable** for any damage, loss or injury resulting from the use of the map or information on the map and the map may by the CRD at any time.

N E S W

For Legend See Figure 1

For Area Key Index See Figure 1

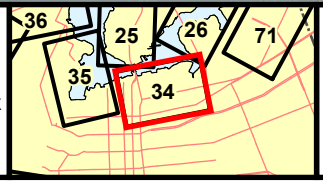
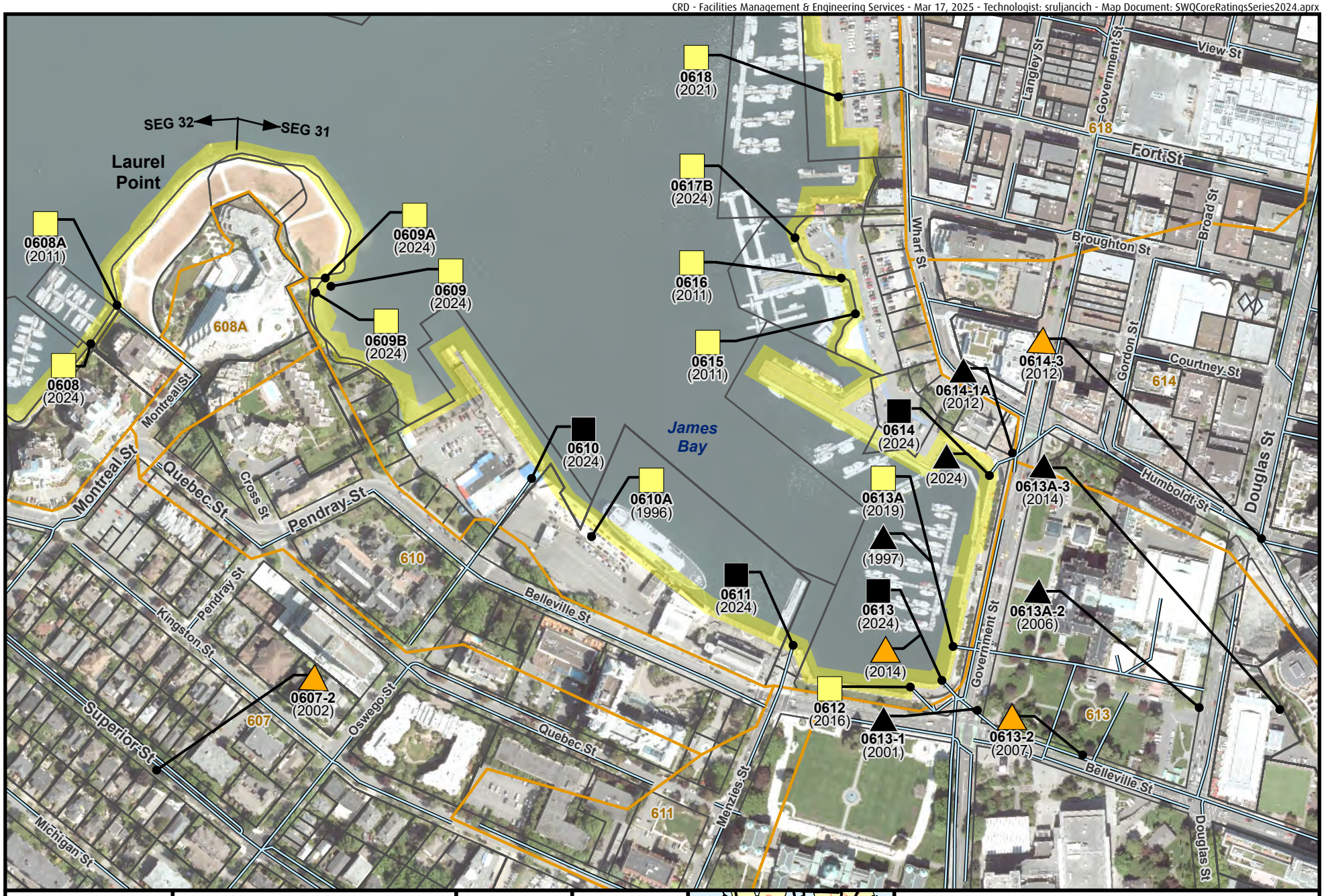


Figure 34

Stormwater Discharge Location and Level of Concern



CRD Making a difference...together

0 25 50 100 150 Metres

Projection: UTM ZONE 10N NAD 83

N W E S

For Legend See Figure 1

For Area Key Index See Figure 1

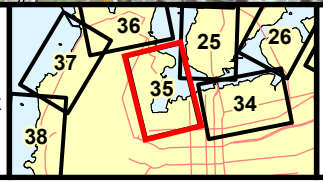


Figure 35

Stormwater Discharge Location and Level of Concern

Making a difference...together

0 25 50 100 150 Metres

Projection: UTM ZONE 10N NAD 83

N E S W

For Legend See Figure 1

For Area Key Index See Figure 1

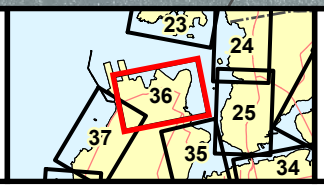
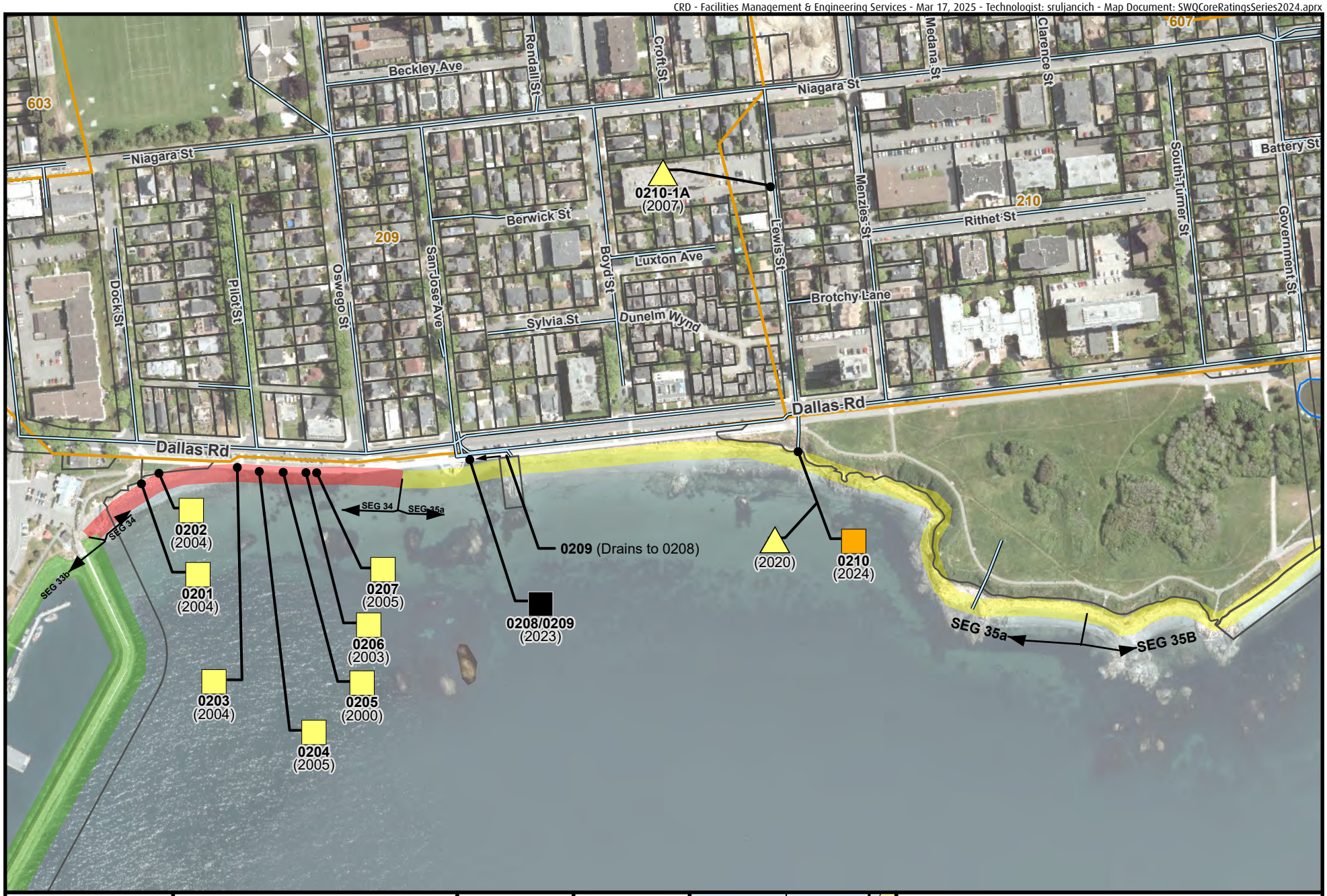


Figure 36

Stormwater Discharge Location and Level of Concern



Making a difference...together

0 25 50 100 150 Metres

Projection: UTM ZONE 10N NAD 83

N W E S

For Legend See Figure 1

For Area Key Index See Figure 1

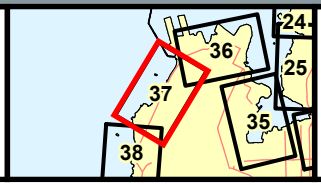


Figure 37

Stormwater Discharge Location and Level of Concern

Making a difference...together

0 25 50 100 150 Metres

Projection: UTM ZONE 10N NAD 83

N W E S

For Legend See Figure 1

For Area Key Index See Figure 2

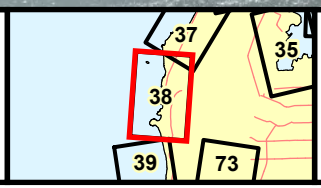


Figure 38

Stormwater Discharge Location and Level of Concern

Making a difference...together

0 25 50 100 150 Metres

Projection: UTM ZONE 10N NAD 83

N W E S

For Legend
See Figure 1

For Area Key Index
See
Figure 2

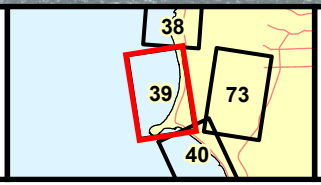


Figure 39

Stormwater Discharge Location and Level of Concern

CRD Making a difference...together

0 25 50 100 150 Metres

Projection: UTM ZONE 10N NAD 83

N W E S

For Legend See Figure 1

For Area Key Index See Figure 2

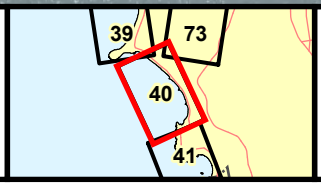
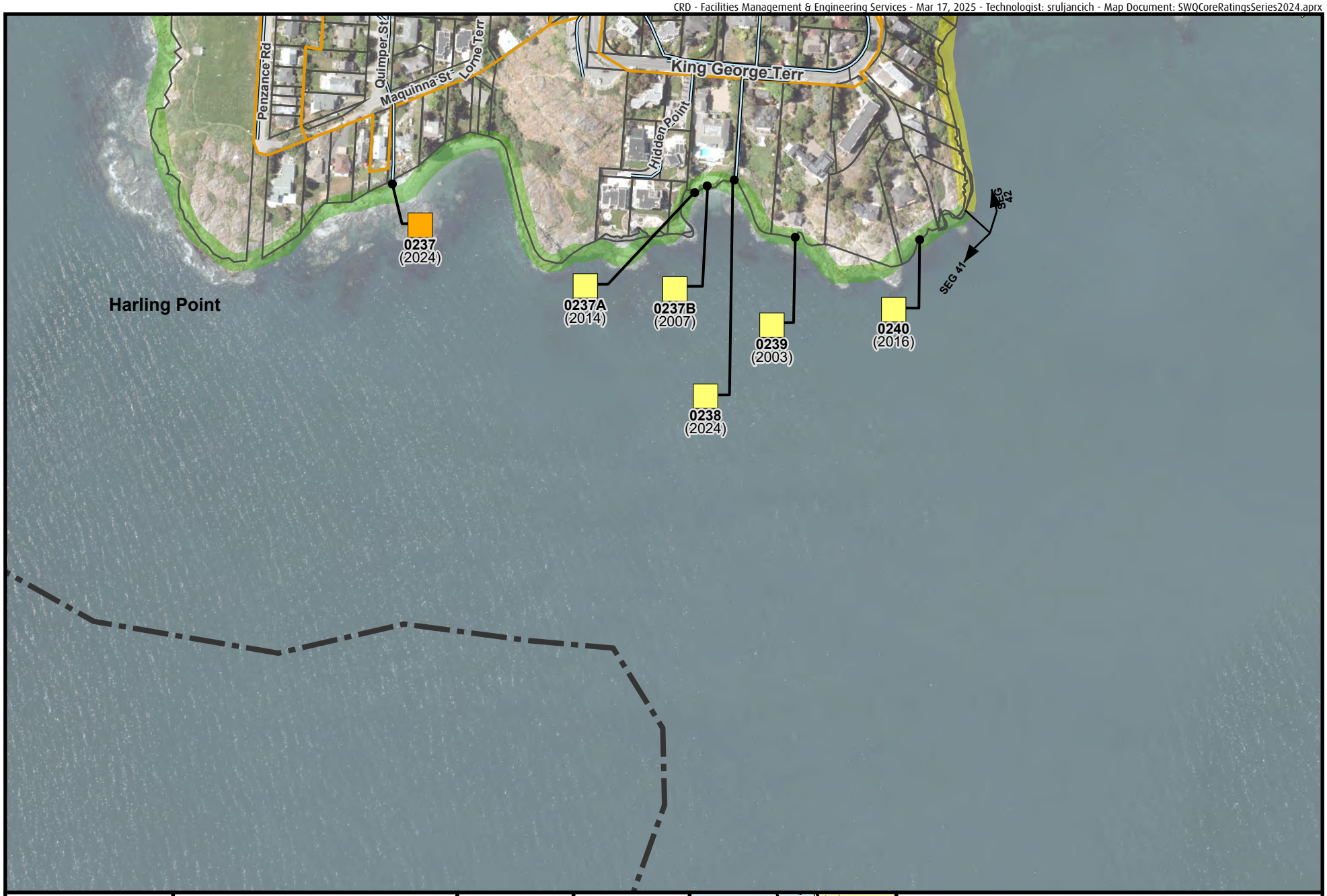


Figure 40

Stormwater Discharge Location and Level of Concern

Figure 41

Stormwater Discharge Location and Level of Concern



Making a difference...together

0 25 50 100 150 Metres

Projection: UTM ZONE 10N NAD 83

For Legend See Figure 1

For Area Key Index See Figure 2

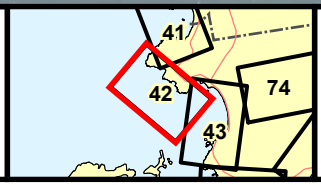
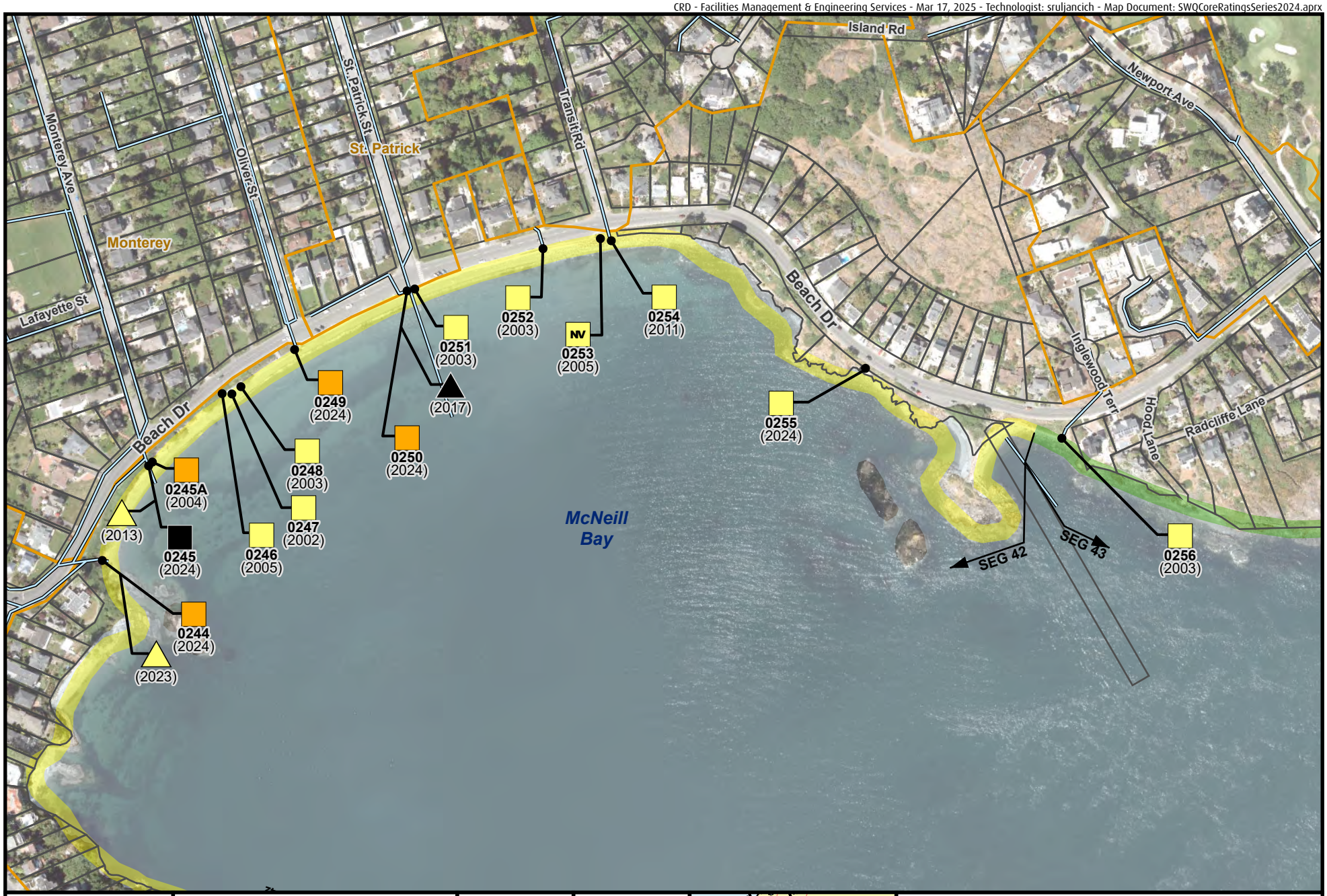


Figure 42

Stormwater Discharge Location and Level of Concern



Making a difference...together

0 25 50 100 150 Metres

Projection: UTM ZONE 10N NAD 83

N E S W

For Legend See Figure 1

For Area Key Index See Figure 2

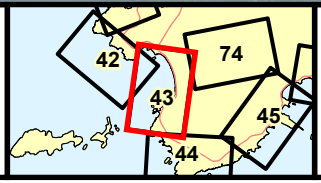


Figure 43

Stormwater Discharge Location and Level of Concern

Making a difference...together

0 25 50 100 150 Metres

Projection: UTM ZONE 10N NAD 83

N W E S

For Legend
See Figure 1

For Area Key Index
See
Figure 2

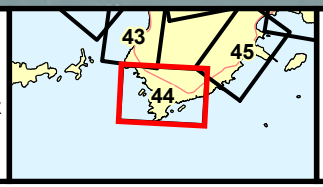


Figure 44

Stormwater Discharge Location and Level of Concern

Making a difference...together

0 25 50 100 150 Metres

Projection: UTM ZONE 10N NAD 83

For Legend See Figure 1

For Area Key Index See Figure 2

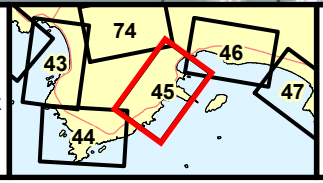
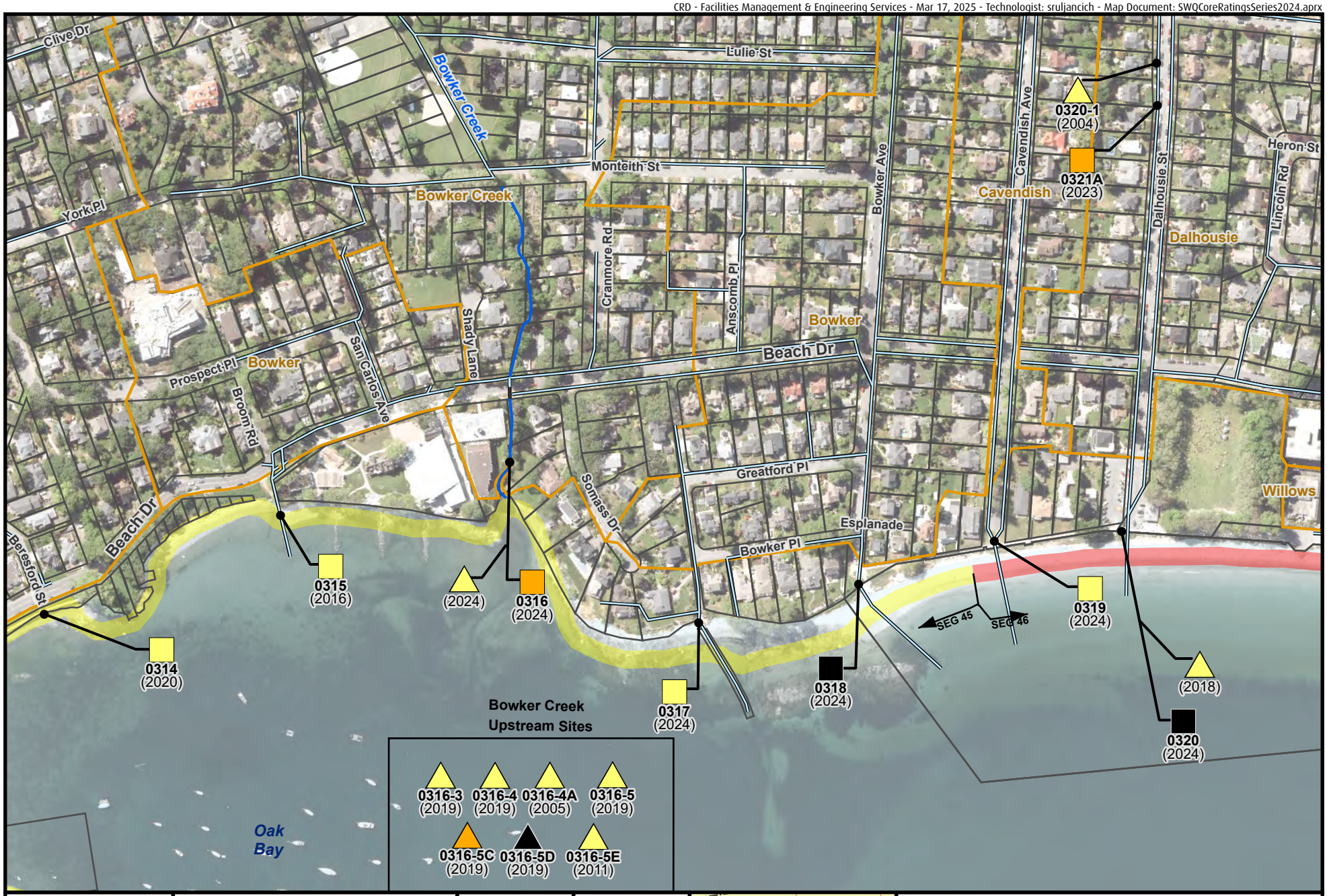


Figure 45

Stormwater Discharge Location and Level of Concern



Making a difference...together

0 25 50 100 150 Metres

Projection: UTM ZONE 10N NAD 83

For Legend See Figure 1

For Area Key Index See Figure 2

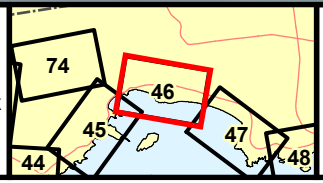
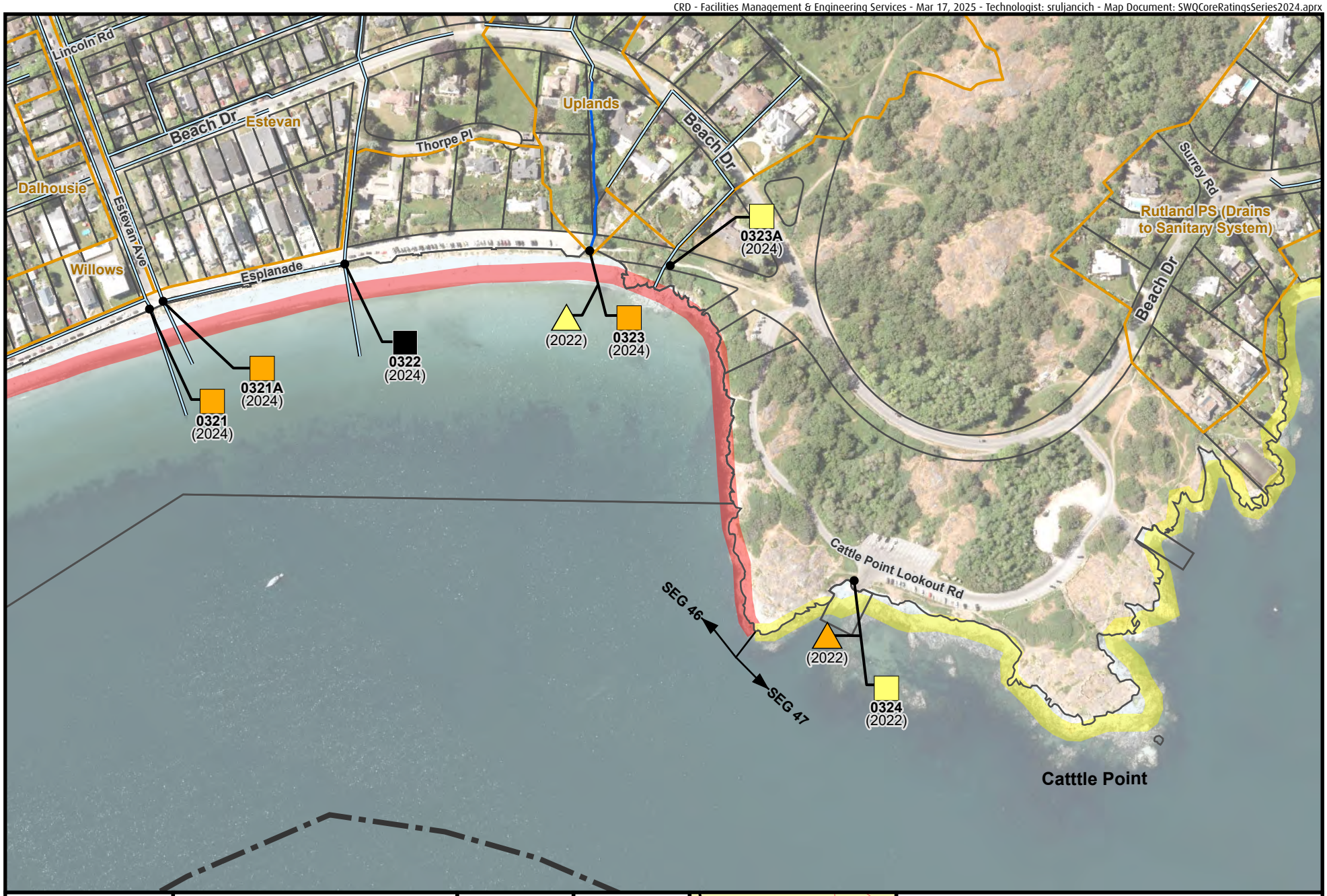


Figure 46

Stormwater Discharge Location and Level of Concern



Making a difference...together

Metres
0 25 50 100 150
Projection: UTM ZONE 10N NAD 83

For Legend See Figure 1

For Area Key Index See Figure 2

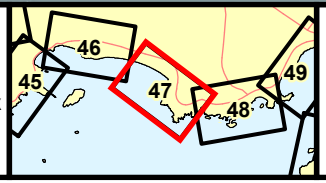


Figure 47
Stormwater Discharge Location and Level of Concern

Making a difference...together

0 25 50 100 150 Metres

Projection: UTM ZONE 10N NAD 83

W S N E

For Legend See Figure 1

For Area Key Index See Figure 2

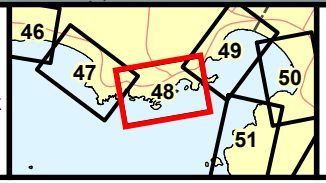
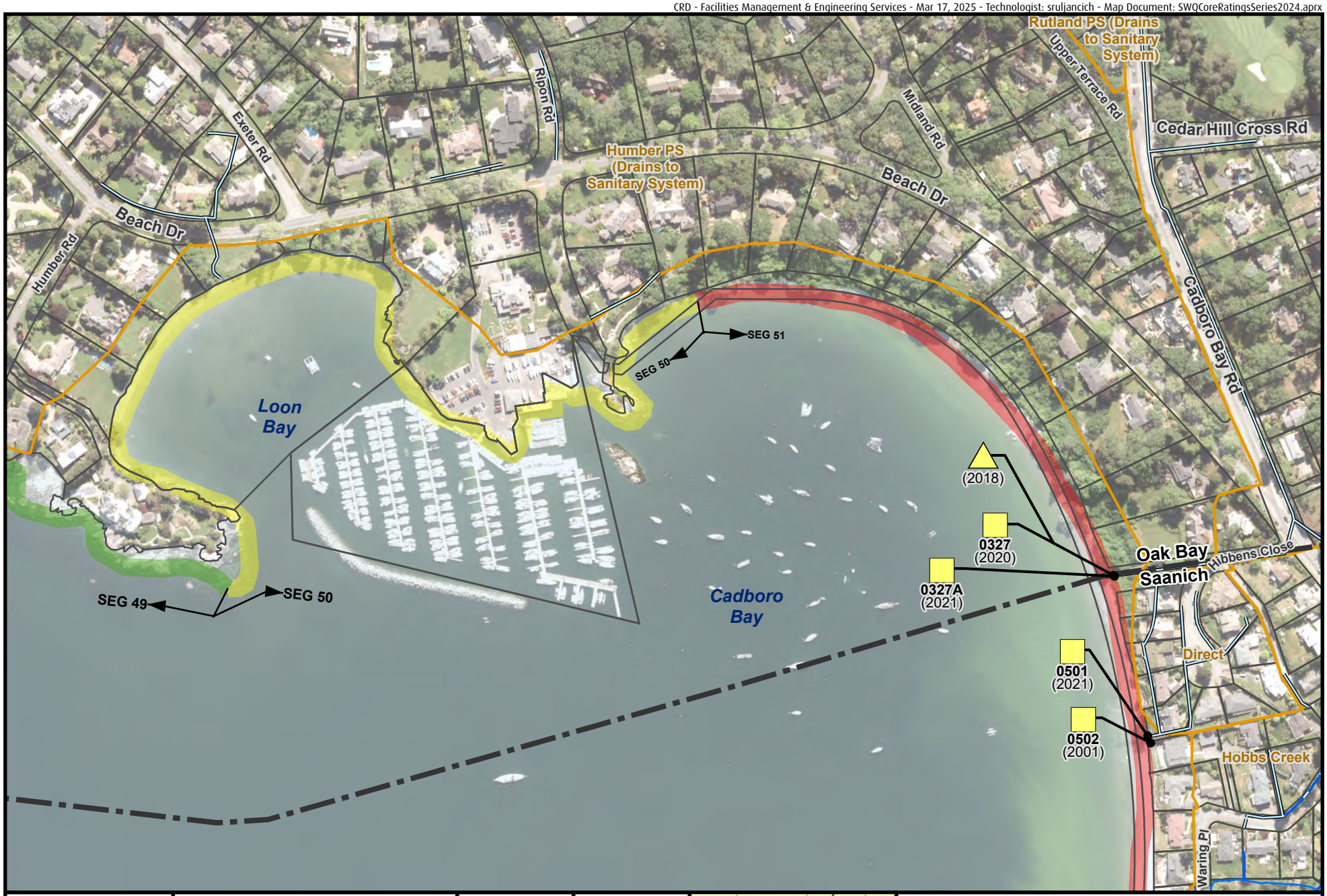


Figure 48

Stormwater Discharge Location and Level of Concern



CRD Making a difference...together

0 25 50 100 150 Metres

Projection: UTM ZONE 10N NAD 83

For Legend See Figure 1

For Area Key Index See Figure 2

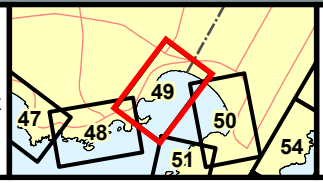
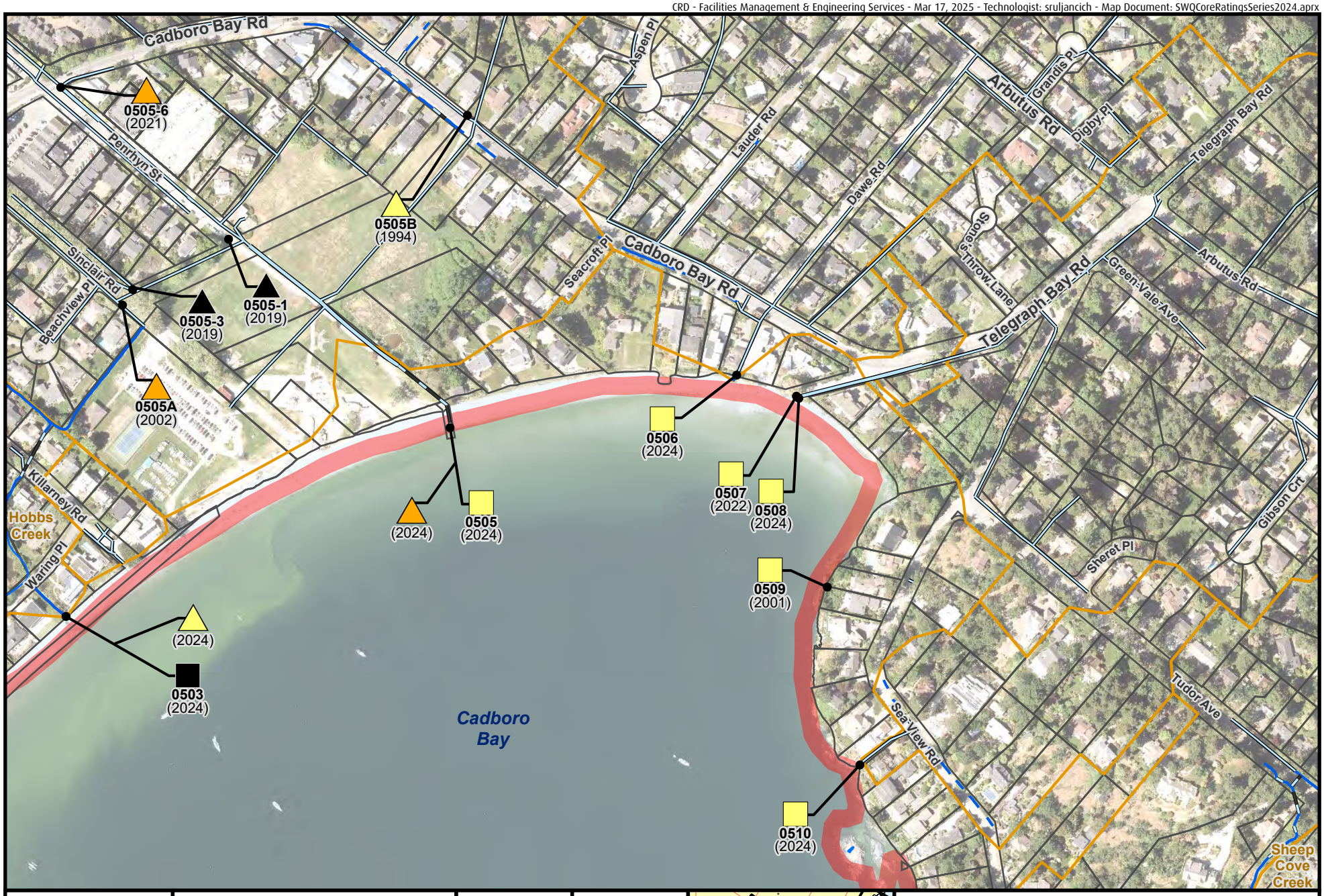


Figure 49

Stormwater Discharge Location and Level of Concern



Making a difference...together

0 25 50 100 150 Metres

Projection: UTM ZONE 10N NAD 83

N W E S

For Legend See Figure 1

For Area Key Index See Figure 2

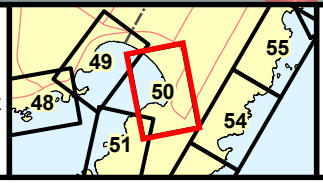


Figure 50

Stormwater Discharge Location and Level of Concern

Making a difference...together

0 25 50 100 150 Metres

Projection: UTM ZONE 10N NAD 83

N E S W

For Legend See Figure 1

For Area Key Index See Figure 2

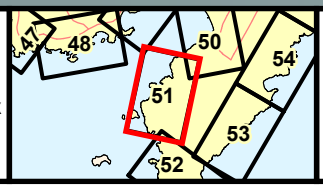


Figure 51

Stormwater Discharge Location and Level of Concern

Making a difference...together

0 25 50 100 150 Metres

Projection: UTM ZONE 10N NAD 83

For Legend
See Figure 1

For Area Key Index
See
Figure 2

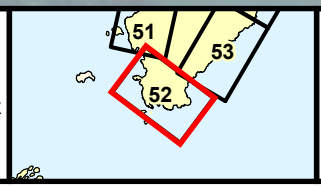
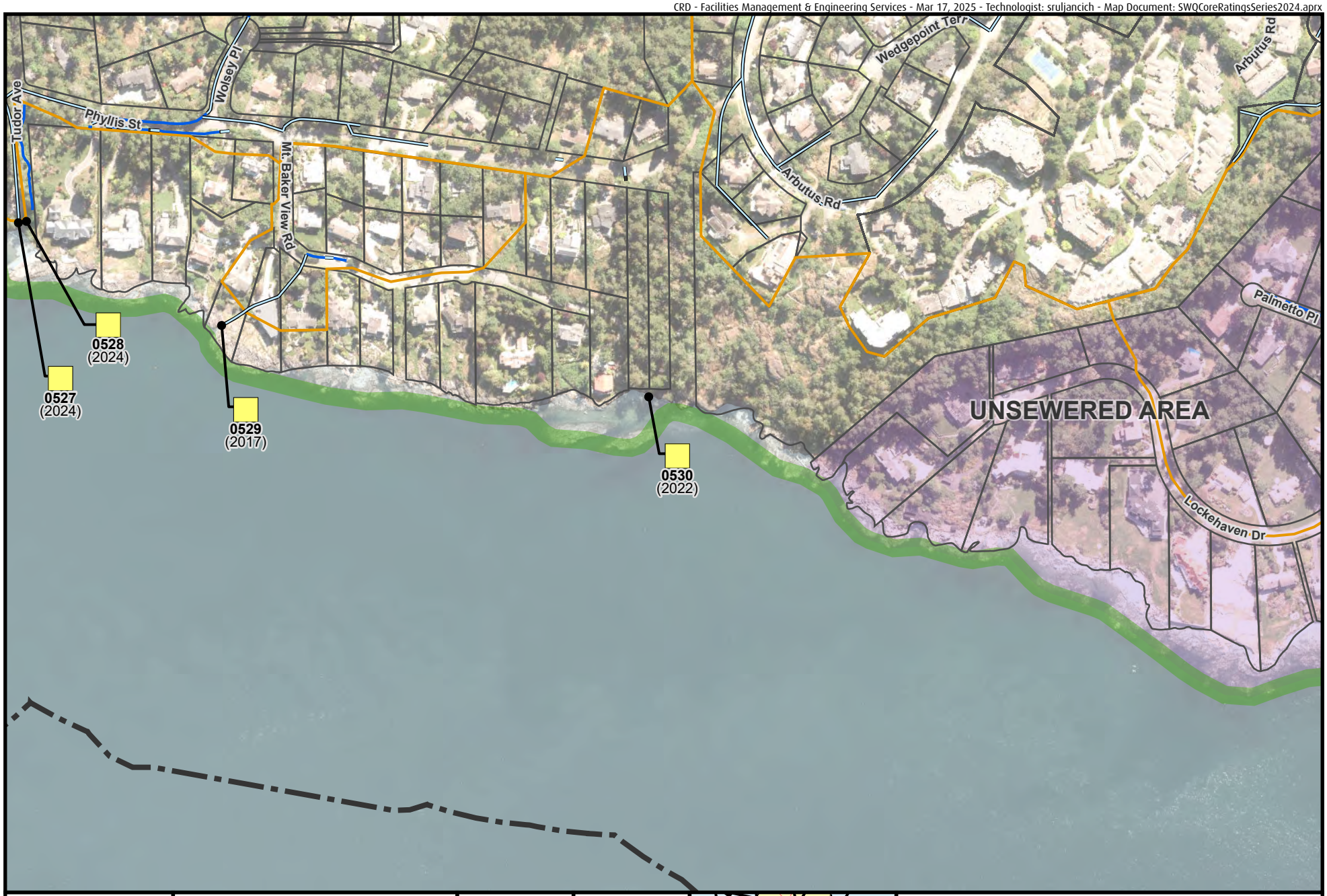


Figure 52

Stormwater Discharge Location and Level of Concern



Making a difference...together

0 25 50 100 150 Metres

Projection: UTM ZONE 10N NAD 83

For Legend See Figure 1

For Area Key Index See Figure 2

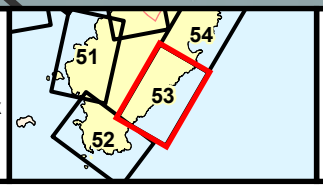
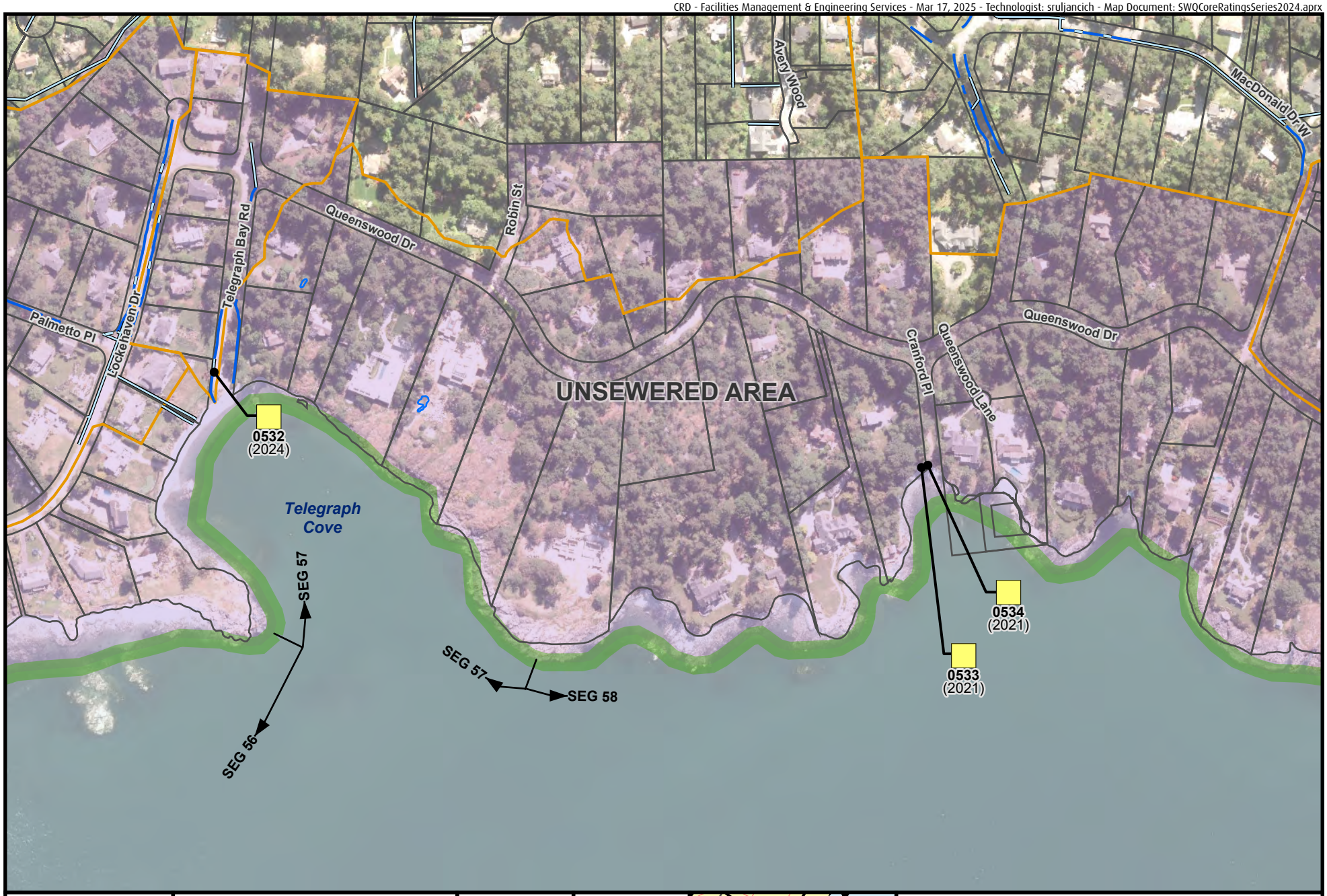


Figure 53

Stormwater Discharge Location and Level of Concern



Making a difference...together

0 25 50 100 150 Metres

Projection: UTM ZONE 10N NAD 83

For Legend See Figure 1

For Area Key Index See Figure 2

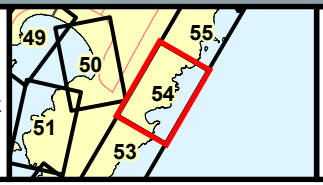
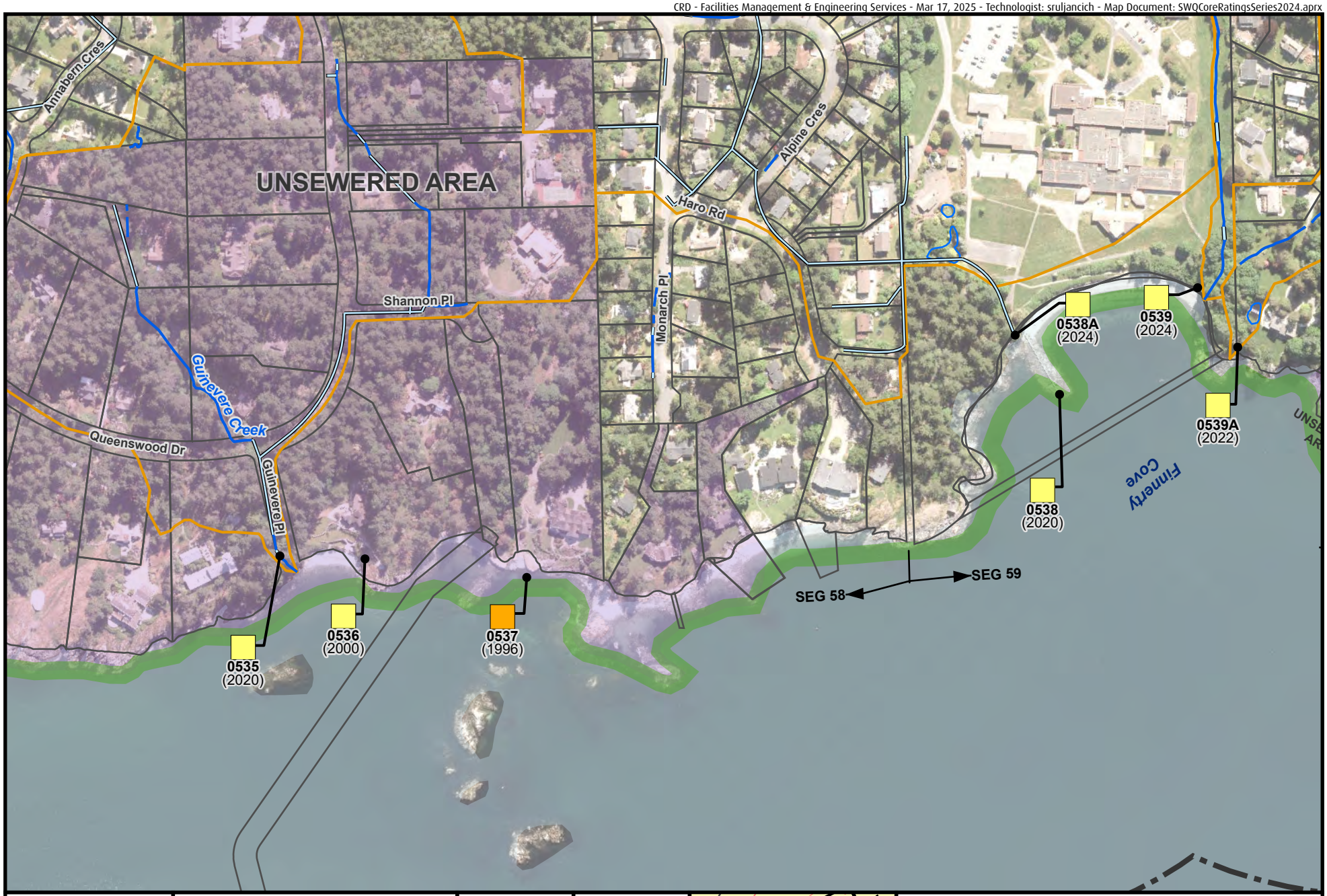


Figure 54

Stormwater Discharge Location and Level of Concern



Making a difference...together

0 25 50 100 150 Metres

Projection: UTM ZONE 10N NAD 83

For Legend See Figure 1

For Area Key Index See Figure 2

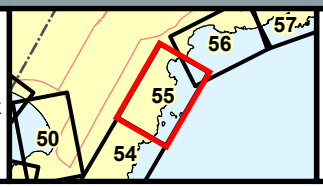
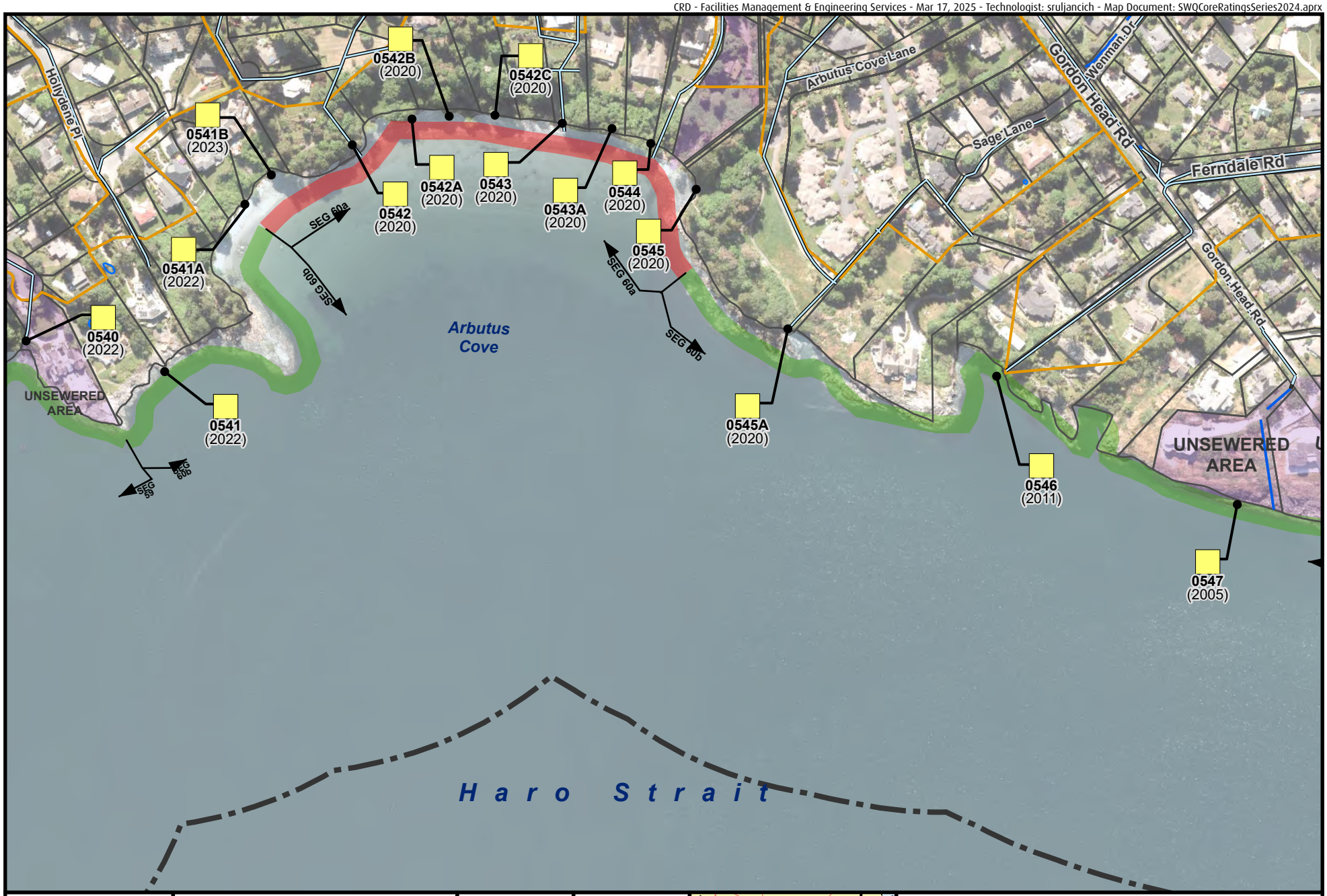


Figure 55

Stormwater Discharge Location and Level of Concern



Making a difference...together

0 25 50 100 150 Metres

Projection: UTM ZONE 10N NAD 83

For Legend See Figure 1

For Area Key Index See Figure 2

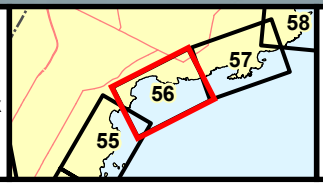


Figure 56

Stormwater Discharge Location and Level of Concern

Making a difference...together

0 25 50 100 150 Metres

Projection: UTM ZONE 10N NAD 83

W S E N

For Legend See Figure 1

For Area Key Index See Figure 2

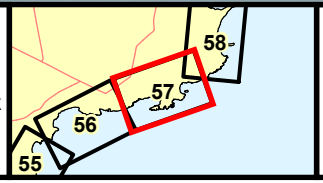
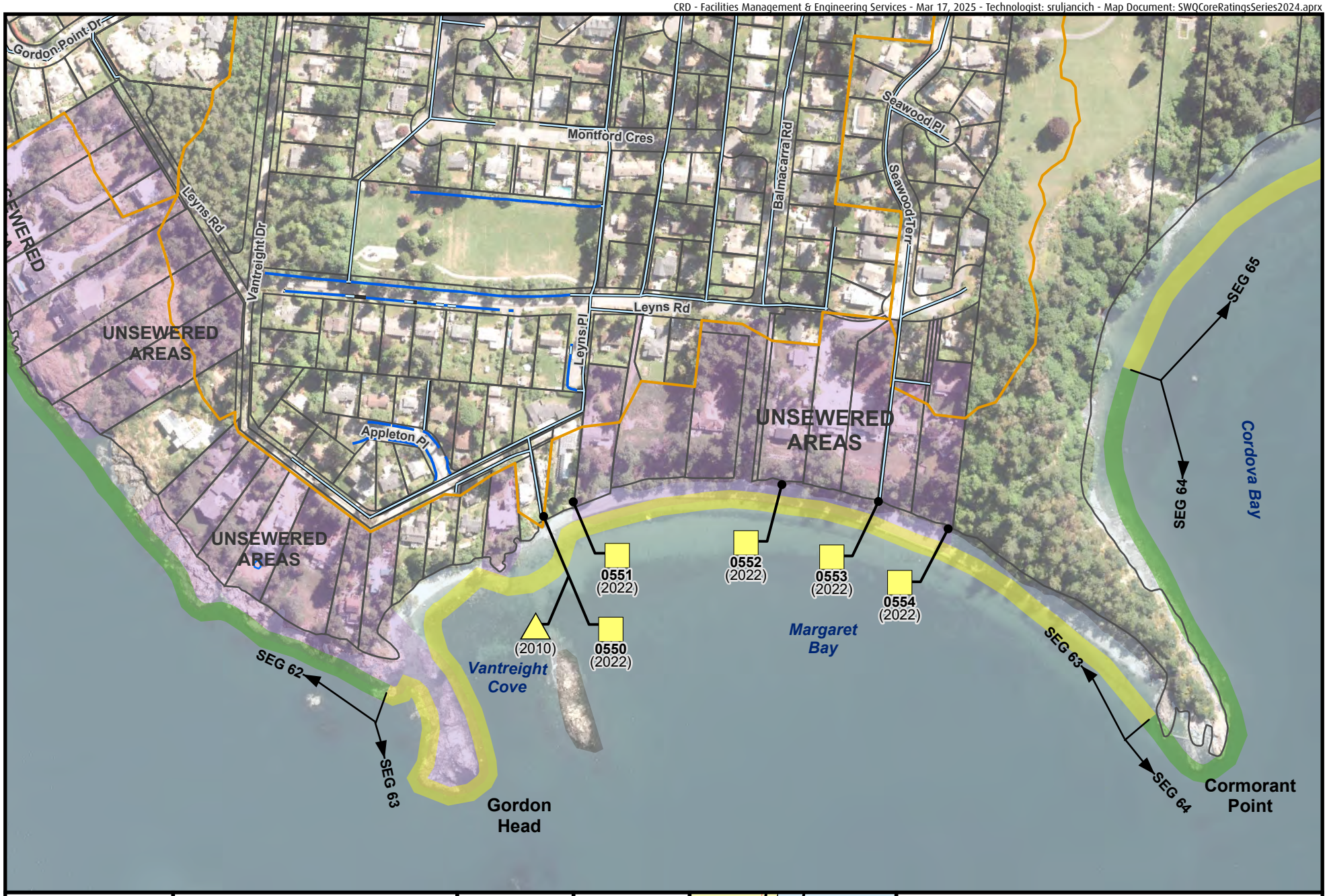


Figure 57

Stormwater Discharge Location and Level of Concern



Making a difference...together

0 25 50 100 150 Metres

Projection: UTM ZONE 10N NAD 83

For Legend See Figure 1

For Area Key Index See Figure 3

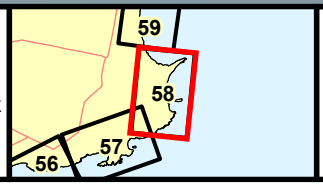


Figure 58

Stormwater Discharge Location and Level of Concern

Making a difference...together

0 25 50 100 150 Metres

Projection: UTM ZONE 10N NAD 83

S E W N

For Legend See Figure 1

For Area Key Index See Figure 3

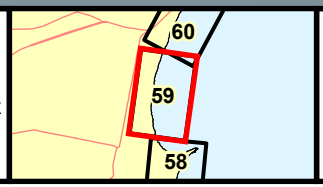
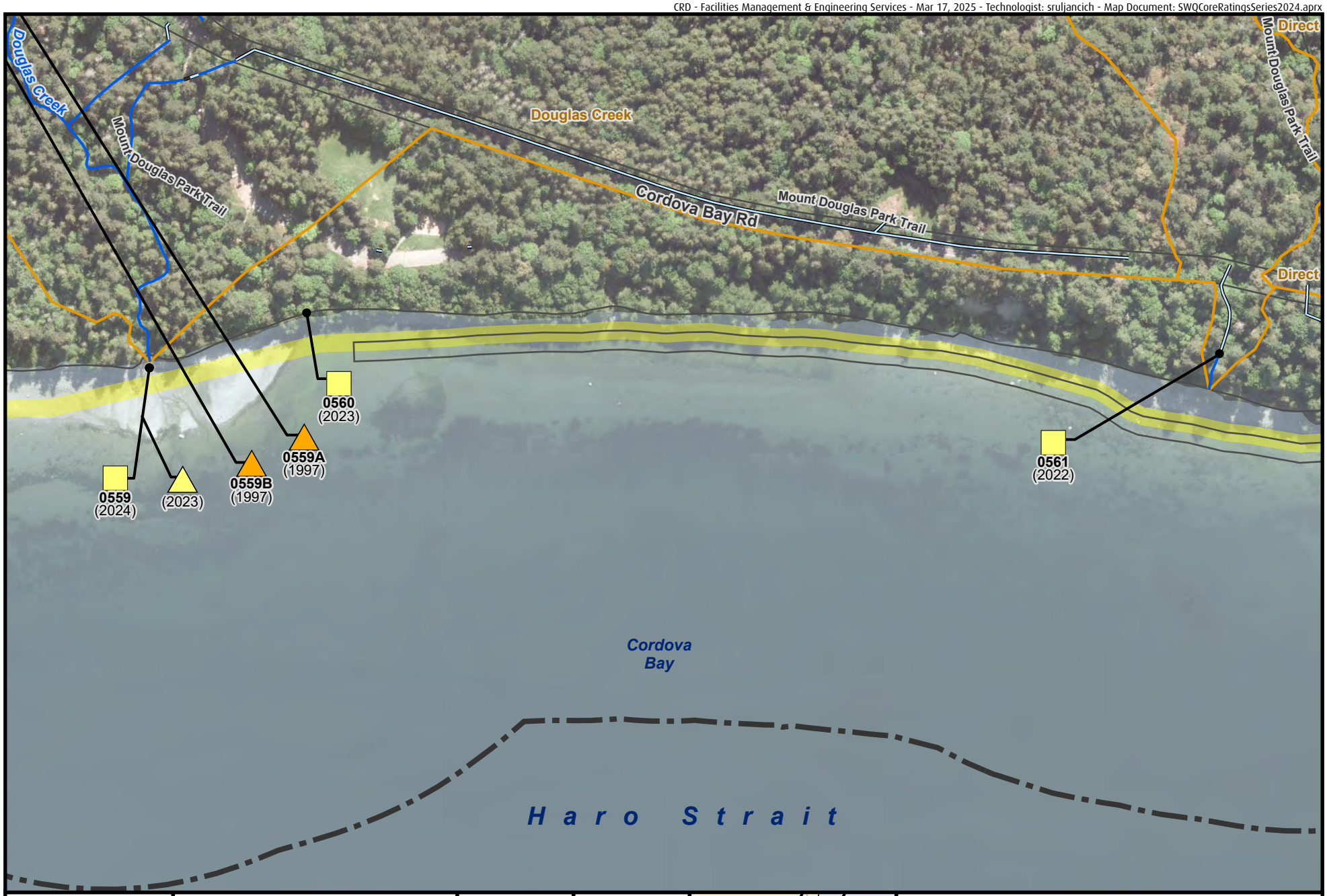


Figure 59

Stormwater Discharge Location and Level of Concern



Making a difference...together

Metres

0 25 50 100 150

Projection: UTM ZONE 10N NAD 83

For Legend
See Figure 1

For Area Key Index
See
Figure 3

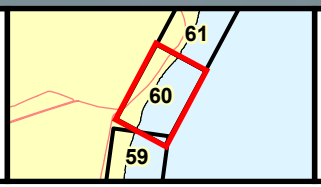
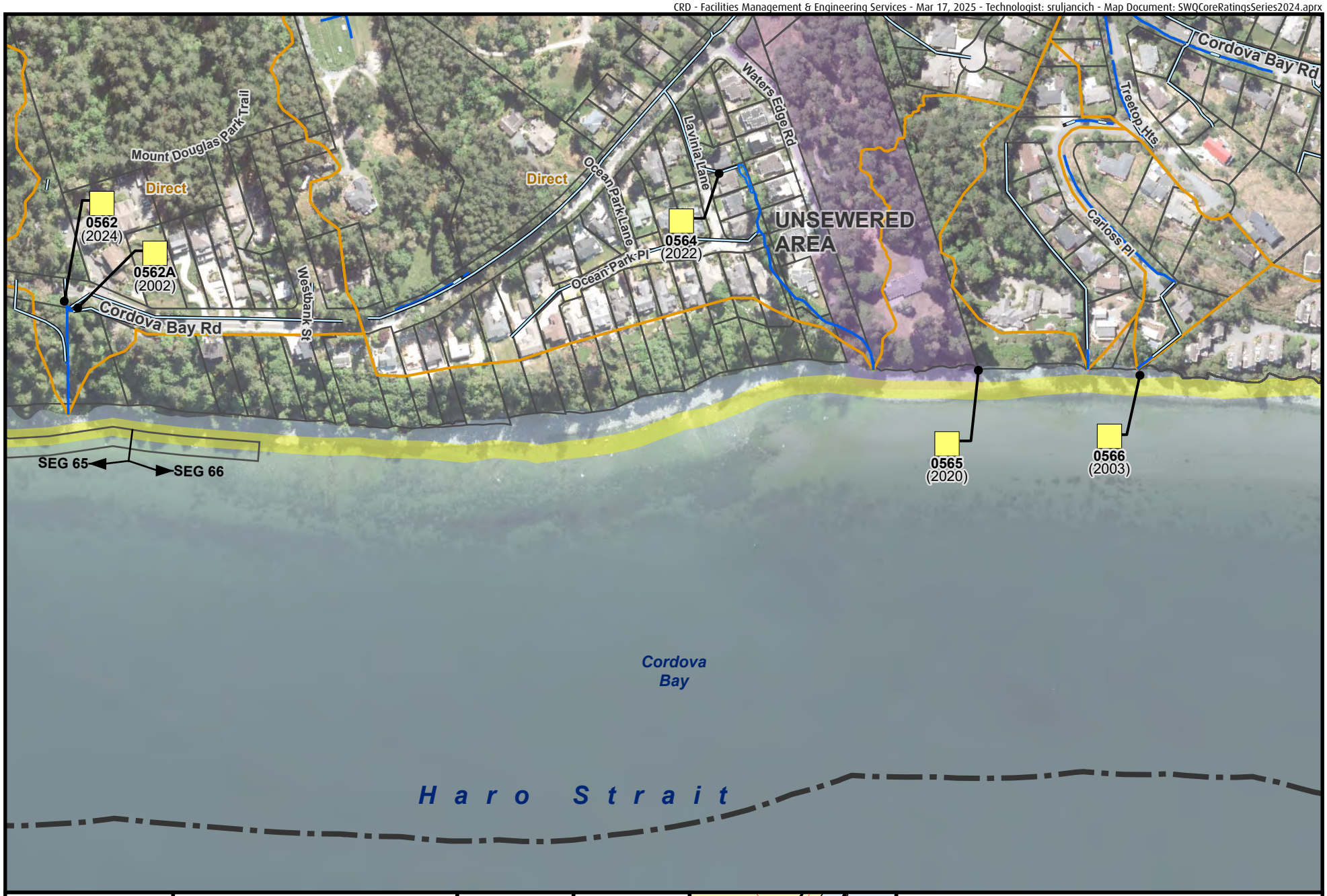


Figure 60

Stormwater Discharge Location and Level of Concern



CRD Making a difference...together

0 25 50 100 150 Metres

Projection: UTM ZONE 10N NAD 83

For Legend
See Figure 1

For Area Key Index
See
Figure 3

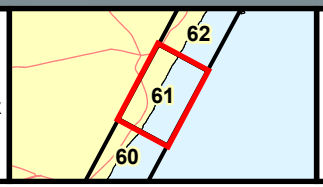


Figure 61

Stormwater Discharge Location and Level of Concern

CRD Making a difference...together

0 25 50 100 150 Metres

Projection: UTM ZONE 10N NAD 83

For Legend
See Figure 1

For Area Key Index
See
Figure 3

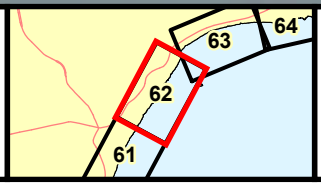
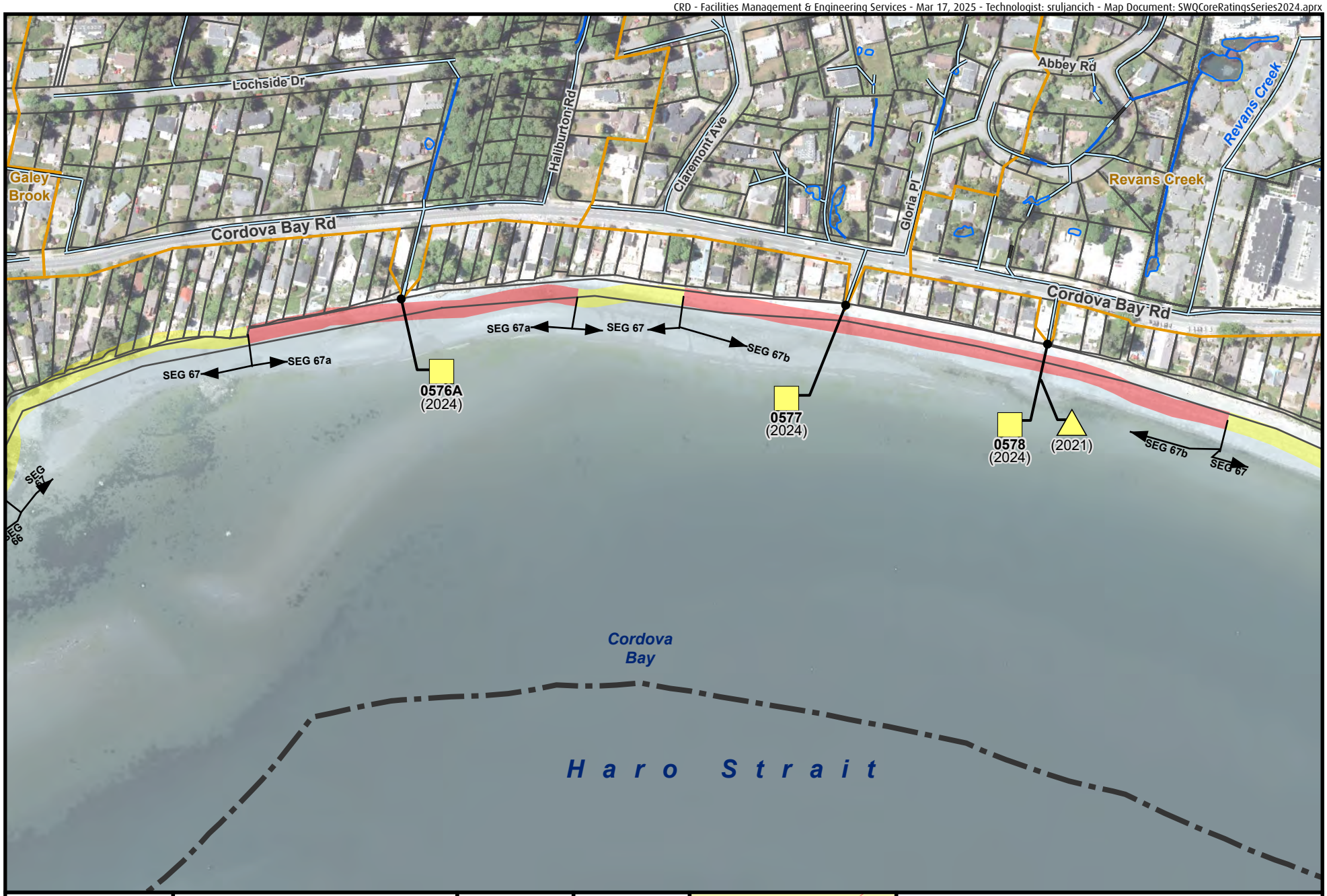


Figure 62

Stormwater Discharge Location and Level of Concern



Making a difference...together

Metres
0 25 50 100 150
Projection: UTM ZONE 10N NAD 83

For Legend
See Figure 1

For Area Key Index
See
Figure 3

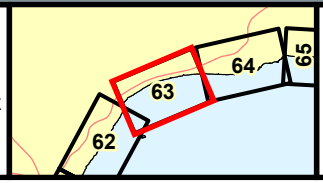
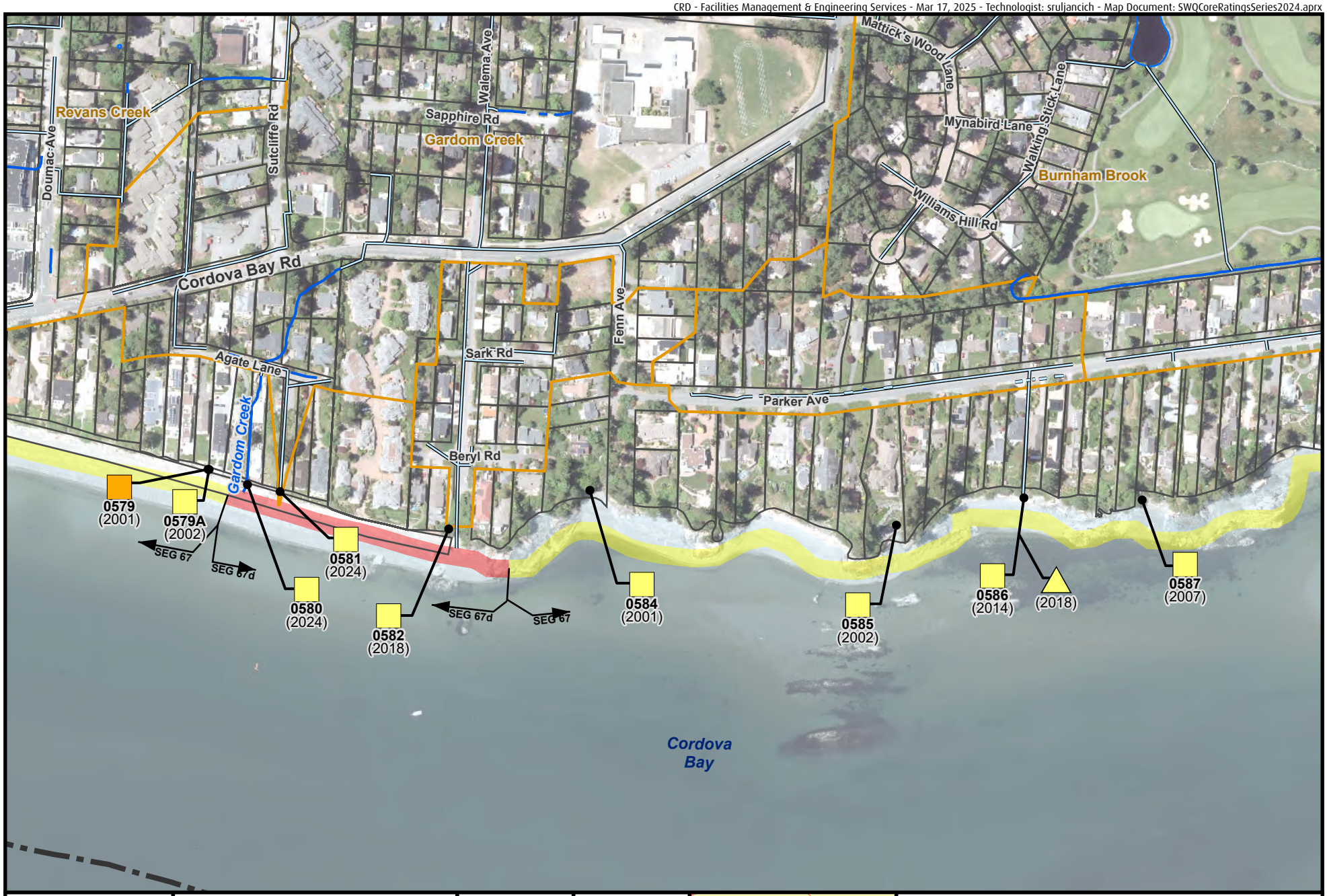


Figure 63
Stormwater Discharge Location and Level of Concern



Making a difference...together

0 25 50 100 150 Metres

Projection: UTM ZONE 10N NAD 83

W S N E

For Legend See Figure 1

For Area Key Index See Figure 3

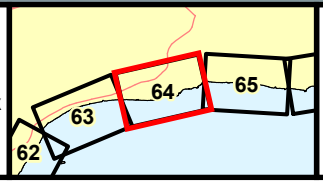
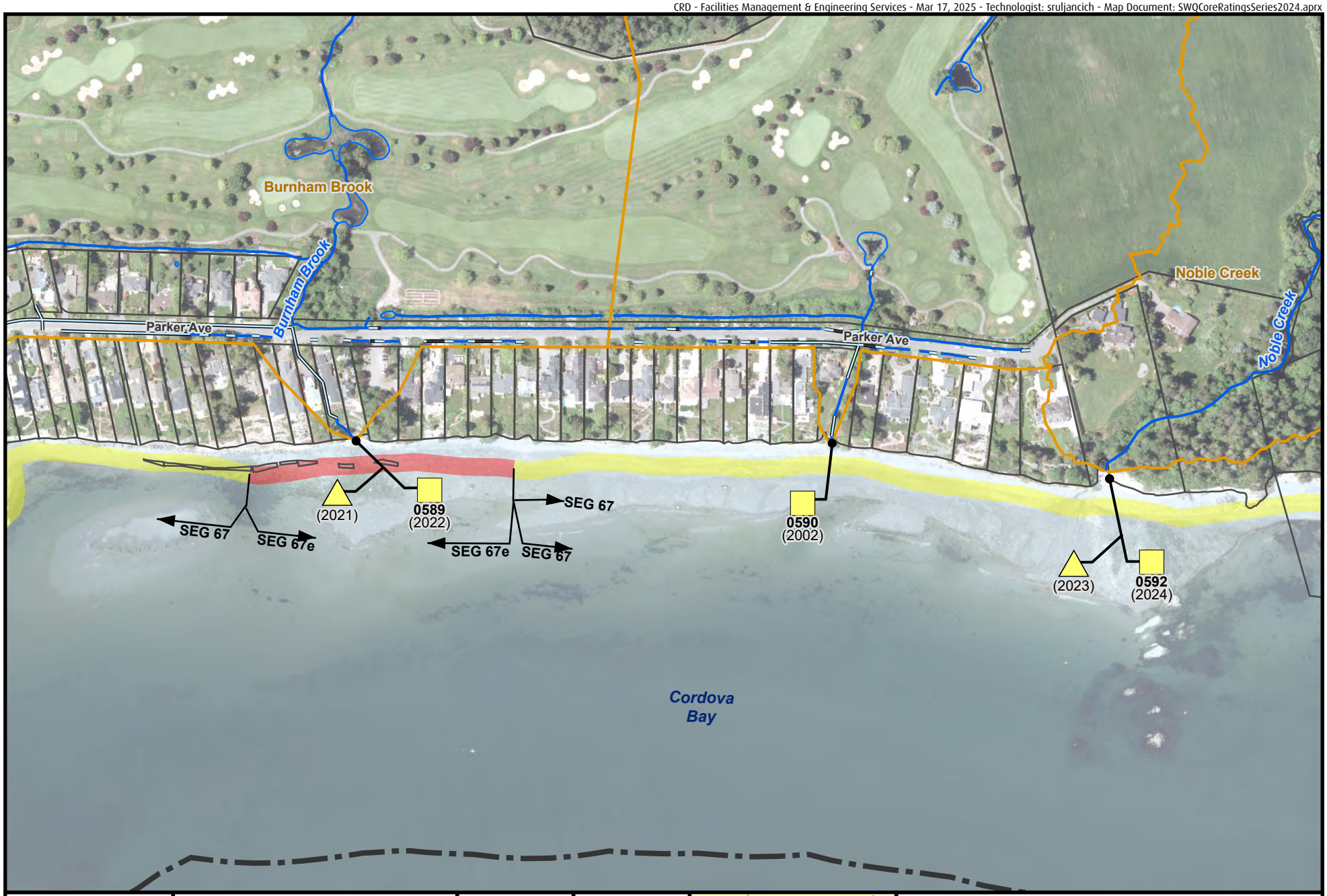


Figure 64

Stormwater Discharge Location and Level of Concern



Making a difference...together

0 25 50 100 150 Metres

Projection: UTM ZONE 10N NAD 83

N S E W

For Legend
See Figure 1

For Area Key Index
See
Figure 3

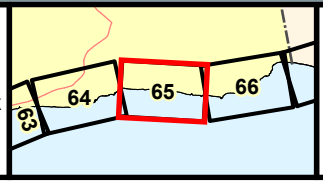
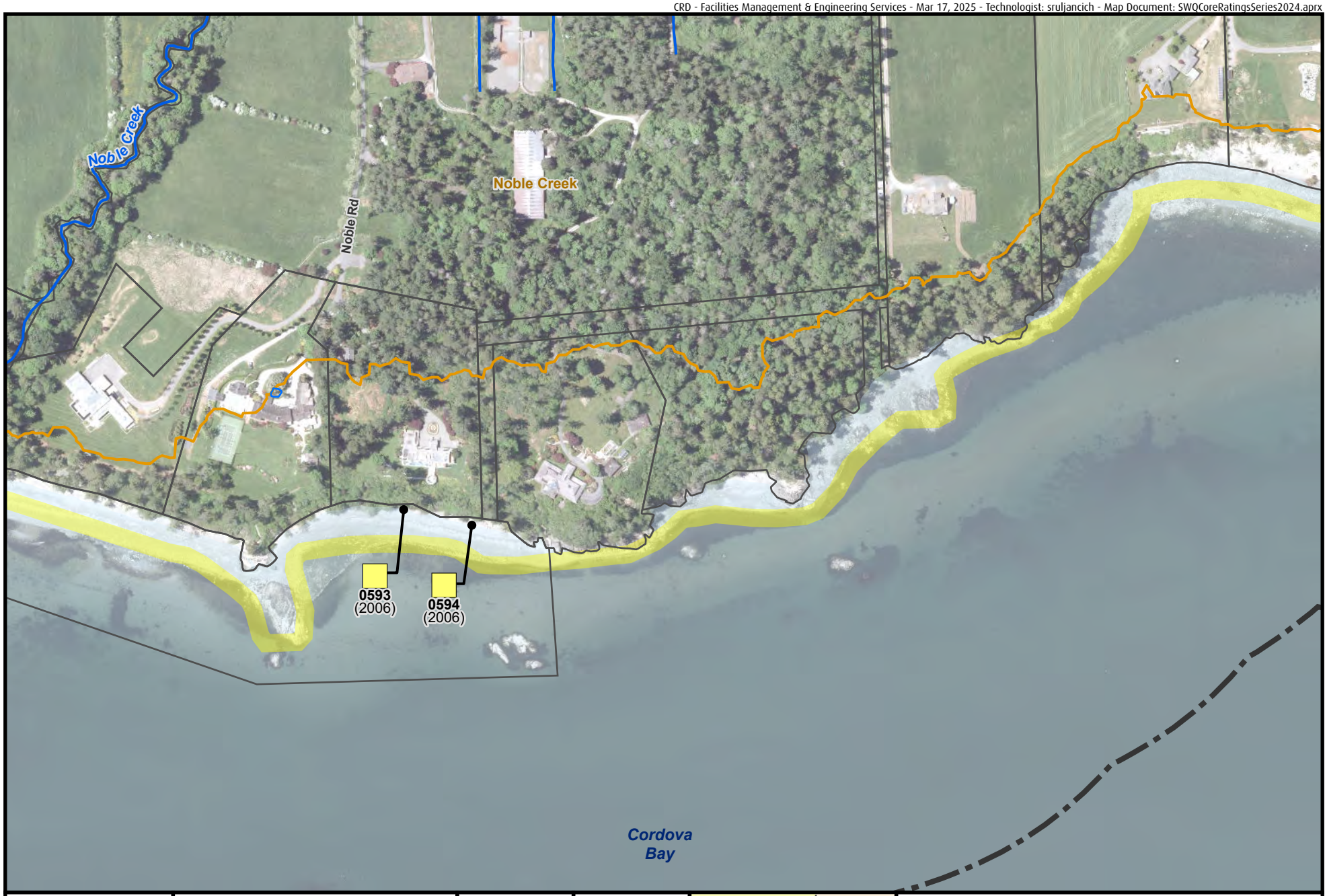


Figure 65

Stormwater Discharge Location and Level of Concern



Making a difference...together

0 25 50 100 150 Metres

Projection: UTM ZONE 10N NAD 83

W S E N

For Legend See Figure 1

For Area Key Index See Figure 3

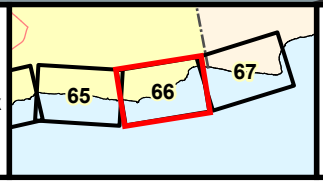


Figure 66

Stormwater Discharge Location and Level of Concern

Making a difference...together

0 25 50 100 150 Metres

Projection: UTM ZONE 10N NAD 83

W S N E

For Legend See Figure 1

For Area Key Index See Figure 3

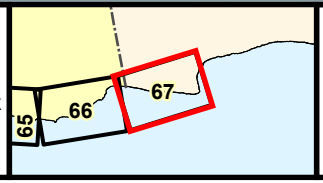
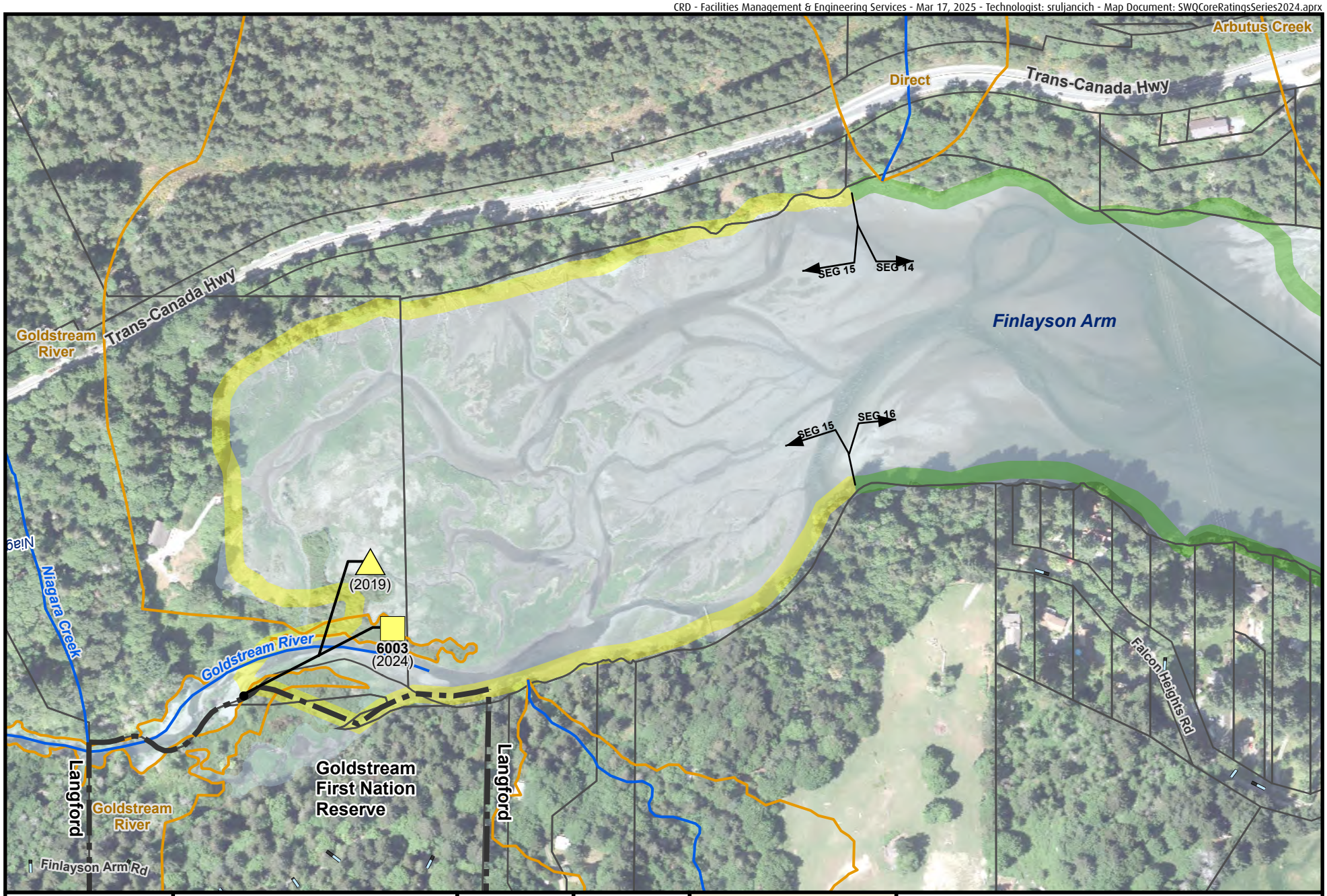


Figure 67

Stormwater Discharge Location and Level of Concern



Making a difference...together

0 25 50 100 150 Metres

Projection: UTM ZONE 10N NAD 83

W S N E

For Legend See Figure 1

For Area Key Index See Figure 4

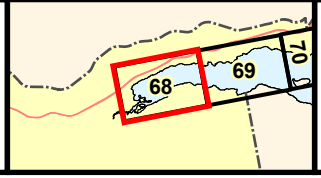
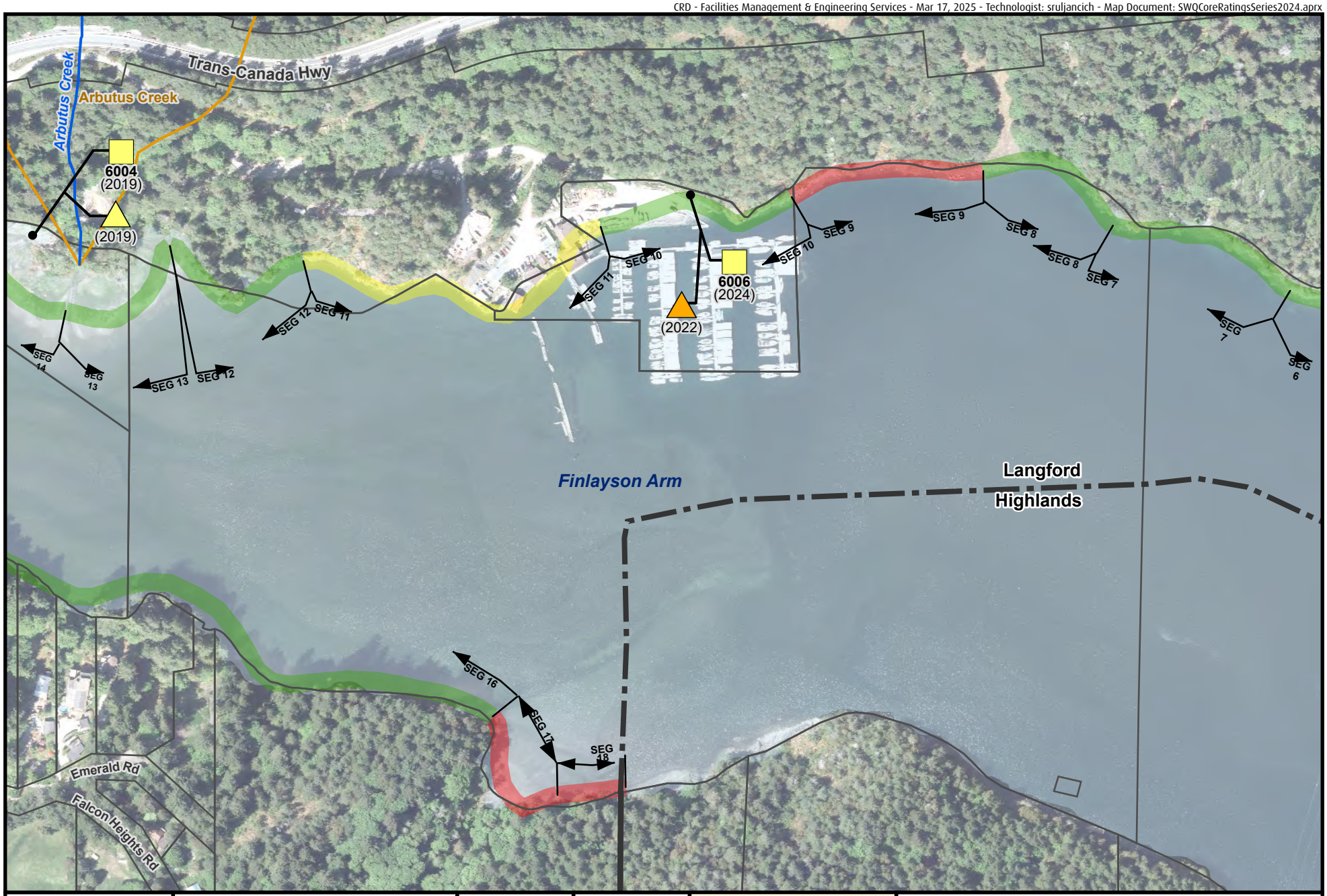


Figure 68

Stormwater Discharge Location and Level of Concern



Making a difference...together

0 25 50 100 150 Metres

Projection: UTM ZONE 10N NAD 83

W S E N

For Legend See Figure 1

For Area Key Index See Figure 4

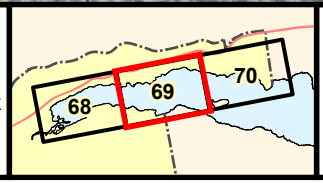
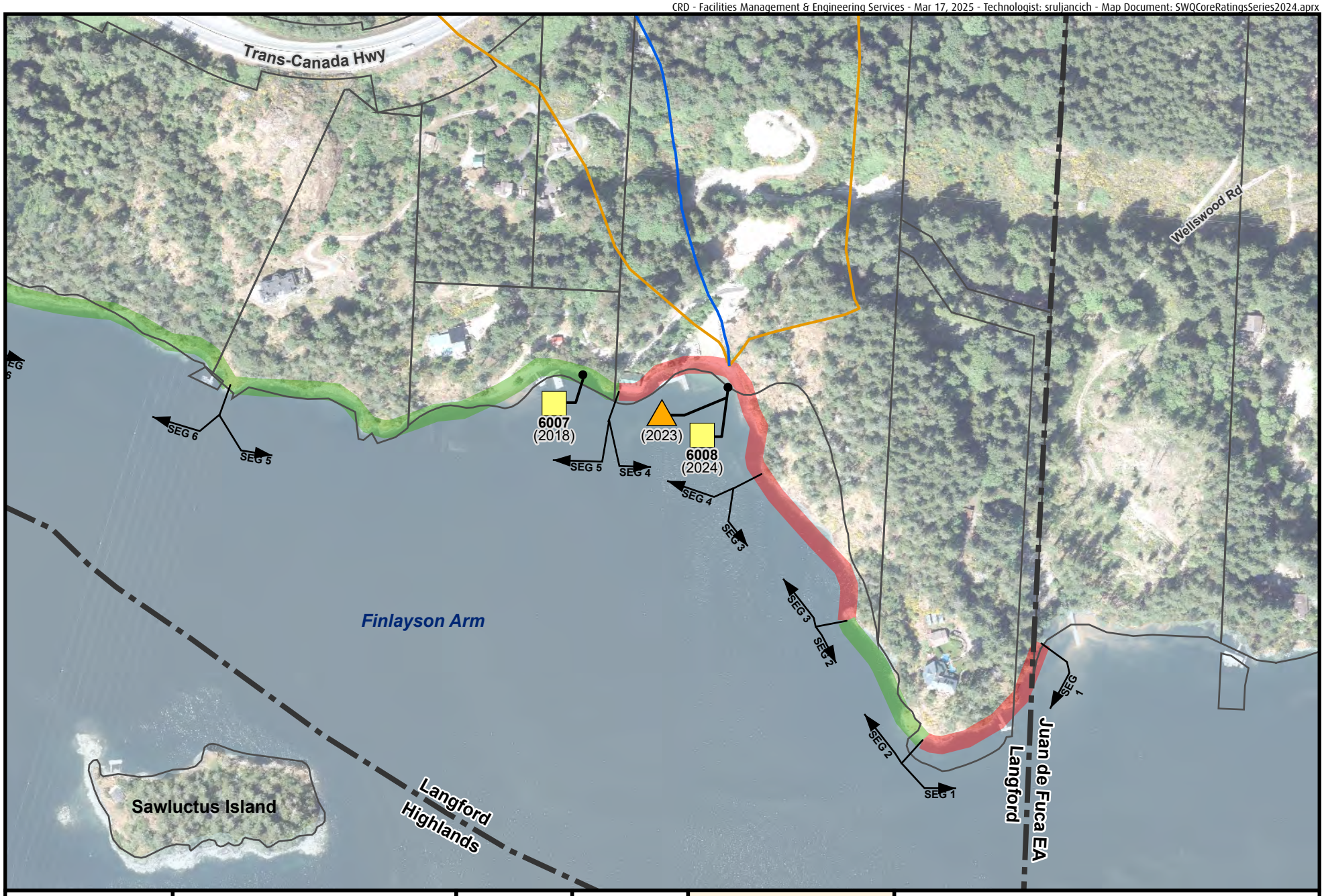


Figure 69

Stormwater Discharge Location and Level of Concern



Making a difference...together

0 25 50 100 150 Metres

Projection: UTM ZONE 10N NAD 83

W S E N

For Legend See Figure 1

For Area Key Index See Figure 4

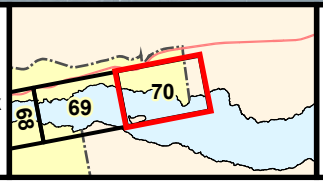
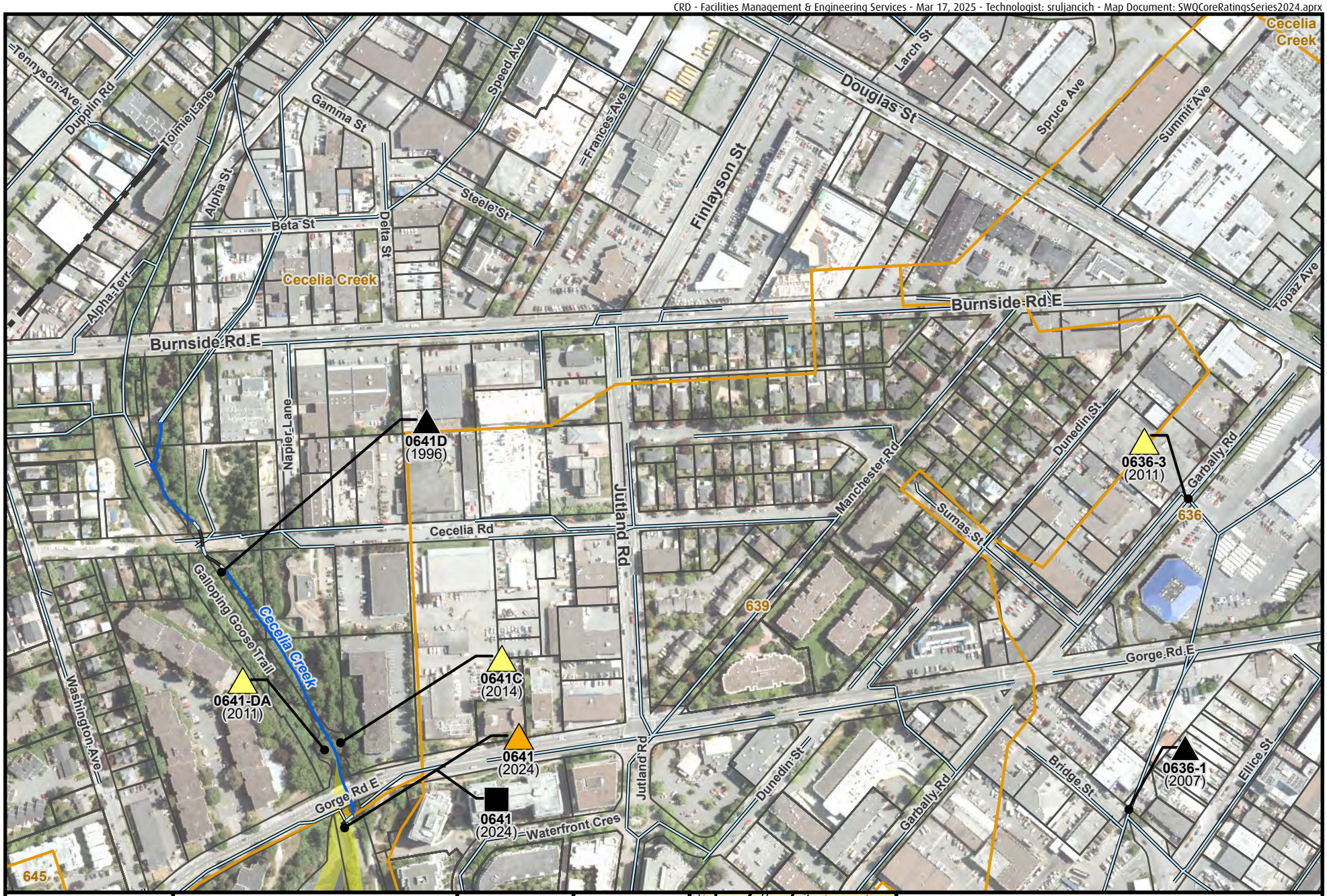


Figure 70

Stormwater Discharge Location and Level of Concern



CRD Making a difference...together

0 25 50 100 150 Metres

Projection: UTM ZONE 10N NAD 83

N E S W

For Legend See Figure 1

For Area Key Index See Figure 1

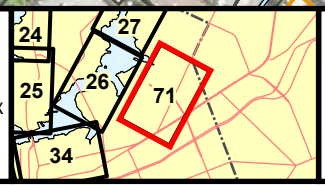
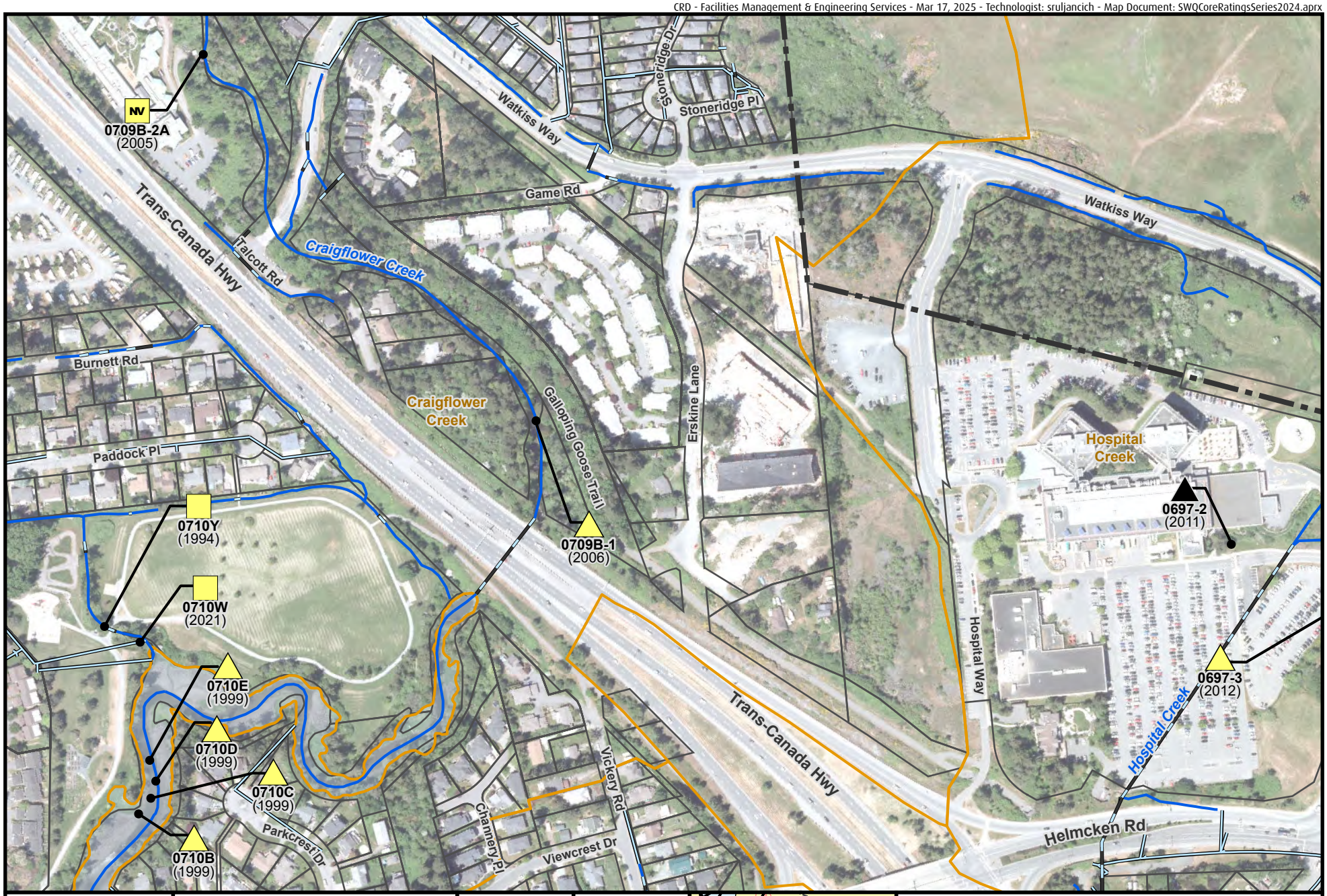


Figure 71

Stormwater Discharge Location and Level of Concern



Making a difference...together

0 25 50 100 150 Metres

Projection: UTM ZONE 10N NAD 83

W N S E

For Legend See Figure 1

For Area Key Index See Figure 1

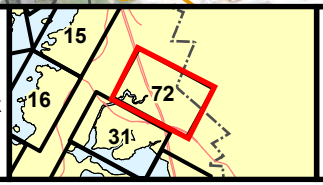
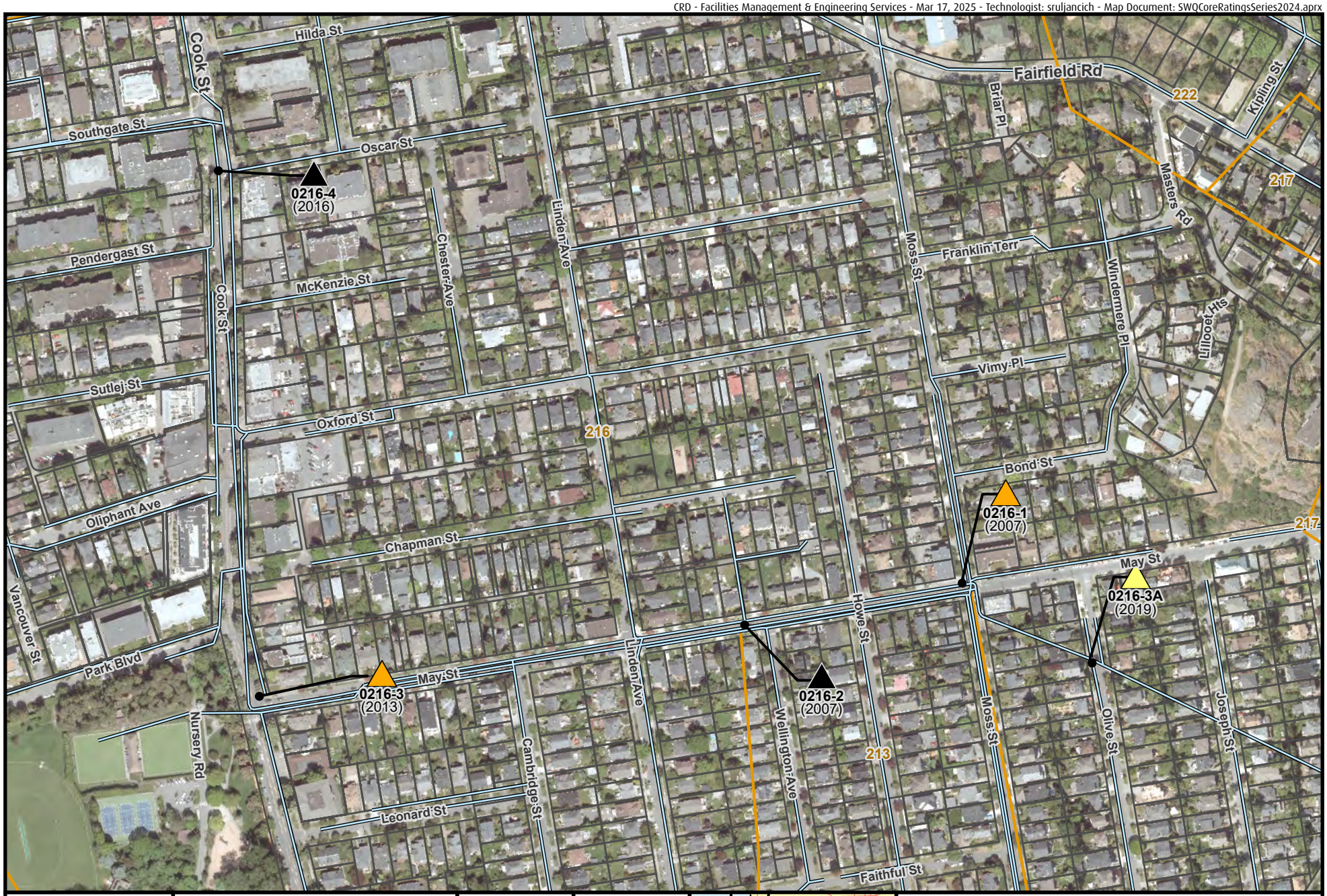


Figure 72

Stormwater Discharge Location and Level of Concern



Making a difference...together

Metres

0 25 50 100 150

Projection: UTM ZONE 10N NAD 83

N E S W

For Legend See Figure 1

For Area Key Index See Figure 2

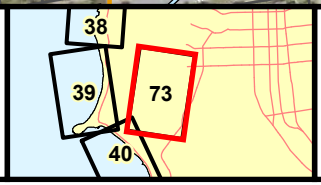


Figure 73

Stormwater Discharge Location and Level of Concern

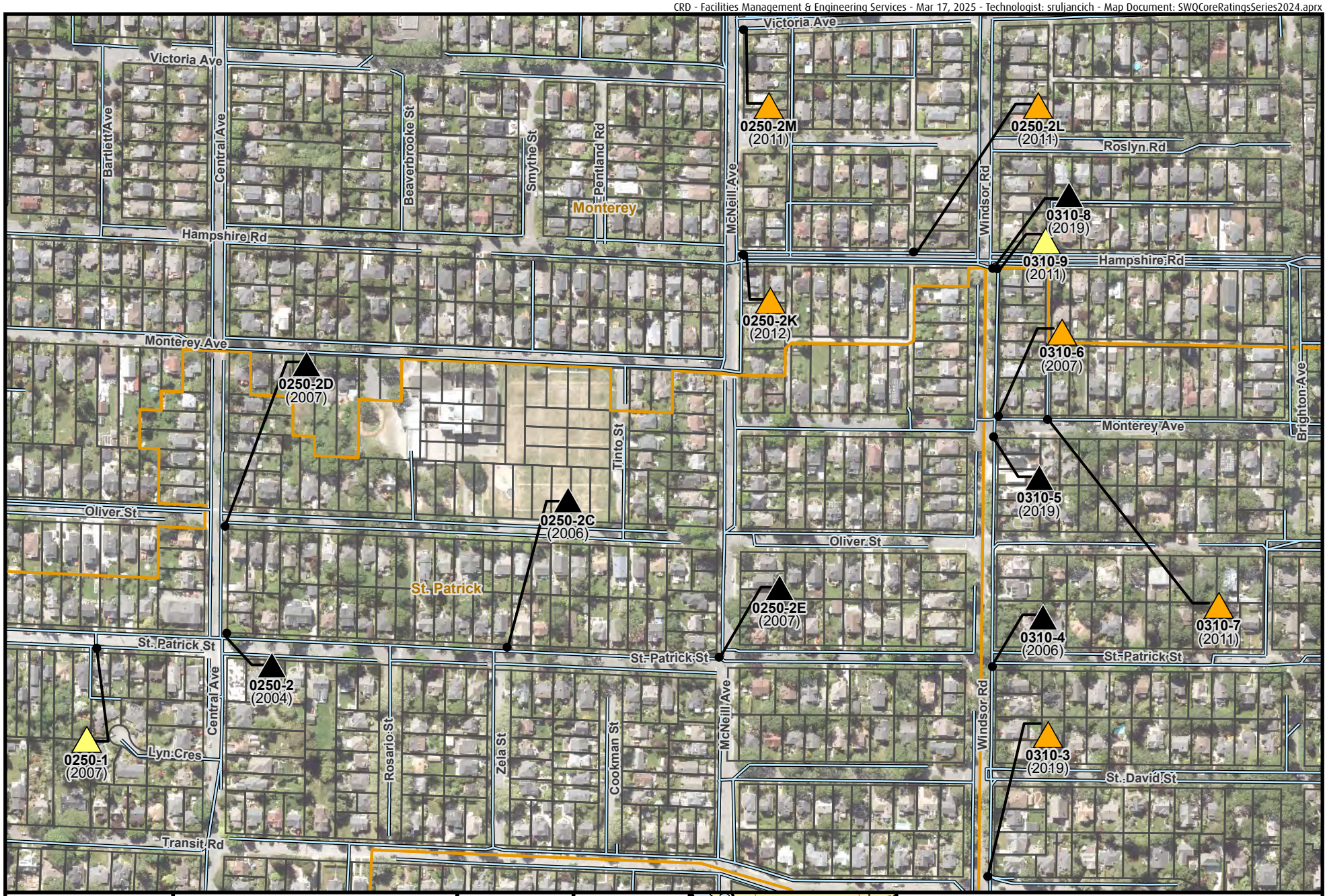


Figure 74

Stormwater Discharge Location and Level of Concern

APPENDIX B

CORE AREA STORMWATER PUBLIC HEALTH CONCERN RATINGS

Table 1 Core Area Public Health Concern Ratings

Discharge	Jurisdiction at Discharge	Figure No.	Bacterial Rating	Public Shoreline Use Rating	Sum of Ratings	Level of Concern			Comments	Recommendations
						2022	2023	2024		
0915	Colwood/DND	9	1	1	2	Low	Low	Low	Creek	Continue monitoring
0916	Colwood/DND	9	1	1	2	Moderate	Low	Low	Colwood Creek; impacts seen in 2022	Continue monitoring and investigations; sample in fall
0918	Colwood/DND	9	1	1	2	Low	NR	NR	Pipe underwater; no sampling point	Resample in 2029
0921	Colwood/DND	8	1	1	2	NR	NR	Low		Confirm rating
0922	Colwood/DND	8	1	1	2	NR	NR	Low	Only one data point	Confirm rating
0926	Colwood	8	1	2	3	Low	Low	Low	Bee Creek; only one measurement in 2022	Continue monitoring creek
0927	Colwood	8	1	2	3	Low	Low	Low	Elevated count in 2023	Confirm rating
0928	Colwood	8	1	2	3	Moderate	Low	Low	Selleck Creek; discharges into Esquimalt Lagoon	Continue monitoring creek
0929	Colwood	7	1	2	3	Moderate	Low	Low	Counts low; dry in summer	Elevated in 2022. Confirm rating
0931	Colwood	7	1	2	3	Moderate	Low	Low	Lagoona Brook; Esquimalt Lagoon; dry in summer	Continue monitoring
0932	Colwood	7	1	2	3	Low	Low	Low	Discharges into Esquimalt Lagoon	Continue monitoring
0933	Colwood	7	1	2	3	Moderate	Low	Low	Discharges into Esquimalt Lagoon	Continue monitoring
0935	Colwood	7	1	2	3	Low	Low	Low	Dry in summer	Confirm rating
0935A	Colwood	7	1	2	3	Low	Low	Low	Public beach	Continue monitoring
0940	Colwood	7	1	2	3	NR	Low	Low	Dry in summer	Continue monitoring
0723	Esquimalt	30	1	2	3	NR	NR	Low	Dry	Confirm rating
0725A	Esquimalt private	30	1	2	3	NR	NR	Low	Private discharge; low in winter; dry in summer	Sample in 2029
0726	Esquimalt / Songhees F.N.	29	2	2	4	Low	Moderate	Moderate	Elevated in summer	Confirm rating
0726B	Esquimalt	29	1	2	3	NR	NR	Low	Low flows	Confirm rating
0735	Esquimalt	29	1	2	3	NR	NR	Low	Summer count of 220 CFU	Confirm rating
0736A	Esquimalt private	29	1	2	3	Moderate	Moderate	Low		Confirm rating
0737	Esquimalt	29	2	2	4	Low	Low	Moderate		Confirm rating
0739	Esquimalt	28	1	2	3	NR	NR	Low	No flow	Sample in 2029
0740	Esquimalt	28	1	2	3	NR	NR	Low	Low flow; low counts	Sample in 2029
0742	Esquimalt	28	1	2	3	Moderate	Moderate	Low		Confirm rating
0742B	Esquimalt	28	1	2	3	Low	Low	Low		Sample in 2029
0743	Esquimalt	28	1	2	3	NR	Low	Low		Sample in 2029

Table 1 Core Area Public Health Concern Ratings

Discharge	Jurisdiction at Discharge	Figure No.	Bacterial Rating	Public Shoreline Use Rating	Sum of Ratings	Level of Concern			Comments	Recommendations
						2022	2023	2024		
0744	Esquimalt	28	2	2	4	Moderate	Moderate	Moderate	Gorge Creek	Continue monitoring; investigate sources
0744A	Esquimalt	28	2	2	4	Low	Low	Moderate	Low flow	Continue monitoring
0744B	Esquimalt	28	3	2	5	**High**	**High**	**High**	One cross-connection fixed; relining done	Continue source investigations
0749	Esquimalt	28	3	2	5	Moderate	Moderate	Moderate		Continue monitoring;
0749A	Esquimalt private	28	1	2	3	Moderate	Low	Low	Private pipe	Confirm rating
0751	Esquimalt	28	2	2	4	Moderate	Moderate	Moderate		Continue monitoring
0779	Esquimalt	24	1	2	3	Moderate	Moderate	Low		Confirm rating
0780	Esquimalt	24	2	2	4	**High**	**High**	Moderate	Sewer odour	Continue monitoring
0781	Esquimalt	23	3	2	5	Moderate	Moderate	**High**	Sewer odour	Continue monitoring
0782	Esquimalt	23	2	2	4	NR	Low	Low	Dry	Resample in 2029
0805	Esquimalt	22	3	3	6	**High**	**High**	**High**	SPSO	Continue monitoring and source investigations
0806	Esquimalt	22	3	3	6	**High**	**High**	**High**		Continue monitoring and source investigations
0810	Esquimalt	21	3	1	4	NR	Low	Moderate		Confirm rating
0811	Esquimalt	21	1	2	3	NR	Moderate	Low	Dry	Confirm rating
0812	Esquimalt	21	2	2	4	NR	**High**	Moderate		Confirm rating
0814	Esquimalt	21	3	2	5	Moderate	Moderate	**High**	SPSO	Continue monitoring and start investigations
0854	Esquimalt/DND	19	3	1	4	Moderate	Moderate	Moderate	SPSO; toilet paper present in past	Continue monitoring and investigate
0865D	Esquimalt F.N.	17	1	2	3	Low	Low	Low	Iron bacteria present; odour	Continue monitoring
0865DA	Esquimalt F.N.	17	1	2	3	NR	Low	Low		Continue monitoring
0865F	Esquimalt F.N.	17	1	2	3	Moderate	Moderate	Low		Confirm rating
6003	Langford	68	1	2	3	Low	Low	Low	Goldstream River SPSO	Continue monitoring
6006	Langford	68	1	1	2	Low	Low	Low		Continue monitoring
6008	Langford	70	1	3	4	Low	Low	Low		Continue monitoring
0231	Oak Bay	41	1	2	3	Low	Low	Low		Resample in 2029
0236	Oak Bay	41	3	1	4	Moderate	Moderate	Moderate		Continue monitoring
0237	Oak Bay	42	2	2	4	Low	Moderate	Moderate	New source	Confirm rating
0238	Oak Bay	42	2	2	4	NR	NR	Low	Low in winter; dry in summer; difficult to access	Resample in 2029
0244	Oak Bay	43	2	2	4	Low	Moderate	Moderate	New source?	Continue monitoring

Table 1 Core Area Public Health Concern Ratings

Discharge	Jurisdiction at Discharge	Figure No.	Bacterial Rating	Public Shoreline Use Rating	Sum of Ratings	Level of Concern			Comments	Recommendations
						2022	2023	2024		
0245	Oak Bay	43	3	3	6	**High**	**High**	**High**	White foam observed occasionally	Continue monitoring and source investigations
0249	Oak Bay	43	2	2	4	Moderate	Low	Moderate	EC elevated in summer, but low flow	Confirm rating
0250	Oak Bay	43	2	2	4	Moderate	Moderate	Moderate	Outfall, sampled manhole, water pooled	Continue monitoring
0257A	Oak Bay	44	1	1	2	NR	NR	Low		Resample in 2029
0258	Oak Bay	44	1	1	2	NR	NR	Low		Resample in 2029
0301	Oak Bay	44	1	1	2	NR	NR	Low		Resample in 2029
0304	Oak Bay	45	1	1	2	Low	NR	Low	Dry	Resample in 2029
0305	Oak Bay	45	1	1	2	Low	NR	Low	Dry	Resample in 2029
0305A	Oak Bay	45	1	1	2	Low	NR	Low	Dry	Resample in 2029
0306	Oak Bay	45	1	2	3	Low	Moderate	Low	Only one sample	Confirm rating
0307	Oak Bay	45	3	2	5	Moderate	**High**	**High**		Continue monitoring and start investigations
0309	Oak Bay	45	3	2	5	Low	NR	Moderate	High count first flush	Confirm rating
0310	Oak Bay	45	2	2	4	Moderate	Moderate	Moderate	New source?	Continue monitoring
0310A	Oak Bay	45	2	2	4	Low	Moderate	Moderate		Continue monitoring
0313	Oak Bay	45	3	2	5	NR	NR	Low	Low flow	Resample in 2029
0313A	Oak Bay	45	3	2	5	NR	NR	Low	Dry	Resample in 2029
0316	Oak Bay	46	2	2	4	Moderate	Moderate	Moderate	Bowker Creek; high flows, SPSO	Continue monitoring creek
0317	Oak Bay	46	1	2	3	Low	Low	Low	SPSO; manhole	Continue monitoring
0318	Oak Bay	46	3	3	6	**High**	**High**	**High**		Continue monitoring and investigations
0319	Oak Bay	46	3	3	6	NR	Low	Low		
0320	Oak Bay	46	2	3	5	Moderate	Moderate	**High**	High after first flush	Continue monitoring
0321	Oak Bay	47	2	3	5	Low	Low	Moderate	High after first flush	Continue monitoring
0321A	Oak Bay	47	3	3	6	Moderate	Moderate	Moderate	High after first flush	Continue monitoring
0322	Oak Bay	47	2	3	5	**High**	**High**	**High**	Outfall	Continue monitoring; confirm higher count
0323	Oak Bay	47	2	3	5	Moderate	Moderate	Moderate	Stream; lots of birds; suds; followed first flush	Continue monitoring
0323A	Oak Bay	47	1	1	2	Low	Low	Low	Dry	Resample in 2029
0503	Saanich	50	2	3	5	**High**	**High**	**High**	Cadboro Bay; duck pond upstream; counts lower	Continue monitoring or not…caffeine?
0505	Saanich	50	1	3	4	Moderate	Low	Low		Confirm rating

Table 1 Core Area Public Health Concern Ratings

Discharge	Jurisdiction at Discharge	Figure No.	Bacterial Rating	Public Shoreline Use Rating	Sum of Ratings	Level of Concern			Comments	Recommendations
						2022	2023	2024		
0506	Saanich	50	1	3	4	Low	Low	Low		Confirm rating
0508	Saanich	50	1	3	4	Low	Low	Low	One source repaired	Continue sampling
0510	Saanich	50	1	3	4	NR	NR	Low		Resample in 2029
0511	Saanich	50	1	1	2	NR	NR	Low		Resample in 2029
0514	Saanich	51	1	1	2	NR	NR	Low		Resample in 2029
0516	Saanich	51	1	1	2	Low	NR	Low		Resample in 2029
0518	Saanich	52	1	2	3	Low	Low	Low		Resample in 2029
0523	Saanich	52	1	2	3	NR	NR	Low		Resample in 2029
0524A	Saanich	52	1	2	3	NR	Low	Low		Resample in 2029
0525	Saanich private	52	1	2	3	NR	NR	Low	Dry	Resample in 2029
0526	Saanich	52	1	1	2	NR	NR	Low	Dry	Resample in 2029
0527	Saanich	53	1	1	2	NR	NR	Low		Resample in 2029
0528	Saanich	53	1	1	2	NR	NR	Low	Dry	Resample in 2029
0532	Saanich	54	1	3	4	NR	NR	Low		Resample in 2029
0538A	Saanich	55	1	1	2	NR	NR	Low	Dry	Resample in 2029
0539	Saanich	55	1	2	3	NR	Moderate	Low		Confirm rating
0548	Saanich	57	2	1	3	NR	NR	Low		Confirm rating
0549	Saanich	57	1	3	4	NR	NR	Low		Resample in 2027
0549A	Saanich	57	1	1	2	NR	NR	Low		Confirm rating
0558	Saanich	59	1	2	3	Low	Low	Low	Near PKOLS / Mt. Douglas Park access	Continue monitoring
0559	Saanich	60	1	3	4	Moderate	Moderate	Low	PKOLS / Mt. Douglas Creek high flows, SPSO	Continue monitoring
0562	Saanich	61	1	2	3	NR	Low	Low		Resample in 2029
0567	Saanich	62	1	2	3	**High**	Moderate	Low	Beach access, waterfall; source repaired	Continue monitoring
0571	Saanich	62	1	2	3	NR	Low	Low		Confirm
0573	Saanich	62	1	2	3	NR	Low	Low		Confirm
0574	Saanich	62	2	2	4	Low	Moderate	Moderate	Galey Brook; laundry soap	Continue monitoring and start investigations
0576A	Saanich	63	1	3	4	Low	Low	Low	High use beach	Continue monitoring
0577	Saanich	63	1	3	4	NR	Low	Low	Only sampled once as part of investigation	Resample in 2029
0578	Saanich	63	1	3	4	Low	Low	Low		Resample in 2029
0580	Saanich	64	1	3	4	Moderate	Moderate	Low	Gardom Creek	Confirm rating
0581	Saanich	64	1	3	4	Moderate	Moderate	Low		Confirm rating

Table 1 Core Area Public Health Concern Ratings

Discharge	Jurisdiction at Discharge	Figure No.	Bacterial Rating	Public Shoreline Use Rating	Sum of Ratings	Level of Concern			Comments	Recommendations
						2022	2023	2024		
0592	Saanich	65	1	1	2	Low	Low	Low	Noble Creek High flow	Continue monitoring creek
0652A	Saanich	27	1	2	3	NR	NR	Low		Resample in 2029
0652B	Saanich	27	1	2	3	NR	NR	Low		Resample in 2029
0653	Saanich	27	2	2	4	Low	Low	Moderate	One sample; counts lower	Confirm rating
0655	Saanich	28	1	2	3	NR	Low	Low		Resample in 2029
0658A	Saanich	28	1	2	3	Moderate	Moderate	Low	One high count	Confirm rating
0669	Saanich	29	1	2	3	NR	Low	Low	Dry	Resample in 2029
0671	Saanich	29	3	2	5	Low	Moderate	**High**		Confirm rating
0675	Saanich	29	1	2	3	NR	NR	Low		Confirm rating
0676	Saanich	29	1	2	3	Low	Low	Low	SPSO; brown foam, sulfur, asphalt odour; check metals data	Continue monitoring
0687	Saanich	30	1	1	2	NR	Low	Low		Resample in 2029
0690D	Saanich	33	1	2	3	Low	Low	Low	Colquitz Creek; high flow	Continue monitoring
0691A	Saanich	32	1	2	3	Moderate	Low	Low		Resample in 2029
0865AB	Songhees F.N.	17	1	2	3	Low	Low	Low	Low flow	Continue monitoring
0865B	Songhees F.N.	17	1	2	3	Low	Low	Low	Low flow	Continue monitoring
0865C	Songhees F.N.	17	1	2	3	Low	Low	Low	Low flow	Continue monitoring
0209	Victoria	37	3	2	5	**High**	**High**	**High**	208 is an overflow for 209; infrastructure upgrades; very high count in 2023	Confirm rating
0210	Victoria	37	2	2	4	Moderate	Low	Moderate		Confirm rating
0212	Victoria	39	2	3	5	Moderate	Low	Moderate		Confirm rating
0214	Victoria	39	1	2	3	Moderate	**High**	Low	SPSO; work done upstream; lower counts 213 on Victoria maps	Continue monitoring
0216	Victoria	40	3	3	6	**High**	**High**	**High**	SPSO, high flow, sewage odour	Continue monitoring
0217	Victoria	40	2	3	5	Low	Low	Moderate	Combined flow with 0218; outfall pipe underwater	Continue monitoring
0222	Victoria	40	3	3	6	**High**	**High**	**High**	Moderate flows	Continue monitoring and source investigations
0225	Victoria	40	1	2	3	NR	Low	Low	Dry	Resample in 2029
0227	Victoria	41	2	2	4	Low	Moderate	Moderate	Low flow SPSO; SS and SD relining completed	Continue monitoring

Table 1 Core Area Public Health Concern Ratings

Discharge	Jurisdiction at Discharge	Figure No.	Bacterial Rating	Public Shoreline Use Rating	Sum of Ratings	Level of Concern			Comments	Recommendations
						2022	2023	2024		
0229	Victoria	41	2	3	5	Moderate	Moderate	Moderate	Gonzales Bay; flow low in summer; elevated counts during rain	Continue monitoring and source investigations
0230	Victoria	41	3	2	5	**High**	**High**	**High**	Gonzales Bay; outfall in ocean; sampled manhole	Continue monitoring
0603	Victoria	36	3	2	5	**High**	**High**	**High**	Lower counts; relining and infrastructure upgrades	Continue monitoring
0607	Victoria	36	3	2	5	**High**	**High**	**High**	SPSO	Continue monitoring; start source investigations
0607A	Victoria	36	1	2	3	Moderate	**High**	Low	Eastern pipe; in 607 catchment	Confirm rating
0608	Victoria	35	1	2	3	NR	Low	Low	Dry	Resample in 2029
0609	Victoria	35	1	2	3	NR	NR	Low		Resample in 2029
0609A	Victoria	35	1	2	3	NR	NR	Low		Resample in 2029
0609B	Victoria	35	1	2	3	NR	NR	Low		Resample in 2029
0610	Victoria	35	3	2	5	Moderate	Moderate	**High**		Confirm rating
0611	Victoria	35	3	2	5	**High**	**High**	**High**	Counts lower; waiting for legislature to respond	Continue monitoring
0613	Victoria	35	3	2	5	Moderate	Moderate	**High**	Variable counts	Continue monitoring and source investigations
0614	Victoria	35	3	2	5	**High**	**High**	**High**		Continue monitoring
0617B	Victoria	35	1	2	3	NR	NR	Low		Resample in 2029
0619	Victoria	34	3	2	5	Moderate	**High**	**High**	Sewer odour	Confirm rating
0619B	Victoria	34	1	2	3	Moderate	Low	Low	High count in 2022; dry since	Resample in 2029
0620	Victoria	34	3	1	4	Low	Moderate	Moderate	Near bridge	Confirm rating
0622	Victoria	34	2	2	4	Low	Low	Moderate	Near kayak launch; occasional high count	Confirm rating
0623	Victoria	34	1	1	2	Moderate	NR	Low	Low flow	Continue monitoring
0624	Victoria	34	3	1	4	Moderate	Moderate	Moderate	Newer pipe; elevated counts; creosote odour	Confirm rating
0626	Victoria	34	3	1	4	Moderate	Moderate	Moderate	Need permission to access	Continue monitoring
0627	Victoria	34	3	1	4	Moderate	Moderate	Moderate	Need permission to access; high flow	Continue monitoring
0629	Victoria	26	3	1	4	Moderate	Moderate	Moderate	Dark discharge; foul odours; only one sample	Continue monitoring and investigations
0633	Victoria	26	2	1	3	Low	Low	Low	Small catchment; only one sample; dry	Resample in 2029

Table 1 Core Area Public Health Concern Ratings

Discharge	Jurisdiction at Discharge	Figure No.	Bacterial Rating	Public Shoreline Use Rating	Sum of Ratings	Level of Concern			Comments	Recommendations
						2022	2023	2024		
0634	Victoria	26	3	1	4	Moderate	Moderate	Moderate	Low flow; hydrocarbon, compost odours	Source narrowed; continue monitoring
0636	Victoria	26	3	1	4	**High**	Moderate	Moderate	High flow; 15 million CFU/100 mL; foul odour, murky, grey	Continue monitoring; start investigations
0637	Victoria private	26	1	1	2	NR	NR	Low		Revisit in 2029
0639	Victoria	26	2	1	3	Moderate	Moderate	Moderate	Selkirk Water development; aka 639A	Continue monitoring
0641	Victoria	71	3	2	5	Moderate	Moderate	**High**	Cecelia Creek; high flow; repaired main; SPSO	Continue monitoring and source investigations
0644	Victoria	27	1	2	3	NR	Moderate	Low	Only one sample	Confirm rating
0645	Victoria	27	2	2	4	Moderate	Moderate	Moderate	Dry in summer	Continue monitoring
0645A	Victoria private	27	3	2	5	Moderate	Moderate	**High**	Difficult access Private discharge	Continue monitoring
0645C	Victoria private	27	2	2	4	NR	NR	Moderate	Private discharge	Confirm rating
0647	Victoria	27	1	2	3	NR	NR	Low	Dry	Revisit in 2029
0649	Victoria private	27	1	2	3	Moderate	Moderate	Low	Gorge Road Hospital Private discharge	Confirm rating
0650	Victoria	27	3	2	5	**High**	**High**	**High**	Low flow in summer	Continue monitoring
0758A	Victoria	27	3	3	6	**High**	**High**	**High**	Low flow in summer	Continue monitoring and investigations
0759	Victoria	26	1	2	3	Low	Moderate	Low		Confirm rating
0768	Victoria	25	2	2	4	Moderate	Moderate	Moderate	SPSO; sewer odour	Continue monitoring
0769	Victoria	25	2	2	4	Moderate	Moderate	Moderate	SPSO?	Continue monitoring
0774	Victoria	25	1	2	3	NR	NR	Low		
0775	Victoria	24	2	2	4	**High**	**High**	Moderate	SPSO	Confirm rating
0777A	Victoria	24	3	2	5	**High**	**High**	**High**		Confirm rating
0697	View Royal	31	2	2	4	Low	Low	Low	Hospital Creek: SPSO	Confirm rating
0703	View Royal	31	1	2	3	Low	Low	Low		Confirm rating
0709B	View Royal	31	2	2	4	Low	Low	Moderate	Craigflower Creek; SPSO	Continue monitoring creek
0710	View Royal	31	1	2	3	Low	Low	Low		Resample in 2029
0722	View Royal	30	1	2	3	Low	Low	Low	One elevated count	Resample in 2029
0865G	View Royal	17	1	1	2	Low	Moderate	Low		Confirm rating
0866	View Royal	16	1	1	2	NR	NR	Low		
0867	View Royal	16	1	1	2	NR	Low	Low	One elevated count	Confirm rating
0872	View Royal	16	1	2	3	Low	Low	Low	SPSO; low flows	Resample in 2029

Table 1 Core Area Public Health Concern Ratings

Discharge	Jurisdiction at Discharge	Figure No.	Bacterial Rating	Public Shoreline Use Rating	Sum of Ratings	Level of Concern			Comments	Recommendations
						2022	2023	2024		
0874	View Royal	15	1	2	3	Low	Low	Low		Resample in 2029
0875	View Royal	15	1	2	3	NR	NR	Low		
0879	View Royal	15	1	2	3	Low	Low	Low		Resample in 2029
0881	View Royal	15	1	2	3	Low	Low	Low	Dry	Resample in 2029
0886	View Royal	14	1	2	3	Low	Low	Low	Millstream Creek; SPSO; spikes during heavy rainfall	Continue monitoring creek

Notes:

Level of Concern determined by sum of the bacterial and shoreline ratings. Low = sums of 2 and 3, moderate = sum of 4 and high = sums of 5 and 6.

EC = Escherichia coli (E. coli) counts.

NR = Not rated due to insufficient data or sample could not be obtained.

NA = Not assessed this year.

SPSO = This discharge acts as a sewage pump station overflow.

Private discharges are not part of the municipal system.

APPENDIX C

CORE AREA STORMWATER DISCHARGE BACTERIAL DATA

Table 1 Core Area Stormwater Discharge Bacterial Data

Station ID	Station name	Sample Date	E. Coli CFU/100 mL	Flow Rate L/min	Sample comment
SW0209	San Jose, west of Holland Point	2023-02-10	220	60	Clear, rain present
		2023-06-15	4000000		Sewer odour, murky, no rain prior
		2023-07-04	2300	10	Clear, no rain prior
		2024-02-13	19000	50	Clear, rain previous
		2024-07-08	4300	10	Clear, no recent rain
SW0210	Lewis, west of Holland Point	2023-02-10	270	16	Clear, rain present
		2023-06-15	4	7	Amber, no rain prior
		2024-02-13	6100	30	Clear, rain previous
		2024-07-08	3	5	Clear, no recent rain
SW0212	Cook Street	2023-02-07	120	35	Sewer odour, murky, heavy rain earlier
		2023-06-15	13	3	Amber, no rain prior
		2024-02-13	20	30	Clear, rain previous
		2024-07-08	5900	2	Clear, no recent rain
SW0214	Clover Point	2023-04-13	5600	500	Clear, rain prior
		2023-06-15	6300	>60	Clear, no rain prior
		2024-04-10	70	65	Clear, rain two days ago
		2024-07-08	14	20	Clear, no recent rain
SW0216	Eberts Street, Ross Bay	2023-02-10	91000	>120	Clear, rain present
		2023-02-16	4700	>250	Clear, rain prior
		2023-04-13	3000	300	Clear, rain prior
		2023-06-15	24000	>60	Clear, no rain prior
		2023-08-24	9600	>80	Sewer odour, murky amber, no recent rain
		2023-08-31	260000	>200	Sewer odour, murky, first flush two days ago?
		2023-09-15	4300	>80	Sewer odour, murky, no recent rain
		2024-02-13	47000	>250	Clear, rain previous
		2024-07-08	63000	40	Sewer odour, amber, no recent rain
		2024-07-30	110000	>300	Sewer odour, dark, first flush yesterday
SW0216-3A	MH @ 186 Olive Street	2023-08-15	19000	40	Sewer odour, murky, no recent rain
		2023-08-24	2700	60	Sewer odour, murky amber, no recent rain
		2023-12-14	7600	80	Murky, previous rain
SW0218	Memorial Crescent, eastern pipe, Ross Bay	2023-02-10	23	10	Clear, rain present
		2023-06-15	12	6	Clear, no rain prior
		2024-04-10	540	26	Clear, rain two days ago
		2024-07-08	910	3	Sewer odour, clear, no recent rain
SW0222	Middle of Ross Bay Cemetery	2023-02-10	18000	>350	Clear, rain present
		2023-06-15	500000	>80	Clear, no rain prior
		2024-02-13	8900	>500	Creosote odour, murky, rain previous

Table 1, Continued

Station ID	Station name	Sample Date	E. Coli CFU/100 mL	Flow Rate L/min	Sample comment
		2024-07-08	62000	>200	Creosote odour, murky brown, no rain
SW0225	Ross Bay, end of Hollywood Place	2023-04-24	320	0	Dry, not sampled, rain prior
		2023-06-15		0	Dry, not sampled, no rain prior
		2024-04-04		0	Dry, not sampled, no recent rain
		2024-07-08		0	Dry, not sampled, no recent rain
SW0227	Wildwood Crescent	2023-02-07	1500	15	Sewer odour, murky, heavy rain earlier
		2023-06-15	18	<1	Clear, no rain prior
		2024-01-29	5900	8	Sewer odour, murky, rain recent
		2024-07-08	310	<1	Clear, no recent rain
SW0228	Robertson Road, west Gonzales Bay	2023-02-23		0	Dry, not sampled, rain in the past two days
		2023-06-15		0	Dry, not sampled, no rain prior
SW0228A	West Gonzales Bay, elevated pipe	2023-02-07	6	1	Clear, heavy morning rain
		2023-06-15		0	Dry, not sampled, no rain prior
SW0229	Ross Street, Gonzales Bay	2023-02-07	5300	12	Clear, heavy morning rain
		2023-06-15	18	6	Clear, no rain prior
		2024-01-29	1200	12	Clear, rain recent
		2024-07-15		0	Dry, not sampled, no recent rain
SW0230	Foul Bay Road, Gonzales Bay	2023-02-23	33000	30	Clear, rain in the past two days
		2023-03-02	2800	30	Sewer odour, murky, rain in past two days
		2023-06-15	50000	9	Clear, no rain prior
		2024-01-29	7900	60	Clear, rain recent
		2024-07-15		0	Dry, not sampled, no recent rain
SW0231	Marne Street, Gonzales Bay	2023-02-23	14	7	Clear, rain in the past two days
		2023-06-15	9	6	Clear, no rain prior
		2024-01-29	40	8	Sewer odour, clear, rain recent
		2024-07-15	24	<1	Clear, no recent rain
SW0236	Crescent Road, Harling Point	2023-02-16	34	7	Clear, rain prior
		2023-06-15	46000	6	Clear, no rain prior
		2024-03-04	210	10	Clear, some recent rain
		2024-07-15	12000	6	Amber, no recent rain
SW0237	Harling Point	2023-02-16	45	3	Clear, rain prior
		2023-06-15	1600	1	Clear, no rain prior
		2024-03-04	250	12	Amber colour, some recent rain
		2024-07-15	2500	1	Amber, no recent rain
SW0238	261 King George Terrace, Harling Point	2024-04-04	96	5	Clear, no recent rain
		2024-07-15		<0.01	Flow too low, no recent rain
SW0244	Near 242 Beach Drive, McNeill Bay	2023-02-16	100	10	Clear, rain prior
		2023-06-21	440	7	Amber flow, no rain prior

Table 1, Continued

Station ID	Station name	Sample Date	E. Coli CFU/100 mL	Flow Rate L/min	Sample comment
		2023-07-24	590	6	Amber, no suds, no rain prior
		2024-01-29	940	8	Sewer odour, clear, rain recent
		2024-07-15	9400	1	Clear, no recent rain
SW0245	Monterey Avenue, McNeill Bay	2023-02-16	120	35	Clear, rain prior
		2023-06-21	460	25	Amber flow, no rain prior
		2023-07-24	1200	12	Dark amber, suds in flow, no rain prior
		2024-01-29	220	>250	Sewer odour, murky, rain recent
		2024-07-15	8000	9	Clear, no recent rain
		2024-07-29	3100	40	Earthy odour, amber, suds, first flush
SW0249	Oliver, McNeill Bay	2023-02-16	20	<1	Clear, rain prior
		2023-06-21	280	<1	Amber flow, no rain prior
		2024-01-29	35	2	Creosote odour, murky, recent rain
		2024-07-15	840	<1	Yellow, no recent rain
SW0250	St. Patrick, McNeill Bay	2023-02-16	4700	pooled	Clear, rain prior, pooled
		2023-06-21	11000	4	Sewer odour, amber, EOP, no rain prior
		2024-05-08	1200	80	Sewer odour, clear, no rain
		2024-07-15		<0.01	Amber, no recent rain
SW0255	MH near 554 Beach Drive, McNeill Bay	2024-05-08		0	Dry, not sampled, no rain
SW0258	West Royal Victoria Golf Course	2024-09-18	26	<1	Clear, no rain
SW0301	PS north of Gonzales Point	2024-05-08		<1	Clear, no rain
		2024-09-18		<0.01	Flow too low, no rain
SW0304	End of Satellite Street	2024-05-08		0	Dry, not sampled, no rain
		2024-09-18		<0.01	Flow too low, no rain
SW0306	South side of Oak Bay Marina	2023-04-24	24	50	Clear, potential marine, rain prior
		2023-08-14	620	60	Clear, marine, no previous rain
		2024-05-08	70	5	Clear, no rain
SW0307	Oak Bay Marina	2023-02-23	100	1	Clear, rain in the past two days
		2023-08-11	14000	1	Sewage odour, clear, no recent rain
		2024-02-12	19000	3	Clear, rain yesterday
		2024-05-08		<1	Strange odour, clear, no rain
		2024-07-29	210	1	Hydrocarbon odour, amber, suds, first flush
		2024-09-18	4800	<1	Clear, no rain
SW0309	Upper pipe at the end of Windsor Road	2024-02-01	2	<1	Clear, rain two days ago
		2024-07-29	5300	2	Amber, suds, first flush in morning
SW0310	Lower pipe; end of Windsor Road	2023-02-23	1400	12	Clear, rain in the past two days
		2023-08-11	2200	15	Clear, no recent rain
		2024-02-01	2400	7	Clear, rain two days ago
		2024-05-08		15	Clear, no rain

Table 1, Continued

Station ID	Station name	Sample Date	E. Coli CFU/100 mL	Flow Rate L/min	Sample comment
		2024-07-29	4100	5	Amber, suds, first flush in morning
		2024-09-18	500	6	Clear, no rain
		2025-01-14		10	Clear, rain prior
SW0310A	Off stairs in seawall; north of Windsor Road	2023-02-23	20	1	Clear, rain in the past two days
		2023-08-11	4600	<1	Clear, no recent rain
		2024-02-01	2100	3	Clear, rain two days ago
		2024-07-29	870	<1	Amber, suds, first flush in morning
SW0313	South end of Oak Bay	2023-04-05		<0.01	Flow too low, rain prior
		2023-08-11	41	<1	Clear, no recent rain
SW0313A	West of Oak Bay Marina	2023-04-05		0	Dry, not sampled, rain prior
		2023-08-11		0	Dry, not sampled, no recent rain
SW0316	South of Somass Drive	2023-02-23	97	>1000	Clear, rain in the past two days
		2023-06-14	520	>2000	Clear, no rain prior
		2023-08-15	570	>500	Murky, no recent rain
		2023-08-21	930	>600	Clear, no recent rain
		2024-02-01	1700	>2000	Murky, rain two days ago
		2024-08-07	6700	450	Clear, no rain
		2024-08-14	1000	400	Clear, no rain
		2024-08-21	620	400	Clear, rain three days ago
		2024-08-28	720	1600	Clear, very rainy overnight
		2024-09-04	1600	500	Clear, no rain
		2024-10-10	400	2000	Clear, rain previous
		2024-10-17	410	2000	Clear, rain previous
		2024-10-24	140	>2500	Clear, no rain for three days
		2024-10-31	290	3000	Clear, rain previous
		2024-11-07	520	4000	Clear, no rain for three days
SW0316-1B	Bowker Creek, daylight d/s of Monteith Street	2023-08-14	950		Clear, no previous rain
		2023-08-15	2600	500	Murky, no recent rain
		2023-08-21	2600	>600	Clear, no recent rain
SW0316-1C	Bowker Creek, upstream of Monteray Avenue	2023-08-14	320		Clear, no previous rain
		2023-08-15	380	400	Murky, no recent rain
SW0316-3	Bowker Creek, at Bee Street	2023-08-15	2000	400	Murky, no recent rain
SW0316-3B	Bowker Creek, d/s of Pearl Street	2024-08-07	2200	450	Clear, no rain
		2024-08-14	140	250	Clear, no rain
		2024-08-21	110	400	Clear, rain three days ago
		2024-08-28	280	1400	Clear, very rainy overnight

Table 1, Continued

Station ID	Station name	Sample Date	E. Coli CFU/100 mL	Flow Rate L/min	Sample comment
		2024-09-04	240	400	Clear, no rain
		2024-10-10	350	2000	Clear, rain previous
		2024-10-17	530	1800	Clear, rain previous
		2024-10-24	84	2000	Clear, no rain for three days
		2024-10-31	88	2000	Clear, rain previous
		2024-11-07	89	3500	Clear, no rain for three days
SW0316-4B	Browning Park	2023-08-15	490	250	Murky, no recent rain
		2024-06-20	6200	>400	Sampled in tandem with Fluidion
		2024-08-07	2100	450	Clear, no rain, construction upstream
		2024-08-14	400	200	Clear, no rain, construction upstream
		2024-08-21	460	400	Clear, rain three days ago, construction
		2024-08-28	580	800	Clear, rain overnight, construction
		2024-09-04	560	350	Clear, no rain, construction
		2024-10-10	730	1500	Clear, rain previous
		2024-10-17	290	500	Clear, rain previous
		2024-10-24	58	1500	Clear, no rain for three days
		2024-10-31	36	1500	Clear, rain previous
		2024-11-07	510	1500	Clear, no rain for three days
SW0316-5	Bowker Creek, upstream of Gordon Head Road	2024-08-07	28	25	Clear, no rain
		2024-08-14	29	20	Clear, no rain
		2024-08-21	120	30	Clear, rain three days ago
		2024-08-28	78	50	Clear, very rainy overnight
		2024-09-04	31	25	Clear, no rain
		2024-10-10	190	60	Clear, rain previous
		2024-10-17	270	60	Clear, rain previous
		2024-10-24	56	60	Clear, no rain for three days
		2024-10-31	32	80	Clear, rain previous
		2024-11-07	12	80	Clear, no rain for three days
SW0317	End of Bowker Lane	2023-02-09	350	9	Clear, rain in last two days
		2023-06-14	13	4	Clear, no rain prior
		2023-08-21	2	5	Clear, no recent rain
		2023-11-28	2	2	Clear, no recent rain
		2024-01-23	24	8	Amber, rain
		2024-02-01	220	8	Clear, rain two days ago
		2024-07-29	13	4	Amber, first flush in morning
SW0318	End of Bowker Avenue	2023-02-09	1200	45	Clear, rain in last two days
		2023-06-14	15000	40	Clear, no rain prior
		2023-08-21	6500	60	Clear, no recent rain

Table 1, Continued

Station ID	Station name	Sample Date	E. Coli CFU/100 mL	Flow Rate L/min	Sample comment
		2023-11-28	530	24	Clear, no recent rain
		2024-01-23	18000	>250	Murky, rain
		2024-02-01	6000	200	Murky, rain two days ago
		2024-07-29	6900	16	Amber, first flush in morning
		2024-08-14	48000	40	No odour. Clear, no rain
		2024-10-23	11000	>60	Clear, previous rain
		2024-11-13	47000	>200	Amber, rain present
SW0319	End of Cavendish Avenue	2023-08-21		<0.01	Flow too low, no recent rain
		2023-11-28	72	1	Earthy odour, murky, no recent rain
		2024-01-23	18	11	Murky, rain
		2024-02-01	20	10	Clear, rain two days ago
		2024-07-29		<0.01	Flow too low, first flush in morning
SW0320	End of Dalhousie Street	2023-02-09	19	40	Clear, rain in last two days
		2023-02-23	6	18	Clear, rain in the past two days
		2023-06-14	27	7	Clear, no rain prior
		2023-08-21	150	40	Amber, no recent rain
		2023-11-28	57	9	Clear, no recent rain
		2024-01-23	320	60	Murky, rain previous and during
		2024-02-01	1600	40	Clear, rain two days ago
		2024-07-29	2700	7	Amber, suds, first flush in morning
SW0321	End of Estevan Avenue	2023-02-09	39	9	Clear, rain in last two days
		2023-06-14	230	9	White murky flow, no rain prior
		2023-11-28	34	7	Clear, no recent rain
		2024-01-24	90	>120	Murky brown, rain yesterday
		2024-02-08	60	90	Clear, rain last night
		2024-07-30	2900	8	Amber, first flush yesterday
SW0321A	Estevan near stairs	2023-02-09	38	14	Clear, rain in last two days
		2023-06-14	36	10	Amber, no rain prior
		2023-11-28	310	10	Clear, no recent rain
		2024-01-24	1900	60	Amber, rain yesterday
		2024-02-08	63	38	Clear, rain last night
		2024-07-30	20000	5	Amber, first flush yesterday
SW0322	End of Thorpe Place beach access	2023-02-09	950	9	Clear, rain in last two days
		2023-06-14	250	11	Clear, no rain prior
		2023-11-28	660	12	Clear, no recent rain
		2024-01-24	550	38	Amber, rain yesterday
		2024-02-08	950	30	Clear, rain last night
		2024-07-30	2200	7	Amber, first flush yesterday

Table 1, Continued

Station ID	Station name	Sample Date	E. Coli CFU/100 mL	Flow Rate L/min	Sample comment
SW0323	North end of Esplanade	2023-02-09	38	>200	Clear, rain in last two days
		2023-06-14	6	80	Clear, no rain prior
		2023-11-28	<1	120	Clear, no recent rain
		2024-01-24	830	>500	Murky brown, rain yesterday
		2024-02-08	1	>400	Clear, rain last night
		2024-07-30	2400	300	Dark amber, suds, first flush yesterday
SW0327	Center of Cadboro Bay	2024-10-29	26	3	Clear, previous rain
SW0327-M	Marine, Hibbens Close beach access	2024-10-29	26		Marine water
SW0501	2730 Hibbens Close, Cadboro Bay	2024-10-29	<1	100	Clear, previous rain
SW0503	Hobbs Creek drains duck pond; Cadboro Bay	2023-02-09	350	>250	Sewer odour, murky, rain in last two days
		2023-06-20	16	80	Murky amber, shorebirds, no rain prior
		2024-02-14	8700	80	Sewer odour, murky brown, rain two days ago
		2024-05-14	290	65	Clear, no rain
		2024-08-13	680	60	Clear, no rain
		2024-10-29	320	100	Sewer odour, amber, previous rain
		2024-11-18	870	>250	Sewer odour, amber, rain previous
SW0503-M	Marine station at Hobbs Creek, Cadboro Bay	2024-10-29	15		Marine water
		2024-11-18	87		Marine water
SW0505	Diffuser; east of Gyro Park, Cadboro Bay	2023-02-09	61	>90	Sewer odour, murky, rain in last two days
		2023-06-20	68	>100	Amber, no rain prior
		2024-02-14	64	120	Sewer odour, murky, rain two days ago
		2024-05-14	14	75	Clear, no rain
		2024-08-13	73	30	Clear, no rain
		2024-10-29	120	120	Sewer odour, amber, previous rain
SW0505-M	Marine station; SW 505	2024-10-29	35		Marine water
		2024-11-18	14		Marine water
SW0506	West of Telegraph Bay Road, Cadboro Bay	2023-02-09	64	40	Clear, rain in last two days
		2023-06-20	300	5	Clear, no rain prior
		2024-02-06	7	24	Clear, drizzle two days ago
		2024-08-13	290	5	Clear, no rain
		2024-10-29	51	30	Amber, previous rain
		2024-11-18	13	40	Clear, rain previous
SW0508	Telegraph Bay Road, diffuser, Cadboro Bay	2023-02-09	34	32	Clear, rain in last two days
		2023-06-20	74	8	Amber with suds, no rain prior

Table 1, Continued

Station ID	Station name	Sample Date	E. Coli CFU/100 mL	Flow Rate L/min	Sample comment
		2024-02-06	3	90	Clear, drizzle two days ago
		2024-08-13	27	7	Clear, no rain
		2024-10-29	26	38	Amber, previous rain
		2024-11-18	210	60	Clear, rain previous
SW0508-M	Marine station, at SW0508, Cadboro Bay	2024-10-29	13		Marine water
SW0510	2751 Sea View Road, Ten Mile Point	2024-04-04	<1	4	Clear, no recent rain
		2024-08-13		0	Dry, not sampled, no rain
SW0511	Cadboro View Road. Beach access	2024-04-04		0	Dry, not sampled, no recent rain
		2024-08-13		0	Dry, not sampled, no rain
SW0514	Ten Mile Point	2024-04-04		<0.01	Flow too low, no recent rain
		2024-08-13		0	Dry, not sampled, no rain
SW0518	3895 Tudor Avenue, Ten Mile Point	2023-02-24	<1	10	Clear, rain in the past two days
		2023-06-20	3200	5	Clear, no rain prior
		2024-02-14	1	8	Clear, rain two days ago
		2024-08-13	<1	5	Clear, no rain
SW0522	McAnally, Smugglers Cove	2023-02-24		<0.01	Flow too low, rain in the past two days
		2023-06-20		0	Dry, not sampled, no rain prior
SW0523	Baynes Road	2024-04-04		0	Dry, not sampled, no recent rain
		2024-08-13		0	Dry, not sampled, no rain
SW0524A	White Rock Street	2023-04-04	<2	2	Clear, no rain prior
		2023-06-20	1	6	Clear, no rain prior
		2024-02-14		0	Dry, not sampled, rain two days ago
		2024-04-04	<1	6	Clear, no recent rain
		2024-08-13		0	Dry, not sampled, no rain
SW0525	3030 Spring Bay Road, Ten Mile Point	2024-04-04		0	Dry, not sampled, no recent rain
		2024-08-13		0	Dry, not sampled, no rain
SW0526	3018 Spring Bay Road, Ten Mile Point	2024-04-04		0	Dry, not sampled, no recent rain
		2024-09-11		0	Dry, not sampled, no rain
SW0527	Tudor Avenue, Ten Mile Point	2024-04-04	6	8	Clear, no recent rain
		2024-09-11	1	1	Clear, no rain
SW0528	North of discharge 527, Ten Mile Point	2024-04-04		<0.01	Flow too low, no recent rain
		2024-09-11		<0.01	Flow too low, no rain
SW0532	Telegraph Bay Road.	2024-02-14	4	4	Clear, rain two days ago
		2024-09-11		<0.01	Flow too low, no rain
SW0538A	Finnerty Cove (blue/wooden pipe)	2024-02-14	10	60	Sewer odour, clear, rain two days ago
		2024-09-11	86	8	Clear, no rain
SW0539	East side of hospital, Finnerty Cove	2023-04-04	13	65	Clear, no rain previous
		2023-09-26	510	100	Clear, no rain prior

Table 1, Continued

Station ID	Station name	Sample Date	E. Coli CFU/100 mL	Flow Rate L/min	Sample comment
		2024-02-14	7	35	Clear, rain two days ago
		2024-09-11	28	8	Clear, no rain
SW0541B	4041 Hollydene Place	2023-02-24	<1	<1	Clear, rain in the past two days
		2023-09-26		<0.01	Flow too low, no recent rain
SW0548	4451 Shore Way, Gordon Head	2024-09-10	2500	9	Clear, no rain
		2024-10-29	810	20	Amber, previous rain
SW0549	End of Shore Way, Gordon Head	2024-09-10		<0.01	Flow too low, no rain
		2024-10-29	20	20	Sewer odour, amber, previous rain
SW0549A	East of Glencoe Cove trail, Gordon Head	2024-09-10	7	5	New station near 549, sampled from MH
		2024-10-29	10	30	Clear, previous rain
SW0558	180 m east of Mt. Douglas beach access	2023-02-24	8	3	Clear, rain in the past two days
		2023-06-12	14	2	Clear, no rain prior
		2024-02-05	48	9	Sewer odour, clear, drizzle in past two days
		2024-09-10	20	<1	Clear, no rain
SW0559	Mt. Doug Creek, Cordova Bay	2023-02-24	130	>1000	Clear, rain in the past two days
		2023-06-12	130	>400	Clear, no rain prior
		2024-02-05	60	>400	Clear, drizzle in the past two days
		2024-09-10	42	>400	Clear, no rain
SW0560	130 m west of Mt. Douglas beach access	2023-02-24	<1	1	Murky, rain in the past two days
		2023-06-12		<0.01	Flow too low, no rain prior
SW0562	South side of 4550 Cordova Bay Road	2023-04-25	2	40	Clear, rain prior
		2023-06-12	120	<1	Sewer odour, clear, no rain prior
		2024-03-04	9	12	Amber colour, some recent rain
		2024-09-10		0	Dry, not sampled, no rain
SW0567	South side of 4771 Timber Place	2023-03-14	90	40	Clear, rain prior
		2023-06-12	3800	16	Clear, no rain prior
		2024-03-04	34	60	Sewer odour, clear, some recent rain
		2024-09-10	3	4	Clear, no rain
SW0571	SW side of 1120 Totem Lane	2023-04-25	<1	2	Clear, rain prior
		2023-06-12	22	30	Clear, no rain prior
		2024-03-04	5	10	Clear, some recent rain
		2024-09-10		<0.01	Flow too low, no rain
SW0573	D'arcy Lane	2023-04-25	3	50	Clear, rain prior
		2023-06-12	25	5	Clear, no rain prior
		2024-03-04	7	8	Mildew odour, clear, some recent rain
		2024-09-10		0	Dry, not sampled, no rain
SW0574	4915 Cordova Bay Road	2023-03-14	47	>120	Clear, rain prior
		2023-06-06	760	100	Clear, no recent rain

Table 1, Continued

Station ID	Station name	Sample Date	E. Coli CFU/100 mL	Flow Rate L/min	Sample comment
		2023-06-12	590	140	Clear, no rain prior
		2024-02-05	410	>300	Clear, drizzle in the past two days
		2024-09-10	2400	30	Clear, no rain
SW0576A	S of beach access; 4989 Cordova Bay Road	2023-03-14	5	40	Clear, rain prior
		2023-06-06	7	28	Clear, no recent rain
		2023-06-12	41	32	Clear, no rain prior
		2024-02-05	1	24	Clear, drizzle in the past two days
		2024-09-10	16	10	Clear, no rain
SW0577	Beach access; 5055 Cordova Bay Road	2023-06-06	9	90	Clear, no recent rain
		2024-02-05		<0.01	Flow too low, drizzle in the past two days
		2024-09-10	17	24	Clear, no rain
SW0578	South of beach access; 5091 Cordova Bay Road	2023-06-06	110	160	Clear, no recent rain
		2023-06-09	130	200	Clear, drizzle
		2024-02-05	43	>500	Murky, drizzle in the past two days
		2024-09-10	22	>250	Clear, no rain
SW0580	20 m south of park on Agate Lane	2023-03-14	6	5	Clear, rain prior
		2023-06-09	1100	2	Clear, drizzle
		2024-02-05	4	12	Clear, drizzle in the past two days
		2024-09-10	7	1	Clear, no rain
SW0581	5179 Agate Lane	2023-03-14	1	9	Clear, rain prior
		2023-06-09	2	12	Clear, drizzle
		2024-02-05	5	<1	Clear, drizzle in the past two days
		2024-09-10	6	8	Clear, no rain
SW0592	Noble Creek	2023-03-30	14	3000	Clear, no rain prior
		2023-06-12	20	>200	Swampy odour, amber, no rain prior
		2024-02-05	66	>1000	Earthy odour, turbid, drizzle past two days
		2024-09-10	35	>600	Amber, no rain
SW0603	20 m south of James Bay Anglers	2023-03-22	5000	2	Clear, no recent rain
		2023-07-04	660000	1	Clear, no rain prior
		2024-03-14	270	5	Clear, rain two days ago
		2024-04-26		150	Suds, recent rain
		2024-07-19	570000	1	Clear, no recent rain
SW0607	East of Fishermans Wharf	2023-04-13	20000	200	Clear, rain prior
		2023-07-04	3300	16	Amber, no rain prior
		2024-03-14	14000	10	Clear, rain two days ago
		2024-07-19	23000	12	Sewer odour, yellow, no recent rain

Table 1, Continued

Station ID	Station name	Sample Date	E. Coli CFU/100 mL	Flow Rate L/min	Sample comment
SW0607A	East of Fishermans Wharf, SE pipe	2023-04-13	12000	300	Clear, rain prior
		2023-07-04	13000	10	Clear, no rain prior
		2024-03-14	110	11	Clear, rain two days ago
		2024-07-19	200	14	Clear, no recent rain
SW0608	Between 640 and 636 Montreal Street	2023-04-13		0	Dry, not sampled, rain prior
		2023-07-04		0	Dry, not sampled, no rain prior
		2024-03-14		<0.01	Flow too low, rain two days ago
		2024-04-26		15	Clear, recent rain
		2024-07-19		0	Dry, not sampled, no recent rain
SW0609	30 m SW of riprap; Laurel Point	2024-04-10	9	1	Clear, rain two days ago
		2024-07-19	24	1	Clear, no recent rain
SW0610	Oswego Street	2023-03-22	10	10	Clear, no recent rain
		2023-07-04	12	11	Clear, no rain prior
		2024-03-14	3000	9	Clear, rain two days ago
		2024-07-19	12000	16	Clear, no recent rain
SW0611	At Menzies Street	2023-03-22	3200	11	Sewer odour, clear, no recent rain
		2023-07-04	79000	9	Clear, no rain prior
		2024-03-14	12000	10	Clear, rain two days ago
		2024-07-19	190000	15	Clear, no recent rain
SW0613	Curved causeway wall; Government & Belleville Street	2023-04-26	1200	60	Clear, rain prior
		2023-07-04	7000	24	Clear, no rain prior
		2024-04-10	24000	70	Murky amber, rain two days ago
		2024-07-22	20000	40	Amber, no recent rain
SW0614	Humboldt/Wharf and Government	2023-07-04	760	30	Amber, no rain prior
		2024-04-10	15000	100	Sewer odour, amber, rain two days ago
		2024-07-22	250	60	Amber, no recent rain
SW0617B	North of passenger ramp at Air BC terminal	2024-03-14		<0.01	Flow too low, rain two days ago
		2024-04-26		15	Grey, recent rain
		2024-07-19		<0.01	Flow too low, no recent rain
SW0619	South side of Johnson Street Bridge	2023-04-21	36000	15	Foul odour, clear, rain yesterday
		2023-07-04	53000	5	Clear, no rain prior
		2024-03-14	59	5	Clear, rain two days ago
		2024-07-19	200000	2	Sewer odour, murky, no recent rain
SW0619B	Under Regency dock walkway	2023-04-21		0	Dry, not sampled, rain prior
		2023-07-04		0	Dry, not sampled, no rain prior
		2024-03-14		<0.01	Flow too low, no recent rain
		2024-04-26		30	Grey, recent rain

Table 1, Continued

Station ID	Station name	Sample Date	E. Coli CFU/100 mL	Flow Rate L/min	Sample comment
		2024-07-19		<0.01	Flow too low, no recent rain
SW0620	North side of Johnson Street Bridge	2023-07-04	22000	12	Sewer odour, amber, no rain prior
		2024-03-14	15000	40	Murky, rain two days ago
		2024-04-26		800	Sewer odour, grey, recent rain
		2024-07-19	8000	10	Sewer odour, murky, no recent rain
SW0622	End of Swift Street	2023-04-21	90		Clear, rain prior
		2023-05-05	1800	30	Grey, rain just prior
		2023-07-04	5	<1	Amber, no rain prior
		2024-03-14	50	2	Clear, no recent rain
		2024-07-19	2000	<1	Musty odour, yellow, no recent rain
SW0623	End of Chatham Street	2024-04-10		<0.01	Flow too low, rain two days ago
		2024-07-19		0	Dry, not sampled, no recent rain
SW0624	2140 Store Street	2023-04-21	81000		Clear, rain prior
		2023-07-04	15	<1	Clear, no rain prior
		2024-04-26	24000	60	Grey, recent rain
		2024-08-19	1500000	9	Clear, no rain
SW0626	Behind 2122 Government Street, Rock Bay	2023-04-21	7000		Clear, rain prior
		2023-07-04	65000	18	Sewer odour, amber, no rain prior
		2024-04-26	5000	600	Sewer odour, grey, recent rain
		2024-08-19	81000	20	Clear, no rain
SW0627	South side of Ocean Cement, Rock Bay	2023-07-04	14000	65	Sewer odour, amber, no rain prior
		2024-04-26	5800	1000	Sewer odour, grey, recent rain
		2024-08-19	63000	80	Clear, no rain
SW0629	East of Bridge Street, Rock Bay	2024-04-26	25000	60	Sewer odour, grey, oil sheen, recent rain
		2024-10-10	6100		Murky brown, prior rain
SW0629-7	MH d3031; John Street/Rock Bay Avenue	2025-05-23	24	8	Brown, solvent odour, rain previous
SW0629-8	MH d3033; Hillside Avenue/Rock Bay Avenue	2024-05-23	<1	7	Grey/brown, solvent odour, rain previous
SW0633	Under south side of Bay Street Bridge	2023-04-24		0	Dry, not sampled, rain prior
		2024-04-26		7	Foul odour, grey, recent rain
		2024-09-12		0	Dry, not sampled, no rain
SW0634	End of David Street, Budget Steel	2024-04-26		20	Sewer odour, grey, recent rain
		2024-09-12	110000	7	Compost/garbage odour, turbid, no rain
SW0636	South Victoria Public Works, South Bay	2024-03-11	320	>250	Earthy/chemical odour, turbid, recent rain
		2024-04-26	800	800	Sewer odour, grey, recent rain
		2024-09-12	700000	60	Murky, no rain
SW0637	Rock Bay	2024-04-10	1	1	Sewer odour, rusty, rain two days ago

Table 1, Continued

Station ID	Station name	Sample Date	E. Coli CFU/100 mL	Flow Rate L/min	Sample comment
		2024-09-12		0	Dry, not sampled, no rain
SW0639A	Selkirk water development	2024-04-10	840	2	Clear, rain two days ago
		2024-09-12		<0.01	Flow too low, no rain
SW0641	Mouth of Cecelia Creek	2023-03-08	2700	1000	Murky, homeless activity, no rain prior
		2023-08-09	6000	500	Clear, rain last night
		2023-08-16	820	500	Clear, no recent rain
		2023-08-23	550	400	Clear, no recent rain
		2023-08-30	50000	700	Murky, no recent rain
		2023-09-06	8900	600	Clear, no recent rain
		2023-10-18	7900	900	Clear, rain previous
		2023-10-25	4000	1500	Clear, heavy rain previous
		2023-11-01	250	800	Clear, no recent rain
		2023-11-08	1900	>1000	Sewer odour, murky, morning drizzle
		2023-11-15	3000	>1000	Clear, drizzle previous
		2024-03-11	7000	>600	Murky, recent rain
		2024-07-10		>200	Turbidity white flow, no prior rain
		2024-07-17	3200	>200	Amber, sewer odour, no prior rain
		2024-07-17	8200	>200	Amber, sewer odour, no prior rain
		2024-07-18	4700	>200	Amber, sewer odour, no prior rain
		2024-07-18	5100	>200	Amber, sewer odour, no prior rain
		2024-07-23	11000		No observations
SW0641-3C	Cecelia Creek, 1 m d/s of Cecelia Road	2024-06-20	4200	>500	Sampled in tandem with Fluidion
SW0641-3D	1650 mm concrete pipe into Cecelia Creek	2023-08-09	8500	400	Oily sheen, trash, rain last night
		2023-08-16	5100	500	Oily sheen, trash, no recent rain
		2023-08-23	13000	400	Garbage, no recent rain
		2023-08-30	51000	500	Blackish, oil sheen, trash, no recent rain
		2023-09-06	13000	600	Oil sheen, trash, no recent rain
		2023-10-18	9600	700	Clear, oil sheen, rain previous
		2023-10-25	2700	1500	Clear, heavy rain previous
		2023-11-01	3400	650	Clear, possible toilet paper, no recent rain
		2023-11-08	4200	800	Sewer odour, sheen, morning drizzle
		2023-11-15	3100	800	Clear, drizzle previous
		2024-07-17	6000	>200	Amber, sewer odour, sheen, no prior rain
		2024-07-18	3200	>200	Amber, sewer odour, sheen, no prior rain
		2024-07-18	2000	>200	Amber, sewer odour, sheen, no prior rain
		2024-07-18			Amber, oily sheen, odour, no prior rain
		2024-07-22	9500	>200	Sewer odour, oily sheen, no recent rain
		2024-07-29	4000	>300	Amber, first flush in morning
SW0641-3G	Combined flow of 641-3E and 641-3F	2023-08-09	13000	50	Oily sheen, trash, rain last night

Table 1, Continued

Station ID	Station name	Sample Date	E. Coli CFU/100 mL	Flow Rate L/min	Sample comment
		2023-08-16	340	20	Clear, trash, no recent rain
		2023-08-23	9100	20	Garbage, no recent rain
		2023-08-30	100000	200	Iron oxide bacteria, trash, no recent rain
		2023-09-06	15000	100	Oil sheen, trash, no recent rain
		2023-10-18	17000	100	Clear, rain previous
		2023-10-25	8000	200	Clear, heavy rain previous
		2023-11-01	320000	150	Clear, scum, trash, no recent rain
		2023-11-08	3900	200	Sewer odour, oil sheen, trash
		2023-11-15	280	200	Clear, oil sheen, drizzle previous
		2024-07-17	450		Amber colour, pooled, no prior rain
		2024-07-18	2500		Pooled, grass, no prior rain
		2024-07-18	2300		Pooled, grass, no prior rain
SW0644	221 Gorge Road	2023-04-21	3600		Foul odour, black, rain prior
		2024-03-11		<0.01	Flow too low, rain yesterday
		2024-04-26		4	Clear, recent rain
		2024-09-05		0	Dry, not sampled, no rain
SW0645	Carrol Street Easement	2023-01-17	140	40	Murky, rain in the past two days
		2023-03-27		<0.01	Flow too low, no recent rain
		2023-04-21	570000		Clear, rain prior
		2024-03-11	490	6	Murky brown, rain yesterday
		2024-09-05		0	Dry, not sampled, no rain
SW0645A	Prince Charles Apts/Gorge Road	2023-03-27	340	7	Clear, no recent rain
		2024-03-11	380	8	Clear, rain yesterday
		2024-09-05	36000	4	Clear, no rain
SW0645B	West of stairs; #145 Chapman Point	2024-04-26		8	Clear, recent rain
SW0645C	Chapman Point; Gorge Road. Hospital	2024-03-11		<0.01	Flow too low, recent rain
		2024-04-26		10	Clear, recent rain
		2024-09-05	4200	1	Clear, no rain
SW0647	Gorge Road. Hospital, across from docks	2024-03-11		<0.01	Flow too low, rain yesterday
		2024-09-05		0	Dry, not sampled, no rain
SW0649	Scoured channel, Gorge Road. Hospital	2023-03-27		<0.01	Flow too low, no recent rain
		2023-05-05	45000	15	Murky, rain just prior
		2024-03-11	12	<1	Clear, rain yesterday
		2024-09-05		<0.01	Flow too low, no rain
SW0649A	Lotus Street; west side of Gorge Hospital	2023-03-27	2	1	Clear, no recent rain
SW0650	East of "Pipeline" sign at Harriet Road	2023-03-27	5800	6	Clear, no recent rain
		2023-06-13	1600	40	Clear, no rain prior
		2023-08-10	14000	40	Amber, sewer odour, surge, no rain

Table 1, Continued

Station ID	Station name	Sample Date	E. Coli CFU/100 mL	Flow Rate L/min	Sample comment
		2023-12-05	18000	30	Sewer odour, murky, recent rain
		2024-03-11	680	30	Clear, surge flow, recent rain
		2024-06-04	16000	40	Murky, recent rain
		2024-06-12	4500	6	Clear, no rain
		2024-11-13	2800	20	Clear, rain present
SW0651	Cedar Shore Apts., Qu'Appelle and Gorge Road	2024-09-05		<0.01	Flow too low, no rain
SW0652A	In retaining wall, east side of 71 Gorge Road West	2024-03-27	<1	1	Clear, morning rain
		2024-09-05	9	<1	Clear, no rain
SW0652B	In retaining wall, at 71 Gorge Road West	2024-03-27	5	2	Clear, morning rain
		2024-09-05	3	<1	Clear, no rain
SW0653	Tennis courts; Cedar Shore Appts	2023-03-27	61	9	Clear, no recent rain
		2024-03-11	38	7	Clear, recent rain
		2024-09-05	430	7	Clear, no rain
SW0655	Small cove in Gorge Park, east of Gorge Bridge	2023-03-27	360	6	
		2023-04-27	78	7	Clear, no rain prior
		2024-03-11	1	8	Clear, recent rain
		2024-03-11	<1	8	Clear, recent rain
		2024-09-05	20	<1	Clear, no rain
SW0658A	Directly; 384 Gorge Road	2023-04-21	20		Clear, rain prior
		2023-08-03		0	Dry, not sampled, no recent rain
		2024-05-10		<0.01	Flow too low, no rain
		2024-09-05		<0.01	Flow too low, no rain
SW0661	In front of park bench; Inez Road	2023-04-21	<1		Clear, potential surge flow, rain prior
		2023-08-03		0	Dry, not sampled, no recent rain
SW0662	2 m NW of park bench at Inez Road	2023-04-21		0	Dry, not sampled, rain prior
		2023-08-03		0	Dry, not sampled, no recent rain
SW0665	Lower pipe park bench at Parkview Drive	2023-04-21	3	2	Clear, rain prior
		2023-08-03		0	Dry, not sampled, no recent rain
SW0667	Middle of Heath Drive	2023-04-21		0	Dry, not sampled, rain prior
		2023-08-03		0	Dry, not sampled, no recent rain
SW0668	West side of Heath Drive	2023-04-21		0	Dry, not sampled, rain prior
		2023-08-03		0	Dry, not sampled, no recent rain
SW0669	Dysart Road	2023-04-21		0	Dry, not sampled, rain prior
		2023-08-03		0	Dry, not sampled, no recent rain
		2024-05-10		<0.01	Flow too low, no rain

Table 1, Continued

Station ID	Station name	Sample Date	E. Coli CFU/100 mL	Flow Rate L/min	Sample comment
		2024-09-05	59	3	Clear, no rain
SW0671	Austin Avenue, 5 m west of last white pole	2023-04-21	29	10	Clear, rain prior
		2023-08-02	430	1	Clear, no recent rain
		2024-03-27	15000	12	Clear, morning rain
		2024-09-05	9000	1	Amber, no rain
SW0675	Colquitz Avenue	2023-08-02		0	Dry, not sampled, no recent rain
		2024-03-27	58	10	Clear, morning rain
		2024-09-05		0	Dry, not sampled, no rain
SW0676	Across from 820 Gorge Road	2023-08-02	2	2	Clear, no recent rain
		2024-03-27	14	9	Clear, morning rain
		2024-09-05		0	Dry, not sampled, no rain
SW0679	Gorge Road. At Admirals Road	2024-05-24	200	8	Asphalt odour, clear, no rain
		2024-09-05	34	7	Amber, no rain
SW0687	Under walkway bridge at 2892 Westing Road	2023-04-24	23	30	Clear, rain prior
		2023-08-02		<0.01	Flow too low, no recent rain
		2024-05-10	290	30	Clear, no rain
		2024-09-09	20	12	Clear, no rain
SW0690D	Under 3rd bridge to east, Colquitz River	2023-03-08	19		Clear, flow not estimated, no rain prior
		2023-08-01	61	1000	Clear, no recent rain
		2024-04-19	50	>800	Amber, no recent rain
		2024-09-09	91	>2000	Amber, no rain
SW0690D-12	Haliburton Brook (Elk/Beaver Lake)	2023-03-21	1		BEES sampled
		2023-04-25	<1		BEES sampled
		2023-05-30	26		BEES sampled
		2023-07-31	77		BEES sampled
		2023-09-27	1400		BEES sampled
		2023-10-30	37		BEES sampled
		2023-11-29	4		BEES sampled
		2024-01-25	11		BEES sampled, rain overnight
		2024-02-28	84		BEES sampled, rain
		2024-03-26	17		BEES sampled, rain yesterday
		2024-04-24	20		BEES sampled, morning rain
		2024-05-29	14		BEES sampled, recent rain
		2024-06-24	30		BEES sampled, no recent rain
		2024-07-30	360		BEES sampled, first flush yesterday
		2024-08-27	260		BEES sampled, no recent rain
		2024-09-25	160		BEES sampled, rain in afternoon
		2024-10-30	17		BEES sampled, previous rain

Table 1, Continued

Station ID	Station name	Sample Date	E. Coli CFU/100 mL	Flow Rate L/min	Sample comment
		2024-11-28	3		BEES sampled, previous rain
SW0690D-12A	Haliburton Brook (Elk/Beaver Lake)	2023-02-02	6		BEES sampled
		2023-03-21	1		BEES sampled
		2023-04-25	1		BEES sampled
		2023-05-30	25		
		2024-01-25	300		BEES sampled, rain overnight
		2024-02-28	38		BEES sampled, rain
		2024-03-26	370		BEES sampled, rain yesterday
		2024-04-24	280		BEES sampled, morning rain
		2024-05-29	3		BEES sampled, recent rain
		2024-07-30	240		BEES sampled, first flush yesterday
		2024-08-27	240		BEES sampled, no recent rain
		2024-09-25	600		BEES sampled, rain in afternoon
		2024-10-30	24		BEES sampled, previous rain
		2024-11-28	12		BEES sampled, previous rain
SW0690D-12B	S	2023-07-31	5100		BEES sampled
		2023-09-27	26		BEES sampled
		2023-10-30	20		BEES sampled
		2023-11-29	3		BEES sampled
		2024-01-25	40		BEES sampled, rain overnight
		2024-06-24	20		BEES sampled, no recent rain
		2024-07-30	200		BEES sampled, first flush yesterday
		2024-08-27	600		BEES sampled, no recent rain
		2024-09-25	4500		BEES sampled, rain in afternoon
		2024-10-30	33		BEES sampled, previous rain
		2024-11-28	8		BEES sampled, previous rain
SW0690D-15	Hamsterly/Whiskey Creek; east of Hamsterly Beach	2023-02-02	1		BEES sampled
		2023-03-21	5		BEES sampled
		2023-04-25	<1		BEES sampled
		2024-02-28	410		BEES sampled, rain
		2024-03-26	11		BEES sampled, rain yesterday
		2024-04-24	420		BEES sampled, morning rain
		2024-05-29	66		BEES sampled, recent rain
		2024-10-30	10		BEES sampled, previous rain
		2024-11-28	5		BEES sampled, previous rain
SW0690D-17	O'Donnell Creek (Elk/Beaver Lake), boat launch	2023-02-02	9		BEES sampled
		2023-03-21	7		BEES sampled

Table 1, Continued

Station ID	Station name	Sample Date	E. Coli CFU/100 mL	Flow Rate L/min	Sample comment
		2023-04-25	12		BEES sampled
		2023-05-30	85		BEES sampled
		2023-07-31	380		BEES sampled
		2023-09-27	30		BEES sampled
		2023-10-30	17		BEES sampled
		2023-11-29	21		BEES sampled
		2024-01-25	120		BEES sampled, rain overnight
		2024-02-28	360		BEES sampled, rain
		2024-03-26	16		BEES sampled, rain yesterday
		2024-04-24	65		BEES sampled, morning rain
		2024-05-29	80		BEES sampled, recent rain
		2024-06-24	200		BEES sampled, no recent rain
		2024-07-30	2100		BEES sampled, first flush yesterday
		2024-08-27	510		BEES sampled, no recent rain
		2024-09-25	170		BEES sampled, rain in afternoon
		2024-10-30	60		BEES sampled, previous rain
		2024-11-28	120		BEES sampled, previous rain
SW0690D-17B	O'Donnell Creek, d/s of Walton Place & Oldfield Road	2023-02-02	5		BEES sampled
		2023-03-21	1		BEES sampled
		2023-04-25	25		BEES sampled
SW0690D-17C	O'Donnell Creek, d/s of Brookhaven Road	2023-02-02	20		BEES sampled
		2023-03-21	12		BEES sampled
		2023-04-25	48		BEES sampled
SW0691A	Wilkinson Road right-of-way, 1173A & B Portage Road	2023-05-04	5	15	Clear, no rain prior
		2023-08-03		0	Dry, not sampled, no recent rain
		2024-05-10	24	40	Clear, brown foam, no rain
		2024-09-09		<0.01	Flow too low, no rain
SW0694	Portage and Giles, MH in walkway	2023-04-03		0	Dry, not sampled, rain previous
		2023-08-01		0	Dry, not sampled, no recent rain
SW0697	Beside 152 St. Giles Street, Hospital Creek	2023-04-05	46	200	Clear, no rain previous
		2023-07-31	70	40	Clear, marine influence, no recent rain
		2024-04-24	680		Murky amber, rain earlier
		2024-09-20	36	60	Clear, no rain
SW0703	Tidewater Road easement; SE corner of Helmcken Park	2023-04-03	3	5	Clear, rain prior
		2023-07-31		<0.01	Flow too low, no recent rain
		2024-04-11	24	<1	Amber, rain three days ago

Table 1, Continued

Station ID	Station name	Sample Date	E. Coli CFU/100 mL	Flow Rate L/min	Sample comment
		2024-09-09		0	Dry, not sampled, no rain
SW0709B	Craigflower Creek B, under Helmcken Road Bridge	2023-03-08	8		Clear, flow not estimated, no rain prior
		2023-08-01	39	60	Clear, no recent rain
		2024-04-19	30	>2000	Clear, no recent rain
		2024-09-20	690	>250	Clear, no rain
SW0710	15 m south of Helmcken Road Bridge	2023-04-03	13	10	Clear, rain prior
		2023-06-13	220	2	Clear, no rain prior
		2024-02-07	1	7	Clear, no recent rain
		2024-09-09	16	3	Clear, no rain
SW0722	Craigflower Bridge, in cement wall (metal grate)	2023-04-03	3	45	Asphalt odour, clear, rain previous
		2023-06-13	350	2	Clear, no rain prior
		2024-03-27	320	12	Clear, morning rain
		2024-08-22	43	3	Clear, recent rain
SW0722AA	Directly SW corner of Craigflower Bridge	2023-04-03	26	10	Clear, rain prior
		2023-06-13	190	3	Clear, no rain prior
SW0723	NW of motel at Craigflower and Admirals	2024-03-27		0	Dry, not sampled, morning rain
		2024-08-22		<0.01	Flow too low, recent rain
SW0725A	Motel at Craigflower and Admirals	2024-03-27	89	2	Clear, morning rain
		2024-08-22		<0.01	Flow too low, recent rain
SW0726	Center of Pallard Cove - 5601 Lupin Road	2023-04-05	1	80	Clear, no rain previous
		2023-06-13	1200	24	Sewer odour, murky, no rain prior
		2024-03-27	70	40	Hydrocarbon smell, clear, morning rain
		2024-08-22	570	9	Clear, recent rain
SW0726B	East side of 914 Yarrow Place	2024-05-10		<0.01	Flow too low, no rain
		2024-08-22	180	<1	Clear, recent rain
SW0727	2 m to west of path at Aral Road	2023-04-05	10	5	Clear, no rain previous
		2023-06-13	49	10	Clear, potential surge flow, no rain
SW0735	West of steps at Dellwood Road	2024-04-25	28	8	Clear (suds), recent rain
		2024-08-22	220	1	Clear, recent rain
SW0736A	#14-915 Glenvale, man-made stream	2023-04-03	3	8	Clear, rain prior
		2023-06-13	420	1	Clear, no rain prior
		2024-03-27	11	6	Clear, morning rain
		2024-08-22	32	2	Clear, algae, recent rain
SW0737	Garthland Road	2023-04-03	25	5	Clear, rain prior
		2023-06-13	7	2	Clear, no rain prior
		2024-04-25	6	25	Clear (suds), recent rain

Table 1, Continued

Station ID	Station name	Sample Date	E. Coli CFU/100 mL	Flow Rate L/min	Sample comment
		2024-08-22	890	<1	Clear, recent rain
SW0739	West side of 1166 Rhoda Lane	2024-04-24		0	Dry, not sampled, no rain
		2024-08-22		<0.01	Flow too low, recent rain
SW0740	Foreshaw Road	2024-04-24	32	<1	Clear, recent rain
		2024-08-22	120	<1	Clear, recent rain
SW0742	Sioux Place, u/s edge of pool dam	2023-03-10	43	12	Murky, rain
		2023-06-13	900	4	Clear, no rain prior
		2024-03-14	61	9	Clear, no recent rain
		2024-07-19	38	4	Clear, no recent rain
		2024-08-21	74	2	Clear, no rain
SW0742B	SW of parking area @ Kinsmen Gorge Park	2023-04-05	26		Clear, no rain previous, pooled flow
		2023-06-13		<0.01	Flow too low, no rain prior
		2024-03-27		<0.01	Flow too low, morning rain
		2024-05-10	5		Perfume odour, clear, pooled, no rain
		2024-08-12		<0.01	Flow too low, no recent rain
SW0743	Gorge-Esquimalt Park, south bank of creek	2023-04-05		<0.01	Flow too low, rain prior
		2023-06-13		0	Dry, not sampled, no rain prior
		2024-03-27		<0.01	Flow too low, morning rain
		2024-08-12		0	Dry, not sampled, no recent rain
SW0743A	N of Esquimalt Parks Dept nursery; into Gorge Creek	2023-04-05	2	5	Clear, no rain previous
		2023-06-13	280	<1	Clear, no rain prior
		2024-03-27	280	<1	Clear, morning rain
		2024-08-12		<0.01	Flow too low, no recent rain
SW0744	Gorge-Esquimalt Park, Creek main flow	2023-03-10	1700	>100	Murky, rain
		2023-06-13	250	>200	Clear, no rain prior
		2024-03-27	1400	40	Clear, morning rain
		2024-08-12	600	18	Amber, no recent rain
SW0744A	Gorge-Esquimalt Park, E of nursery	2023-04-05	12	2	Clear, no rain previous
		2023-06-13		0	Dry, not sampled, no rain prior
		2024-03-27		<0.01	Flow too low, morning rain
		2024-04-18	3	1	Clear, no recent rain
		2024-04-25	20	5	Clear, recent rain
		2024-05-08	16000		Sight sewer odour, murky, recent rain
		2024-08-12		<0.01	Flow too low, no recent rain
SW0744B	Gorge-Esquimalt Park, 1034 Gosper Crescent	2023-03-10	12000	7	Murky, rain

Table 1, Continued

Station ID	Station name	Sample Date	E. Coli CFU/100 mL	Flow Rate L/min	Sample comment
		2023-05-05	52000	>80	Sewer odour, dark grey flow, rain
		2023-06-13	14000	8	Clear, no rain prior
		2024-02-07	110000	10	Sewer odour, murky, no recent rain
		2024-03-27	70000	8	Sewer odour, murky, morning rain
		2024-04-18	65000	7	Sewer odour, murky, no recent rain
		2024-08-12	59000	7	Strong laundry odour, grey, no rain
		2024-11-14	5500	40	Sewer odour, murky, previous rain
SW0749	South side of 306 Uganda	2023-03-10	300	1	Sewer odour, murky, rain
		2023-06-13	580	<1	Clear, no rain prior
		2024-03-27	6100	1	Clear, morning rain
		2024-09-05		0	Dry, not sampled, no rain
SW0749A	Property line of 930 Selkirk Avenue, wooden spillway	2023-03-10		<0.01	Flow too low, rain
		2023-06-13		0	Dry, not sampled, no rain prior
		2024-03-27		<0.01	Flow too low, morning rain
		2024-09-05		<0.01	Flow too low, no rain
SW0751	Spill pad behind 928 Selkirk	2023-03-10	420	6	Murky, rain
		2023-06-13	1600	3	Clear, no rain prior
		2024-03-27	240	8	Clear, morning rain
		2024-09-05	250	1	Clear, no rain
SW0755	1.5 m east of last lamp post, west of Arm Street	2023-06-06	<1	10	Clear, warm, positive for chlorine
SW0758A	Banfield Park	2023-03-22	2200	3	Clear, no recent rain
		2023-06-16		<0.01	Flow too low, no rain prior
		2024-04-25	8500	35	Clear (suds), recent rain
		2024-06-13	17000	8	Sewer odour, green tracer dye, no rain
		2024-06-25	2200	9	Sewer odour, clear, no recent rain
SW0759	West of Trestle at Currie Lane	2023-03-22	3	4	Clear, no recent rain
		2023-06-16	800	<1	Clear, no rain prior
		2024-04-24	28	6	Clear, recent rain
		2024-07-24	22	<1	Clear, no recent rain
SW0768	East of 65 Songhees Road	2023-03-23	1500	7	Clear, no recent rain
		2023-06-16	27	18	Sewer odour, amber, no rain prior
		2024-03-14	1800	8	Clear, rain two days ago
		2024-07-22	190	18	Clear, no recent rain
SW0769	Cooperidge Place	2023-03-22	1500	40	Clear, no recent rain
		2023-06-16	5000	35	Clear, no rain prior
		2024-03-14	1800	20	Clear, rain two days ago

Table 1, Continued

Station ID	Station name	Sample Date	E. Coli CFU/100 mL	Flow Rate L/min	Sample comment
		2024-07-22	500	10	Clear, no recent rain
SW0774	Russell Street	2024-05-27	110	1	Clear, recent rain
SW0775	Robert Street	2023-03-22	4400	3	Clear, no recent rain
		2023-06-16	7000	1	Clear, no rain prior
		2024-02-12	3000	9	Clear, rain yesterday
		2024-07-22		<0.01	Flow too low, no recent rain
SW0777A	Extends from curve in rock wall; Barnard Avenue	2023-01-19	23000	65	Sewer odour, murky, rain two days ago
		2023-06-16	200000	16	Sewer odour, clear, EOP, no rain prior
		2023-08-23	61000	20	Sewer odour, murky, no recent rain
		2024-01-16	15000	60	Sewer odour, murky, no recent rain
		2024-02-12	2700000	>60	Sewer odour, murky, rain yesterday
		2024-02-27	27000	60	Sewer odour, murky, rain yesterday
		2024-03-14	18000	70	Sewer odour, clear, rain two days ago
		2024-04-11	11000	>60	Sewer odour, murky, rain three days ago
		2024-07-22	140000	20	Sewer odour, murky, no recent rain
SW0779	Near 531 West Bay Terrace, under boardwalk, West Bay	2023-03-10	840	8	Chemical odour, murky, rain
		2023-07-06	520	1	Clear, no rain prior
		2023-12-08	190	40	Clear
		2024-02-12	180	6	Clear, rain yesterday
		2024-07-24	36	12	Amber, no recent rain
SW0780	Under boardwalk sitting area, 537 Head Street, West Bay	2023-03-10	9000	12	Murky, rain
		2023-07-06	<1	250	Clear, no rain prior
		2023-12-08	48000	80	Clear
		2024-02-12	31000	9	Clear, rain previous
		2024-04-24	820	30	Foul odour, grey film, recent rain
		2024-07-24	7	1	Clear, no recent rain
		2024-09-09	2100	3	Clear, no rain
SW0781	South of heritage building at 503 Head Street, West Bay	2023-03-10	1400	90	Creosote odour, murky, rain
		2023-07-06	79	500	Clear, no rain prior
		2024-02-27	420	25	Murky, rain yesterday
		2024-04-24	9600	150	Clear (some suds), recent rain
		2024-07-24	12	80	Clear, no recent rain
		2024-09-09	5400	16	Clear, no rain
SW0782	West Bay Marina, north of wharf walkway	2023-03-22		0	Dry, not sampled, no recent rain'
		2023-05-04		0	Dry, not sampled, no rain prior

Table 1, Continued

Station ID	Station name	Sample Date	E. Coli CFU/100 mL	Flow Rate L/min	Sample comment
		2023-05-05		0	Dry, not sampled, rain
SW0805	8 m west of beach access at Kinver Street	2023-01-18	210	90	
		2023-03-02	2000	60	Sewer odour, murky, rain in past two days
		2023-03-10	33000	65	Sewer odour, murky, rain sampling
		2023-05-16	12000	20	Sewer odour, murky, no rain prior
		2023-06-19	180000	12	Sewer odour, murky, no rain prior
		2023-12-14	5000	100	Sewer odour, murky, previous rain
		2024-02-06	8200	70	Sewer odour, clear, drizzle two days ago
		2024-07-24	390000	11	Sewer odour, murky, no recent rain
		2024-09-18	17000	8	Sewer odour, toilet paper, no rain
SW0806	10 m west of beach access at Kinver Street	2023-03-02	900	12	Sewer odour, murky, rain in past two days
		2023-03-10	1100	14	Sewer odour, murky, rain
		2023-06-19	630	2	Sewer odour, clear, no rain prior
		2024-02-06	12000	24	Sewer odour, clear, drizzle two days ago
		2024-04-24	2500	25	Clear, recent rain
		2024-07-24	9200	8	Sewer odour, clear, no recent rain
		2024-09-18	7900	2	Sewer odour, murky, no rain
SW0810	South side of 440 Constance Avenue	2023-04-26	620	<0.01	Flow too low, rain prior
		2023-06-19	170	2	Amber, no rain prior
		2024-05-10		<0.01	Flow too low, no rain
		2024-07-24	13000	<1	Clear, no recent rain
SW0811	Nelson Street, crack in rocks	2023-04-26	950	0	Dry, not sampled, rain prior
		2023-06-19		<0.01	Flow too low, no rain prior
		2024-05-10		0	Dry, not sampled, no rain
		2024-07-24		0	Dry, not sampled, no recent rain
SW0812	Foot of Sturdee, east of beach access	2023-04-26	110000	1	Strong acrid odour, grey, rain prior
		2023-05-05	5500	40	Grey, rain just prior
		2023-06-19	58000	2	Amber, evidence of otters, no rain prior
		2024-05-10	12000	2	Sewer odour, murky, no rain
		2024-06-04	290	12	Clear, recent rain
		2024-07-24		<0.01	Flow too low, no recent rain
		2024-11-12	780	16	Clear, previous rain
SW0814	Crack in rocks at Grafton Street	2023-03-02	50	6	Clear, rain in the past two days
		2023-06-19	400	<1	Amber, no rain prior
		2024-05-10	5600	2	Clear, no rain
		2024-07-24	41000	<1	Clear, no recent rain
SW0854	Gate Road off Admirals Road	2023-03-23	1600	10	Clear, no recent rain
		2023-06-19	100000	40	Perfume odour, murky, no rain prior

Table 1, Continued

Station ID	Station name	Sample Date	E. Coli CFU/100 mL	Flow Rate L/min	Sample comment
		2024-04-11	10000	60	Sewer odour, murky, rain three days ago
		2024-07-22	7500	18	Sewer odour, clear, no recent rain
SW0865AB	North of 200 Maplebank Road	2023-05-04		<0.01	Flow too low, no rain prior
		2023-07-21		0	Dry, not sampled, no recent rain
		2024-09-12		0	Dry, not sampled, no rain
SW0865B	Plumber Bay near baseball field	2023-05-04		0	Dry, not sampled, no rain prior
		2023-07-21		0	Dry, not sampled, no recent rain
		2024-09-12		0	Dry, not sampled, no rain
SW0865C	South end of Plumber Bay	2023-05-04		0	Dry, not sampled, no rain prior
		2023-07-21		0	Dry, not sampled, no recent rain
		2024-09-12		0	Dry, not sampled, no rain
SW0865D	South side of Plumper Bay	2023-05-04	18	15	Clear, iron oxide bacteria, no rain prior
		2023-07-21		0	Dry, not sampled, no recent rain
		2024-09-12		<0.01	Flow too low, no rain
SW0865DA	SE Plumper Bay, middle of 24 Kosapsum Crescent	2024-09-12		0	Dry, not sampled, no rain
SW0865F	North side of Plumber Bay	2023-04-05	1	5	Clear, no rain prior
		2023-07-21	52	4	Clear, no recent rain
		2024-09-12		<0.01	Flow too low, no rain
SW0865G	Thetis Cove, end of Hallowell Road	2023-04-05	10000	20	Clear, may be marine, no rain prior
		2023-07-21	220	30	Clear, no recent rain
		2024-04-24	29	30	Clear, recent rain
		2024-09-12		0	Dry, not sampled, no rain
SW0866	Portage Park, west of rock outcropping	2024-09-06		0	Dry, not sampled, no rain
		2024-09-11	110	>2000	Clear, no rain
SW0867	Between 95 and 101 View Royal Avenue	2023-05-04		0	Dry, not sampled, no rain prior
		2023-07-21		0	Dry, not sampled, no recent rain
		2024-04-24	310	<1	Foul odour, grey/sudsy flow, recent rain
		2024-09-06		0	Dry, not sampled, no rain
SW0872	PS at Stewart, 3 m west of walkway	2023-04-05	1	5	Clear, no rain prior
		2023-07-21		0	Dry, not sampled, no recent rain
SW0873	Larger of two pipes in ravine at Helmcken Road	2024-09-06		0	Dry, not sampled, no rain
SW0874	Heddle Avenue., 4 m ; park bench, Tovey Bay	2023-05-04		0	Dry, not sampled, no rain prior
		2023-07-21		0	Dry, not sampled, no recent rain
SW0875	Between 547 and 549 View Royal Avenue	2024-04-22	<1	1	Clear, rain yesterday
		2024-09-06		0	Dry, not sampled, no rain

Table 1, Continued

Station ID	Station name	Sample Date	E. Coli CFU/100 mL	Flow Rate L/min	Sample comment
SW0879	Creek on west side of Price Road	2023-05-04	27	200	Clear, no rain prior
		2023-07-20	1	30	Clear, no rain prior
		2024-03-21	1	13	Clear, no recent rain
		2024-09-06	45	14	Clear, no rain
SW0881	Dukrill, NE of beach access stairs	2023-05-04		0	Dry, not sampled, no recent rain
		2023-07-20		0	Dry, not sampled, no recent rain
		2024-03-21		0	Dry, not sampled, no recent rain
		2024-09-06		0	Dry, not sampled, no rain
SW0886	Mill Stream; 1700 Wilfert Road, rapids, west side	2023-01-23	92	1000	Clear, no rain
		2023-03-17	9	>5000	Clear, no rain prior
		2023-08-09	66	800	Clear, rain last night
		2023-08-16	68	800	Clear, no recent rain
		2023-08-23	48	500	Clear, no recent rain
		2023-08-31	240	800	Clear, no recent rain
		2023-09-06	47	1500	Clear, no recent rain
		2023-10-18	590	4000	Clear, rain previous
		2023-10-25	2800		Clear, flow high, heavy rain previous
		2023-11-01	110	>5000	Clear, no recent rain
		2023-11-08	18		Clear, flow high, drizzle in the morning
		2023-11-15	20		Clear, flow high, drizzle in the morning
		2024-03-21	22	>3000	Clear, no recent rain
SW0886-3	Mill Stream, near Langford/Colwood border	2023-08-09	100	700	Clear, rain last night
		2023-08-16	43	700	Clear, no recent rain
		2023-08-23	130	500	Clear, no recent rain
		2023-08-31	130	800	Clear, no recent rain
		2023-09-06	53	1500	Clear, no recent rain
		2023-10-18	900	3000	Clear, rain previous
		2023-10-25	3400		Clear, flow high, heavy rain previous
		2023-11-01	19	4000	Clear, no recent rain
		2023-11-08	11		Clear, flow high, drizzle in the morning
		2023-11-15	31		Clear, flow high, drizzle in the morning
SW0886-6	Mill Stream, under Treanor Avenue	2023-08-09	70	600	Clear, rain last night
		2023-08-16	31	500	Clear, no recent rain
		2023-08-23	38	400	Clear, no recent rain
		2023-08-31	390	700	Clear, no recent rain
		2023-09-06	120	1000	Clear, no recent rain
		2023-10-18	190	3000	Clear, rain previous

Table 1, Continued

Station ID	Station name	Sample Date	E. Coli CFU/100 mL	Flow Rate L/min	Sample comment
		2023-10-25	700		Clear, flow high, rain previous
		2023-11-01	48	3000	Clear, no recent rain
		2023-11-08	10		Clear, flow high, drizzle in the morning
		2023-11-15	8		Clear, flow high, drizzle in the morning
SW0886-9	Mill Stream at Millstream Lake Road and Munn Road	2023-08-09	9	30	Clear, rain last night
		2023-08-16	490	25	Clear, no recent rain
		2023-08-23	320	25	Clear, no recent rain
		2023-08-31	920	30	Clear, no recent rain
		2023-09-06	140	25	Clear, no recent rain
		2023-10-18	50	50	Clear, rain previous
		2023-10-25	410	300	Clear, heavy rain previous
		2023-11-01	1	50	Clear, no recent rain
		2023-11-08	4	700	Clear, drizzle in the morning
		2023-11-15	<1	1000	Clear, drizzle previous
SW0902	Joes Creek	2024-04-11	10	>250	Clear, rain three days ago
		2024-07-25	74	24	Clear, no recent rain
SW0913	West of bridge at east end of Esquimalt Lagoon	2024-01-26	3	7	Clear, rain previous
		2024-04-11	<1	8	Clear, rain three days ago
		2024-07-25		0	Dry, not sampled, no recent rain
SW0914	Curve in Ocean Blvd, 25 m west of SW0913	2024-01-26	4	40	Clear, rain previous
		2024-04-11	17	14	Clear, rain three days ago
		2024-07-25		0	Dry, not sampled, no recent rain
SW0915	20 m west of Belmont Park septic tanks	2024-04-11	40	24	Clear, rain three days ago
		2024-07-25		0	Dry, not sampled, no recent rain
SW0916	20 m east of Royal Road's boathouse, Colwood Creek	2023-03-17	5	1500	Clear, no rain prior
		2023-07-31	46	50	Clear, no recent rain
		2024-01-26	70	>350	Clear, rain previous
		2024-07-25	31	>200	Clear, no recent rain
SW0918	40 m west of 917, Royal Road's playing fields	2024-07-25			Pipe underwater, no recent rain
SW0920	Creek on west side of playing fields	2023-05-04	6	500	Clear, no rain prior
		2023-07-31	16	400	Clear, no recent rain
SW0921	65 m west of 920, from well defined channel	2024-04-22	2	200	Clear, rain yesterday

Table 1, Continued

Station ID	Station name	Sample Date	E. Coli CFU/100 mL	Flow Rate L/min	Sample comment
		2024-07-25	25	7	Clear, no recent rain
SW0922	100 m south of 921, Hatley Creek	2024-07-25	1	8	Clear, no recent rain
SW0926	Bee Creek	2023-03-17	2	1000	Clear, no rain prior
		2023-07-31	40	400	Clear, no recent rain
		2024-01-26	24	>350	Clear, rain previous
		2024-08-07	47	750	Clear, no rain
		2024-08-14	25	750	Clear, no rain
		2024-08-21	82	1000	Clear, rain three days ago
		2024-08-28	280	1200	Clear, very rain overnight
		2024-09-04	63	900	Clear, no rain
		2024-10-10	24	1500	Clear, rain previous
		2024-10-17	28	2000	Clear, rain previous
		2024-10-24	92	3000	Clear, no rain for three days
		2024-10-31	4	2000	Clear, rain previous
		2024-11-07	14	2000	Clear, no rain for three days
SW0927	Near Matilda Drive beach access, Miller Brook	2023-04-14	<1	30	Clear, no rain prior
		2023-07-28	220	30	Clear, no recent rain
		2024-04-22	<1	60	Clear, rain yesterday
		2024-09-11		<0.01	Flow too low, no rain
SW0928	Portsmouth Drive, Selleck Creek	2023-03-17	4	450	Clear, no rain prior
		2023-07-31	13	100	Clear, no recent rain
		2024-01-26	14	60	Clear, rain previous
		2024-08-07	25	650	Clear, no rain
		2024-08-14	58	650	Clear, no rain
		2024-08-21	170	900	Clear, rain three days ago
		2024-08-28	34	900	Clear, very rainy overnight
		2024-09-04	64	800	Clear, no rain
		2024-10-10	98	1000	Clear, rain previous
		2024-10-17	73	1000	Clear, rain previous
		2024-10-24	57	1500	Clear, no rain for three days
		2024-10-31	58	900	Clear, rain previous
		2024-11-07	13	1000	Clear, no rain for three days
SW0929	Foot of Anchorage Avenue	2023-03-28	130	50	Clear, no rain prior
		2023-07-28	240		Clear, unknown flow, no recent rain
		2024-04-22	17	50	Clear, rain yesterday
		2024-09-11		0	Dry, not sampled, no rain
SW0931	SW side of 3279 Anchorage Avenue, Lagoona Brook	2023-03-28	1	35	Clear, no rain prior

Table 1, Continued

Station ID	Station name	Sample Date	E. Coli CFU/100 mL	Flow Rate L/min	Sample comment
		2023-07-28	48	10	Clear, no recent rain
		2024-04-22	3	30	Clear, rain yesterday
		2024-09-11		0	Dry, not sampled, no rain
SW0932	Ditch discharging into south end of Esquimalt Lagoon	2023-03-28	<1	300	Clear, no rain prior
		2023-07-28	1	40	Clear, no recent rain
		2024-04-22	<1	220	Clear, rain yesterday
		2024-09-11	<1	10	Clear, no rain
SW0933	Pipe at south end of Esquimalt Lagoon	2023-03-28	1	300	Clear, no rain prior
		2023-07-28	20	40	Clear, no recent rain, u/s of eop
		2023-07-28	36	10	Clear, no recent rain, u/s of eop
		2024-04-22	37	200	Clear, rain yesterday
		2024-09-11	22	7	Clear, no rain
SW0934	Across the Street from 3330 Ocean Blvd	2023-03-28	1	5	Clear, no rain prior
		2023-07-28	22	10	Clear, no recent rain
SW0935	Top of bank on Ocean Blvd. East side of Milburn Drive	2023-03-28	<1	30	Clear, no rain prior
		2023-07-28		10	Not sampled dense blackberry growth
		2024-09-11		0	Dry, not sampled, no rain
SW0935A	Foot of Milburn Drive	2023-03-28	1	400	Clear, no rain prior
		2023-07-28	5	80	Clear, no recent rain
		2024-04-22	3	150	Clear, rain yesterday
		2024-09-11	10	6	Clear, no rain
SW0936	West side of Road. At Milburn Drive	2023-03-28	3	350	Clear, no rain prior
		2023-07-28	3	70	Clear, no recent rain
SW0939	15 m south of Ocean Blvd beach access	2024-04-22	9	40	Clear, rain yesterday
		2024-09-11	15	3	Clear, no rain
SW0940	35 m north of 3384B Ocean Blvd	2023-04-14	<1	40	Clear, no rain prior
		2023-07-28		<0.01	Flow too low, no recent rain
		2024-09-11		0	Dry, not sampled, no rain
SW6003	Discharge of Goldstream River	2023-04-14	2		No odour, clear, no rain prior
		2023-08-10	14	6000	No odour, clear, no recent rain
		2024-04-19	1	>5000	No odour, clear, no recent rain
		2024-09-20	50	>4000	No odour, clear, no rain
SW6006	West side of Saanich Inlet, north side of Hall's Boat House driveway	2023-04-14	54	5	No odour, clear, no rain prior
		2023-08-23		0	Dry, not sampled, no recent rain
		2024-09-20		0	Dry, not sampled, no rain

Table 1, Continued

Station ID	Station name	Sample Date	E. Coli CFU/100 mL	Flow Rate L/min	Sample comment
SW6008	North side of barn style building at 3680 Trans Canda Hwy	2023-04-14	<1	80	No odour, clear, no rain prior
		2023-08-10	<1	20	No odour, clear, no recent rain
		2024-09-20		0	Dry, not sampled, no rain

APPENDIX D

ESCHERICHIA COLI SAMPLING
QUALITY ASSURANCE AND QUALITY CONTROL PROGRAM

APPENDIX D

ESCHERICHIA COLI SAMPLING
QUALITY ASSURANCE AND QUALITY CONTROL PROGRAM FOR 2024

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APPENDIX D

ESCHERICHIA COLI SAMPLING
QUALITY ASSURANCE AND QUALITY CONTROL PROGRAM FOR 2024

1.0 INTRODUCTION

Quality assurance and quality control (QA/QC) programs are a set of protocols adopted to ensure that the results of a study are valid, internally consistent and comparable with similar projects. These protocols are set out in writing and based on current and relevant research. This appendix discusses:

- field sampling methods
- sample handling procedures
- analytical procedures
- field and laboratory replication (quality control)
- data assessment

The data collected for the stormwater monitoring QA/QC program are used to ensure consistency in field handling and analytical methods. If the data exceed a specified precision criterion, then the lab is notified of a potential problem in the procedure and steps are taken to resolve the issue.

2.0 METHODS FOR *ESCHERICHIA COLI* SAMPLING

2.1 Stormwater Discharge Sampling

Field samplers used sterile 500 mL wide-mouth disposable bottles containing 1.5 mL of sodium thiosulphate (for sample dechlorination) to collect stormwater discharge samples from the point of discharge. Bottles were supplied by Bureau Veritas in Victoria, BC. Care was taken to avoid contamination of the sample with substances that did not originate in the stormwater (e.g., salt water, other discharges) that may confuse the results. Labeled samples were stored in an insulated cooler with ice packs and delivered the same day to the laboratory. Bureau Veritas analyzed samples for *Escherichia coli* (*E. Coli*) bacteria following the procedures in Standard Methods (APHA, 1998) and reported as colony forming units/100 mL (CFU/100 mL).

2.1.1 Stormwater Sample Replicates (Field Splits)

Ten percent of the samples collected were replicated and the field replicate samples identified as "field splits". CRD staff collected a single sample in a 500 mL sample bottle and inverted 30 times to ensure that the sample was well-mixed. The sample was then split evenly into two separate bottles. Staff labelled the bottles and submitted them to Bureau Veritas for analysis. These samples were submitted as blind samples (not identified as field splits).

2.1.2 Quality Control Precision Assessment

In 2024, field staff collected 18 field splits at six stormwater discharges in the core area of the CRD. Samples were analyzed for *E. Coli* levels. Field splits were used to establish the precision criterion for the CRD Core Area, District of Sooke and Southern Gulf Island Electoral Area sampling programs. The discharges were chosen based on previous high, moderate, or low levels of *E. Coli* concentrations (two discharges for each category) to represent the varying *E. Coli* counts that would be analyzed. Staff collected three individual 500 mL grab samples at each of the six stations and split each into two replicate bottles. Staff also submitted three blank samples of potable water in 500 mL sample bottles as part of the assessment. Each sample had a unique identification number and was submitted blindly to the lab (i.e., the lab had no information about the sample).

2.1.3 Calculation of Laboratory Precision

Laboratory precision for *E. Coli* analysis (e.g., a measure of consistency by the lab) is determined by analyzing 18 pairs of field samples (field splits). The following, taken from Standard Methods, 18th Edition (APHA, 1998), explains the procedure for calculating the precision criterion and determining whether the log ranges for the field splits are “acceptable” or “unacceptable”:

- The data are arranged in pairs (D_1 and D_2). The log of each field measurement is determined (L_1, L_2) and the difference (range) in the log value between each pair of field splits is calculated: $R = (L_2 – L_1)$. An average range (Mean-R) is then determined for all of the pairs.

- The precision criterion is calculated by multiplying the Mean-R by 3.27 and is rounded to one decimal place.

- The log range (R) is calculated for each of the field splits and compared to the precision criterion, to determine whether the sample is acceptable or not, according to the following criterion:

  Acceptable (A) If the calculation is less than the precision criterion, then the field data are within normal variability.

  Unacceptable (U) If the calculation is greater than the precision criterion, then the field data are outside of the normal variability. All data collected after the last "acceptable" set of data should be discarded and no further analysis should be done until the source of the problem is identified by the lab.

It is important not to put too severe an interpretation on the results from the QA calculation, especially when they are close to the "unacceptable" guideline. Each result represents a value within a 95% confidence interval, which gets proportionately larger as the actual result gets smaller. Therefore, one can expect 5% of the samples to be outside of the precision criterion, through randomness. Also, any *E. Coli* count under 200 FC/100 mL is considered too small an amount to accurately calculate or compare to a precision criterion (APHA, 1998). It is also important to note that discharges with *E. Coli* counts lower than 200 FC/100 mL receive a low public health concern rating.

The results are rounded to one decimal place and compared to the precision criterion (e.g., 0.5). If the calculated value from the duplicate results still exceeds the criterion (e.g., 0.55 or greater), then an informal investigation of the laboratory should be initiated. If only a few duplicates are unacceptable (e.g., one out of every twenty pairs of duplicates), the lab is probably meeting the guideline.

The overall process is intended to act as an "alarm", alerting the study group to potential problems with the sampling and analytical procedures. As part of the review, the following elements are considered:

- the number of pairs exceeding the criterion
- the actual *E. Coli* value of the pairs of data
- field notes on the "field split" procedure
- comments from the laboratory

3.0 RESULTS

3.1 Quality Assurance Results

Field staff collected 18 pairs of stormwater samples from six discharges having historically high, moderate or low levels of *E. Coli* bacteria. Staff blindly submitted samples to the lab for analysis of the *E. Coli* concentration and used the data to calculate the precision criterion.

3.1.1 Blanks

Field staff submitted three blank samples (CRD tap water) to the lab for analysis for *E. Coli* bacteria. Blanks were reported as having <10 CFU/100 mL. Therefore, the results meet the QA requirements.

3.1.2 Precision Criterion

Table 1 shows the lab results of the 18 pairs of samples used to determine the precision criterion for the 2024 Stormwater Monitoring Program. The calculated criterion for this laboratory, using these 18 sets of duplicates was 0.4.

3.1.3 Field Splits

Wet Weather Sampling

Table 2 presents the results for the field splits collected in the core area during the wet period of the 2024 Stormwater Sampling Program. Data were compared to the precision criterion (0.4), as described in Section 3.1.2. None of the field splits exceeded the precision criterion, therefore, the results are acceptable.

Dry Weather Sampling

Table 3 presents the results for the field splits collected in the core area during the dry period of the 2024 Stormwater Sampling Program. None of the field splits exceeded the precision criterion, therefore, the results are acceptable.

4.0 CONCLUSIONS

Requirements for the Stormwater Monitoring QA/QC Program were carried out in 2024. The QA/QC results were acceptable for rating stormwater discharges for public health concerns.

5.0 REFERENCES

APHA, 1998. American Public Health Association, American Water Works Association, Water Pollution Control Federation, 20th Edition. Standard Methods for the Examination of Water and Wastewater.

Drinnan, R.W. 1995. Memo to R. Miller, CRD Engineering, February 7; 4pp.

Hutcheson, D. 1995. Memo to R. Miller, CRD Engineering, February 7; 2pp.

Table 1 Laboratory Quality Assurance Exercise Results for 2024

CRD Data, Batch Samples: 18 pairs, January 2024						
Discharge No.	**Pair No.**	**1st Duplicate D1**	**2nd Duplicate D2**	**Log D1 L1**	**Log D2 L2**	**Range of Logs (Rlog) (L1 - L2)**
320	1	320	210	2.5051	2.3222	0.1829
	2	200	170	2.3010	2.2304	0.0706
	3	210	170	2.3222	2.2304	0.0918
245	1	220	370	2.3424	2.5682	0.2258
	2	300	290	2.4771	2.4624	0.0147
	3	360	300	2.5563	2.4771	0.0792
447	1	7000	1500	3.8451	3.1761	0.6690
	2	2600	1600	3.4150	3.2041	0.2109
	3	1800	2600	3.2553	3.4150	0.1597
222	1	8900	9000	3.9494	3.9542	0.0049
	2	8100	8300	3.9085	3.9191	0.0106
	3	5700	5600	3.7559	3.7482	0.0077
777A	1	15000	15000	4.1761	4.1761	0.0000
	2	13000	17000	4.1139	4.2304	0.1165
	3	14000	12000	4.1461	4.079	0.0669
744B	1	110000	100000	5.0414	5.000	0.0414
	2	89000	110000	4.9494	5.041	0.0920
	3	88000	100000	4.9445	5.000	0.0555
Mean - R_{log} (Sum R_{log}/18)						0.1167
Precision Criterion (3.27 x Mean-R_{log})						0.3815

Table 2 Laboratory Quality Assurance Results – Wet Period 2024

Date	Discharge Number	E. Coli Counts CFU/100 mL	Log	Log Range	Acceptable (A) or Unacceptable (U)
12-Feb	775	3000	3.4771	0.0000	A
		3000	3.4771		
13-Feb	212	20	1.3010	0.1761	A
		30	1.4771		
27-Feb	781	420	2.6232	0.0918	A
		340	2.5315		
4-Mar	237	250	2.3979	0.1192	A
		190	2.2788		
11-Mar	655	1	0.0000	0.0000	A
		1	0.0000		
14-Mar	777A	2400	3.3802	0.0669	A
		2800	3.4472		
14-Mar	620	15000	4.1761	0.0621	A
		13000	4.1139		
21-Mar	879	1	0.0000	0.0000	A
		1	0.0000		
27-Mar	671	15000	4.1761	0.1663	A
		22000	4.3424		
4-Apr	527	6	0.7782	0.1761	A
		4	0.6021		
10-Apr	614	15000	4.1761	0.0544	A
		17000	4.2304		
11-Apr	854	10000	4.0000	0.1139	A
		13000	4.1139		
11-Apr	915	40	1.6021	0.1707	A
		27	1.4314		
19-Apr	690D	50	1.6990	0.1271	A
		67	1.8261		
22-Apr	875	1	0.0000	0.0000	A
		1	0.0000		
24-Apr	697	680	2.8325	0.0401	A
		620	2.7924		
24-Apr	867	310	2.4914	0.1112	A
		240	2.3802		
25-Apr	737	6	0.7782	0.3010	A
		12	1.0792		
14-May	505	14	1.1461	0.3680	A
		6	0.7782		

Notes:
*Counts below 200 CFU/100 mL are not expected to meet the criterion.
5% of samples will have results outside of the precision criterion, through randomness.

Table 3 Laboratory Quality Assurance Results – Dry Period 2024

Date	Discharge	Field Split Fecal Coliform Counts	Log	Log Range	Acceptable (A), Unacceptable (U) or Conditionally Acceptable (U*)
8-Jul	214	14	1.1461	0.1461	A
		10	1.0000		
8-Jul	222	62000	4.7924	0.0465	A
		69000	4.8388		
19-Jul	607A	200	2.3010	0.0607	A
		230	2.3617		
19-Jul	620	8000	3.9031	0.0000	A
		8000	3.9031		
22-Jul	614	250	2.3979	0.0334	A
		270	2.4314		
24-Jul	805	390000	5.5911	0.0621	A
		450000	5.6532		
29-Jul	317	13	1.1139	0.2083	A
		21	1.3222		
30-Jul	322	2200	3.3424	0.0378	A
		2400	3.3802		
7-Aug	316	6700	3.8261	0.0190	A
		7000	3.8451		
9-Aug	3142	290	2.4624	0.2863	A
		150	2.1761		
13-Aug	508	27	1.4314	0.1001	A
		34	1.5315		
22-Aug	760	32	1.5051	0.1072	A
		25	1.3979		
5-Sep	653	430	2.6335	0.0207	A
		410	2.6128		
10-Sep	574	2400	3.3802	0.0378	A
		2200	3.3424		
11-Sep	538A	86	1.9345	0.0772	A
		72	1.8573		
18-Sep	310	500	2.6990	0.1523	A
		710	2.8513		
18-Sep	806	7900	3.8976	0.0525	A
		7000	3.8451		
20-Sep	709B	690	2.8388	0.0259	A
		650	2.8129		

Notes:
*Discharges with counts below 200 CFU/100 mL are not expected to meet the criterion.
5% of samples will have results outside of the precision criterion, through randomness.

APPENDIX E

CORE AREA STORMWATER CONTAMINANT DATA

Table 1 Stormwater Sediment Contaminant Data

Station Name		Sample Date	Arsenic	Cadmium	Chromium	Copper	Lead	Mercury	Silver	Zinc	Carbon normalized LPAH	Carbon normalized HPAH	Sample comment
		CRD MSQG	57	5.1	260	390	450	0.41	6.1	410	370	960	
		CCME ISQG	7.24	0.7	52.3	18.7	30	0.13	1	124	-	-	
		CCME PEL	42	4.2	160	108	112	0.7	2.2	271	-	-	
Vancouver Island Soil Background			4	0.95	65	100	40	0.15	1	150	-	-	
SW0244	McNeill Bay	2023-04-19	2.76	0.113	28.8	*35.4*	20.9	<0.05	<0.05	90.9	0.094	0.647	Sand and dark fines
SW0309	End of Windsor Road	2023-08-11	5.02	0.1	30.9	131	80	<0.05	0.12	115	0.175	1.138	
SW0316	Bowker Creek, Somass Drive	2024-09-04	4.9	0.107	25.8	*37.4*	17.5	<0.05	<0.05	*132*	0.001	0.006	Grey sand and gravel
SW0316	Bowker Creek, Somass Drive	2024-12-02	5.49	0.111	22.2	*30.5*	224	0.083	0.076	108	0.318	2.235	
SW0316-3B	Bowker Creek, Pearl Street	2024-12-02	4.08	0.111	21.9	*25.9*	10.5	0.076	<0.05	85	0.070	0.475	
SW0316-4B	Bowker Creek, Browning Park	2024-12-02	2.38	0.133	26.4	*59.9*	23.3	<0.05	<0.05	105	1.974	4.211	
SW0316-5	Bowker Creek, Gordon Head Road	2024-12-02	3.96	0.086	25.7	*23.6*	7.44	<0.05	<0.05	80.1	0.019	0.125	
SW0503	Hobbs Creek; Cadboro Bay	2024-05-14	2.2	0.098	20.3	*34.1*	7.68	<0.05	<0.05	51.8	0.018	0.079	Grey sand and fines
SW0505	Diffuser; Gyro Park, Cadboro Bay	2024-05-14	2.26	0.123	16.3	*45.7*	43.3	0.213	0.104	92.1	0.232	0.677	Dark grey sand and fines
SW0558	East of Mt Douglas Beach Access	2023-04-19	2.58	0.117	21.4	*51.4*	8.57	<0.05	0.074	*124*	0.007	0.071	Sand
SW0558	East of Mt Douglas Beach Access	2023-06-12	4.74	0.435	34.9	131	19.9	0.118	0.206	262	0.007	0.042	Brown fines and organics
SW0559	Mt. Doug Creek, Cordova Bay	2023-04-19	3.25	0.085	20	*21.3*	7.05	<0.05	<0.05	91.3	0.048	0.336	Sand and fine mud
SW0559	Mt. Doug Creek, Cordova Bay	2023-06-12	3.36	0.075	20.4	*24.1*	6.69	<0.05	<0.05	87.9	0.160	0.550	Grey sand and fines
SW0592	Noble Creek, 5575 Parker Road	2023-06-12	4.65	0.371	36.2	*46.6*	10.6	0.073	0.143	120	0.002	0.014	Brown fines and mud
SW0641	Mouth of Cecelia Creek	2023-09-14	3.6	0.13	29.5	*48.9*	27.4	0.066	<0.05	*129*	0.069	0.537	Grey coarse sand and fines
SW0641-3D	Cecelia Creek, Concrete Pipe	2024-07-18	2.24	0.149	50.9	*48.9*	27.5	0.086	<0.05	154	1.774	2.903	Dark sand, gravel, paint flecks, sheen
SW0645	Carrol Street Easement	2023-04-21	4.68	0.225	37	*56.6*	60.6	<0.05	<0.05	*142*	0.055	0.455	Small gravel, sand and fines, rain
SW0655	Gorge Park, East of Gorge Bridge	2023-04-27	3.85	0.139	29.7	*52.3*	87.3	0.055	<0.05	103	0.003	0.056	Dark grey gravel and fines
SW0687	Portage Inlet at 2892 Westing Road	2023-04-24	5.41	0.26	28.3	*57.5*	*33.9*	0.122	0.312	225	0.039	0.253	No odour, clear flow
SW0687	Portage Inlet at 2892 Westing Road	2024-05-10	2.35	0.14	25.5	*42.5*	15	0.089	0.128	112	0.063	0.326	Light brown fines, sand and organics
SW0687	Portage Inlet at 2892 Westing Road	2024-09-09	3.56	0.146	27.1	*50*	46.9	*0.147*	0.071	193	0.049	0.313	Dark grey sand and gravel
SW0710	South of Helmcken Road Bridge	2024-09-09	2.32	0.104	43.5	*81.5*	9.11	0.08	<0.05	154	2.667	8.800	Dark grey sand, fines, gravel, paint flecks
SW0722	Craigflower Bridge, PVC Pipe	2023-04-03	2.54	0.142	36.4	*61.6*	9.88	0.095	0.053	*138*	0.025	0.085	Sand and dark fines
SW0737	Foot of Garthland Road	2023-04-03	3.7	0.122	27.8	*47.6*	11.3	0.082	0.055	*126*	0.718	3.455	Clay sand light coloured
SW0737	Foot of Garthland Road	2023-06-13	3.18	0.1	26.4	*42.4*	16.8	<0.05	0.07	92	1.059	3.941	Dark grey sand and fines
SW0737	Foot of Garthland Road	2024-04-25	2.37	0.077	30.5	*49*	10.2	<0.05	<0.05	205	4.337	12.048	Grey clay sand and pebbles
SW0737	Foot of Garthland Road	2024-08-22	3	0.105	29.6	*50*	13.6	0.128	0.071	*128*	1.091	4.182	Grey/black sandy sediment, asphalt odour
SW0737	Foot of Garthland Road	2025-01-17	3.44	0.112	38.4	*52.9*	19.9	<0.05	0.059	116	0.607	2.619	Grey sand and gravel
SW0866	Portage Park	2024-04-23	5.34	0.496	36.9	*77.9*	28.5	0.085	0.155	527	0.006	0.022	Dark organics (decomposing leaves)
SW0866	Portage Park	2024-09-06	5.25	0.422	31.9	*68.4*	*32.3*	0.076	0.122	477	0.004	0.016	Brown mud, clear
SW0874	Heddle Avenue, Tovey Bay	2023-05-04	5.12	0.379	28.5	*56.9*	29.6	0.123	1.38	290	0.002	0.013	Soil, no flow
SW0886-2	Mill Stream, near 1730 Island Hwy	2023-09-14	1.46	0.05	21.4	*20.3*	4.7	<0.05	<0.05	60.9	0.216	0.531	Grey sand and fines
SW0886-6	Mill Stream at Treanor Avenue	2023-09-14	2.43	0.094	28.1	*36*	5.14	0.061	<0.05	89.2	0.025	0.059	Darker grey sand and fines
SW0902	Esquimalt Harbour, DND	2024-04-11	5.74	0.306	39.5	*54.7*	*31.7*	0.08	0.151	190	0.029	0.155	Grey/brown fines and organics
SW0921	Esquimalt Harbour	2024-04-23	1.81	0.07	18.2	15.4	3.74	<0.05	0.067	56.4	<0.003	0.003	Light coloured sand and fines
SW0922	Hatley Creek	2024-04-23	7.29	0.125	12.6	6.94	8.46	<0.05	<0.05	27.8	0.001	0.004	Sand and dark organic fines
SW0926	Bee Creek	2024-04-23	1.57	<0.05	14.1	9.17	3.53	<0.05	<0.05	28.5	0.086	0.310	Fine light coloured sand and fines
SW0926	Bee Creek	2024-09-04	2.7	0.169	20.3	*18.8*	6.09	0.059	<0.05	48	0.350	3.250	Grey sand and gravel
SW0927	Miller Brook, Esquimalt Lagoon	2023-04-14	15.3	0.313	17.1	*44.4*	29.5	*0.138*	0.083	119	0.003	0.014	Dark fines and organic matter
SW0928	Selleck Creek	2024-04-23	1.86	0.083	21.8	*24*	6.25	<0.05	<0.05	62.6	0.108	0.604	Dark organic sediments and sand
SW0934	Across From 3330 Ocean Blvd.	2023-03-28	2.32	0.106	28.2	*42.3*	11.9	<0.05	0.062	77.2	0.011	0.059	Fine dark organics
SW0980-5	Bilston Creek at Winter Road	2023-10-04	3.22	0.062	19.9	*19*	3.79	<0.05	<0.05	55	0.008	0.028	No odour, clear
SW6008	Saanich Inlet; TransCanada Hwy	2023-04-14	4.4	0.258	38.2	*48.8*	9.32	<0.05	0.068	245	0.014	0.066	Light coloured fines

Table notes on next page.

Table 1, Continued

Notes

Concentrations are in mg/kg dry weight.
CRD MSQG = Marine sediment quality guidelines adopted from Washington State's Department of Ecology for protection of aquatic life.
LPAH and HPAH are low and high molecular weight polycyclic aromatic hydrocarbons, respectively.
CCME = Canadian Council of Ministers of the Environment.
ISQG = Interim sediment quality guideline; concentrations above this level but below the PEL will occasionally result in adverse effects on aquatic life.
PEL = Probable effects level; concentrations above this level will frequently result in adverse effects to aquatic life.
Vancouver Island Background Concentrations are regional estimates (95th percentiles) from BC MOE; https://www2.gov.bc.ca/assets/gov/environment/air-land-water/site-remediation/docs/protocols/protocol_4.pdf

XX	Italicized values are those that exceed a guideline but are below the Vancouver Island background concentration.
XX	Value is greater than or equal to the CCME ISQG.
XX	Value is greater than or equal to the CCME PEL.
XX	Value it greater than or equal to CRD MSQG and adverse effects to aquatic life are likely to occur.

For mercury only, the CRD MSQG is lower than the CCME PEL.
Some samples are not collected at discharge to marine, therefore marine guidelines are not applicable but used for screening purposes, see Table 4 for freshwater comparisons.

Table 2 Calculation of Sediment Contaminant Ratings

Station Name	Sample Date	Ratios of Contaminant Concentration to CRD Sediment Quality Guideline										TEQ	Rating
		Arsenic	Cadmium	Chromium	Copper	Lead	Mercury	Silver	Zinc	LPAH	HPAH		
	CRD MSQG	57	5.1	260	390	450	0.41	6.1	410	5.2	12		
SW0244	2023-04-19	0.05	0.02	0.11	0.09	0.05	0.12	0.01	0.22	0.03	0.09	0.79	Low
SW0309	2023-08-11	0.09	0.02	0.12	0.34	0.18	0.12	0.02	0.28	0.03	0.08	1.27	Moderate
SW0316	2024-09-04	0.09	0.02	0.10	0.10	0.04	0.12	0.01	0.32	0.00	0.00	0.80	Low
SW0316	2024-12-02	0.10	0.02	0.09	0.08	0.50	0.20	0.01	0.26	0.01	0.03	1.30	Moderate
SW0316-3B	2024-12-02	0.07	0.02	0.08	0.07	0.02	0.19	0.01	0.21	0.01	0.02	0.69	Low
SW0316-4B	2024-12-02	0.04	0.03	0.10	0.15	0.05	0.12	0.01	0.26	0.29	0.27	1.32	Moderate
SW0316-5	2024-12-02	0.07	0.02	0.10	0.06	0.02	0.12	0.01	0.20	0.00	0.01	0.60	Low
SW0503	2024-05-14	0.04	0.02	0.08	0.09	0.02	0.12	0.01	0.13	0.00	0.01	0.51	Low
SW0505	2024-05-14	0.04	0.02	0.06	0.12	0.10	0.52	0.02	0.22	0.14	0.18	1.41	Moderate
SW0558	2023-04-19	0.05	0.02	0.08	0.13	0.02	0.12	0.01	0.30	0.01	0.03	0.77	Low
SW0558	2023-06-12	0.08	0.09	0.13	0.34	0.04	0.29	0.03	0.64	0.01	0.04	1.69	Moderate
SW0559	2023-04-19	0.06	0.02	0.08	0.05	0.02	0.12	0.01	0.22	0.01	0.03	0.61	Low
SW0559	2023-06-12	0.06	0.01	0.08	0.06	0.01	0.12	0.01	0.21	0.01	0.01	0.59	Low
SW0592	2023-06-12	0.08	0.07	0.14	0.12	0.02	0.18	0.02	0.29	0.00	0.01	0.94	Low
SW0641	2023-09-14	0.06	0.03	0.11	0.13	0.06	0.16	0.01	0.31	0.01	0.02	0.90	Low
SW0641-3D	2024-07-18	0.04	0.03	0.20	0.13	0.06	0.21	0.01	0.38	0.21	0.15	1.41	Moderate
SW0645	2023-04-21	0.08	0.04	0.14	0.15	0.13	0.12	0.01	0.35	0.02	0.08	1.13	Moderate
SW0655	2023-04-27	0.07	0.03	0.11	0.13	0.19	0.13	0.01	0.25	0.00	0.01	0.94	Low
SW0687	2023-04-24	0.09	0.05	0.11	0.15	0.08	0.30	0.05	0.55	0.06	0.17	1.60	Low
SW0687	2024-05-10	0.04	0.03	0.10	0.11	0.03	0.22	0.02	0.27	0.01	0.03	0.86	Low
SW0687	2024-09-09	0.06	0.03	0.10	0.13	0.10	0.36	0.01	0.47	0.01	0.03	1.30	Moderate
SW0710	2024-09-09	0.04	0.02	0.17	0.21	0.02	0.20	0.01	0.38	0.38	0.55	1.97	Moderate
SW0722	2023-04-03	0.04	0.03	0.14	0.16	0.02	0.23	0.01	0.34	0.01	0.01	0.98	Low
SW0737	2023-04-03	0.06	0.02	0.11	0.12	0.03	0.20	0.01	0.31	0.15	0.32	1.33	Moderate
SW0737	2023-06-13	0.06	0.02	0.10	0.11	0.04	0.12	0.01	0.22	0.35	0.56	1.59	Moderate
SW0737	2024-04-25	0.04	0.02	0.12	0.13	0.02	0.12	0.01	0.50	0.69	0.83	2.48	Moderate
SW0737	2024-08-22	0.05	0.02	0.11	0.13	0.03	0.31	0.01	0.31	0.23	0.38	1.60	Moderate
SW0737	2025-01-17	0.06	0.02	0.15	0.14	0.04	0.12	0.01	0.28	0.10	0.18	1.11	Moderate
SW0866	2024-04-23	0.09	0.10	0.14	0.20	0.06	0.21	0.03	1.29	0.02	0.02	2.15	**High**
SW0866	2024-09-06	0.09	0.08	0.12	0.18	0.07	0.19	0.02	1.16	0.01	0.02	1.94	**High**
SW0874	2023-05-04	0.09	0.07	0.11	0.15	0.07	0.30	0.23	0.71	0.01	0.02	1.74	Moderate
SW0886-2	2023-09-14	0.03	0.01	0.08	0.05	0.01	0.12	0.01	0.15	0.01	0.01	0.49	Low
SW0886-6	2023-09-14	0.04	0.02	0.11	0.09	0.01	0.15	0.01	0.22	0.00	0.00	0.65	Low
SW0902	2024-04-11	0.10	0.06	0.15	0.14	0.07	0.20	0.02	0.46	0.03	0.07	1.31	Moderate
SW0921	2024-04-23	0.03	0.01	0.07	0.04	0.01	0.12	0.01	0.14	0.00	0.00	0.43	Low
SW0922	2024-04-23	0.13	0.02	0.05	0.02	0.02	0.12	0.01	0.07	0.01	0.02	0.46	Low
SW0926	2024-04-23	0.03	0.01	0.05	0.02	0.01	0.12	0.01	0.07	0.01	0.01	0.34	Low
SW0926	2024-09-04	0.05	0.03	0.08	0.05	0.01	0.14	0.01	0.12	0.01	0.05	0.56	Low
SW0927	2023-04-14	0.27	0.06	0.07	0.11	0.07	0.34	0.01	0.29	0.02	0.04	1.28	Moderate
SW0928	2024-04-23	0.03	0.02	0.08	0.06	0.01	0.12	0.01	0.15	0.10	0.24	0.83	Low
SW0934	2023-03-28	0.04	0.02	0.11	0.11	0.03	0.12	0.01	0.19	0.01	0.02	0.65	Low
SW0980-5	2023-10-04	0.06	0.01	0.08	0.05	0.01	0.12	0.01	0.13	0.00	0.01	0.48	Low
SW3005-2A	2023-04-12	0.03	0.02	0.05	0.04	0.01	0.29	0.01	0.20	0.00	0.01	0.66	Low
SW6008	2023-04-14	0.08	0.05	0.15	0.13	0.02	0.12	0.01	0.60	0.01	0.02	1.18	Moderate

Table notes next page.

Table 2, Continued

Notes

This table shows the ratio of contaminant concentration to CRD Marine Sediment Quality Guideline.
*CRD MSQG = Marine sediment quality guidelines adopted from Washington State's Department of Ecology for protection of aquatic life.
LPAH and HPAH are low and high molecular weight polycyclic aromatic hydrocarbons, respectively.
XX Value is approaching (ratio >0.75) or greater than (ratio is >1) the CRD MSQG and adverse effects to aquatic life probable.
TEQ is toxicity equivalency quotient which is a sum of all the ratios as an indicator of overall probable adverse effect from all contaminants.
Ratings are calculated as follows: low if the ratio sum (TEQ) is < 1; moderate if it is > 1 with no individual ratios greater than 0.75 and high if an individual ratio is > 0.75.
Some samples are not collected at discharge to marine, therefore marine guidelines are not applicable but used for screening purposes, see Table 4 for freshwater comparisons.

Table 3 Summary of Sediment Chemical Contaminant Ratings and Recommendations

Discharge[1]	Figure	Jurisdiction	Sediment Contaminant Ratings Over Time							Notes & Recommendations
			2018	2019	2020	2021	2022	2023	2024	
210 West of Holland Point	37	Victoria	_	_	Low	_	_	_	_	Small residential catchment, historically low. Resample in 2026.
212 East of Finlayson Point	39	Victoria	Moderate	Low	Low	Low	_	_	_	Metals slightly elevated in water. Resample in 2026.
216 Ross Bay	40	Victoria	No sediment	Low	_	_	_	Moderate based on water	_	Elevated mercury u/s in seds and discharge; 216 is tidal, sampled at 216-3A. Narrowed down a source of Hg. Hg detected after relining done. Metals intermittently elevated in water. Sewage present. Resample in 2025.
218 Ross Bay	40	Victoria	_	_	NR	Low	_	_	_	Difficult to find sediment. Elevated metals in water including Pb and Ag in 2022; lower in 2023. Continue water sampling. Resample seds in 2026.
229 Gonzales Bay	41	Victoria	_	_	_	-	_	_	_	Small residential catchment; tidal; no sediment available; contaminants low in water.
244 McNeill Bay	43	Oak Bay	_	_	_	_	_	Low	_	 Confirm rating
245 McNeill Bay	43	Oak Bay	_	_	_	_	_	Moderate based on water	_	Low in 2001, 2004, 2013. No sediment in 2018. Elevated aqueous Cu and soap suds.
250 McNeill Bay	43	Oak Bay	_	_	_	_	_	_	_	250-2A is POD but doesn't drain whole catchment and is tidal. PAHs elevated in sediment but not detected in water; slightly elevated metals in water. **Took off of action list.** 250-1A is high and 250-2A is moderate. Historical PAH contamination upstream.
306 Orchard and Newport Avenue	45	Oak Bay	High	High u/s	High u/s	_	_	_	_	Elevated HPAH and lead in past sediment. **Action Required**. No sediment at discharge; elevated PAH and lead at 306-2a (Newport Ave and Currie Rd), PAH and lead low in water. Sample in 2025.
307 Oak Bay Marina	45	Oak Bay	High	High	-	Moderate at 307-2A	_	_	_	Sampled at 307 and 307-2. Elevated PAH, mercury, lead and zinc. **Action Required**: Oak Bay cleaned out manholes at Currie and Newport in 2021. Narrowed down to intersection of Newport and Currie. Confirm rating at 307-2.
310 Windsor Road	45	Oak Bay	_	High u/s	-	_	_	Moderate	_	Copper, lead, zinc and PAH elevated (310-1). Other contaminants upstream. Low at 310-5 in 2016 elevated PAH in 2019. Low contaminants in water except during first flush. Contamination at Windsor and Monterey. **Action Required**: Oak Bay cleaned out manholes in 2021. Confirm rating.
311 1420 Beach Drive	45	Oak Bay	_	_	_	_	_	_	_	Short line, packed with beach sand in 2017. Intertidal. Cease sampling.
316 Bowker Creek	46	Oak Bay	_	Low	_	_	_	_	Low	Discharge rated low. Upstream, 316-5D rated high due to copper and zinc. Sample in 2029.
320 Dalhousie Street	46	Oak Bay	Low	_	_	_	_	_	_	Resample sediment in 2026.
323 North Esplanade	46	Oak Bay	_	_	_	_	Low in water	Low in water	_	Resample sediment in 2026.
324 Cattle Point	46	Oak Bay	_	High	_	Low	Moderate	_	_	Sampled for first time in 2019; Elevated lead but doesn't drain into ocean. Cease sampling.
325 Rutland Road	48	Oak Bay	_	_	_	_	_	_	_	 Sample discharge in 2025.
327 Cadboro Bay	49	Oak Bay	Low	_	_	_	_	_	_	Resample in 2025.

Table 3, Continued

Discharge[1]	Figure	Jurisdiction	Sediment Contaminant Ratings Over Time							Notes & Recommendations
			2018	2019	2020	2021	2022	2023	2024	
503 Cadboro Bay	50	Saanich	Moderate	–	–	–	–	–	Low	Aqueous contaminants low. Resample in 2026.
505 Cadboro Bay	50	Saanich	High	High	High	Moderate u/s	–	Low in water	Moderate	Overflow for CRD's Penrhyn Station. Pb, Hg above CCME guideline. Discharge is tidal; sample 505-1 or 505-3. **Took off action list.** Saanich cleaned line out 2019. Sediment elevated in Hg upstream to Cadboro Bay Road but low in water. Continue monitoring and investigations.
558 Mt. Douglas Beach	59	Saanich	–	–	–	–	–	Low/Moderate	–	Confirm rating in 2026.
559 Douglas Creek	60	Saanich	–	–	–	Low	–	Low	–	Sample above weir (559-2) after spill June 17 had elevated zinc and PAHs. Resample in 2026.
574 Cordova Bay Road	63	Saanich	–	–	–	Low	–	–	–	Resample 2026.
578 Cordova Bay Road	63	Saanich	–	–	–	Low	–	–	–	Resample 2026.
586 Parker Avenue	64	Saanich	Low	–	–	–	–	–	–	Sample in 2025.
589 Burnham Brook	65	Saanich	–	–	–	Low	–	–	–	Drains golf course. Sample in 2026.
592 Noble Creek	65	Saanich	–	–	–	–	–	Low	–	Sample in 2025 (Noble Creek).
603 James Bay Anglers	36	Victoria	NA	–	–	–	–	–	–	Elevated zinc and PAH in 2017; no sediment in 2018 or 2020. Contaminants in water low in summer. **Action Required.** Sediment not available. Confirm lower rating. **Cu and Zn elevated in water.**
613 Government Street and Belleville	35	Victoria	–	–	–	–	–	–	–	Moderate (2014). Sampled at 613-2 (MH D2719). Elevated copper and zinc in water. Sample sediment in 2025.
613A Government Street and Belleville	35	Victoria	–	–	–	–	–	–	–	Rated high in 2014 due to mercury and zinc behind Crystal Gardens. Cease sampling, line is intertidal.
614 Wharf and Government	35	Victoria	Moderate	–	–	–	–	Contaminants in water	Contaminants in water	Elevated lead, mercury and zinc. tidal. 614-1a is a short tributary, from a shallow line that drops into the discharge, confirmed by dye. Samples trapped at 614-2 in 2009 and 2014. Sampled 614-1A in 2017. **Action Required.** CRD narrowed down a source. COV pumped out manhole at tourist sign and catchbasin in front of Empress Hotel.
620 North of Johnson Street Bridge	34	Victoria	–	–	–	–	–	Contaminants in water	–	**Action Required:** Consistently rated high for zinc but copper and lead elevated in past. Couldn't access site in 2018. Fire upstream in 2019, elevated metals in water. Resample.
627 Rock Bay	34	Victoria	–	–	–	–	–	–	–	Tidally influenced at discharge (627) and 627-3. **Action Required.** Access difficult.
629 Rock Bay	26	Victoria	–	–	–	–	–	–	**High based on water**	Water samples show elevated arsenic, cadmium, chromium, iron, lead, zinc and aqueous PAHs. **Action Required.** Access difficult.
630 Rock Bay	26	Victoria	–	–	–	–	–	Contaminants in water	**Contaminants in water**	Access difficult. Sample in 2025.
633 Bay Street Bridge	26	Victoria	–	–	–	–	**Low in sed / high in water**	–	High based on water	Difficult access. Low in sediment but elevated zinc and other metals in past at 633-2. Confirm rating **Action Required**. Elevated cadmium, chromium, copper, iron, lead, zinc and pyrene in water.

Table 3, Continued

Discharge[1]	Figure	Jurisdiction	Sediment Contaminant Ratings Over Time							Notes & Recommendations
			2018	2019	2020	2021	2022	2023	2024	
634 David Street	26	Victoria	–	–	–	–	–	–	–	**Action Required.** Rated high for zinc in 2009. Water samples show elevated iron, cadmium, chromium, copper, iron, lead and zinc.
635 Ralmax	26	Victoria	–	–	–	–	–	–	–	This discharge is tidal and can't be sampled upstream; sampling ceased.
636 S. Of Victoria Works Yard	26	Victoria	Metals elevated in water	–	–	–	–	–	–	Elevated zinc and other metals in sediment. **Action Required.** Elevated cadmium, chromium, copper, iron, lead and zinc in water.
641 Cecelia Creek	26	Victoria	Moderate	–	–	–	–	Low	Moderate	Chromium, zinc and PAH above freshwater sediment guidelines. Zinc high in water. Cross-connections fixed in 2024. Resample in 2027.
645 Carrol Street	27	Victoria	Moderate	–	–	–	–	Low	–	Lead above CCME ISQG; Confirm Rating.
649 Gorge Road Hospital	27	Victoria private	–	–	–	–	–	–	–	Copper, mercury and zinc elevated in sediment. Copper elevated and mercury detected in water, sewage present. **Action Required**. Hospital and Island Health investigating sources.
653 Cedar Shore Appts	27	Saanich	–	–	–	–	Low in water	–	–	Sample in 2025.
654 Cedar Shore Appts	27	Saanich private	–	–	–	–	–	–	–	Rated high in past, but potential tidal influence. Difficult to get sediment. Resample in 2025.
655 E. of Gorge Bridge	28	Saanich	–	–	–	–	**High**	Low	–	Lead elevated above ISQG. Confirm rating.
657 W. of Gorge Bridge	28	Saanich	–	–	–	–	–	–	–	Tidal, sample at 657-1. Small catchment, need traffic control, low in past, cease sampling.
669 Dysart Road	29	Saanich	–	–	–	–	–	–	–	Report of oil coming out of pipe in June 2018; no PAHS detected in water in 2020. No sediment in pipe in 2018 or 2019; Could not access in 2020. Confirm rating.
672 Adelaide Avenue	29	Saanich	–	Moderate	Low	–	–	–	–	Contaminants low in water. Resample in 2026.
679 Gorge and Admirals	29	Saanich	Low	–	–	–	–	–	–	Contaminants low in water. Resample in 2026.
687 Westing Road	30	Saanich	–	–	–	–	**High**	Moderate	Moderate	Small stream, elevated zinc and lead in one of two samples. Historical source? Confirm rating.
689 Below Admirals Road	33	Saanich	–	Low	Low	–	–	–	–	Resample in 2026.
690BB Foot of Dysart	33	Saanich	–	–	–	–	–	–	–	Tidal at discharge and no upstream sampling location.
690D Colquitz River	33	Saanich	–	–	–	–	–	–	–	No elevated metals in water. Resample in 2025.
690E Colquitz River	33	Saanich	–	Low	Low	–	–	–	–	Resample in 2025.
692 Portage Road	32	Saanich	–	Moderate	**High**	Moderate	–	–	–	Zinc elevated in sediment but low in water. Deteriorating pipe.
695 Camden Avenue	32	View Royal	–	Moderate	Low	–	–	–	–	Sampled at 695-1A; Resample in 2025.
697 Hospital Creek	31	View Royal	–	–	–	–	–	–	–	Zinc in ditch near hospital parking lot. Source narrowed down. Can't be sampled at discharge (sampling ceased).
698 Stillwater Road	31	View Royal	–	Moderate	–	–	–	–	–	Resample in 2025.
709B Craigflower Creek	31	View Royal	–	–	Low	–	–	–	–	Resample in 2025.

Table 3, Continued

Discharge[1]	Figure	Jurisdiction	Sediment Contaminant Ratings Over Time							Notes & Recommendations
			2018	2019	2020	2021	2022	2023	2024	
710 Helmcken Road Bridge	31	View Royal	Moderate	Moderate	–	–	–	–	Moderate	Zinc above CCME ISQG but concentration is low in water.
712 Old Island Hwy	30	View Royal	Low	High	Moderate	Moderate	Moderate	–	–	Low contaminants in water. Resample in 2027.
722 Craigflower Bridge	30	View Royal	–	–	–	Moderate based on water	Low based on water	Low	–	No seds in 2016, 2019 or 2020. Elevated copper in water in 2021, lower upon resampling.
726 Craigflower and Admirals	29	Esquimalt	Low	–	–	–	–	–	–	Low rating confirmed. Resample in 2024.
737 Garthland Road	29	Esquimalt	–	–	–	**High**	Low	Moderate	Moderate	PAHs intermittently elevated in sediment. PAH and zinc elevated in water samples. **Take off action list**. Source appears to be catchbasin at Garthland Pl (737-1). Asked Esquimalt to clean out manhole. Confirm rating.
742 Sioux Place	28	Esquimalt	–	Low u/s	High u/s	High u/s	High u/s	-	–	Sampled at 742-2 as 742 is tidal. Source narrowed. **Mercury 5X > guideline.** **Action Required.** Esquimalt has been notified. Low mercury on the golf course.
744 Gorge-Esquimalt Park	28	Esquimalt	–	–	Moderate	Moderate	–	–	–	Elevated zinc in sediment and slightly elevated in water. Resample in 2025.
749 Uganda Street	28	Esquimalt	–	–	–	–	–	–	–	Samples marine-influenced before 2008. Zinc and mercury elevated in 2017. Appears to be food waste present upstream. Oil spill in past. Copper slightly elevated in water. **Action Required.** Source narrowed down. Esquimalt contacted. Resample after action taken.
758A Bamfield Park	27	Victoria	–	–	–	–	–	–	–	Discharge is intertidal. Rating based on 758A-1. No sediment in 2020. Manhole not accessible. Water samples have relatively low contaminants.
767 Ocean Point Resort	25	Victoria	–	–	–	–	–	–	–	Short line, intertidal. Discharge not accessible. Zinc elevated in past. Removed from action list. Cease sampling.
780 Head Street	24	Esquimalt	–	–	–	–	–	–	Moderate based on water	No sediment available. Resample in 2025.
781 Head Street	23	Esquimalt	–	–	–	–	–	–	Moderate based on water	Elevated lead in 2015. Difficult to find sediment.
806 Kinver Street	22	Esquimalt	–	–	–	–	–	–	Moderate based on water	Copper and zinc in discharge; zinc and PAH u/s of Hatfield and Kinver but not farther u/s. **Action Required;** CRD narrowed down to within two blocks. Resample discharge.
847 Concrete building	19	DND	–	–	–	–	–	–	–	Rating confirmed. Can not access site. DND doing own monitoring. Cease sampling.
849 Fleet building	19	DND	–	–	–	–	–	–	–	Findings shared with DND.
866 Portage Park	16	View Royal	High u/s	–	Low	Moderate	–	–	**High**	Rated high due to elevated zinc. Zinc is low in water. Narrowed down; potentially historic source. Elevated copper and zinc in stream. VR cleaned out manhole and catchbasins upstream. Confirm rating.
873 Helmcken Road	16	View Royal	–	–	–	–	Moderate	–	–	Resample in 2027.
873A Helmcken Road	16	View Royal	–	–	–	–	–	–	–	Sampled at 873 to represent discharge of 873, 873A and 873C. Zinc elevated in ditch upstream likely due to corroded pipe. Zinc low at discharge.

Table 3, Continued

Discharge[1]	Figure	Jurisdiction	Sediment Contaminant Ratings Over Time							Notes & Recommendations
			2018	2019	2020	2021	2022	2023	2024	
873C Helmcken Road	16	View Royal	_	_	_	_	_	_	_	Sampled at 873 to represent discharge of 873, 873A and 873C. Corroded pipe u/s but zinc low at discharge.
874 Tovey Bay	15	View Royal	_	_	_	Moderate	Moderate	Moderate	_	Zinc above PEL in sediment. Source may be corroded pipe. Metals low in water. Action removed. Resample in 2026.
875 View Royal Avenue	15	View Royal	_	_	_	_	Low	_	_	Resample in 2027.
879 Price Road	15	View Royal	_	_	_	_	Moderate	_	_	Resample in 2027.
882 Parsons Bridge	13	View Royal	_	_	_	Moderate	_	_	_	No exceedances in water sample.
886 Millstream Creek	14	View Royal	Low	_	_	_	_	Low	_	Resample in 2026 (Mill Stream Creek).
887 Wilfert Road	14	View Royal	_	_	_	Low	_	_	_	Low in past. Difficult to find sediment.
902 Joe's Creek	13	DND	Low	_	_	_	_	_	Moderate	Metals low in water. Resample in 2025 (Joe's Creek).
916 Colwood Creek	9	Royal Roads	_	_	_	_	Low	_	_	Resample in 2027.
921	8	Royal Roads	_	Low	_	_	_	_	Low	Resample in 2029.
922 Hatley Creek	8	Royal Roads	_	Low	_	_	_	_	Low	Resample in 2029.
926 Bee Creek	8	Colwood	_	Low	Low	_	_	_	Low	Resample in 2029.
927 Miller Brook	8	Colwood	Low	_	_	_	_	Moderate	_	Confirm rating.
928 Selleck Creek	8	Colwood	_	Moderate	_	_	_	_	Low	Sampled with 5 in 30s; Resample in 2029.
931 Lagoona Brook	7	Colwood	_	Low	_	_	_	_	_	Resample in 2025.
932 S end Esquimalt Lagoon	7	Colwood	_	Low	_	_	_	_	_	Resample in 2025.
933 S end Esquimalt Lagoon	7	Colwood	_	_	_	_	Low	_	_	Resample in 2027.
934 Ocean Blvd	7	Colwood	_	_	_	Low	_	Low	_	Resample in 2028.
937 Ocean Blvd	7	Colwood	_	Low	_	_	_	_	_	Resample in 2025.
6003 Goldstream River	67	Langford	_	Low	_	_	_	_	_	Resample in 2026 as part of 5/30s.
6004 Saanich Inlet	67	Langford	_	Low	_	_	_	_	_	Resample in 2025.
6006 Saanich Inlet	68	Langford	_	_	_	_	Moderate	_	_	**Action Required.** Confirm rating; Elevated PAH in past; creosote log pile nearby. PAH in water above CCME ISQG.
6008 Trans Canada	68	Langford	Moderate	Moderate	_	_	_	Moderate	_	Slightly elevated zinc. Sample water in 2028.

Table notes next page.

Table 3, Continued

Notes:
[1] Contaminant rating for a discharge is based on point of discharge.
Ratings from 2012 to 2018 are displayed; refer to previous reports for ratings prior to 2010.
Metals: arsenic As, cadmium Cd, chromium Cr, copper Cu, lead Pb, mercury Hg, silver Ag and zinc Zn.
Organic substances: high and low molecular weight polycyclic aromatic hydrocarbons HPAH and LPAH.
u/s is upstream

Table 4 Freshwater Stream Sediment Analytical Data

Station	Sample Date		Arsenic	Cadmium	Chromium	Copper	Lead	Mercury	Silver	Zinc	LPAH*	HPAH*	Sample comment
	CCME ISQG		5.9	0.6	37.3	35.7	35	0.17	0.5	123	0.1	1	
	CCME PEL		17	3.5	90	90	91	0.486		315	-	-	
	*Vancouver Island Background***		4	0.95	65	100	40	0.15	1	150	-	-	
SW0316	Bowker Creek, Somass Drive	2024-09-04	4.9	0.107	25.8	*37.4*	17.5	<0.05	<0.05	*132*	0.01	0.03	Grey sand and gravel
SW0316	Bowker Creek, Somass Drive	2024-12-02	5.49	0.111	22.2	30.5	224	0.083	0.076	108	0.05	0.38	
SW0316-3B	Bowker Creek, Pearl Street	2024-12-02	4.08	0.111	21.9	25.9	10.5	0.076	<0.05	85	0.03	0.19	
SW0316-4B	Bowker Creek, Browning Park	2024-12-02	2.38	0.133	26.4	*59.9*	23.3	<0.05	<0.05	105	1.50	3.20	
SW0316-5	Bowker Creek, Gordon Head	2024-12-02	3.96	0.086	25.7	23.6	7.44	<0.05	<0.05	80.1	0.02	0.10	
SW0503	Hobbs Creek, Cadboro Bay	2024-05-14	2.2	0.098	20.3	34.1	7.68	<0.05	<0.05	51.8	0.02	0.08	Grey sand and fines
SW0505	Gyro Park, Cadboro Bay	2024-05-14	2.26	0.123	16.3	*45.7*	43.3	0.213	0.104	92.1	0.23	0.68	Dark grey sand and fines
SW0559	Mt. Doug Creek, Cordova Bay	2023-04-19	3.25	0.085	20	21.3	7.05	<0.05	<0.05	91.3	0.05	0.34	Sand and fine mud
SW0559	Mt. Doug Creek, Cordova Bay	2023-06-12	3.36	0.075	20.4	24.1	6.69	<0.05	<0.05	87.9	0.16	0.55	Grey sand and fines
SW0592	Noble Creek, 5575 Parker Road	2023-06-12	4.65	0.371	36.2	*46.6*	10.6	0.073	0.143	120	0.00	0.01	Brown fines and mud
SW0641	Mouth of Cecelia Creek	2023-09-14	3.6	0.13	29.5	*48.9*	27.4	0.066	<0.05	*129*	0.07	0.54	Grey coarse sand and fines
SW0641-3D	Cecelia Creek, concrete pipe	2024-07-18	2.24	0.149	50.9	*48.9*	27.5	0.086	<0.05	154	1.77	2.90	Sand, gravel, paint, sheen
SW0866	Portage Park	2024-04-23	5.34	0.496	36.9	*77.9*	28.5	0.085	0.155	527	0.01	0.02	Dark organics (leaves)
SW0866	Portage Park	2024-09-06	5.25	0.422	31.9	*68.4*	32.3	0.076	0.122	477	0.00	0.02	Brown mud, clear flow
SW0886-2	Mill Stream, 1730 Island Hwy	2023-09-14	1.46	0.05	21.4	20.3	4.7	<0.05	<0.05	60.9	0.22	0.53	Grey sand and fines
SW0886-6	Mill Stream at Treanor Avenue	2023-09-14	2.43	0.094	28.1	*36*	5.14	0.061	<0.05	89.2	0.03	0.06	Darker grey sand and fines
SW0922	Hatley Creek	2024-04-23	7.29	0.125	12.6	6.94	8.46	<0.05	<0.05	27.8	0.00	0.00	Sand and dark organic fines
SW0926	Bee Creek	2024-04-23	1.57	<0.05	14.1	9.17	3.53	<0.05	<0.05	28.5	0.09	0.31	Fine sand and organics
SW0926	Bee Creek	2024-09-04	2.7	0.169	20.3	18.8	6.09	0.059	<0.05	48	0.35	3.25	Grey sand and gravel
SW0927	Miller Brook, Esquimalt Lagoon	2023-04-14	15.3	0.313	17.1	*44.4*	29.5	0.138	0.083	119	0.00	0.01	Dark fines and organics
SW0928	Selleck Creek	2024-04-23	1.86	0.083	21.8	24	6.25	<0.05	<0.05	62.6	0.11	0.60	Dark sediments and sand
SW0980-5	Bilston Creek at Winter Road	2023-10-04	3.22	0.062	19.9	19	3.79	<0.05	<0.05	55	0.01	0.03	No odour, clear
SW6008	Saanich Inlet, TransCanada Hwy	2023-04-14	4.4	0.258	38.2	*48.8*	9.32	<0.05	0.068	245	0.01	0.07	Light coloured fines

Notes

Concentrations are in mg/kg dry weight.
LPAH and HPAH are low and high molecular weight polycyclic aromatic hydrocarbons, respectively.
CCME = Canadian Council of Ministers of the Environment.
ISQG = interim sediment quality guideline; concentrations above this level but below the PEL will occasionally result in adverse effects on aquatic life.
PEL = probable effects level; concentrations above this level will frequently result in adverse effects to aquatic life.
*PAH guidelines are the BC Environment and Parks (ENV) working sediment quality guidelines.
**Vancouver Island background soil concentration regional estimates (95th percentiles) from BC ENV.
https://www2.gov.bc.ca/assets/gov/environment/air-land-water/site-remediation/docs/protocols/protocol_4.pdf .

XX	Italicized values are those that exceed a guideline but are below the Vancouver Island background soil concentration.
XX	Value is greater than or equal to the CCME ISQG for freshwater aquatic life.
XX	Value is greater than or equal to the CCME PEL for freshwater quality life.

Table 5 Average Concentration of Contaminants in Stormwater

Discharge ID #	Area	# Samples	Aluminum	Antimony	Arsenic	Cadmium	Chromium	Cobalt	Copper	E. Coli	Flow	Hardness	Iron	Lead	Manganese	Mercury	Nickel	Selenium	Silver	Zinc
		n	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	CFU/100 mL	L/min	mg/L $CaCO_3$	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
BC Marine Guidelines (max/mean)			**-**	**270^**	**12.5**	**0.12^**	**56 (III)/ 1.5(VI)****	**-**	**3 / 2**	**400 / 200**	**-**	**-**	**-**	**140 /2**	**100^**	**0.02***	**8.3^**	**2 / 1**	**3.7 / 0.5**	**55 / 10**
SW0209	Victoria	4	121	0.47	1.07	0.031	0.64	0.209	5.5	367360	36	197	238	0.49	32		1.71	0.23	0.008	6.5
SW0210	Victoria	8	107	0.33	1.48	0.040	0.52	0.123	4.9	852	41	242	107	0.47	5		1.09	0.27	0.007	5.6
SW0211	Victoria	2	311	0.09	0.70	0.007	0.75	0.112	6.2	3	12	142	168	0.21	1		0.84	0.26	0.005	0.7
SW0212	Victoria	9	1164	0.90	1.18	0.029	*2.73*	0.884	8.6	371	38	162	1040	1.41	42		1.86	0.17	0.031	31.4
SW0214	Victoria	5	280	0.23	0.57	0.022	0.82	0.227	5.8	1953	147	95	500	1.89	18		1.08	0.14	0.013	12.3
SW0216	Victoria	12	494	0.60	1.40	0.029	1.44	0.461	12.1	37110	176	164	691	2.08	68	0.0030	2.86	0.31	0.023	23.4
SW0218	Victoria	8	1329	0.88	1.50	0.054	*3.93*	0.711	9.5	467	15	921	3064	7.45	117		3.59	0.49	0.068	17.7
SW0222	Victoria	6	580	0.35	0.81	0.028	1.36	0.476	7.7	29849	373	160	700	1.07	70		2.23	0.26	0.012	11.7
SW0227	Victoria	5	256	0.82	0.82	0.018	0.77	0.198	5.6	2022	9	112	224	1.11	9		1.82	0.09	0.010	7.0
SW0228	Victoria	1	290	0.91	1.58	0.010	1.28	0.174	7.8	2.0	1	90	361	0.54	72		1.53	0.06	0.015	5.4
SW0228A	Victoria	2	41	0.49	0.29	0.010	0.49	0.055	18.9	4	1	13	22	0.11	2		0.45	0.06	0.010	8.3
SW0229	Victoria	6	244	0.54	0.83	0.025	1.03	0.256	5.6	999	8	132	221	0.92	9		1.87	0.20	0.013	11.8
SW0230	Victoria	5	150	0.31	0.51	0.017	0.59	0.200	7.4	19358	23	146	172	0.55	14		1.28	0.19	0.011	11.0
SW0231	Oak Bay	4	77	0.33	0.64	0.008	0.27	0.115	4.2	87	6	102	113	0.24	15		0.75	0.09	0.008	4.3
SW0236	Oak Bay	5	81	0.62	0.48	0.009	1.36	0.137	5.4	7774	7	172	50	0.16	6		3.82	0.26	0.009	8.6
SW0237	Oak Bay	5	186	0.55	0.74	0.019	1.29	0.237	10.0	839	4	128	214	1.54	7		2.23	0.14	0.011	15.2
SW0238	Oak Bay	1	33	0.05	0.17	0.008	0.14	0.093	2.4	96	3	60	29	0.13	3		0.53	0.06	0.010	5.6
SW0244	Oak Bay	7	115	0.39	1.39	0.011	0.69	0.126	5.0	1086	9	118	85	0.27	10		1.21	0.17	0.009	4.8
SW0245	Oak Bay	11	242	0.63	1.17	0.019	1.10	0.255	20.9	7424	80	141	401	0.74	24		2.03	0.18	0.009	10.0
SW0249	Oak Bay	5	329	0.57	1.22	0.019	1.34	0.192	11.7	1586	2	188	261	0.55	10		2.69	0.17	0.015	7.8
SW0250	Oak Bay	7	253	0.59	1.69	0.087	*2.58*	0.304	6.1	7523	11	2133	378	0.77	26	0.0044	2.02	0.78	0.100	12.0
SW0257A	Oak Bay	2	37	0.25	0.35	0.005	0.20	0.069	5.8	14	7	36	52	0.15	3		0.45	0.12	0.032	2.6
SW0258	Oak Bay	1	609	0.56	0.41	0.016	1.23	0.361	4.6	26	1	178	496	0.88	32		0.93	0.24	0.010	12.8
SW0301	Oak Bay	1	15	0.53	0.39	0.010	0.33	0.409	21.6	1	1	274	21	0.45	11		4.22	0.34	0.010	3.8
SW0304	Oak Bay	1	62	3.52	1.01	0.024	0.75	0.268	53.9	860	0	70	189	0.56	42		1.07	0.10	0.010	55.2
SW0306	Oak Bay	8	141	0.36	0.94	0.164	*1.72*	0.569	8.1	791	38	688	153	0.27	13	0.0076	5.67	0.23	0.042	6.7
SW0307	Oak Bay	9	125	0.15	0.51	0.014	0.34	0.266	6.4	3545	2	135	424	0.86	49	0.0020	1.27	0.08	0.008	7.3
SW0309	Oak Bay	5	44	0.67	1.91	0.014	0.37	0.071	22.6	776	4	197	66	0.21	16		0.60	0.29	0.011	2.7
SW0310	Oak Bay	8	247	0.37	1.23	0.011	0.87	0.158	8.2	986	15	173	167	0.30	6	0.0019	1.34	0.17	0.008	6.3
SW0310A	Oak Bay	6	97	0.92	0.69	0.017	0.45	0.143	14.4	1413	2	294	80	0.32	26		1.44	0.26	0.007	7.0
SW0316	Oak Bay	37	65	0.54	0.95	0.010	0.50	0.117	4.6	1018	1414	130	125	0.21	12		1.12	0.12	0.007	6.4
SW0317	Oak Bay	7	32	0.50	0.49	0.012	0.30	0.115	13.3	231	7	163	27	0.09	2		1.20	0.12	0.006	2.7
SW0318	Oak Bay	8	152	0.35	0.67	0.012	0.72	0.137	8.1	9250	85	107	128	0.32	6		1.20	0.14	0.007	6.7
SW0319	Oak Bay	2	169	0.41	2.78	0.009	1.05	0.226	3.8	20	5	163	147	0.26	6		1.93	0.21	0.005	3.3
SW0320	Oak Bay	8	600	0.67	2.43	0.040	*4.11*	0.381	13.0	355	40	163	426	0.87	13	0.0021	1.96	0.23	0.011	11.6
SW0321	Oak Bay	6	161	0.43	1.06	0.021	0.58	0.137	11.7	325	27	93	158	0.65	6		1.16	0.09	0.007	15.0
SW0321A	Oak Bay	6	350	0.52	3.78	0.045	*17.62*	0.309	23.4	2175	18	98	255	3.94	11		1.95	0.16	0.014	29.2
SW0322	Oak Bay	6	200	0.47	0.96	0.012	0.95	0.148	6.9	4793	18	129	150	0.35	4		1.40	0.18	0.007	11.9
SW0323	Oak Bay	7	145	0.17	0.62	0.008	0.54	0.146	4.2	361	200	102	226	0.29	27		1.07	0.16	0.007	7.7
SW0323A	Oak Bay	1	232	0.06	0.46	0.017	0.65	0.205	2.8	181	3	35	278	0.21	19		2.45	0.12	0.012	27.6
SW0405	Central Saanich	4	492	0.21	1.03	0.138	*3.00*	3.275	3.7	517	143	1097	4015	0.47	363		10.21	0.32	0.066	10.6
SW0408	Central Saanich	1	639	0.23	0.78	0.021	*1.56*	0.546	8.2	3500	0	158	1110	12.30	36		1.97	0.16	0.010	6.6
SW0409	Central Saanich	1	6830	0.81	2.03	0.084	*6.90*	3.570	23.5	79	3	105	6110	8.14	314		6.36	0.13	0.024	128.0
SW0409A	Central Saanich	2	583	0.13	1.66	0.034	0.95	0.604	3.4	126	0	46	3127	0.92	138		1.50	0.09	0.010	8.1
SW0411	Central Saanich	3	3084	0.35	0.77	0.075	*3.42*	1.682	10.5	214	4	144	2815	7.09	119		2.86	0.14	0.027	55.6
SW0411A	Central Saanich	4	157	0.15	1.67	0.027	0.49	5.028	2.9	243	7	87	2252	0.27	1799		1.56	0.10	0.010	10
SW0412	Central Saanich	31	207	0.10	0.55	0.008	0.51	0.180	2.0	10179	1430	132	325	0.14	38	0.0021	0.78	0.07	0.007	3.2
SW0416	Central Saanich	3	473	0.22	1.02	0.021	0.82	0.274	8.3	29	38	222	429	0.30	25		2.66	0.18	0.010	8.3
SW0420	Central Saanich	1	206	0.08	0.30	0.006	0.27	0.208	2.3	36	20	72	298	0.13	110		0.61	0.07	0.005	8.0
SW0426	Central Saanich	5	167	0.12	0.37	0.010	0.33	0.158	2.3	194	29	98	203	0.13	25		0.70	0.05	0.009	8.2
SW0430B	Central Saanich	5	1579	0.06	0.63	0.011	*2.47*	1.053	4.2	159	5	127	2304	0.78	250		3.17	0.07	0.013	7.2
SW0432	Central Saanich	6	71	0.09	0.25	0.009	0.30	0.064	2.7	92	113	80	89	0.11	10		0.47	0.06	0.009	15.4

Table 5 Continued

Discharge ID #	Area	# Samples	Aluminum	Antimony	Arsenic	Cadmium	Chromium	Cobalt	Copper	E. Coli	Flow	Hardness	Iron	Lead	Manganese	Mercury	Nickel	Selenium	Silver	Zinc
		n	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	CFU/100 mL	L/min	mg/L $CaCO_3$	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
BC Marine Guidelines (max/mean)			**-**	**270^**	**12.5**	**0.12^**	**56 (III)/ 1.5(VI)****	**-**	**3 / 2**	**400 / 200**	**-**	**-**	**-**	**140 /2**	**100^**	**0.02***	**8.3^**	**2 / 1**	**3.7 / 0.5**	**55 / 10**
SW0435	Central Saanich	4	56	0.33	0.16	0.010	0.15	0.134	1.9	81	96	121	143	0.09	33		1.26	0.21	0.010	14.4
SW0437	Central Saanich	1	111	0.10	0.83	0.011	0.35	0.098	1.9	1	3	222	141	0.07	51		0.66	0.09	0.010	19.7
SW0441	Central Saanich	33	139	0.13	0.75	0.059	0.51	0.178	2.5	456	450	366	280	0.25	94	0.0019	0.97	0.20	0.012	6.2
SW0444	Central Saanich	5	208	0.35	0.68	0.009	0.48	0.171	7.0	89	3	178	154	0.13	8		2.02	0.10	0.008	5.4
SW0444A	Central Saanich	3	174	0.66	0.99	0.013	0.43	0.122	4.4	137	1	143	245	0.25	7		0.88	0.07	0.010	17.7
SW0445	Central Saanich	3	1187	0.33	0.76	0.043	*2.09*	0.901	12.9	77	13	152	1483	2.17	53		2.41	0.16	0.018	46.1
SW0446	Central Saanich	6	57	0.35	0.85	0.010	0.27	0.083	5.1	39	3	167	70	0.12	3		1.53	0.20	0.008	110.6
SW0447	Central Saanich	5	499	0.27	0.95	0.010	0.77	0.182	6.8	2923	6	104	352	0.34	10		1.38	0.08	0.010	7.8
SW0448	Central Saanich	7	341	0.27	0.76	0.013	0.64	0.187	7.3	86	4	108	371	0.27	26		1.63	0.09	0.011	7.2
SW0449	Central Saanich	6	1080	0.24	0.89	0.021	*1.95*	1.085	8.0	1519	73	331	2355	0.75	267		2.59	0.17	0.022	15.8
SW0449A	Central Saanich	5	581	0.44	0.74	0.064	1.23	2.157	10.9	605	65	212	755	0.73	35		2.27	0.27	0.046	24.3
SW0450	Central Saanich	6	173	0.46	0.96	0.024	0.91	0.246	18.0	144163	45	212	239	0.78	12		1.25	0.30	0.011	24.5
SW0458	Central Saanich	1	24	0.40	2.79	0.100	*2.00*	0.100	1.4	1	28	6420	20	0.10	1		0.47	0.80	0.100	2.0
SW0459	Central Saanich	6	154	0.32	1.68	0.014	*4.91*	0.178	15.2	105	5	151	146	0.29	23		19.89	0.18	0.009	16.1
SW0462	Central Saanich	1	75	0.20	0.34	0.007	0.17	0.058	17.3	1	1	18	99	0.17	4		0.29	0.05	0.005	14.6
SW0464	Central Saanich	1	151	0.15	0.41	0.008	0.30	0.103	3.4	1	2	62	145	0.13	4		0.52	0.09	0.005	8.9
SW0467	Central Saanich	2	1069	0.24	0.91	0.015	*1.54*	0.419	8.5	6	2	63	906	0.75	27		2.24	0.07	0.016	12.7
SW0501	Saanich	1	6	0.06	0.76	0.005	0.38	0.024	0.8	10	110	179	43	0.03	5		0.29	0.38	0.010	1.0
SW0503	Saanich	10	263	0.13	1.08	0.020	0.74	0.216	2.6	962	127	265	517	1.16	106		0.80	0.12	0.012	5.8
SW0505	Saanich	9	128	0.15	0.69	0.024	0.60	0.231	3.5	151	172	240	278	0.25	67	0.0025	1.10	0.23	0.009	4.5
SW0506	Saanich	7	168	0.27	0.68	0.021	0.68	0.432	5.4	181	39	169	617	0.31	233		2.36	0.25	0.008	13.1
SW0507	Saanich	1	269	0.16	0.69	0.017	0.95	0.365	4.4	491	2	149	330	1.37	12		2.59	0.37	0.010	7.2
SW0508	Saanich	7	94	0.20	1.06	0.015	0.64	0.132	7.8	153	38	130	112	0.22	10		0.81	0.11	0.006	10.1
SW0510	Saanich	1	269	0.18	0.39	0.028	0.55	0.877	10.20	1	2	121	1090	1.26	65		1.91	0.08	0.010	9.0
SW0513	Saanich	1	64	0.25	0.21	0.007	0.24	0.082	3.04	2	1	93	14	0.03	0		0.54	0.08	0.005	9.3
SW0516	Saanich	1	111	0.15	0.29	0.005	0.26	0.196	3.80	7	14	99	248	0.10	76		0.66	0.10	0.005	3.1
SW0518	Saanich	5	42	0.13	0.35	0.010	0.94	0.069	3.22	1331	19	112	33	0.05	1		0.90	0.19	0.007	1.5
SW0520	Saanich	1	22	0.18	0.16	0.006	0.10	0.140	1.75	7	3	136	22	0.04	2		0.50	0.19	0.005	2.1
SW0522	Saanich	1	176	0.24	0.42	0.044	0.42	0.436	7.55	853	2	79	286	0.49	43		1.35	0.14	0.010	8.6
SW0524A	Saanich	2	50	0.04	0.40	0.009	0.32	0.053	1.22	1	3	79	84	0.11	4		0.61	0.15	0.010	1.8
SW0527	Saanich	2	21	0.04	0.15	0.005	0.12	0.068	1.14	4	6	76	35	0.06	19		0.46	0.05	0.010	3.0
SW0530	Saanich	1	111	0.07	0.24	0.005	0.20	0.064	2.07	1	12	72	50	0.02	1		0.30	0.10	0.010	1.4
SW0532	Saanich	1	28	0.08	0.21	0.022	0.13	0.121	2.09	4	2	108	33	0.28	6		0.46	0.21	0.010	1.8
SW0538A	Saanich	2	107	0.07	0.64	0.008	0.52	0.161	7.25	56	25	124	347	0.13	43		0.99	0.24	0.012	3.2
SW0539	Saanich	3	2218	0.31	1.11	0.076	*4.18*	2.339	30.89	140	52	106	3310	11.30	94		4.36	0.20	0.018	68.9
SW0540	Saanich	3	55	0.14	0.45	0.005	0.20	0.117	3.42	2	7	119	183	0.10	23		0.65	0.18	0.005	2.8
SW0541B	Saanich	1	233	0.08	0.69	0.012	0.87	0.178	2.06	286	4	146	341	0.28	11		1.13	0.08	0.010	2.2
SW0548	Saanich	3	66	0.27	0.52	0.011	0.37	0.149	3.84	5770	13	109	52	0.08	3		0.72	0.31	0.010	3.9
SW0549	Saanich	1	912	0.21	0.65	0.058	1.12	0.480	11.10	11	7	107	818	1.49	47		1.81	0.36	0.010	11.6
SW0549A	Saanich	2	35	0.17	0.60	0.033	0.29	0.157	5.47	9	18	158	50	0.13	5		0.80	0.46	0.010	7.2
SW0550	Saanich	1	48	0.10	0.33	0.005	0.26	0.131	1.61	38	15	59	80	0.06	11		0.46	0.11	0.005	1.7
SW0554	Saanich	1	1020	0.08	1.10	0.052	1.15	0.921	2.51	7	1	120	2180	1.10	448		1.52	0.05	0.010	10.7
SW0557	Saanich	1	121	0.42	1.65	0.020	0.51	0.287	5.62	15	4	96	92	0.20	2		1.06	0.09	0.005	5.3
SW0558	Saanich	4	163	0.28	0.53	0.009	0.57	0.160	2.99	52	5	142	107	0.09	7		1.23	0.10	0.011	4.6
SW0559	Saanich	31	164	0.40	0.85	0.012	0.56	0.144	5.89	393	931	102	209	0.30	10	0.0031	1.12	0.09	0.007	11.5
SW0560	Saanich	2	2223	0.06	0.74	0.015	*3.92*	1.188	4.84	2	3	89	3034	0.90	48		4.39	0.06	0.013	7.8
SW0562	Saanich	2	621	0.09	0.27	0.034	*8.35*	0.248	3.10	44	13	47	488	0.42	16		34.82	0.10	0.016	25.1
SW0564	Saanich	1	208	0.09	0.25	0.010	0.46	0.301	4.79	20	26	90	267	0.16	19		2.32	0.14	0.010	3.8
SW0567	Saanich	6	1900	0.17	0.77	0.046	*2.33*	1.116	11.09	1827	45	139	2217	1.06	128		2.70	0.15	0.019	9.7
SW0571	Saanich	2	47	0.09	0.25	0.034	*1.89*	0.300	1.75	9	11	96	102	0.15	72		7.77	0.08	0.010	6.6
SW0573	Saanich	3	147	0.11	0.33	0.017	0.44	0.204	2.43	12	16	114	183	0.23	25		1.91	0.13	0.010	3.4
SW0574	Saanich	5	20	0.10	0.33	0.005	0.15	0.099	1.55	983	95	116	178	0.06	50		0.65	0.11	0.009	2.4

Table 5 Continued

Discharge ID #	Area	# Samples	Aluminum	Antimony	Arsenic	Cadmium	Chromium	Cobalt	Copper	E. Coli	Flow	Hardness	Iron	Lead	Manganese	Mercury	Nickel	Selenium	Silver	Zinc
		n	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	CFU/100 mL	L/min	mg/L $CaCO_3$	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
BC Marine Guidelines (max/mean)			-	270^	12.5	0.12^	56 (III)/ 1.5(VI)**	-	3 / 2	400 / 200	-	-	-	140 /2	100^	0.02*	8.3^	2 / 1	3.7 / 0.5	55 / 10
SW0576A	Saanich	4	80	0.07	0.48	0.008	0.45	0.086	1.44	29	42	132	135	0.15	7		0.63	0.14	0.010	4.1
SW0577	Saanich	1	12	0.06	0.47	0.005	0.49	0.041	0.42	13	38	148	97	0.05	11		0.32	0.12	0.010	1.1
SW0578	Saanich	4	12	0.05	0.42	0.006	0.28	0.049	0.78	48	271	134	251	0.04	42		0.40	0.12	0.008	1.4
SW0580	Saanich	4	54	0.11	0.48	0.009	0.31	0.110	1.76	252	7	86	152	0.25	19		0.59	0.07	0.009	6.0
SW0581	Saanich	3	33	0.09	0.25	0.006	0.31	0.088	1.19	288	21	85	111	0.07	12		0.70	0.07	0.010	3.0
SW0589	Saanich	1	732	0.05	1.02	0.009	1.18	0.508	2.11	10	183	185	1280	0.43	390		1.47	0.05	0.010	3.6
SW0592	Saanich	30	340	0.13	1.24	0.014	1.14	0.361	3.99	713	725	164	510	0.24	90	0.0019	3.27	0.15	0.009	4.2
SW0601A	Victoria	1	116	0.24	0.13	0.006	1.10	0.179	3.41	27	0	4	395	0.35	6		0.32	0.04	0.005	21.9
SW0602	Victoria	1	44	0.87	1.53	0.123	0.26	0.133	7.17	100012	11	213	69	1.23	2		0.81	0.38	0.005	18.4
SW0603	Victoria	7	129	0.91	2.21	0.108	0.82	0.333	10.78	338109	22	159	209	0.90	23		1.69	0.27	0.039	17.9
SW0607	Victoria	5	138	0.53	1.29	0.019	0.49	0.340	8.77	109615	86	314	473	0.37	110		1.76	0.22	0.016	12.0
SW0607A	Victoria	3	75	0.40	1.42	0.100	*2.00*	0.623	2.47	2355	50	4017	163	0.60	261		2.24	0.80	0.167	17.2
SW0608	Victoria	1	52	0.28	0.48	0.010	0.31	0.082	57.60	5500	3	15	45	0.37	5		0.73	0.07	0.014	21.3
SW0609	Victoria	3	66	0.59	3.12	0.042	0.90	0.100	8.13	17	1	1680	281	1.35	5		0.96	0.33	0.083	9.7
SW0610	Victoria	4	59	0.95	1.12	0.103	1.01	0.277	17.41	2383	9	98	289	1.13	43		1.23	0.17	0.012	18.8
SW0611	Victoria	4	117	0.46	0.75	0.051	0.70	0.343	34.05	88807	12	210	300	3.27	40		1.76	0.33	0.435	26.8
SW0613	Victoria	8	177	0.71	1.07	0.023	1.10	0.263	14.19	6176	64	214	652	0.97	135	0.0036	1.74	0.18	0.009	19
SW0614	Victoria	8	889	1.62	2.37	0.181	*5.95*	1.675	44.39	4624	81	260	2035	13.65	98	0.0033	3.46	0.41	0.076	119.2
SW0617B	Victoria	1	216	0.32	0.28	0.011	0.64	0.214	6.31	3800	5	4	325	1.04	8		0.67	0.04	0.012	25.6
SW0619	Victoria	3	148	0.66	0.99	0.047	0.74	0.341	16.28	587463	8	175	470	1.19	37		1.86	0.33	0.024	15.3
SW0619B	Victoria	1	409	0.86	1.02	0.025	*1.77*	0.381	11.10	14550	5	9	669	2.23	14		1.25	0.10	0.015	56.6
SW0620	Victoria	8	227	0.65	2.04	0.068	*1.56*	0.324	26.49	9666	128	157	598	1.23	93	0.0053	4.22	0.23	0.026	111
SW0622	Victoria	4	223	0.45	5.04	0.027	1.06	0.377	18.00	374	4	92	424	1.31	14		1.74	0.09	0.012	109.6
SW0624	Victoria	4	811	0.62	1.35	0.040	*1.75*	0.855	20.39	202410	11	327	1108	1.47	38		2.09	0.39	0.028	25.3
SW0626	Victoria	6	248	1.10	1.58	0.024	1.20	0.437	16.90	28227	183	197	704	1.40	127	0.0036	2.06	0.20	0.020	56.3
SW0627	Victoria	6	165	0.56	1.02	0.021	0.90	0.344	11.51	40350	358	377	360	0.87	94	0.0049	1.53	0.18	0.013	45.4
SW0629	Victoria	5	4225	7.66	3.82	0.531	*11.42*	3.024	403.40	7552	41	248	5978	78.78	385	0.0187	37.10	1.14	0.207	1003
SW0630	Victoria	1	16200	2.58	7.55	0.214	*42.50*	8.380	63.50	140	20	172	18300	25.40	371	0.0019	20.00	0.33	0.087	180
SW0633	Victoria	3	5140	3.53	5.19	0.212	*20.83*	4.623	75.20	733	7	154	9557	39.90	351	0.0114	16.49	0.29	0.069	200
SW0634	Victoria	3	794	3.15	2.40	0.799	*3.89*	2.170	34.97	46400	13	178	6060	20.81	398	0.0182	8.27	0.47	0.060	698
SW0634-A	Victoria	2	404	1.04	1.43	0.176	*2.27*	1.490	17.85	51125	25	147	3075	3.10	194		5.28	0.24	0.119	305
SW0636	Victoria	5	2146	1.31	2.22	0.123	*4.68*	2.152	28.98	1784980	384	270	3896	8.34	427	0.0055	8.08	0.21	0.043	80
SW0637	Victoria	1	286	0.59	1.13	0.025	1.10	0.269	6.05	1	1	213	6900	3.98	378		1.40	0.04	0.018	16.0
SW0639A	Victoria	1	153	0.58	1.64	0.014	0.64	0.209	6.50	5423	40	405	208	0.57	15		1.61	0.11	0.020	12.9
SW0641	Victoria	38	63	0.68	0.89	0.019	0.74	0.167	7.63	5518	618	165	184	0.36	40		1.86	0.19	0.007	140.5
SW0643	Victoria	1	170	0.54	1.07	0.018	0.52	0.202	4.28	14	2	203	183	0.14	14		1.41	0.10	0.010	7.2
SW0644	Victoria	2	16335	3.08	7.46	1.92	*41.60*	12.669	200.10	5300	4	99	26353	124.45	620		41.31	0.29	0.253	866.2
SW0645	Victoria	4	257	0.44	0.68	0.017	0.82	0.216	8.62	47918	27	131	344	1.06	25	0.0039	1.23	0.09	0.018	17.5
SW0645A	Victoria	5	12	0.21	0.26	0.005	1.19	0.062	1.04	6513	8	270	52	0.03	52		5.06	0.06	0.008	1.4
SW0645B	Victoria	1	139	0.36	0.35	0.013	*2.30*	0.138	9.20	8300	8	67	198	0.45	7		1.03	0.05	0.010	10.9
SW0645C	Victoria	3	1879	0.43	1.36	0.024	*3.84*	1.370	11.50	1513	5	103	3527	6.44	98		3.99	0.08	0.019	17.5
SW0646	Victoria	1	20	0.31	0.26	0.033	0.25	0.075	2.36	8	1	764	27	0.11	8		1.45	0.04	0.010	14.0
SW0649	Victoria	8	165	0.34	0.87	0.034	0.48	0.283	40.86	7313	7	179	271	0.74	184	0.0060	2.07	0.12	0.010	14.5
SW0649A	Victoria	1	6	0.86	0.67	0.040	*4.82*	0.176	5.35	2	1	630	65	0.04	24		17.90	0.29	0.022	4.6
SW0650	Victoria	6	529	0.45	1.25	0.022	1.13	0.383	6.48	16641	17	188	627	1.16	29		2.03	0.72	0.010	15.2
SW0652A	Saanich	2	9	0.20	0.63	0.008	0.11	0.248	0.82	5	1	284	257	0.10	148		0.63	0.04	0.010	6.1
SW0652B	Saanich	2	9	0.27	0.31	0.009	0.24	0.041	1.95	4	2	252	17	0.04	8		0.83	0.04	0.010	6.1
SW0653	Saanich	8	107	0.36	0.79	0.016	0.57	0.130	3.99	702	44	243	395	0.25	78	0.0027	1.12	0.14	0.010	5.6
SW0654	Saanich	1	17	0.23	0.34	0.023	*7.83*	0.101	1.97	11	8	289	34	0.04	26		1.17	0.06	0.005	4.3
SW0655	Saanich	4	852	0.40	1.17	0.046	*3.37*	0.865	7.95	84	6	286	2709	5.94	754	0.0019	10.31	0.15	0.014	30.9
SW0658A	Saanich	1	2530	0.78	1.45	0.055	*6.91*	2.050	24.60	3174	3	91	3740	9.25	84		5.18	0.07	0.026	72.0
SW0661	Saanich	2	26	0.02	0.07	0.005	0.21	0.017	0.97	1	13	17	40	0.03	2		0.46	0.04	0.010	1.3

Table 5 Continued

Discharge ID #	Area	# Samples	Aluminum	Antimony	Arsenic	Cadmium	Chromium	Cobalt	Copper	E. Coli	Flow	Hardness	Iron	Lead	Manganese	Mercury	Nickel	Selenium	Silver	Zinc
		n	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	CFU/100 mL	L/min	mg/L $CaCO_3$	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
BC Marine Guidelines (max/mean)			-	270^	12.5	0.12^	56 (III)/ 1.5(VI)**	-	3 / 2	400 / 200	-	-	-	140 /2	100^	0.02*	8.3^	2 / 1	3.7 / 0.5	55 / 10
SW0665	Saanich	1	171	0.79	0.82	0.007	*1.88*	0.238	2.87	3	1	150	161	0.23	4		1.25	0.20	0.010	5.5
SW0669	Saanich	2	441	0.87	1.16	0.026	1.43	0.296	7.08	40	3	167	723	0.86	13		1.72	0.12	0.011	9.4
SW0671	Saanich	3	128	0.35	0.86	0.021	0.57	0.296	24.24	4773	10	151	125	0.33	26		5.16	0.18	0.012	19.3
SW0672	Saanich	1	186	0.26	0.71	0.018	0.43	0.217	2.74	3	2	137	182	0.36	10		0.92	0.10	0.005	9.4
SW0675	Saanich	1	196	0.39	0.45	0.011	0.67	0.215	9.70	58	2	94	273	0.40	9		2.11	0.09	0.010	11.5
SW0676	Saanich	1	341	0.36	0.39	0.016	1.19	0.291	6.81	5	2	57	533	0.64	14		1.19	0.07	0.010	15.3
SW0679	Saanich	3	28	2.83	0.82	0.010	0.12	0.063	2.60	61	14	241	90	128.36	31		0.86	0.22	0.011	2.0
SW0687	Saanich	3	517	0.57	4.97	0.045	1.12	0.438	7.85	111	18	140	652	1.88	39	0.0032	1.89	0.10	0.017	19.2
SW0690D	Saanich	3	100	0.12	0.66	0.024	1.06	0.174	1.64	58	1150	100	421	0.54	54		4.13	0.06	0.007	3.9
SW0690D-2	Saanich	31	123	0.20	0.95	0.008	0.35	0.163	2.52	706	6096	109	308	0.25	97	0.0021	0.96	0.06	0.007	4.5
SW0690E	Saanich	1	190	0.40	0.94	0.013	0.63	0.148	5.62	11	16	225	212	0.09	6		2.04	0.46	0.005	1.8
SW0691A	Saanich	2	1347	0.37	0.56	0.048	*2.58*	1.007	14.33	297	18	105	1835	8.68	103		2.87	0.08	0.018	32.5
SW0692	Saanich	3	56	0.23	0.40	0.007	0.27	0.203	2.36	28	18	125	157	0.13	104		0.73	0.11	0.005	7.9
SW0695-1A	View Royal	1	82	0.26	0.41	0.005	0.21	0.134	2.60	4	8	130	159	0.10	27		1.05	0.07	0.010	4.7
SW0697	View Royal	3	798	0.37	0.95	0.022	*1.87*	0.953	8.74	185	192	189	1874	1.50	275		2.66	0.13	0.013	40.4
SW0703	View Royal	2	282	0.14	1.05	0.041	0.72	1.140	3.06	694	2	229	3950	1.24	1350		1.89	0.09	0.011	10.7
SW0709B	View Royal	4	69	0.04	0.16	0.008	0.38	0.062	0.75	158	660	64	193	0.05	27		1.16	0.04	0.006	1.1
SW0709B-2A	View Royal	25	97	0.06	0.28	0.005	0.23	0.090	1.00	222	1244	66	285	0.09	79	0.0022	0.38	0.05	0.007	1.4
SW0710	View Royal	4	225	0.13	0.34	0.018	0.44	0.260	4.75	333	9	121	351	0.28	81		0.77	0.22	0.010	6.7
SW0712	View Royal	3	86	0.21	0.33	0.011	0.32	0.133	3.71	11	30	127	152	0.67	16		3.28	0.24	0.005	5.7
SW0722	View Royal	8	493	0.50	1.15	0.016	1.09	0.631	7.61	101	14	180	515	0.44	30	0.0025	1.53	0.22	0.016	17.2
SW0722AA	View Royal	2	263	0.34	0.64	0.013	0.83	0.297	3.95	83	8	177	405	0.82	30		1.04	0.13	0.010	11.4
SW0725A	Esquimalt	1	119	0.47	0.35	0.010	0.78	0.162	5.71	89	1	71	249	0.37	13		0.91	0.05	0.010	23.6
SW0726	Esquimalt	3	149	0.18	0.65	0.023	0.44	0.204	4.42	267	29	437	365	0.28	106		0.99	0.10	0.027	11.1
SW0726B	Esquimalt	1	253	0.27	0.73	0.025	0.47	0.300	3.67	180	1	110	334	0.21	133		1.42	0.05	0.010	5.2
SW0727	Esquimalt	3	30	0.17	0.30	0.007	0.16	0.105	1.06	320	6	235	119	0.06	39		0.58	0.05	0.008	2.2
SW0735	Esquimalt	2	291	0.64	0.77	0.017	0.87	0.185	6.31	124	5	124	274	0.37	66		1.18	0.09	0.011	11.1
SW0736A	Esquimalt	5	214	0.18	0.40	0.012	0.61	0.184	3.44	237	4	164	297	0.15	13		0.85	0.15	0.009	4.6
SW0737	Esquimalt	10	364	0.55	0.78	0.017	1.05	0.313	10.75	97	7	230	678	0.68	29		1.24	0.39	0.014	73.4
SW0740	Esquimalt	2	436	0.42	0.77	0.015	0.91	0.408	6.17	76	1	98	424	0.53	14		1.62	0.12	0.013	5.2
SW0742	Esquimalt	9	99	0.25	0.58	0.021	0.59	0.372	2.64	744	8	272	876	0.15	295	0.0198	1.83	0.12	0.014	7.1
SW0742B	Esquimalt	3	242	0.31	0.84	0.018	0.71	0.501	6.81	376	0	90	1036	0.95	165		1.28	0.05	0.009	13.2
SW0743A	Esquimalt	2	801	0.19	0.77	0.041	*1.88*	0.817	6.67	402	2	449	1745	2.62	264		2.08	0.12	0.042	23.3
SW0744	Esquimalt	9	139	0.28	0.74	0.015	0.60	0.250	4.72	844	192	139	473	0.49	115	0.0031	1.78	0.10	0.009	28.3
SW0744A	Esquimalt	6	100	0.47	0.61	0.021	0.37	0.522	3.43	2095	14	177	741	0.32	342		1.21	0.06	0.010	52.5
SW0744B	Esquimalt	10	885	1.07	1.04	0.038	*2.02*	0.739	29.07	209474	14	153	1341	2.03	200		2.76	0.13	0.018	31.6
SW0749	Esquimalt	3	356	0.39	0.80	0.018	1.26	0.279	6.42	1349	2	168	444	1.20	30	0.0025	3.60	0.17	0.010	9.0
SW0751	Esquimalt	3	159	0.79	0.95	0.017	1.46	0.207	5.06	1817	15	122	156	0.47	10		2.13	0.20	0.010	5.4
SW0758A	Victoria	5	327	0.39	0.76	0.027	1.13	0.358	6.56	11894	14	264	568	1.61	93		2.30	0.12	0.015	17.1
SW0759	Victoria	3	162	0.41	1.83	0.045	*1.83*	0.389	15.34	209	4	987	322	1.23	48		2.02	0.35	0.073	12.6
SW0767	Victoria	3	90	0.64	1.31	0.170	*3.00*	0.297	3.17	1	82	3767	609	1.67	123	0.0020	2.59	1.20	0.267	27.0
SW0768	Victoria	3	48	0.44	0.53	0.010	1.38	0.145	19.22	3719	23	280	281	0.28	58		1.30	0.32	0.009	18.2
SW0769	Victoria	4	235	0.53	0.72	0.041	*2.05*	0.296	6.73	2233	70	312	512	2.07	107		7.32	0.11	0.024	34.2
SW0774	Victoria	1	13	0.75	0.55	0.010	0.39	0.060	2.34	110	1	384	9	0.14	1		0.21	0.19	0.010	3.8
SW0775	Victoria	4	104	0.65	0.72	0.027	*2.01*	0.113	5.42	3457	4	150	99	0.78	6		7.95	0.12	0.009	20.1
SW0777A	Victoria	8	135	0.38	0.89	0.023	0.58	0.280	7.99	80364	57	153	363	0.61	81		1.72	0.27	0.014	16.8
SW0779	Esquimalt	6	1154	0.89	1.46	0.039	*2.31*	1.047	9.87	5532	8	194	1753	2.37	190		3.10	0.18	0.021	21.7
SW0780	Esquimalt	9	154	0.69	1.40	0.031	1.04	0.226	8.19	7755	25	127	261	0.60	22	0.0031	1.02	0.18	0.012	26.1
SW0781	Esquimalt	11	172	0.40	0.56	0.017	0.71	0.186	7.32	5243	124	90	482	0.69	51	0.0041	0.86	0.13	0.009	16.5
SW0805	Esquimalt	9	188	0.49	0.90	0.026	1.43	0.248	9.10	64606	126	124	261	0.52	26	0.0019	3.88	0.28	0.015	11.1
SW0806	Esquimalt	11	239	0.30	0.89	0.029	0.57	0.248	5.60	11368	31	131	369	0.32	113	0.0028	1.44	0.18	0.009	11.2
SW0810	Esquimalt	2	188	0.45	0.59	0.047	0.52	0.257	4.52	5848	2	114	197	0.65	18		0.92	0.12	0.012	9.3

Table 5 Continued

Discharge ID #	Area	# Samples	Aluminum	Antimony	Arsenic	Cadmium	Chromium	Cobalt	Copper	E. Coli	Flow	Hardness	Iron	Lead	Manganese	Mercury	Nickel	Selenium	Silver	Zinc
		n	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	CFU/100 mL	L/min	mg/L $CaCO_3$	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
BC Marine Guidelines (max/mean)			-	270^	12.5	0.12^	56 (III)/ 1.5(VI)**	-	3 / 2	400 / 200	-	-	-	140 /2	100^	0.02*	8.3^	2 / 1	3.7 / 0.5	55 / 10
SW0812	Esquimalt	4	208	0.51	0.80	0.033	*3.38*	0.396	6.86	25046	13	186	225	0.71	28		12.57	0.24	0.009	20.5
SW0814	Esquimalt	5	303	0.81	1.05	0.026	*2.92*	0.441	8.71	5051	4	122	241	0.69	18		1.33	0.19	0.010	8.2
SW0854	DND	10	478	0.59	1.54	0.019	1.43	0.612	8.63	18726	35	169	817	0.69	132		2.15	0.27	0.011	13.8
SW0865D	Esquimalt FN	1	16	0.07	1.64	0.005	0.32	2.150	0.51	268	5	345		0.16	3380		2.68	0.13	0.010	1.8
SW0865F	Esquimalt FN	1	922	0.27	1.81	0.158	*1.88*	2.370	48.20	826	5	243	1320	2.44	69		9.33	0.39	0.015	37.8
SW0865G	View Royal	2	470	0.65	0.69	0.026	1.13	0.402	17.75	2861	20	246	800	0.53	76		1.25	0.07	0.017	27.9
SW0866	View Royal	4	65	0.18	0.26	0.009	0.26	0.143	3.91	32	347	159	135	0.11	42		0.95	0.13	0.008	13.9
SW0867	View Royal	2	484	0.47	0.54	0.015	1.36	0.767	7.14	275	0	8	1009	0.63	66		1.92	0.04	0.012	30.4
SW0872	View Royal	1	56	0.13	0.23	0.008	0.32	0.078	2.95	14	9	93	58	0.06	3		0.94	0.09	0.010	3.5
SW0874	View Royal	2	392	0.18	0.40	0.020	0.70	0.281	4.97	44	6	89	472	0.63	17		1.27	0.09	0.027	20.0
SW0875	View Royal	2	25	0.10	0.25	0.009	0.11	0.091	1.63	1	1	166	37	0.07	9		0.40	0.04	0.010	5.2
SW0879	View Royal	4	166	0.09	0.38	0.008	0.35	0.125	1.69	71	126	104	344	0.21	46		0.66	0.11	0.006	3.3
SW0882	View Royal	3	58	0.17	0.25	0.011	0.34	0.096	2.19	9	20	193	93	0.18	7		0.74	0.19	0.008	11.0
SW0886	View Royal	23	40	0.11	0.22	0.030	0.30	0.104	1.86	219	2071	156	101	0.05	16		0.53	0.18	0.006	5.8
SW0902	DND	2	346	0.12	0.54	0.008	0.61	0.256	2.63	42	137	157	706	0.33	191		1.02	0.06	0.010	6.4
SW0913	Parks Canada	1	24	0.05	0.10	0.005	0.14	0.043	0.84	2	4	84	17	0.05	2		0.28	0.07	0.010	2.1
SW0914	Parks Canada	1	24	0.10	0.22	0.005	0.16	0.034	0.84	11	18	78	18	0.04	1		0.20	0.05	0.010	1.0
SW0915	DND	1	24	0.06	0.14	0.005	0.12	0.081	1.04	18	30	132	76	0.02	13		0.26	0.05	0.010	1.7
SW0916	DND	26	94	0.13	0.34	0.006	0.68	0.134	1.68	424	659	88	348	0.17	121	0.0020	0.60	0.05	0.006	3.9
SW0920	DND	2	7	0.02	0.14	0.005	0.30	0.033	0.36	9	467	101	54	0.03	27		0.34	0.04	0.010	1.0
SW0921	DND	2	89	0.02	0.34	0.007	0.56	0.126	0.85	14	104	102	789	0.17	58		0.40	0.05	0.010	1.5
SW0922	DND	1	5	0.02	0.17	0.006	0.27	0.029	0.42	1	8	111	10	0.02	0		0.21	0.08	0.010	1.0
SW0926	Colwood	25	36	0.02	0.30	0.009	0.94	0.106	0.54	60	1007	121	92	0.05	20		3.28	0.05	0.007	0.7
SW0927	Colwood	2	117	0.05	1.31	0.012	0.36	0.124	1.09	74	30	97	606	0.19	79		0.44	0.18	0.010	2.8
SW0928	Colwood	25	18	0.03	0.20	0.037	0.49	0.055	0.96	128	633	123	43	0.03	6		1.03	0.07	0.007	1.2
SW0929	Colwood	2	1452	0.06	0.83	0.066	*3.02*	1.176	10.58	697	38	142	1739	1.17	204		3.68	0.14	0.018	24.2
SW0931	Colwood	2	97	0.02	0.22	0.011	0.54	0.105	1.34	129	29	128	147	0.29	19		0.58	0.06	0.010	5.3
SW0932	Colwood	3	14	0.02	0.15	0.014	0.38	0.030	0.47	2	107	121	19	0.08	0		0.30	0.05	0.010	1.0
SW0933	Colwood	3	17	0.04	0.19	0.010	0.36	0.033	0.85	109	103	129	26	0.06	3		0.26	0.05	0.010	2.8
SW0935	Colwood	1	1140	0.20	0.52	1.960	*1.80*	0.979	8.18	1	16	132	1760	2.78	108		2.84	0.25	0.010	89.3
SW0935A	Colwood	3	17	0.03	0.17	0.005	0.36	0.039	5.18	6	137	114	48	0.09	1		0.86	0.07	0.010	5.3
SW0936	Colwood	1	10	0.04	0.18	0.059	0.30	0.026	0.56	3	210	111	12	0.02	0		0.26	0.10	0.010	2.6
SW0939	Colwood	2	55	0.02	0.21	0.011	0.49	0.103	0.90	12	22	150	112	0.41	11		0.35	0.04	0.010	2.8
SW0940	Colwood	1	58	0.02	0.17	0.008	0.42	0.077	0.58	1	13	135	105	0.19	4		0.40	0.11	0.010	1.1
	Average		505	0.45	0.94	0.049	1.67	0.513	10.79	19,515	115	239	864	2.68	95	0.005	2.58	0.17	0.020	28.9
	Max		16335	7.66	7.55	1.960	42.50	12.67	403.40	1,784,980	6096	6420	26353	128.36	3380	0.020	41.31	1.20	0.435	1003

Notes:

All metals are as total state.
Non-detected values were reported as the detection limit.
Units are in ug/L.
British Columbia approved and working water quality guidelines for protection of marine aquatic life were used for comparison.
guidelines are maximum values; where two guidelines are shown they are maximum and average guidelines.
Although aquatic life guidelines would not apply to stormdrains, as they are not viable habitat for aquatic life, these comparisons indicate potential impacts to the marine environment.

^ BC Working Guideline for protection of marine aquatic life.
** Guidelines are for chromium (III) and chromium (VI).
* Guideline If methylmercury is 5% of the total mercury; methyl mercury was not measured in these samples.
Background concentrations of mercury in Vancouver Island streams ranged from less than 0.001 to 0.046 mg/L in a 2014 study.
Flow is a visual estimate of litres per minute

xx	value exceeds a guideline that is only partially applicable; more study is needed.
xx	value exceeds the average provincial guideline for protection of marine aquatic life.
xx	value exceeds the maximum provincial guideline for protection of marine aquatic life.

Table 6 Average Concentration of Polycyclic Aromatic Hydrocarbons (µg/L)

		1-Methyl-naphthalene	2-Methylnaphthalene	Acenaphthene	Acenaphthylene	Acridine	Anthracene	Benzo(B)Fluoranthene + Benzo(J)Fluoranthene	Benzo(K)Fluoranthene	Benzo[a]anthracene	Benzo[a]pyrene	Benzo[ghi]perylene	Chrysene	dibenzo(a,h)anthracene	Fluoranthene	Fluorene	High Molecular Weight PAH	Indeno(1,2,3-C,D)Pyrene	Low Molecular Weight PAH	Naphthalene	Phenanthrene	Pyrene	Quinoline	Total PAH
BC Guidelines	freshwater	1	1	6						0.1	0.01				4	12				1	0.3	0.02 [1]		
	marine			6							0.01		0.1			12				1				
Discharge #	# of samples																							
SW0209	1	0.05	0.1	0.05	0.05	0.05	0.01	0.03	0.05	0.01	0.005	0.05	0.02	0.003	0.02	0.05	0.05	0.05	0.1	0.1	0.05	0.02	0.02	0.1
SW0210	2	0.05	0.1	0.05	0.05	0.05	0.01	0.03	0.05	0.01	0.005	0.05	0.02	0.003	0.02	0.05	0.05	0.05	0.1	0.1	0.05	0.02	0.02	0.1
SW0211	2	0.05	0.1	0.05	0.05	0.05	0.01	0.03	0.05	0.01	0.005	0.05	0.02	0.003	0.02	0.05	0.05	0.05	0.1	0.1	0.05	0.02	0.02	0.1
SW0212	1	0.05	0.1	0.05	0.05	0.05	0.01	0.03	0.05	0.01	0.005	0.05	0.02	0.003	0.02	0.05	0.05	0.05	0.1	0.1	0.05	0.02	0.02	0.1
SW0214	1	0.05	0.1	0.05	0.05	0.05	0.01	0.03	0.05	0.01	0.005	0.05	0.02	0.003	0.02	0.05	0.05	0.05	0.1	0.1	0.05	0.02	0.02	0.1
SW0216	4	0.05	0.10	0.05	0.05	0.05	0.01	0.03	0.05	0.01	0.01	0.05	0.02	0.00	0.02	0.05	0.05	0.05	0.10	0.10	0.05	0.02	0.03	0.10
SW0218	2	0.05	0.1	0.05	0.05	0.05	0.01	0.03	0.05	0.01	0.005	0.05	0.02	0.003	0.02	0.05	0.05	0.05	0.1	0.1	0.05	0.02	0.02	0.1
SW0222	1	0.05	0.1	0.05	0.05	0.05	0.01	0.03	0.05	0.01	0.005	0.05	0.02	0.003	0.02	0.05	0.05	0.05	0.1	0.1	0.05	0.02	0.02	0.1
SW0227	1	0.05	0.1	0.05	0.05	0.05	0.01	0.03	0.05	0.01	0.005	0.05	0.02	0.003	0.02	0.05	0.05	0.05	0.1	0.1	0.05	0.02	0.02	0.1
SW0228	1	0.05	0.1	0.05	0.05	0.05	0.01	0.03	0.05	0.01	0.005	0.05	0.02	0.003	0.02	0.05	0.05	0.05	0.1	0.1	0.05	0.02	0.02	0.1
SW0228A	1	0.05	0.1	0.05	0.05	0.05	0.01	0.03	0.05	0.01	0.005	0.05	0.02	0.003	0.02	0.05	0.05	0.05	0.1	0.1	0.05	0.02	0.02	0.1
SW0229	1	0.05	0.1	0.05	0.05	0.05	0.01	0.03	0.05	0.01	0.005	0.05	0.02	0.003	0.02	0.05	0.05	0.05	0.1	0.1	0.05	0.02	0.02	0.1
SW0230	1	0.05	0.1	0.05	0.05	0.05	0.01	0.03	0.05	0.01	0.005	0.05	0.02	0.003	0.02	0.05	0.05	0.05	0.1	0.1	0.05	0.02	0.02	0.1
SW0231	1	0.05	0.1	0.05	0.05	0.05	0.01	0.03	0.05	0.01	0.005	0.05	0.02	0.003	0.02	0.05	0.05	0.05	0.1	0.1	0.05	0.02	0.02	0.1
SW0236	1	0.05	0.1	0.05	0.05	0.05	0.01	0.03	0.05	0.01	0.005	0.05	0.02	0.003	0.02	0.05	0.05	0.05	0.1	0.1	0.05	0.02	0.02	0.1
SW0237	1	0.05	0.1	0.05	0.05	0.05	0.01	0.03	0.05	0.01	0.005	0.05	0.02	0.003	0.02	0.05	0.05	0.05	0.1	0.1	0.05	0.02	0.02	0.1
SW0244	2	0.05	0.10	0.05	0.05	0.05	0.01	0.03	0.05	0.01	0.01	0.05	0.02	0.00	0.02	0.05	0.05	0.05	0.10	0.10	0.05	0.02	0.02	0.10
SW0245	4	0.05	0.10	0.05	0.05	0.05	0.01	0.03	0.05	0.01	0.01	0.05	0.02	0.00	0.02	0.05	0.05	0.05	0.10	0.10	0.05	0.02	0.02	0.10
SW0249	1	0.05	0.1	0.05	0.05	0.05	0.01	0.03	0.05	0.01	0.005	0.05	0.02	0.003	0.02	0.05	0.05	0.05	0.1	0.1	0.05	0.02	0.02	0.1
SW0250	6	0.05	0.10	0.05	0.05	0.05	0.01	0.03	0.05	0.02	0.01	0.05	0.03	0.00	0.03	0.05	0.14	0.05	0.10	0.10	0.05	0.035	0.02	0.15
SW0257A	1	0.05	0.1	0.05	0.05	0.05	0.01	0.03	0.05	0.01	0.005	0.05	0.02	0.003	0.034	0.05	0.05	0.05	0.1	0.1	0.069	0.02	0.02	0.1
SW0304	1	0.05	0.1	0.05	0.05	0.05	0.01	0.03	0.05	0.01	0.005	0.05	0.02	0.003	0.02	0.05	0.05	0.05	0.1	0.1	0.05	0.02	0.02	0.1
SW0306	5	0.05	0.10	0.05	0.05	0.05	0.01	0.03	0.05	0.01	0.01	0.05	0.02	0.00	0.02	0.05	0.05	0.05	0.10	0.10	0.05	0.02	0.06	0.14
SW0307	8	0.05	0.10	0.05	0.05	0.05	0.01	0.03	0.05	0.01	0.01	0.05	0.02	0.00	0.03	0.05	0.06	0.05	0.10	0.10	0.06	0.023	0.02	0.12
SW0309	2	0.05	0.10	0.061	0.05	0.05	0.01	0.03	0.05	0.01	0.01	0.05	0.02	0.00	0.06	0.05	0.08	0.05	0.27	0.11	0.13	0.029	0.02	0.35
SW0310	5	0.05	0.10	0.05	0.05	0.05	0.01	0.03	0.05	0.01	0.01	0.05	0.02	0.00	0.02	0.05	0.05	0.05	0.10	0.10	0.05	0.02	0.02	0.10
SW0310A	2	0.05	0.10	0.05	0.05	0.05	0.01	0.03	0.05	0.01	0.01	0.05	0.02	0.00	0.02	0.05	0.05	0.05	0.10	0.10	0.05	0.02	0.02	0.10
SW0316	4	0.05	0.10	0.05	0.05	0.05	0.01	0.03	0.05	0.01	0.01	0.05	0.02	0.003	0.02	0.05	0.05	0.05	0.1	0.10	0.05	0.02	0.02	0.1
SW0317	2	0.05	0.10	0.05	0.05	0.05	0.01	0.03	0.05	0.01	0.01	0.05	0.02	0.00	0.02	0.05	0.05	0.05	0.10	0.10	0.05	0.02	0.02	0.10
SW0318	2	0.05	0.10	0.05	0.05	0.05	0.01	0.03	0.05	0.01	0.01	0.05	0.02	0.00	0.04	0.05	0.05	0.05	0.11	0.10	0.10	0.02	0.02	0.14

Table 6 Continued

		1-Methyl-naphthalene	2-Methylnaphthalene	Acenaphthene	Acenaphthylene	Acridine	Anthracene	Benzo(B)Fluoranthene + Benzo(J)Fluoranthene	Benzo(K)Fluoranthene	Benzo[a]anthracene	Benzo[a]pyrene	Benzo[ghi]perylene	Chrysene	dibenzo(a,h)anthracene	Fluoranthene	Fluorene	High Molecular Weight PAH	Indeno(1,2,3-C,D)Pyrene	Low Molecular Weight PAH	Naphthalene	Phenanthrene	Pyrene	Quinoline	Total PAH
BC Guidelines	freshwater	1	1	6						0.1	0.01				4	12				1	0.3	0.02 [1]		
	marine			6							0.01		0.1			12				1				
Discharge #	# of samples																							
SW0320	4	0.05	0.10	0.05	0.05	0.05	0.01	0.03	0.05	0.01	0.01	0.05	0.02	0.00	0.02	0.05	0.06	0.05	0.10	0.10	0.05	0.022	0.02	0.10
SW0321	1	0.05	0.1	0.05	0.05	0.05	0.01	0.03	0.05	0.01	0.005	0.05	0.02	0.003	0.02	0.05	0.05	0.05	0.1	0.1	0.05	0.02	0.02	0.1
SW0321A	1	0.05	0.1	0.05	0.05	0.05	0.01	0.03	0.05	0.01	0.0082	0.05	0.02	0.003	0.02	0.05	0.05	0.05	0.1	0.1	0.05	0.02	0.02	0.1
SW0322	1	0.05	0.1	0.05	0.05	0.05	0.01	0.03	0.05	0.01	0.005	0.05	0.02	0.003	0.02	0.05	0.05	0.05	0.1	0.1	0.05	0.02	0.045	0.1
SW0323	2	0.05	0.10	0.05	0.05	0.05	0.01	0.03	0.05	0.01	0.01	0.05	0.02	0.00	0.02	0.05	0.05	0.05	0.10	0.10	0.05	0.02	0.02	0.10
SW0323A	1	0.05	0.1	0.05	0.05	0.05	0.01	0.03	0.05	0.01	0.005	0.05	0.02	0.003	0.02	0.05	0.05	0.05	0.1	0.1	0.05	0.02	0.02	0.1
SW0503	2	0.05	0.10	0.05	0.05	0.05	0.01	0.03	0.05	0.01	0.01	0.05	0.02	0.00	0.02	0.05	0.07	0.05	0.10	0.10	0.05	0.024	0.02	0.10
SW0505	4	0.05	0.10	0.05	0.05	0.05	0.01	0.03	0.05	0.01	0.01	0.05	0.02	0.00	0.02	0.05	0.05	0.05	0.10	0.10	0.05	0.02	0.02	0.10
SW0506	1	0.05	0.1	0.15	0.05	0.05	0.01	0.03	0.05	0.01	0.005	0.05	0.02	0.003	0.031	0.073	0.05	0.05	0.29	0.1	0.073	0.02	0.02	0.32
SW0507	1	0.05	0.1	0.05	0.05	0.05	0.01	0.03	0.05	0.01	0.005	0.05	0.02	0.003	0.02	0.05	0.05	0.05	0.1	0.1	0.05	0.02	0.02	0.1
SW0508	1	0.05	0.1	0.05	0.05	0.05	0.01	0.03	0.05	0.01	0.005	0.05	0.02	0.003	0.02	0.05	0.05	0.05	0.1	0.1	0.05	0.02	0.02	0.1
SW0513	1	0.05	0.1	0.05	0.05	0.05	0.01	0.03	0.05	0.01	0.005	0.05	0.02	0.003	0.02	0.05	0.05	0.05	0.1	0.1	0.05	0.02	0.02	0.1
SW0516	1	0.05	0.1	0.05	0.05	0.05	0.01	0.03	0.05	0.01	0.005	0.05	0.02	0.003	0.02	0.05	0.05	0.05	0.1	0.1	0.05	0.02	0.02	0.1
SW0518	1	0.05	0.1	0.05	0.05	0.05	0.01	0.03	0.05	0.01	0.005	0.05	0.02	0.003	0.02	0.05	0.05	0.05	0.1	0.1	0.05	0.02	0.02	0.1
SW0520	1	0.05	0.1	0.05	0.05	0.05	0.01	0.03	0.05	0.01	0.005	0.05	0.02	0.003	0.02	0.05	0.05	0.05	0.1	0.1	0.05	0.02	0.02	0.1
SW0522	1	0.05	0.1	0.05	0.05	0.05	0.01	0.037	0.05	0.01	0.015	0.05	0.02	0.003	0.02	0.05	0.055	0.05	0.1	0.1	0.05	0.02	0.02	0.1
SW0530	1	0.05	0.1	0.05	0.05	0.05	0.01	0.03	0.05	0.01	0.005	0.05	0.02	0.003	0.02	0.05	0.05	0.05	0.1	0.1	0.05	0.02	0.02	0.1
SW0540	2	0.05	0.10	0.05	0.05	0.05	0.01	0.03	0.05	0.01	0.01	0.05	0.02	0.00	0.02	0.05	0.05	0.05	0.10	0.10	0.05	0.02	0.02	0.10
SW0550	1	0.05	0.1	0.05	0.05	0.05	0.01	0.03	0.05	0.01	0.005	0.05	0.02	0.003	0.02	0.05	0.05	0.05	0.1	0.1	0.05	0.02	0.02	0.1
SW0554	1	0.05	0.1	0.05	0.05	0.05	0.01	0.03	0.05	0.01	0.005	0.05	0.02	0.003	0.02	0.05	0.05	0.05	0.1	0.1	0.05	0.02	0.02	0.1
SW0557	1	0.05	0.1	0.05	0.05	0.05	0.01	0.03	0.05	0.01	0.005	0.05	0.02	0.003	0.02	0.05	0.05	0.05	0.1	0.1	0.05	0.02	0.02	0.1
SW0558	1	0.05	0.1	0.05	0.05	0.05	0.01	0.03	0.05	0.01	0.005	0.05	0.02	0.003	0.02	0.05	0.05	0.05	0.1	0.1	0.05	0.02	0.02	0.1
SW0559	5	0.05	0.10	0.12	0.05	0.05	0.01	0.03	0.05	0.02	0.01	0.05	0.03	0.00	0.07	0.09	0.14	0.05	0.28	0.14	0.10	0.050	0.02	0.40
SW0560	1	0.05	0.1	0.05	0.05	0.05	0.01	0.03	0.05	0.01	0.005	0.05	0.02	0.003	0.02	0.05	0.05	0.05	0.1	0.1	0.05	0.02	0.02	0.1
SW0564	1	0.05	0.1	0.05	0.05	0.05	0.01	0.03	0.05	0.01	0.005	0.05	0.02	0.003	0.02	0.05	0.05	0.05	0.1	0.1	0.05	0.02	0.02	0.1
SW0567	2	0.05	0.10	0.05	0.05	0.05	0.01	0.03	0.05	0.01	0.01	0.05	0.02	0.00	0.02	0.05	0.05	0.05	0.10	0.10	0.05	0.02	0.02	0.10
SW0574	1	0.05	0.1	0.05	0.05	0.05	0.01	0.03	0.05	0.01	0.005	0.05	0.02	0.003	0.02	0.05	0.05	0.05	0.1	0.1	0.05	0.02	0.02	0.1
SW0576A	1	0.05	0.1	0.05	0.05	0.05	0.01	0.03	0.05	0.01	0.005	0.05	0.02	0.003	0.02	0.05	0.05	0.05	0.1	0.1	0.05	0.02	0.02	0.1
SW0578	2	0.05	0.10	0.05	0.05	0.05	0.01	0.03	0.05	0.01	0.01	0.05	0.02	0.00	0.02	0.05	0.05	0.05	0.10	0.10	0.05	0.02	0.02	0.10
SW0580	1	0.05	0.1	0.05	0.05	0.05	0.01	0.03	0.05	0.01	0.005	0.05	0.02	0.003	0.02	0.05	0.05	0.05	0.1	0.1	0.05	0.02	0.02	0.1

Table 6 Continued

		1-Methyl-naphthalene	2-Methylnaphthalene	Acenaphthene	Acenaphthylene	Acridine	Anthracene	Benzo(B)Fluoranthene + Benzo(J)Fluoranthene	Benzo(K)Fluoranthene	Benzo[a]anthracene	Benzo[a]pyrene	Benzo[ghi]perylene	Chrysene	dibenzo(a,h)anthracene	Fluoranthene	Fluorene	High Molecular Weight PAH	Indeno(1,2,3-C,D)Pyrene	Low Molecular Weight PAH	Naphthalene	Phenanthrene	Pyrene	Quinoline	Total PAH
BC Guidelines	freshwater	1	1	6						0.1	0.01				4	12				1	0.3	0.02 [1]		
	marine			6							0.01		0.1			12				1				
Discharge #	# of samples																							
SW0592	1	0.05	0.1	0.05	0.05	0.05	0.01	0.03	0.05	0.01	0.005	0.05	0.02	0.003	0.02	0.05	0.05	0.05	0.1	0.1	0.05	0.02	0.02	0.1
SW0601A	1	0.05	0.1	0.05	0.05	0.05	0.01	0.03	0.05	0.01	0.005	0.05	0.02	0.003	0.02	0.05	0.05	0.05	0.1	0.1	0.05	0.02	0.02	0.1
SW0602	1	0.05	0.1	0.05	0.05	0.05	0.01	0.03	0.05	0.01	0.005	0.05	0.02	0.003	0.02	0.05	0.05	0.05	0.1	0.1	0.05	0.02	0.02	0.1
SW0603	4	0.05	0.10	0.05	0.05	0.05	0.01	0.03	0.05	0.01	0.01	0.05	0.02	0.00	0.05	0.05	0.08	0.05	0.10	0.10	0.06	0.022	0.02	0.14
SW0607	1	0.05	0.1	0.05	0.05	0.05	0.01	0.03	0.05	0.01	0.005	0.05	0.02	0.003	0.02	0.05	0.05	0.05	0.1	0.1	0.05	0.02	0.02	0.1
SW0613	4	0.05	0.10	0.05	0.05	0.05	0.01	0.03	0.05	0.01	0.01	0.05	0.02	0.00	0.03	0.05	0.07	0.05	0.10	0.10	0.05	0.026	0.03	0.10
SW0614	5	0.05	0.10	0.05	0.05	0.05	0.01	0.07	0.05	0.02	0.03	0.06	0.06	0.01	0.08	0.05	0.05	0.06	0.10	0.10	0.08	0.071	0.09	0.50
SW0620	7	0.05	0.10	0.05	0.05	0.05	0.01	0.03	0.05	0.01	0.01	0.05	0.02	0.00	0.04	0.05	0.15	0.05	0.13	0.10	0.07	0.034	0.02	0.16
SW0626	4	0.05	0.10	0.05	0.05	0.05	0.01	0.03	0.05	0.01	0.01	0.05	0.02	0.00	0.02	0.05	0.05	0.05	0.10	0.11	0.05	0.020	0.03	0.11
SW0627	5	0.05	0.10	0.05	0.05	0.05	0.01	0.03	0.05	0.01	0.01	0.05	0.02	0.00	0.02	0.05	0.07	0.05	0.12	0.10	0.06	0.023	0.03	0.13
SW0629	6	0.15	0.26	0.33	0.05	0.11	0.06	0.08	0.05	0.07	0.05	0.06	0.11	0.01	0.51	0.25	1.58	0.06	3.15	0.38	0.82	0.363	0.18	3.42
SW0630	1	0.05	0.1	0.05	0.05	0.05	0.07	0.42	0.14	0.25	0.37	0.28	0.33	0.071	0.54	0.05	3.2	0.18	0.43	0.1	0.33	0.590	0.032	3.6
SW0633	4	0.05	0.10	0.05	0.05	0.05	0.01	0.04	0.05	0.02	0.03	0.05	0.06	0.01	0.08	0.05	0.33	0.05	0.13	0.10	0.06	0.091	0.05	0.44
SW0634	3	0.22	0.38	0.07	0.05	0.05	0.04	0.13	0.05	0.08	0.04	0.06	0.17	0.01	0.35	0.08	1.45	0.06	0.56	0.50	0.31	0.243	0.36	2.83
SW0636	4	0.07	0.12	0.05	0.05	0.05	0.01	0.03	0.05	0.02	0.01	0.05	0.04	0.00	0.06	0.05	0.34	0.05	0.19	0.10	0.10	0.077	0.03	0.40
SW0643	1	0.05	0.1	0.05	0.05	0.05	0.01	0.03	0.05	0.01	0.005	0.05	0.02	0.003	0.02	0.05	0.05	0.05	0.1	0.1	0.05	0.02	0.02	0.1
SW0645	3	0.05	0.10	0.05	0.05	0.05	0.01	0.03	0.05	0.01	0.01	0.05	0.02	0.00	0.02	0.05	0.05	0.05	0.10	0.10	0.05	0.02	0.02	0.10
SW0645A	1	0.05	0.1	0.05	0.05	0.05	0.01	0.03	0.05	0.01	0.005	0.05	0.02	0.003	0.02	0.05	0.05	0.05	0.1	0.1	0.05	0.02	0.02	0.1
SW0646	1	0.05	0.1	0.05	0.05	0.05	0.01	0.03	0.05	0.01	0.005	0.05	0.02	0.003	0.02	0.05	0.05	0.05	0.1	0.1	0.05	0.02	0.02	0.1
SW0649	3	0.05	0.10	0.05	0.05	0.05	0.01	0.03	0.05	0.01	0.01	0.05	0.02	0.00	0.02	0.05	0.05	0.05	0.10	0.28	0.05	0.02	0.03	0.29
SW0650	2	0.05	0.10	0.05	0.05	0.05	0.01	0.03	0.05	0.01	0.01	0.05	0.02	0.00	0.02	0.05	0.05	0.05	0.10	0.10	0.05	0.02	0.02	0.10
SW0653	3	0.05	0.10	0.05	0.05	0.05	0.01	0.03	0.05	0.01	0.01	0.05	0.02	0.00	0.02	0.05	0.05	0.05	0.10	0.10	0.05	0.02	0.02	0.10
SW0654	1	0.05	0.1	0.05	0.05	0.05	0.01	0.03	0.05	0.01	0.005	0.05	0.02	0.003	0.02	0.05	0.05	0.05	0.1	0.1	0.05	0.02	0.02	0.1
SW0669	2	0.05	0.10	0.05	0.05	0.05	0.01	0.03	0.05	0.01	0.01	0.05	0.02	0.00	0.02	0.05	0.05	0.05	0.10	0.10	0.05	0.02	0.02	0.10
SW0679	1	0.05	0.1	0.05	0.05	0.05	0.01	0.03	0.05	0.01	0.005	0.05	0.02	0.003	0.02	0.05	0.05	0.05	0.1	0.1	0.05	0.02	0.02	0.1
SW0687	3	0.05	0.10	0.05	0.05	0.05	0.01	0.03	0.05	0.01	0.01	0.05	0.02	0.00	0.02	0.05	0.05	0.05	0.10	0.10	0.05	0.02	0.04	0.10
SW0710	1	0.05	0.1	0.05	0.05	0.05	0.01	0.03	0.05	0.01	0.005	0.05	0.02	0.003	0.02	0.05	0.05	0.05	0.1	0.1	0.05	0.02	0.02	0.1
SW0712	2	0.05	0.10	0.05	0.05	0.05	0.01	0.03	0.05	0.01	0.01	0.05	0.02	0.00	0.02	0.05	0.05	0.05	0.10	0.10	0.05	0.02	0.02	0.10
SW0722	4	0.05	0.10	0.05	0.05	0.05	0.01	0.03	0.05	0.01	0.01	0.05	0.02	0.00	0.02	0.05	0.05	0.05	0.10	0.10	0.05	0.02	0.02	0.10
SW0722AA	1	0.05	0.1	0.05	0.05	0.05	0.01	0.03	0.05	0.01	0.005	0.05	0.02	0.003	0.02	0.05	0.05	0.05	0.1	0.1	0.05	0.02	0.02	0.1

Table 6 Continued

		1-Methyl-naphthalene	2-Methylnaphthalene	Acenaphthene	Acenaphthylene	Acridine	Anthracene	Benzo(B)Fluoranthene + Benzo(J)Fluoranthene	Benzo(K)Fluoranthene	Benzo[a]anthracene	Benzo[a]pyrene	Benzo[ghi]perylene	Chrysene	dibenzo(a,h)anthracene	Fluoranthene	Fluorene	High Molecular Weight PAH	Indeno(1,2,3-C,D)Pyrene	Low Molecular Weight PAH	Naphthalene	Phenanthrene	Pyrene	Quinoline	Total PAH
BC Guidelines	freshwater	1	1	6						0.1	0.01				4	12				1	0.3	0.02 [1]		
	marine			6							0.01		0.1			12				1				
Discharge #	# of samples																							
SW0726	1	0.05	0.1	0.05	0.05	0.05	0.01	0.03	0.05	0.01	0.0083	0.05	0.02	0.003	0.02	0.05	0.05	0.05	0.1	0.1	0.05	0.02	0.02	0.1
SW0727	1	0.05	0.1	0.05	0.05	0.05	0.01	0.03	0.05	0.01	0.005	0.05	0.02	0.003	0.02	0.05	0.05	0.05	0.1	0.1	0.05	0.02	0.02	0.1
SW0736A	1	0.05	0.1	0.05	0.05	0.05	0.01	0.03	0.05	0.01	0.005	0.05	0.02	0.003	0.02	0.05	0.05	0.05	0.1	0.1	0.05	0.02	0.02	0.1
SW0737	6	0.05	0.10	0.05	0.05	0.05	0.01	0.03	0.05	0.01	0.01	0.05	0.02	0.00	0.02	0.05	0.05	0.05	0.10	0.10	0.05	0.02	0.02	0.10
SW0742	2	0.05	0.10	0.05	0.05	0.05	0.01	0.03	0.05	0.01	0.01	0.05	0.02	0.00	0.02	0.05	0.05	0.05	0.10	0.10	0.05	0.02	0.02	0.10
SW0742B	1	0.05	0.1	0.05	0.05	0.05	0.01	0.03	0.05	0.01	0.005	0.05	0.02	0.003	0.02	0.05	0.05	0.05	0.1	0.1	0.05	0.02	0.02	0.1
SW0744	4	0.05	0.10	0.05	0.05	0.05	0.01	0.03	0.05	0.01	0.01	0.05	0.02	0.00	0.02	0.05	0.05	0.05	0.10	0.10	0.05	0.02	0.02	0.10
SW0744A	1	0.05	0.1	0.05	0.05	0.05	0.01	0.03	0.05	0.01	0.005	0.05	0.02	0.003	0.02	0.05	0.05	0.05	0.1	0.1	0.05	0.02	0.02	0.1
SW0744B	2	0.05	0.10	0.05	0.05	0.05	0.01	0.03	0.05	0.01	0.01	0.05	0.02	0.00	0.02	0.05	0.05	0.05	0.10	0.10	0.05	0.02	0.02	0.10
SW0749	2	0.05	0.10	0.05	0.05	0.05	0.01	0.03	0.05	0.01	0.01	0.05	0.02	0.00	0.02	0.05	0.05	0.05	0.10	0.10	0.05	0.02	0.02	0.10
SW0767	4	0.05	0.10	0.05	0.05	0.05	0.01	0.03	0.05	0.01	0.01	0.05	0.02	0.00	0.02	0.05	0.05	0.05		0.10	0.05	0.02	0.02	0.10
SW0777A	1	0.05	0.1	0.05	0.05	0.05	0.01	0.03	0.05	0.01	0.005	0.05	0.02	0.003	0.02	0.05	0.05	0.05	0.1	0.1	0.05	0.02	0.02	0.1
SW0779	2	0.05	0.10	0.05	0.05	0.05	0.01	0.03	0.05	0.01	0.01	0.05	0.02	0.00	0.02	0.05	0.05	0.05	0.10	0.10	0.05	0.02	0.02	0.10
SW0780	7	0.05	0.10	0.05	0.05	0.05	0.01	0.04	0.05	0.02	0.02	0.05	0.03	0.01	0.04	0.05	0.20	0.05	0.10	0.10	0.05	0.037	0.02	0.22
SW0781	9	0.05	0.10	0.05	0.05	0.05	0.01	0.04	0.05	0.02	0.02	0.06	0.03	0.01	0.05	0.05	0.22	0.05	0.14	0.10	0.08	0.045	0.02	0.29
SW0805	2	0.05	0.10	0.05	0.05	0.05	0.01	0.03	0.05	0.01	0.01	0.05	0.02	0.00	0.02	0.05	0.05	0.05	0.10	0.10	0.05	0.02	0.02	0.10
SW0806	6	0.05	0.10	0.05	0.05	0.05	0.01	0.03	0.05	0.01	0.01	0.05	0.02	0.00	0.02	0.05	0.05	0.05	0.10	0.10	0.05	0.02	0.02	0.10
SW0814	1	0.05	0.1	0.05	0.05	0.05	0.01	0.03	0.05	0.01	0.005	0.05	0.02	0.003	0.02	0.05	0.05	0.05	0.1	0.1	0.05	0.02	0.02	0.1
SW0854	5	0.05	0.10	0.05	0.05	0.05	0.01	0.03	0.05	0.01	0.01	0.05	0.02	0.00	0.02	0.05	0.05	0.05	0.10	0.10	0.05	0.021	0.03	0.10
SW0866	1	0.05	0.1	0.05	0.05	0.05	0.01	0.03	0.05	0.01	0.005	0.05	0.02	0.003	0.02	0.05	0.05	0.05	0.1	0.1	0.05	0.02	0.02	0.1
SW0874	2	0.05	0.10	0.05	0.05	0.05	0.01	0.03	0.05	0.01	0.01	0.05	0.02	0.00	0.02	0.05	0.05	0.05		0.10	0.05	0.02	0.02	0.10
SW0882	2	0.05	0.10	0.05	0.05	0.05	0.01	0.03	0.05	0.01	0.01	0.05	0.02	0.00	0.02	0.05	0.05	0.05	0.10	0.10	0.05	0.02	0.02	0.10
SW0927	1	0.05	0.1	0.05	0.05	0.05	0.01	0.03	0.05	0.01	0.005	0.05	0.02	0.003	0.02	0.05	0.05	0.05	0.1	0.1	0.05	0.02	0.02	0.1
SW0934	4	0.05	0.10	0.05	0.05	0.05	0.01	0.03	0.05	0.01	0.01	0.05	0.02	0.00	0.02	0.05	0.05	0.05	0.10	0.10	0.05	0.02	0.02	0.10

Notes

Concentrations are in µg/L.
PAH = polycyclic aromatic hydrocarbons.
HMW = High Molecular Weight, LMW = Low Molecular Weight.
Guidelines are BC ENV for protection of aquatic life maximums. The freshwater guideline is a chronic guideline.
The guideline for methylated naphthalene was used for 1-methylnaphthalene and 2-methylnaphthalene.
[1] The guideline for pyrene is based on a phototoxic exposure.
XX Means the value is above a BC water quality guideline for aquatic life.

APPENDIX F

WATERCOURSE MONITORING DATA

Table 1 Summary Table for 5 in 30 Water Quality Data Collected for Bowker Creek, Bee Creek and Selleck Creek

	Parameter	Aluminum	Aluminum	Antimony	Antimony	Arsenic	Arsenic	Barium	Beryllium	Cadmium	Cadmium	Chromium	Chromium
	State	DIS	TOT	TOT	DIS	DIS	TOT	TOT	TOT	DIS	TOT	DIS	TOT
	Unit	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
BC Freshwater	acute /instantaneous	-	-	74	-	-	5	-	-	0.09-1.05 [2]	-	-	1 / 8.9 [1,3]
AL Guidelines	chronic /average	-	53-570 [2]	250	-	-	-	1,000 [1]	0.13 [1]	0.06-0.3	-	-	-
Station													
SW0316	2024-08-07	6.69	57.6	0.403	0.462	1.29	1.21	14.2	<0.01	<0.005	0.0058	0.2	0.28
Bowker Creek at	2024-08-14	6.74	27.6	0.536	0.554	1.43	1.29	15.6	<0.01	<0.005	< 0.005	0.28	0.36
Somass Drive	2024-08-21	12.4	36.1	0.768	0.834	1.22	1.26	16.2	<0.01	0.005	0.0062	0.36	0.38
	2024-08-28	22	108	0.687	0.741	0.964	0.933	15.1	<0.01	<0.005	0.0054	0.8	0.77
	2024-09-04	9.86	23.5	0.587	0.682	1.12	1.02	17	<0.01	0.0051	0.0098	0.38	0.38
	n	5	5	5	5	5	5	5	5	5	5	5	5
	min	6.69	23.5	0.403	0.462	0.964	0.933	14.2	<0.01	<0.005	0.005	0.2	0.28
	max	22	108	0.768	0.834	1.43	1.29	17	0.01	0.0051	0.0098	0.8	0.77
	ave	12	51	0.596	0.655	1.20	1.14	15.6	<0.01	0.01	0.006	0.4	0.43
	std dev	6	35	0.140	0.148	0.18	0.16	1.1	0.00	0.00	0.002	0.2	0.19
	2024-10-10	16.1	214	0.673	0.659	0.878	0.926	12.4	<0.01	<0.005	0.005	0.54	0.9
	2024-10-17	16.4	208	0.499	0.498	0.72	0.766	10.2	<0.01	<0.005	0.006	0.91	0.72
	2024-10-24	20	226	0.592	0.637	0.919	0.904	22.3	<0.01	0.0066	0.009	0.8	*1.11*
	2024-10-31	13.4	74.8	0.499	0.53	0.762	0.753	18.5	<0.01	0.0132	0.0138	0.51	0.48
	2024-11-07	13.5	60	0.355	0.495	0.731	0.609	13.6	<0.01	0.0113	0.008	0.43	0.33
	n	5	5	5	5	5	5	5	5	5	5	5	5
	min	13.4	60	0.355	0.495	0.72	0.609	10.2	<0.01	<0.005	0.005	0.43	0.33
	max	20	226	0.673	0.659	0.919	0.926	22.3	0.01	0.0132	0.0138	0.91	*1.11*
	ave	16	157	0.524	0.564	0.80	0.79	15.4	<0.01	0.01	0.008	0.6	0.71
	std dev	3	82	0.119	0.078	0.09	0.13	4.9	0.00	0.00	0.003	0.2	0.31
SW0316-3B	2024-08-07	9	23	0.472	0.482	1.07	1.13	21.2	<0.01	0.01	0.006	0.2	0.17
Bowker Creek at	2024-08-14	8.41	40.4	0.407	0.412	1.19	1.18	19.3	<0.01	<0.005	0.0062	0.16	0.3
Pearl Street	2024-08-21	9.53	32.2	0.592	0.58	1.01	1.2	20.2	<0.01	0.006	0.0122	0.2	0.29
	2024-08-28	21.2	84.4	0.538	0.577	0.806	0.835	17.7	<0.01	<0.005	0.0085	0.48	0.53
	2024-09-04	11.6	34.4	0.331	0.366	0.87	0.851	17	<0.01	0.0051	0.0073	0.13	0.21
	n	5	5	5	5	5	5	5	5	5	5	5	5
	min	8.41	23.1	0.331	0.366	0.806	0.835	17	<0.01	<0.005	0.006	0.13	0.17
	max	21.2	84.4	0.592	0.58	1.19	1.2	21.2	0.01	0.0092	0.0122	0.48	0.53
	ave	12	43	0.468	0.483	0.99	1.04	19.1	<0.01	0.01	0.008	0.2	0.30
	std dev	5	24	0.103	0.096	0.15	0.18	1.7	0.00	0.00	0.003	0.1	0.14
	2024-10-10	18.5	201	0.523	0.55	0.826	0.828	10.3	<0.01	<0.005	0.0074	0.34	0.65
	2024-10-17	10.6	100	0.414	0.514	0.621	0.584	11.1	<0.01	<0.005	0.006	0.25	0.48
	2024-10-24	22.1	352	0.46	0.524	0.732	0.796	18.8	0.011	0.0067	0.0083	0.37	*1.06*
	2024-10-31	13.6	314	0.497	0.551	0.734	0.768	19.4	<0.01	<0.005	0.0111	0.35	0.66
	2024-11-07	15.5	70.3	0.249	0.315	0.611	0.561	13.4	<0.01	<0.005	< 0.005	0.27	0.33
	n	5	5	5	5	5	5	5	5	5	5	5	5
	min	10.6	70.3	0.249	0.315	0.611	0.561	10.3	<0.01	<0.005	0.005	0.25	0.33
	max	22.1	352*	0.523	0.551	0.826	0.828	19.4	0.011	0.0067	0.0111	0.37	*1.06*
	ave	16	207	0.429	0.491	0.70	0.71	14.6	<0.01	0.01	0.008	0.3	0.64
	std dev	4	125	0.108	0.100	0.09	0.13	4.3	0.00	0.00	0.002	0.1	0.27
SW0316-4B	2024-08-07	23.2	107	0.352	0.361	1.41	1.45	18.5	<0.01	0.0057	0.0093	0.37	0.57
Bowker Creek at	2024-08-14	22.6	65.7	0.435	0.475	1.59	1.6	21.7	<0.01	<0.005	0.0075	0.71	*1*
Browning Park	2024-08-21	26.7	120	0.416	0.449	1.43	1.53	17.2	<0.01	<0.005	0.0063	0.75	0.85
	2024-08-28	44.3	165	0.507	0.528	0.929	0.971	16.7	<0.01	0.006	0.008	2.16	*2.07*
	2024-09-04	29.4	110	0.565	0.606	1.13	1.14	16.4	<0.01	0.0068	0.0085	2.07	*2.26*
	n	5	5	5	5	5	5	5	5	5	5	5	5

Table 1 Continued

	Parameter	Aluminum	Aluminum	Antimony	Antimony	Arsenic	Arsenic	Barium	Beryllium	Cadmium	Cadmium	Chromium	Chromium
	State	DIS	TOT	TOT	DIS	DIS	TOT	TOT	TOT	DIS	TOT	DIS	TOT
	Unit	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
BC Freshwater	acute /instantaneous	-	-	74	-	-	5	-	-	0.09-1.05 [2]	-	-	1 / 8.9 [1,3]
AL Guidelines	chronic /average	-	53-570 [2]	250	-	-	-	1,000 [1]	0.13 [1]	0.06-0.3	-	-	-
	min	22.6	65.7	0.352	0.361	0.929	0.971	16.4	<0.01	<0.005	0.0063	0.37	0.57
	max	44.3	165	0.565	0.606	1.59	1.6	21.7	0.01	0.0068	0.0093	2.16	*2.26*
	ave	29	114	0.455	0.484	1.30	1.34	18.1	<0.01	0.01	0.008	1.2	1.35
	std dev	9	35	0.083	0.091	0.26	0.27	2.2	0.00	0.00	0.001	0.8	0.76
	2024-10-10	26.9	65.8	0.305	0.388	0.99	0.869	10.6	<0.01	<0.005	0.008	0.38	0.38
	2024-10-17	14.3	83.4	0.345	0.371	0.82	0.849	10.2	0.013	<0.005	0.008	0.33	0.49
	2024-10-24	29.5	83.1	0.356	0.375	0.884	0.892	13.4	<0.01	0.0071	0.006	0.5	0.58
	2024-10-31	32.8	108	0.325	0.352	0.829	0.79	14.7	<0.01	0.0068	0.0104	0.99	0.86
	2024-11-07	27.4	73.8	0.252	0.305	0.737	0.722	12.5	<0.01	0.0068	0.008	0.3	0.34
	n	5	5	5	5	5	5	5	5	5	5	5	5
	min	14.3	65.8	0.252	0.305	0.737	0.722	10.2	<0.01	<0.005	0.006	0.3	0.34
	max	32.8	108	0.356	0.388	0.99	0.892	14.7	0.013	0.0071	0.0104	0.99	0.86
	ave	26	83	0.317	0.358	0.85	0.82	12.3	<0.01	0.01	0.008	0.5	0.53
	std dev	7	16	0.041	0.032	0.09	0.07	1.9	0.00	0.00	0.002	0.3	0.21
SW0316-5	2024-08-07	5.61	27.6	0.252	0.263	0.586	0.685	12.2	<0.01	<0.005	0.0051	<0.1	0.13
Bowker Creek at	2024-08-14	5.71	44.1	0.207	0.215	0.628	0.656	9.26	<0.01	<0.005	<0.005	0.1	0.18
Gordon Head Road	2024-08-21	10	112	0.318	0.298	0.739	1.02	12.7	0.011	<0.005	0.0111	0.22	0.49
	2024-08-28	23.8	54.2	0.33	0.375	0.719	0.832	14.3	<0.01	0.008	0.0131	0.33	0.35
	2024-09-04	5.38	39.5	0.224	0.24	0.625	0.668	12	<0.01	<0.005	<0.005	<0.1	0.18
	n	5	5	5	5	5	5	5	5	5	5	5	5
	min	5.38	27.6	0.207	0.215	0.586	0.656	9.26	<0.01	<0.005	0.005	0.1	0.13
	max	23.8	112	0.33	0.375	0.739	1.02	14.3	0.011	0.008	0.0131	0.33	0.49
	ave	10	55	0.266	0.278	0.66	0.77	12.1	<0.01	0.01	0.008	0.2	0.27
	std dev	8	33	0.055	0.062	0.07	0.16	1.8	0.00	0.00	0.004	0.1	0.15
	2024-10-10	35.9	89.5	0.385	0.416	0.938	0.91	11.5	<0.01	0.0085	0.018	0.42	0.5
	2024-10-17	9.18	267	0.408	0.379	0.575	0.839	12.9	<0.01	<0.005	0.014	0.21	0.78
	2024-10-24	23.7	59	0.398	0.423	0.571	0.596	14.1	<0.01	0.0111	0.0125	0.29	0.35
	2024-10-31	24.6	63.8	0.34	0.348	0.593	0.64	16.2	<0.01	0.0099	0.0154	0.48	0.38
	2024-11-07	27.7	129	0.333	0.345	0.56	0.641	14.7	<0.01	0.0106	0.014	0.32	0.53
	n	5	5	5	5	5	5	5	5	5	5	5	5
	min	9.18	59	0.333	0.345	0.56	0.596	11.5	<0.01	<0.005	0.0125	0.21	0.35
	max	35.9	267	0.408	0.423	0.938	0.91	16.2	0.01	0.0111	0.018	0.48	0.78
	ave	24	122	0.373	0.382	0.65	0.73	13.9	<0.01	0.01	0.015	0.3	0.51
	std dev	10	86	0.034	0.037	0.16	0.14	1.8	0.00	0.00	0.002	0.1	0.17
SW0926	2024-08-07	4.19	94.3	<0.02	<0.02	0.28	0.295	8.09	<0.01	<0.005	0.0059	0.1	0.33
Bee Creek	2024-08-14	5.66	80.1	<0.02	<0.02	0.309	0.322	5.26	<0.01	0.009	0.007	0.14	0.27
	2024-08-21	4.56	87.5	<0.02	<0.02	0.279	0.362	6.62	<0.01	0.005	0.0062	0.14	*1.48*
	2024-08-28	5.62	54.3	<0.02	<0.02	0.269	0.331	6.11	<0.01	<0.005	0.0058	0.15	0.25
	2024-09-04	4.86	89.7	<0.02	<0.02	0.292	0.317	6.29	<0.01	<0.005	0.0058	0.16	0.52
	n	5	5	5	5	5	5	5	5	5	5	5	5
	min	4.19	54.3	0.02	0.02	0.269	0.295	5.26	<0.01	<0.005	0.0058	0.1	0.25
	max	5.66	94.3	0.02	0.02	0.309	0.362	8.09	0.01	0.009	0.007	0.16	*1.48*
	ave	5	81	0.020	0.020	0.29	0.33	6.5	<0.01	0.01	0.006	0.1	0.57
	std dev	1	16	0.000	0.000	0.02	0.02	1.0	0.00	0.00	0.001	0.0	0.52
	2024-10-10	5.62	58.7	<0.02	<0.02	0.289	0.291	4.69	<0.01	<0.005	<0.005	0.15	0.38
	2024-10-17	6.09	62.2	<0.02	<0.02	0.286	0.299	4.79	<0.01	<0.005	<0.005	0.14	0.32
	2024-10-24	8.24	46.4	<0.02	0.021	0.316	0.301	4.53	<0.01	<0.005	<0.005	0.19	0.25
	2024-10-31	8.89	41.2	<0.02	<0.02	0.322	0.296	6.07	<0.01	<0.005	<0.005	0.36	0.28
	2024-11-07	8.41	49.5	<0.02	<0.02	0.294	0.281	4.7	<0.01	<0.005	0.006	0.2	0.31
	n	5	5	5	5	5	5	5	5	5	5	5	5

Table 1, Continued

	Parameter	Aluminum	Aluminum	Antimony	Antimony	Arsenic	Arsenic	Barium	Beryllium	Cadmium	Cadmium	Chromium	Chromium
	State	DIS	TOT	TOT	DIS	DIS	TOT	TOT	TOT	DIS	TOT	DIS	TOT
	Unit	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
BC Freshwater	acute /instantaneous	-	-	74	-	-	5	-	-	0.09-1.05 [2]	-	-	1 / 8.9 [1,3]
AL Guidelines	chronic /average	-	53-570 [2]	250	-	-	-	1,000 [1]	0.13 [1]	0.06-0.3	-	-	-
	min	5.62	41.2	0.02	0.02	0.286	0.281	4.53	<0.01	<0.005	0.005	0.14	0.25
	max	8.89	62.2	0.02	0.021	0.322	0.301	6.07	0.01	0.005	0.006	0.36	0.38
	ave	7	52	0.020	0.020	0.30	0.29	5.0	<0.01	0.01	0.005	0.2	0.31
	std dev	1	9	0.000	0.000	0.02	0.01	0.6	0.00	0.00	0.000	0.1	0.05
SW0928	2024-08-07	2.29	23.3	<0.02	<0.02	0.175	0.18	3.8	<0.01	<0.005	<0.005	0.11	0.16
Selleck Creek	2024-08-14	3.39	23.9	<0.02	<0.02	0.175	0.145	3.17	<0.01	<0.005	<0.005	0.15	*2.27*
	2024-08-21	1.85	11.3	0.023	0.022	0.143	0.162	4.64	<0.01	<0.005	<0.005	0.12	0.19
	2024-08-28	2.89	15.5	0.035	0.025	0.166	0.177	4.83	<0.01	<0.005	<0.005	0.17	0.4
	2024-09-04	2.23	18.7	0.021	0.024	0.165	0.14	4.62	<0.01	<0.005	0.005	0.16	0.18
	n	5	5	5	5	5	5	5	5	5	5	5	5
	min	1.85	11.3	0.02	0.02	0.143	0.14	3.17	<0.01	<0.005	0.005	0.11	0.16
	max	3.39	23.9	0.035	0.025	0.175	0.18	4.83	0.01	0.005	0.005	0.17	*2.27*
	ave	3	19	0.024	0.022	0.16	0.16	4.2	<0.01	0.01	0.005	0.1	0.64
	std dev	1	5	0.006	0.002	0.01	0.02	0.7	0.00	0.00	0.000	0.0	0.92
	2024-10-10	3.27	20.7	0.02	0.027	0.175	0.167	6.21	<0.01	<0.005	<0.005	0.17	0.61
	2024-10-17	2.78	19.1	<0.02	0.025	0.163	0.13	3.63	<0.01	<0.005	<0.005	0.16	0.19
	2024-10-24	10.2	47.1	0.049	0.053	0.27	0.234	5.14	<0.01	<0.005	<0.005	0.25	0.3
	2024-10-31	10.6	38.8	0.052	0.057	0.312	0.272	5.44	<0.01	<0.005	0.005	0.33	0.34
	2024-11-07	12.2	43	0.054	0.055	0.291	0.267	4.9	<0.01	<0.005	0.005	0.42	0.4
	n	5	5	5	5	5	5	5	5	5	5	5	5
	min	2.78	19.1	0.02	0.025	0.163	0.13	3.63	<0.01	<0.005	0.005	0.16	0.19
	max	12.2	47.1	0.054	0.057	0.312	0.272	6.21	0.01	0.005	0.005	0.42	0.61
	ave	8	34	0.039	0.043	0.24	0.21	5.1	<0.01	0.01	0.005	0.3	0.37
	std dev	4	13	0.017	0.016	0.07	0.06	0.9	0.00	0.00	0.000	0.1	0.16

Table 1 Continued

	Parameter	Conductivity	Copper	Copper	Oxygen	E. Coli	Flow Rate	Hardness (CaCO3)	Iron	Iron	Lead	Lead	Manganese	No2 (N)	No3 (N)
	State	NA	DIS	TOT	DIS	NA		TOT	DIS	TOT	DIS	TOT	TOT	DIS	DIS
	Unit	µS/cm	µg/L	µg/L	mg/L	CFU/100 mL		mg/L	µg/L	µg/L	µg/L	µg/L	µg/L	mg/L	mg/L
BC Freshwater	acute /instantaneous	-	1 - 33[4]	-	5 [5]	400 [6]	-	-	350	1,000	-	-	719-2479 [2]	0.24	32.8
AL Guidelines	chronic /average	-	0.2 - 5.5[4]	-	8 [5]	200 [6]	-	-	-	-	-	2.4-8.5 [2]	676-1379 [2]	0.08	3
Station															
SW0316	2024-08-07	426.3	2.79	2.95	7.15	6700	450	128	28.2	143	0.1	0.326	35.1	0.0147	0.781
Bowker Creek at	2024-08-14	482.6	3.25	3	9.28	1000	400	146	22.1	69	0	0.154	19.7	0.0069	0.769
Somass Drive	2024-08-21	452.2	7.78	8.04	8.91	620	400	119	54.5	109	0.1	0.189	12.6	0.0117	0.41
	2024-08-28	360.4	6.61	6.44	10.15	720	1600	97.6	63.5	171	0.1	0.274	7.3	0.0052	1.1
	2024-09-04	489.5	3.64	3.29	9.53	1600	500	150	28.4	65.1	0.1	0.156	10.1	0.0043	0.858
	n	5	5	5	5	5	5	5	5	5	5	5	5	5	5
	min	360.4	2.79	2.95	7.15	620	400	97.6	22.1	65.1	0	0.154	7.3	0.0043	0.41
	max	489.5	7.78	8.04	10.15	6700	1600	150	63.5	171	0.1	0.326	35.1	0.0147	1.1
	ave	442.2	4.81	4.74	9.00	1368	670	128	39.3	111	0.08	0.220	17.0	0.0086	0.8
	std dev	52.2	2.23	2.35	1.13	2584	522	21	18.4	46	0.03	0.077	11.1	0.0045	0.2
	2024-10-10	313.2	5.38	6.62	11.02	400	2000	91.6	63.6	320	0.1	0.457	9.63	0.0031	0.694
	2024-10-17	237.4	5.95	7.5	9.13	410	2000	68	50.9	333	0.1	0.573	9.45	0.0022	0.434
	2024-10-24	529.1	3.48	4.14	9.35	140	>2500	165	23.4	297	0	0.342	12.9	0.0263	1.8
	2024-10-31	463.8	3.6	3.91	10.43	290	3000	142	35.6	152	0.1	0.254	9.9	0.0175	1.38
	2024-11-07	488.1	3.01	2.77	10.68	520	4000	131	45	123	0	0.133	7.97	<0.002	0.0064
	n	5	5	5	5	5	5	5	5	5	5	5	5	5	5
	min	237.4	3.01	2.77	9.13	140	2000	68	23.4	123	0	0.133	7.97	0.002	0.0064
	max	529.1	5.95	7.5	11.02	520	4000	165	63.6	333	0.1	0.573	12.9	0.0263	1.8
	ave	406.3	4.28	4.99	10.12	322	2700	120	43.7	245	0.08	0.352	10.0	0.0102	0.9
	std dev	124.8	1.30	1.99	0.84	144	837	39	15.2	100	0.04	0.171	1.8	0.0111	0.7
SW0316-3B	2024-08-07	444.6	1.90	2.27	1.51	2200	450	175	62.4	164	0.04	0.127	70.7	0.0566	0.6
Bowker Creek at	2024-08-14	554.1	1.94	2.66	1.74	140	250	176	29.9	166	0	0.16	53.4	0.0172	0.431
Pearl Street	2024-08-21	481.6	5.22	7.39	2.55	110	400	157	107	236	0.1	0.162	81	0.0051	0.821
	2024-08-28	452.4	4.57	5.02	6.07	280	1400	131	110	237	0.1	0.327	31.2	0.0099	0.959
	2024-09-04	491.6	2.07	2.28	3.39	240	400	158	51.8	154	0	0.155	30.7	0.0085	0.629
	n	5	5	5	5	5	5	5	5	5	5	5	5	5	5
	min	444.6	1.9	2.27	1.51	110	250	131	29.9	154	0	0.127	30.7	0.0051	0.431
	max	554.1	5.22	7.39	6.07	2200	1400	176	110	237	0.1	0.327	81	0.0566	0.959
	ave	484.9	3.14	3.92	3.05	296	580	159	72.2	191	0.06	0.186	53.4	0.0195	0.7
	std dev	43.4	1.62	2.25	1.84	900	464	18	35.1	41	0.03	0.080	22.7	0.0212	0.2
	2024-10-10	274.4	5.3	6.49	6.62	350	2000	82.5	106	361	0.1	0.354	23.1	0.003	0.466
	2024-10-17	261.7	5.33	5.83	5.1	530	1800	71.6	62.3	278	0.1	0.316	16.9	0.0039	0.359
	2024-10-24	492.9	2.42	3.39	6.64	84	2000	161	39	557	0	0.253	37.3	0.02	1.35
	2024-10-31	441.6	3.16	4.3	7.69	88	2000	145	30.2	458	0	0.268	33	0.0154	1.12
	2024-11-07	454.2	2.34	2.58	7.85	89	3500	136	76.2	182	0	0.121	21.9	0.0135	1.36
	n	5	5	5	5	5	5	5	5	5	5	5	5	5	5
	min	261.7	2.34	2.58	5.1	84	1800	71.6	30.2	182	0	0.121	16.9	0.003	0.359
	max	492.9	5.33	6.49	7.85	530	3500	161	106	557	0.1	0.354	37.3	0.02	1.36
	ave	385.0	3.71	4.52	6.78	165	2260	119	62.7	367	0.06	0.262	26.4	0.0112	0.9
	std dev	108.5	1.50	1.63	1.10	204	699	40	30.3	147	0.04	0.089	8.4	0.0074	0.5
SW0316-4B	2024-08-07	477.5	3.87	4.68	6.99	2100	450	152	50.2	206	0	0.279	59.9	0.0055	0.923
Bowker Creek at	2024-08-14	564.8	4.24	4.4	5.99	400	200	175	36.4	142	0	0.158	41.8	0.0067	1.05
Browning Park	2024-08-21	475.9	5.01	5.97	7.21	460	400	147	49.7	200	0	0.225	37.3	<0.002	0.066
	2024-08-28	438.4	4.8	4.87	8.49	580	800	140	47.5	172	0.1	0.247	21.5	0.0826	1.58
	2024-09-04	490.3	3.61	3.77	7.38	560	350	141	37.7	163	0	0.231	22.6	0.138	1.39
	n	5	5	5	5	5	5	5	5	5	5	5	5	5	5
	min	438.4	3.61	3.77	5.99	400	200	140	36.4	142	0	0.158	21.5	0.002	0.066
	max	564.8	5.01	5.97	8.49	2100	800	175	50.2	206	0.1	0.279	59.9	0.138	1.58

Table 1, Continued

	Parameter	Conductivity	Copper	Copper	Oxygen	E. Coli	Flow Rate	Hardness (CaCO3)	Iron	Iron	Lead	Lead	Manganese	No2 (N)	No3 (N)
	State	NA	DIS	TOT	DIS	NA		TOT	DIS	TOT	DIS	TOT	TOT	DIS	DIS
	Unit	µS/cm	µg/L	µg/L	mg/L	CFU/100 mL		mg/L	µg/L	µg/L	µg/L	µg/L	µg/L	mg/L	mg/L
BC Freshwater	acute /instantaneous	-	1 - 33[4]	-	5 [5]	400 [6]	-	-	350	1,000	-	-	719-2479 [2]	0.24	32.8
AL Guidelines	chronic /average	-	0.2 - 5.5[4]	-	8 [5]	200 [6]	-	-	-	-	-	2.4-8.5 [2]	676-1379 [2]	0.08	3
	ave	489.4	4.31	4.74	7.21	660	440	151	44.3	177	0.05	0.228	36.6	0.0470	1.0
	std dev	46.4	0.60	0.80	0.89	719	222	14	6.7	27	0.01	0.044	15.8	0.0611	0.6
	2024-10-10	359.2	5.65	5.95	9.95	730	1500	101	127	204	0.3	0.41	14.2	0.0099	0.567
	2024-10-17	314.1	4.97	5.95	7.45	290	500	99.4	45.6	191	0	0.282	17.1	0.0101	0.629
	2024-10-24	444.7	3.37	3.68	7.83	58	1500	148	80.1	181	0.1	0.243	21.2	0.0283	1.16
	2024-10-31	327.5	3.65	3.98	9.04	36	1500	131	85	319	0.1	0.343	26.2	0.0244	1.09
	2024-11-07	425.7	2.94	2.92	9.25	510	1500	141	79.4	168	0.1	0.166	21.1	0.0157	1.19
	n	5	5	5	5	5	5	5	5	5	5	5	5	5	5
	min	314.1	2.94	2.92	7.45	36	500	99.4	45.6	168	0	0.166	14.2	0.0099	0.567
	max	444.7	5.65	5.95	9.95	730	1500	148	127	319	0.3	0.41	26.2	0.0283	1.19
	ave	374.2	4.12	4.50	8.70	186	1300	124	83.4	213	0.11	0.289	20.0	0.0177	0.9
	std dev	58.4	1.14	1.38	1.04	298	447	23	29.0	61	0.08	0.093	4.6	0.0084	0.3
SW0316-5	2024-08-07	449.3	2.01	1.62	0.64	28	25	81.1	216	369	0.1	0.166	311	<0.002	0.0414
Bowker Creek at	2024-08-14	305.6	1.66	1.71	1.85	29	20	82.1	241	451	0.1	0.242	226	<0.002	0.0364
Gordon Head Road	2024-08-21	317.2	4.03	5.66	2.45	120	30	97	332	706	0.2	0.799	194	<0.002	3.94
	2024-08-28	326.7	6.81	8.03	4.54	78	50	93.4	466	621	0.6	0.967	184	<0.002	0.123
	2024-09-04	291.6	1.59	1.78	2.5	31	25	83	221	396	0.1	0.239	293	<0.002	0.154
	n	5	5	5	5	5	5	5	5	5	5	5	5	5	5
	min	291.6	1.59	1.62	0.64	28	20	81.1	216	369	0.1	0.166	184	<0.002	0.0364
	max	449.3	6.81	8.03	4.54	120	50	97	466	706	0.6	0.967	311	<0.002	3.94
	ave	338.1	3.22	3.76	2.40	47	30	87	295	509	0.20	0.483	241.6	<0.0020	0.9
	std dev	63.5	2.24	2.94	1.4	41	12	7	106.4	148	0.24	0.372	57.6	0.0000	1.7
	2024-10-10	296.1	8.16	9.09	3.78	190	60	74.2	602	794	0.9	1.27	214	0.0038	0.0104
	2024-10-17	267.5	3.76	5.74	3	270	60	78.5	256	1050	0.1	1.01	210	<0.002	0.0304
	2024-10-24	271.2	4.36	5.19	3.35	56	60	117	431	593	0.5	0.708	171	0.0029	0.289
	2024-10-31	374.2	5.72	6.02	3.26	32	80	108	367	594	0.3	0.925	198	<0.002	0.143
	2024-11-07	362.1	4.09	5.38	3.31	12	80	112	434	745	0.5	0.919	197	0.0028	0.238
	n	5	5	5	5	5	5	5	5	5	5	5	5	5	5
	min	267.5	3.76	5.19	3	12	60	74.2	256	593	0.1	0.708	171	0.002	0.0104
	max	374.2	8.16	9.09	3.78	270	80	117	602	1050	0.9	1.27	214	0.0038	0.289
	ave	314.2	5.22	6.28	3.34	64	68	98	418	755	0.45	0.966	198.0	0.0027	0.1
	std dev	50.6	1.81	1.60	0.28	112	11	20	125.6	188	0.27	0.203	16.8	0.0007	0.1
SW0926	2024-08-07	337.2	0.408	0.56	9.92	47	750	117	13.9	186	0	0.112	40.8	<0.002	4.38
Bee Creek	2024-08-14	213.3	0.555	0.59	11.2	25	750	115	14.8	177	0	0.124	44.9	<0.002	4.44
	2024-08-21	366.2	0.706	0.56	11.27	82	1000	122	20.6	181	0	0.11	36.2	<0.002	3.94
	2024-08-28	354.1	0.572	0.5	12.98	280	1200	118	29	143	0	0.108	35.5	<0.002	3.92
	2024-09-04	345.1	0.438	0.52	11.46	63	900	120	22.9	182	0	0.107	36.9	<0.002	4.1
	n	5	5	5	5	5	5	5	5	5	5	5	5	5	5
	min	213.3	0.408	0.5	9.92	25	750	115	13.9	143	0	0.107	35.5	0.002	3.92
	max	366.2	0.706	0.59	12.98	280	1200	122	29	186	0	0.124	44.9	0.002	4.44
	ave	323.2	0.54	0.55	11.37	70	920	118	20.2	174	0.01	0.112	38.9	0.0020	4.2
	std dev	62.4	0.12	0.04	1.09	103	189	3	6.2	18	0.00	0.007	4.0	0.0000	0.2
	2024-10-10	351.6	0.274	0.73	13.38	24	1500	113	35	142	0	0.075	29.3	<0.002	3.95
	2024-10-17	351.7	0.283	0.55	10.73	28	2000	121	30.6	165	0	0.099	32.2	<0.002	3.75
	2024-10-24	332.6	0.337	0.47	10.37	92	3000	117	45.5	120	0	0.05	24.5	<0.002	3.79
	2024-10-31	339.6	0.375	0.62	11.76	4	2000	114	43.1	120	0	0.069	25.7	<0.002	3.75
	2024-11-07	338.9	0.361	0.47	11.3	14	2000	118	47.1	124	0	0.051	23.5	<0.002	3.66
	n	5	5	5	5	5	5	5	5	5	5	5	5	5	5
	min	332.6	0.274	0.47	10.37	4	1500	113	30.6	120	0	0.05	23.5	0.002	3.66

Table 1 Continued

	Parameter	Conductivity	Copper	Copper	Oxygen	E. Coli	Flow Rate	Hardness (CaCO3)	Iron	Iron	Lead	Lead	Manganese	No2 (N)	No3 (N)
	State	NA	DIS	TOT	DIS	NA		TOT	DIS	TOT	DIS	TOT	TOT	DIS	DIS
	Unit	µS/cm	µg/L	µg/L	mg/L	CFU/100 mL		mg/L	µg/L	µg/L	µg/L	µg/L	µg/L	mg/L	mg/L
BC Freshwater	acute /instantaneous	-	1 - 33[4]	-	5 [5]	400 [6]	-	-	350	1,000	-	-	719-2479 [2]	0.24	32.8
AL Guidelines	chronic /average	-	0.2 - 5.5[4]	-	8 [5]	200 [6]	-	-	-	-	-	2.4-8.5 [2]	676-1379 [2]	0.08	3
	max	351.7	0.375	0.73	13.38	92	3000	121	47.1	165	0	0.099	32.2	0.002	3.95
	ave	342.9	0.33	0.57	11.51	20	2100	117	40.3	134	0.01	0.069	27.0	0.0020	3.8
	std dev	8.5	0.05	0.11	1.17	35	548	3	7.1	19	0.00	0.020	3.6	0.0000	0.1
SW0928	2024-08-07	343.4	0.658	0.7	8.64	25	650	126	8.3	41.4	<0	0.046	9.85	0.0077	4.39
Selleck Creek	2024-08-14	344.4	0.736	1.58	9.01	58	650	116	8.1	55.4	0	0.045	10.5	0.0081	4.76
	2024-08-21	286.6	0.901	0.69	9.6	170	900	116	12.4	32.3	<0	0.031	9.16	0.0082	4.38
	2024-08-28	343.6	1.03	0.78	10.31	34	900	118	18.4	41.5	0	0.044	7.79	0.0082	3.96
	2024-09-04	346.2	0.668	0.55	11.46	64	800	123	10.3	35.4	<0	0.089	7.97	0.009	4.81
	n	5	5	5	5	5	5	5	5	5	5	5	5	5	5
	min	286.6	0.658	0.55	8.64	25	650	116	8.1	32.3	0	0.031	7.79	0.0077	3.96
	max	346.2	1.03	1.58	11.46	170	900	126	18.4	55.4	0	0.089	10.5	0.009	4.81
	ave	332.8	0.80	0.86	9.80	56	780	120	11.5	41	0.01	0.051	9.1	0.0082	4.5
	std dev	25.9	0.16	0.41	1.12	58	125	4	4.2	9	0.00	0.022	1.2	0.0005	0.3
	2024-10-10	335.7	0.623	0.71	12.42	98	1000	118	17.6	42.6	0	0.039	7.18	0.0111	4.44
	2024-10-17	350.1	0.564	0.73	9.92	73	1000	115	11.3	44	<0	0.045	6.41	0.0105	4.53
	2024-10-24	334.2	1.31	1.46	8.96	57	1500	114	38.4	82.1	0	0.048	9.9	0.0161	3.92
	2024-10-31	322.3	1.35	1.35	10.21	58	900	119	44.9	87.8	0	0.04	9.03	0.0201	3.52
	2024-11-07	327.9	1.34	1.37	10.15	13	1000	115	57.6	93	0	0.035	8.25	0.0108	3.43
	n	5	5	5	5	5	5	5	5	5	5	5	5	5	5
	min	322.3	0.564	0.71	8.96	13	900	114	11.3	42.6	0	0.035	6.41	0.0105	3.43
	max	350.1	1.35	1.46	12.42	98	1500	119	57.6	93	0	0.048	9.9	0.0201	4.53
	ave	334.0	1.04	1.12	10.33	50	1080	116	34.0	70	0.01	0.041	8.2	0.0137	4.0
	std dev	10.4	0.41	0.37	1.27	31	239	2	19.2	25	0.00	0.005	1.4	0.0042	0.5

Table 1 Continued

	Parameter	Nickel	Nickel	Organic Carbon	pH	Phosphorus	Selenium	Silver	Temp-erature	Solids	Turbidity	Zinc	Zinc
	State	TOT	DIS	DIS	NA	TOT	TOT	TOT	NA	TOT	NA	DIS	TOT
	Unit	µg/L	µg/L	mg/L	pH	mg/L	µg/L	µg/L	°C	mg/L	NTU	µg/L	µg/L
BC Freshwater	**acute /instantaneous**	-	1.4 -4.6 [1,2]	-	6.5-9 [9]	0.01 [7]	2	-	-	26 [10]	9 [11]	11.6-95 [2]	-
AL Guidelines	**chronic /average**	-	-	-	-	0.005 [7]	-	0.12	17 [9]	6 [10]	3 [11]	5.6-53 [2]	-
Station													
SW0316	2024-08-07	1.01	1.07	4.7	8.01	0.17	0.089	<0.01	7.84	5.2	1.93	3.05	6.4
Bowker Creek at	2024-08-14	1.02	1.1	4.7	8.06	0.17	0.107	<0.01	7.89	<1	1.09	3.22	3.9
Somass Drive	2024-08-21	1.38	1.5	11	7.88	0.11	0.118	<0.01	7.76	1.6	1.59	6.41	7.7
	2024-08-28	1.11	1.13	6.9		0.08	0.107	<0.01	7.73	2	3.78	6.35	8.2
	2024-09-04	0.93	0.946	4.5	7.98	0.097	0.103	<0.01	7.95	1.6	1.21	4.83	5.6
	n	5	5	5	4	5	5	5	5	5	5	5	5
	min	0.93	0.946	4.5	7.88	0.08	0.089	<0.01	7.73	<1	1.09	3.05	3.9
	max	1.38	1.5	11	8.06	0.17	0.118	<0.01	7.95	5.2	3.78	6.41	8.2
	ave	1.09	1.1	6	7.98	0.1254	0.105	<0.01	7.83	2.3	1.92	4.77	6.4
	std dev	0.17	0.2	3	0.08	0.04	0.010	0.00	0.09	1.7	1.09	1.62	1.7
	2024-10-10	1.19	0.964	6.2	7.77		0.097	<0.01	12.5	2.4	9.36	6.4	9.6
	2024-10-17	1.05	0.747	6.3	7.59		0.073	<0.01	12.5	3.6	9.11	6.23	10.2
	2024-10-24	1.54	1.22	4.9	7.56		0.198	<0.01	11	5.2	10.9	4.81	7.9
	2024-10-31	1.05	1.14	4.9	7.82		0.11	<0.01	11	1.2	5.1	5.67	7.3
	2024-11-07	0.99	1.24	5.2	7.07		0.11	<0.01	11.1	1.2	1.94	5.33	4.8
	n	5	5	5	5		5	5	5	5	5	5	5
	min	0.99	0.747	4.9	7.07		0.073	<0.01	11	<1.2	1.94	4.81	4.8
	max	1.54	1.24	6.3	7.82		0.198	<0.01	12.5	5.2	10.9	6.4	10.2
	ave	1.16	1.1	6	7.56		0.118	<0.01	11.62	2.7	7.28	5.69	8.0
	std dev	0.22	0.2	1	0.30		0.047	0.00	0.80	1.7	3.68	0.65	2.1
SW0316-3B	2024-08-07	1.16	1.2	5	7.95	0.15	0.091	<0.01	7.40	9.2	1.21	3.20	4.0
Bowker Creek at	2024-08-14	1.22	1.28	5.1	7.95	0.14	0.125	<0.01	7.38	1.6	1.24	3.16	5.9
Pearl Street	2024-08-21	2.19	2.16	8.4	7.83	0.12	0.128	<0.01	7.29	<1	1.41	12.3	27.5
	2024-08-28	1.17	1.23	5.8		0.066	0.136	<0.01	7.42	1.6	2.22	5.45	6.6
	2024-09-04	0.9	0.914	3.9	7.81	0.086	0.094	<0.01	7.41	1.2	1.83	4.33	5.4
	n	5	5	5	4	5	5	5	5	5	5	5	5
	min	0.9	0.914	3.9	7.81	0.066	0.091	<0.01	7.29	<1	1.21	3.16	4
	max	2.19	2.16	8.4	7.95	0.15	0.136	<0.01	7.42	9.2	2.22	12.3	27.5
	ave	1.33	1.4	6	7.89	0.1124	0.115	<0.01	7.38	2.9	1.58	5.69	9.9
	std dev	0.50	0.5	2	0.08	0.04	0.021	0.00	0.05	3.5	0.43	3.81	9.9
	2024-10-10	1.11	1.05	6.1	7.26		0.083	<0.01	13.5	3.2	8.18	5.3	8
	2024-10-17	0.91	0.843	6.4	7.24		0.072	<0.01	13.5	2.8	5.57	4.96	7.2
	2024-10-24	1.79	1.24	4.8	7.25		0.163	<0.01	12.4	10	21.3	2.29	5.8
	2024-10-31	1.64	1.23	4.8	7.55		0.103	<0.01	12.1	9.6	26.1	2.49	5.4
	2024-11-07	1.08	1.18	4.8	7.62		0.116	<0.01	12.2	1.6	1.67	2.9	3
	n	5	5	5	5		5	5	5	5	5	5	5
	min	0.91	0.843	4.8	7.24		0.072	<0.01	12.1	<1.6	1.67	2.29	3
	max	1.79	1.24	6.4	7.62		0.163	<0.01	13.5	10	26.1	5.3	8
	ave	1.31	1.1	5	7.38		0.107	<0.01	12.74	5.4	12.6	3.59	5.9
	std dev	0.38	0.2	1	0.19		0.035	0.00	0.70	4.0	10.6	1.43	1.9
SW0316-4B	2024-08-07	1	0.973	4.2	7.94	0.062	0.159	<0.01	7.62	4.8	4.48	3.4	5.5
Bowker Creek at	2024-08-14	1.13	1.26	4.9	8.03	0.068	0.177	<0.01	7.51	4.4	2.05	2.55	4.3
Browning Park	2024-08-21	1.1	1.1	5.1	7.9	0.07	0.148	<0.01	7.54	2.4	3.61	3.5	4.8
	2024-08-28	1.14	1.23	4.8		0.042	0.503	<0.01	7.6	2	3.5	3.27	4.8
	2024-09-04	1.01	0.937	3.3	7.85	0.055	0.443	<0.01	7.56	1.2	3.06	7.29	9.2
	n	5	5	5	4	5	5	5	5	5	5	5	5
	min	1	0.937	3.3	7.85	0.042	0.148	<0.01	7.51	<1.2	2.05	2.55	4.3
	max	1.14	1.26	5.1	8.03	0.07	0.503	<0.01	7.62	4.8	4.48	7.29	9.2
	ave	1.08	1.1	4	7.93	0.0594	0.286	<0.01	7.57	3.0	3.34	4.00	5.7

Table 1 Continued

	Parameter	Nickel	Nickel	Organic Carbon	pH	Phosphorus	Selenium	Silver	Temp-erature	Solids	Turbidity	Zinc	Zinc
	State	TOT	DIS	DIS	NA	TOT	TOT	TOT	NA	TOT	NA	DIS	TOT
	Unit	µg/L	µg/L	mg/L	pH	mg/L	µg/L	µg/L	°C	mg/L	NTU	µg/L	µg/L
BC Freshwater	acute /instantaneous	-	1.4 -4.6 [1,2]	-	6.5-9 [9]	0.01 [7]	2	-	-	26 [10]	9 [11]	11.6-95 [2]	-
AL Guidelines	chronic /average	-	-	-	-	0.005 [7]	-	0.12	17 [9]	6 [10]	3 [11]	5.6-53 [2]	-
	std dev	0.07	0.1	1	0.08	0.01	0.172	0.00	0.04	1.6	0.89	1.88	2.0
	2024-10-10	0.88	1.05	5.7	7.61		0.116	<0.01	15.3	2	2.75	4.78	5.5
	2024-10-17	0.77	0.697	4.3	7.54		0.116	<0.01	15.6	2.8	3.37	4.56	7.2
	2024-10-24	1.04	1.09	4.1	7.45		0.179	<0.01	14.1	1.6	3.27	2.58	4
	2024-10-31	1.09	1.33	4.4	7.72		0.163	<0.01	13.6	2	5.07	2.98	5.5
	2024-11-07	0.97	1.05	4.1	7.77		0.15	<0.01	13.3	1.6	1.71	2.76	3.2
	n	5	5	5	5		5	5	5	5	5	5	5
	min	0.77	0.697	4.1	7.45		0.116	<0.01	13.3	<1.6	1.71	2.58	3.2
	max	1.09	1.33	5.7	7.77		0.179	<0.01	15.6	2.8	5.07	4.78	7.2
	ave	0.95	1.0	5	7.62		0.145	<0.01	14.38	2.0	3.23	3.53	5.1
	std dev	0.13	0.2	1	0.13		0.028	0.00	1.02	0.5	1.22	1.05	1.5
SW0316-5	2024-08-07	0.73	0.977	4.6	7.34	0.062	0.056	<0.01	6.89	2.8	1.61	2.97	3.6
Bowker Creek at	2024-08-14	0.57	0.652	4.6	7.4	0.072	0.042	<0.01	6.89	2	1.73	1.7	3.6
Gordon Head Road	2024-08-21	1.01	0.932	7.7	7.49	0.059	0.067	<0.01	6.95	3.2	1.7	2.69	5.5
	2024-08-28	1.26	1.27	8.5		0.063	0.069	0.018	6.84	1.2	1.86	6.06	7.3
	2024-09-04	0.64	0.6	3.9	7.11	0.062	<0.04	<0.01	7.01	2.4	1.75	1.82	3.1
	n	5	5	5	4	5	5	5	5	5	5	5	5
	min	0.57	0.6	3.9	7.11	0.059	0.04	<0.01	6.84	<1.2	1.61	1.7	3.1
	max	1.26	1.27	8.5	7.49	0.072	0.069	<0.018	7.01	3.2	1.86	6.06	7.3
	ave	0.84	0.9	6	7.34	0.0636	0.055	<0.01	6.92	2.3	1.73	3.05	4.6
	std dev	0.29	0.3	2	0.16	0.00	0.014	0.00	0.07	0.8	0.09	1.77	1.8
	2024-10-10	1.18	1.28	8.9	6.78		0.065	0.015	11.6	1.6	3.6	8.36	9
	2024-10-17	1.39	0.722	5.5	6.93		0.059	<0.01	11.3	2	3.06	1.89	8.4
	2024-10-24	1.18	1.22	8.3	6.52		0.074	0.012	9.9	<1	2.04	7.06	7.5
	2024-10-31	1.29	1.49	8.8	6.83		0.075	0.014	10.1	2.4	2.87	6.75	9
	2024-11-07	1.33	1.36	9.1	6.88		0.073	0.01	10.1	<1	2.97	7.51	9.2
	n	5	5	5	5		5	5	5	5	5	5	5
	min	1.18	0.722	5.5	6.52		0.059	<0.01	9.9	<1	2.04	1.89	7.5
	max	1.39	1.49	9.1	6.93		0.075	<0.015	11.6	2.4	3.6	8.36	9.2
	ave	1.27	1.2	8	6.79		0.069	<0.01	10.60	1.6	2.91	6.31	8.6
	std dev	0.09	0.3	1	0.16		0.007	0.00	0.79	0.6	0.56	2.55	0.7
SW0926	2024-08-07	0.6	0.454	1.7	8.02	0.023	0.05	<0.01	8.11	18	8.83	0.25	1.3
Bee Creek	2024-08-14	0.6	0.548	1.8	8.03	0.026	0.055	<0.01	8.11	13	10.9	0.33	1
	2024-08-21	0.62	0.473	2	8	0.029	0.056	<0.01	8.04	14	7.6	0.54	1.1
	2024-08-28	0.56	0.5	2.5		0.017	0.045	<0.01	8	9.6	5.6	0.15	1
	2024-09-04	0.61	0.467	1.9	7.89	0.016	0.045	<0.01	8.01	11	9.46	0.21	1
	n	5	5	5	4	5	5	5	5	5	5	5	5
	min	0.56	0.454	1.7	7.89	0.016	0.045	<0.01	8	9.6	5.6	0.15	1
	max	0.62	0.548	2.5	8.03	0.029	0.056	<0.01	8.11	18	10.9	0.54	1.3
	ave	0.60	0.5	2	7.99	0.0222	0.050	<0.01	8.05	13.1	8.48	0.30	1.1
	std dev	0.02	0.0	0	0.06	0.01	0.005	0.00	0.05	3.2	2.00	0.15	0.1
	2024-10-10	0.56	0.518	2.5	8.04		0.04	<0.01	11	6.8	5.19	0.22	<1
	2024-10-17	0.57	0.492	2.4	8.04		0.045	<0.01	10.5	8	6.76	0.37	<1
	2024-10-24	0.5	0.458	3.6	7.61		0.049	<0.01	9.6	3.6	4.83	0.27	1.2
	2024-10-31	0.48	0.597	3.8	7.94		0.052	<0.01	9.6	4.4	3.76	0.29	1.1
	2024-11-07	0.49	0.505	3.8	7.9		0.047	<0.01	9.9	4.8	2.99	0.32	<1
	n	5	5	5	5		5	5	5	5	5	5	5
	min	0.48	0.458	2.4	7.61		0.04	<0.01	9.6	3.6	2.99	0.22	1
	max	0.57	0.597	3.8	8.04		0.052	<0.01	11	8	6.76	0.37	1.2
	ave	0.52	0.5	3	7.91		0.047	<0.01	10.12	5.5	4.71	0.29	1.1

Table 1, Continued

	Parameter	Nickel	Nickel	Organic Carbon	pH	Phosphorus	Selenium	Silver	Temp-erature	Solids	Turbidity	Zinc	Zinc
	State	TOT	DIS	DIS	NA	TOT	TOT	TOT	NA	TOT	NA	DIS	TOT
	Unit	µg/L	µg/L	mg/L	pH	mg/L	µg/L	µg/L	°C	mg/L	NTU	µg/L	µg/L
BC Freshwater	acute /instantaneous	-	1.4 -4.6 [1,2]	-	6.5-9 [9]	0.01 [7]	2	-	-	26 [10]	9 [11]	11.6-95 [2]	-
AL Guidelines	chronic /average	-	-	-	-	0.005 [7]	-	0.12	17 [9]	6 [10]	3 [11]	5.6-53 [2]	-
	std dev	0.04	0.1	1	0.18		0.005	0.00	0.61	1.8	1.44	0.06	0.1
SW0928	2024-08-07	0.28	0.227	1.8	7.99	0.013	<0.04	<0.01	7.89	3.6	1.04	0.46	<1
Selleck Creek	2024-08-14	1.58	0.236	1.6	8.03	0.0096	<0.04	<0.01	7.92	1.2	1.11	0.39	1.1
	2024-08-21	0.23	0.217	2	7.95	0.011	<0.04	<0.01	7.8	2	0.76	0.35	<1
	2024-08-28	1.04	0.251	2.8		0.011	0.051	<0.01	7.76	1.2	1.1	0.38	1.7
	2024-09-04	0.29	0.215	1.6	7.88	0.0083	<0.04	<0.01	7.79	1.6	0.8	0.4	5
	n	5	5	5	4	5	5	5	5	5	5	5	5
	min	0.23	0.215	1.6	7.88	0.0083	0.04	<0.01	7.76	<1.2	0.76	0.35	1
	max	1.58	0.251	2.8	8.03	0.013	0.051	<0.01	7.92	3.6	1.11	0.46	5
	ave	0.68	0.2	2	7.96	0.01058	0.042	<0.01	7.83	1.9	0.96	0.40	2.0
	std dev	0.60	0.0	0	0.06	0.00	0.005	0.00	0.07	1.0	0.17	0.04	1.7
	2024-10-10	0.2	0.255	2.6	7.77		0.052	<0.01	11.8	1.2	0.91	0.49	1.1
	2024-10-17	0.34	0.229	1.9	7.82		<0.04	<0.01	11.1	<1	1.26	0.58	<1
	2024-10-24	0.44	0.423	4.8	7.22		0.128	<0.01	10.3	1.2	2.57	1.14	1.7
	2024-10-31	0.48	0.632	5.4	7.55		0.116	<0.01	10.8	<1	2.08	1.14	1.9
	2024-11-07	0.47	0.575	5.6	7.49		0.097	<0.01	10.2	1.6	1.36	1.23	1.4
	n	5	5	5	5		5	5	5	5	5	5	5
	min	0.2	0.229	1.9	7.22		0.04	<0.01	10.2	<1	0.91	0.49	1
	max	0.48	0.632	5.6	7.82		0.128	<0.01	11.8	1.6	2.57	1.23	1.9
	ave	0.39	0.4	4	7.57		0.087	<0.01	10.84	1	1.64	0.92	1.4
	std dev	0.12	0.2	2	0.24		0.039	0.00	0.65	0.2	0.67	0.35	0.4

Notes: Where values were not detected, the detection limit was used to calculate statistics.
BC ENV approved water quality guidelines for protection of freshwater aquatic life applied unless otherwise stated.
DIS = dissolved state, TOT = total state.

* More than 1 of the 5 samples exceeded the chronic guideline, therefore station has exceeded.
1 BC ENV working water quality guideline.
2 Water quality-dependant guideline.
3 Cr(IV) / Cr (III)
4 Sample specific BC Biotic Ligand Model guidelines; if > 1 of 5 samples or average of the 5 samples exceed chronic guideline, station has exceeded.
5 Guidelines are minimum (rather than maximum) values for dissolved oxygen.
6 Guideline for protection of recreational contact; E.coli values in the "Average" row are geomeans.
7 Draft Vancouver Island Objective, applies to monthly samples collected June to September; our data was collected 5 times in 30 days.
8 Optimum pH range.
9 Draft objective proposed to protect juvenile Coho (the most sensitive species); average weekly temperature at any location in the creeks.
10 25 and 5 mg/L over ambient levels of 2 mg/L in the upper Sooke River watersheds.
11 Max: 9 NTU (8NTU above ambient levels in the upper Sooke River watershed) any time during clear flow periods, average 3 NTU (2NTU above ambient levels during clear flow periods.

xx Value exceeds the provincial guideline protective for aquatic life.
xx Italicized value exceeds a guideline/objective which is only partially applicable. Further investigation is needed.

Recent Precipitation

2024: Top 20 rainiest summers on record

07-Aug	no rain for 7 days
14-Aug	no rain for 14 days
21-Aug	rain in last 2 days
28-Aug	rain overnight and previous 2 days
04-Sep	no rain for 7 days

APPENDIX G

CRD PUBLIC HEALTH AND ENVIRONMENTAL CONCERN RATING SYSTEM

STORMWATER DISCHARGE RATING SYSTEM

The Capital Regional District (CRD) evaluates stormwater discharges for public health and environmental concerns using a rating system for stormwater discharges developed by the CRD titled *Stormwater Discharge Rating System for the Capital Regional District* (Drinnan, 1997). As part of the rating system, the following study was used to determine levels of public use, coastline habitat sensitivity and flushing characteristics of the marine receiving waters: *An Evaluation of the Coastline Sensitivity Associated with Stormwater Discharges on the Saanich Peninsula (Drinnan, 1997).*

Public shoreline use ratings indicate the potential for public contact with stormwater. These ratings were updated in 2010 but individual discharges are also assessed and updated as necessary each year.

The rating of discharges allows the jurisdictions involved to better manage limited funds and undertake remedial measures where necessary. A copy of the rating system and the coastline sensitivity evaluations are available upon request from the CRD. A brief explanation of the stormwater discharge rating system follows.

1.1 Public Health Concern

CRD staff rate each discharge as a high, moderate or low level of concern for public health based on the level of bacterial contamination in the stormwater and the potential for human contact. The parameters used to assess the level of concern for public health are:

- Escherichia coli (*E.coli*) concentrations in the stormwater discharge
- discharge flow rate
- location of the discharge (e.g., below high-water line)
- public use of the shoreline (uses such as swimming, fishing, or kayaking)

The level of contamination is used to assign a bacterial rating. Public shoreline use ratings are used to indicate the potential for public contact with stormwater and depends on the type of activities carried out on the shoreline. While the shoreline ratings represent a rating for a section of shoreline, each discharge with a bacterial rating of 2 or more is evaluated individually using site-specific information and professional judgment. Table 1 shows criteria for the bacterial and public shoreline use ratings.

Table 1 Fecal Coliform and Public Shoreline Use Rating Criteria

Rating	Bacterial Rating Criteria	Rating	Public Shoreline Use Rating Criteria
1	No flow measured or *E.coli* count consistently under 200 CFU/100 mL	1	Low contact (e.g., inaccessible, beach walking)
2	*E.coli* counts on average greater than 200 or single measurement greater than 400 but less than 5,000 CFU/100 mL	2	Secondary contact (e.g., kayaking)
3	*E.coli* count greater than 5,000 CFU/100 mL	3	Primary contact (e.g., swimming, scuba diving)

Note: *E.coli* counts above 200 CFU/100 mL (on average) indicate the potential to cause adverse public health effects from primary recreational activities such as swimming or diving.

1.2 Environmental Concern

Environmental concerns are based on a contaminant rating of discharge sediments. The contaminant rating is determined by comparing the sediment concentration of each of eight metals and two groups of organic contaminants (Cn) with the CRD MSQG to obtain a ratio (Cn/MSQG). To account for potential additive effects, these ratios are summed to calculate the toxic equivalent unit (TEU). Table 2 provides the criteria for determining the contaminant rating.

Table 2 Criteria for Determining the Contaminant Rating

Contaminant Rating	Criteria for Determining the Contaminant Rating
Low	Sum of the individual ratios of Cn/MSQG (TEU) is less than 1.0
Moderate	Sum of the individual ratios of Cn/MSQG (TEU) is greater than or equal to 1.0, but no individual parameter exceeds, or is equal to, a value of 0.75
High	The ratio Cn/MSQG is greater than, or equal to, 0.75 for any single parameter

Discharges evaluated are located near environmentally sensitive areas, in creeks or near heavily settled areas where there is an increased probability of pollution. All discharges sampled for environmental concern are sampled for at least two years to confirm the contaminant concentrations and contaminant(s) of concern. Only a small number of discharges can be sampled each year due to budgetary constraints; therefore, each discharge selected for sampling can only be sampled once per year.

Discharges with a confirmed high contaminant rating are investigated to determine the source(s) of contamination. The priority in which high-rated discharges are investigated and problems mitigated is determined by calculating a habitat rating (high, moderate or low). The habitat rating is based on the habitat sensitivity, discharge flow and marine flushing characteristics. Table 3 briefly describes the rating criteria for the habitat rating.

Table 3 Criteria for Determining Ratings for Habitat Sensitivity, Discharge Flow and Marine Flushing

Habitat Sensitivity Rating		Discharge Flow Rating		Marine Flushing Ratings	
Rating	Criteria	Rating	Criteria	Rating	Criteria
1	Low productivity; less diverse habitats	0.5	Less than 50 L/minute	0.5	Open shoreline; high flushing
2	Moderate productivity; diverse habitats	1	Between 50 to 500 L/minute	1	Partially enclosed area; moderate flushing
3	High productivity or endangered or protected habitats	1.5	Greater than 500 L/minute	1.5	Enclosed area; poor flushing

These three ratings (habitat sensitivity, discharge flow and marine flushing) are summed to determine a habitat rating as shown in Table 4. The habitat rating assigned to each discharge will allow limited resources to be spent in a prioritized manner.

Table 4 Criteria for Establishing the Habitat Rating

Habitat Rating and Mitigative Priority	Sum of Criteria (Habitat + Flow + Flushing)
Low	2.0-3.0
Moderate	3.5-4.5
High	5.0-6.0

OTHER CONCERNS

There are a number of other concerns that have been jointly reviewed and discussed by staff from the CRD and the other jurisdictions involved. This review and discussion assists in setting priorities for remediation of discharges with a high level of concern for public health and the environment. These include:

- the cost of remediation
- the likelihood that remediation will be successful
- compatibility with the priorities of the jurisdictions
- public interest