



Report Date: May 6, 2025

File: PAO 112057

Report Number: 241941

Deep Water Recovery Ltd.  
5084 Island Highway S  
PO Box 276  
Union Bay BC V0R 3B0

Attn: Mark Jurisich, Operations Manager, Deep Water Recovery Ltd.

### **Re: Administrative Penalty Referral**

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On March 28, 2025, Ministry of Environment and Parks (Ministry) Officers Jurgen Deagle (Officer Deagle) and Bryan Vroom (Officer Vroom) conducted an on-site inspection of the Deep Water Recovery Ltd. (DWR) facility located at 5084 Island Highway South, Union Bay, B.C. (Facility), followed by an office review inspection on April 16, 2025. The inspection was conducted to verify compliance with Pollution Abatement Order 112057 (Order) which requires DWR to:

- immediately stop the release or discharge of effluent with concentrations of copper, lead and zinc above BC Water Quality Guidelines (BC WQG) to the environment;
- to hire qualified professionals to assess site conditions; and
- to submit monitoring reports, updates, and recommendations to the Ministry.

The Order does not provide authorization to discharge waste to the environment.

The Order was issued on March 15, 2024, and was last amended on January 10, 2025. The Order is currently under appeal to the Environmental Appeal Board (EAB) (EAB-EMA-24-A014(a)). DWR applied for a stay of the Order pending the outcome of EAB EMA-24-A014. On June 7, 2024, the EAB denied the stay application and the appeal of the Order is still in progress.

### **This Inspection is being referred for an Administrative Penalty for failing to comply with Order Required Actions 1 and 4.**

The Administrative Penalties Regulation (EMA) (B.C. Reg. 133/2014) (APR) was brought into force in 2014. The APR describes the prescribed provisions of EMA under which administrative penalties can be assigned. APR Section 12(4) states:

*12 (4) A person who fails to comply with an order under the Act is liable to an administrative penalty not exceeding \$40 000.*

On December 12, 2024, DWR was issued AMP 2024-43 for \$19,450 for failure to comply with Required Action 1 of the Order. AMP 2024-43 is currently under appeal to the EAB (EAB-EMA-25-G001).

Prior to the Order, on January 23, 2023, the Ministry issued Information Order 111550 (IO) to DWR, which was cancelled on March 15, 2024. On October 11, 2023, DWR was issued AMP 2023-31 for \$500 for failure to comply with the IO. AMP 2023-31 is currently under appeal to the EAB (EAB-EMA-23-A025).

## Inspection Details:

According to their on-line profile, DWR was established in British Columbia in 2016 and is involved in the salvage, dismantling, and recycling of marine vessels, barges, and railroad assets. In 2019, DWR purchased a 111-acre property in Union Bay that is a multi-zoned property that includes a 15-acre Industrial Marine (IM) site and a 27-acre water tenure specifically for vessel recycling. The Facility is located on a site on the east side of Vancouver Island, in Baynes Sound, near Union Bay, B.C. This property has a history of industrial land-use, including a log sort, wood waste landfill and coal storage. A provincial highway and former railway run along the west (upslope) property boundary. Environmental Site Assessments in 2005 and 2008 found elevated levels of hydrocarbons and trace to low levels of metals at the Facility. DWR has stated, in multiple phone calls, e-mails and the monthly reports, that contaminants present in discharge are not a result of their activities at the Facility.

The 2024 Impact Assessment, by a Ministry biologist, states that DWR discharges stormwater that has contacted its operational equipment and other Facility materials, primarily derelict/decommissioned marine vessels. Effluent samples have routinely shown exceedance of BC WQG for numerous parameters of concern (POCs), including cadmium, copper, lead, zinc, and polychlorinated biphenyls (PCBs). Discharges from the Facility enter Baynes Sound, a provincially significant ecological area. The 2024 Impact Assessment states effluent discharged by DWR to Baynes Sound has the potential to adversely affect the aquatic environment with potential for medium to medium-high adverse effects.

The time period covered by this report is from March 1, 2025, to March 31, 2025, (Inspection Period) and included review of the following documents:

- Environmental Site Assessment Hancock Forest Management Union Bay Properties, dated May 26, 2005, prepared by NTEX Resource Ltd. **(2005 Site Assessment)**
- Preliminary Environmental Site Assessment Former 'Stage 3' Woodwaste Landfill Union Bay Industries Dryland Sort, dated January 2008, prepared by TerraWest Environmental Inc. **(2008 Site Assessment)**
- Long-Term Average vs. Short-Term Maximum Water Quality Guidelines, Fact Sheet dated June 2016, by BC Ministry of Environment, retrieved from [www2.gov.bc.ca/assets/gov/environment/waste-management/industrial-waste/industrial-waste/mining-smelt-energy/guidance-documents/max-vs-long-term-wq-guidelines-fs.pdf](http://www2.gov.bc.ca/assets/gov/environment/waste-management/industrial-waste/industrial-waste/mining-smelt-energy/guidance-documents/max-vs-long-term-wq-guidelines-fs.pdf) on May 5, 2025.
- Site Activity and Discharge Identification Update Report, dated April 4, 2024 prepared by Darryl Stowe, P.Chem, Senior Environmental Scientist, Envirochem Services Inc. **(Discharge Report)**
- Deep Water Recovery Ltd.: Assessment of potential impact of unauthorized discharge, dated August 1, 2024, prepared by Dwayne Minton, Ph.D., R.P.Bio, EIA Biologist, BC Ministry of Environment and Parks **(2024 Impact Assessment)**
- Pollution Abatement Order 112057, Proposed Surface Water Sampling and Management Plan, Deep Water Recovery Ltd. 5084 Island Highway South, Union Bay, BC, dated September 13, 2024, prepared by Darryl Stowe, Chem, Senior Environmental Scientist, Envirochem Services Inc. **(2024 Sampling Plan)**
- Effluent Quality Mitigation & Treatment Plan Deep Water Recovery, Union Bay, BC Revision No. 1.3, dated October 2024, prepared by Darryl Stowe, P.Chem, Senior Environmental Scientist, Envirochem Services Inc. **(2024 Treatment Plan)**
- Re: Pollution Abatement Order 112057 - request for deadline extension, e-mail sent December 15, 2024, from Mark Jurisich, Operations Manager, Deepwater Recovery Ltd. **(December 15, 2024 e-mail)**
- Sump Discharge Sampling - January 2025 RE: PAO 112057, dated February 15, 2025, prepared by Gillian Helpard, P. Chem, President TTOHS **(January 2025 Monitoring Report)**
- Memorandum of Correction for Water Sampling Report - 2025-01, dated February 18, 2025, prepared by Gillian Helpard, P.Chem, President TTOHS **(Corrections to January 2025 Monitoring Report)**
- [www.youtube.com/@dronevideos1617/videos](https://www.youtube.com/@dronevideos1617/videos) (recorded on various dates in March 2025), retrieved April 16, 2025. **(March ##, 2025, Drone Video)**
- Sump Discharge Sampling - February 2025 RE: PAO 112057, dated March 15, 2025, prepared by Gillian Helpard, P.Chem, President TTOHS **(February 2025 Monitoring Report)**
- Sump Discharge Sampling - March 2025 RE: PAO 112057, dated April 15, 2025, prepared by Gillian Helpard, P. Chem, President TTOHS **(March 2025 Monitoring Report)**
- DWR LinkedIn profile page, [www.linkedin.com/company/deep-water-recovery-ltd/about/](https://www.linkedin.com/company/deep-water-recovery-ltd/about/), accessed April 22, 2025 **(DWR On-line Profile)**

# Compliance Assessment

Based on the information reviewed, this report documents all the non-compliances identified as a result of this inspection, as well as the associated details/findings and any actions required.

## Requirement Description:

### Pollution Abatement Order - Required Action 1

1. Immediately cease the release or discharge of effluent with concentrations of Copper, Lead and Zinc above BCWQG levels to the environment.

## Details/Findings:

There are multiple potential effluent discharge points at the Facility (See Appendix 1: Site Map):

- Sump 1 is a concrete, oil-water separator located in the center of the east edge of the Facility and collects water from the paved central area (See Appendix 2: Photo 1). There was no reported discharge from Sump 1 in January, February or March 2025, and it was not discharging during the March 28, 2025 site inspection. The March 2025 Monitoring Report explained the lack of discharge by noting that water from Sump 1 was treated in the water treatment system and the holding tank did not reach capacity to require discharge during the month.
- Sump 2 is a collection pond, with a discharge pipe onto the foreshore, located at the southeast corner of the Facility. According to Figure 5-5 in the 2024 Treatment Plan, collects run-off water from the gravel pad area. Aerial images of this area show vessels in this area on March 11 and 28, 2025 (See Appendix 2: Photos 2, 3, 4, 5). Sump 2 was discharging during the March 28, 2025, site inspection.
- Sump 3 is a collection pond, with a discharge pipe to the ground 2 meters from the foreshore, located at the northeast corner of the Facility. It collects surface water from the northern part of the paved area of the site (See Appendix 2: Photo 6). Sump 3 was discharging during the March 28, 2025, site inspection.
- The Foreshore is a gravel beach area between the high and low water mark of Baynes Sound along the eastern boundary of the Facility (See Appendix 2: Photos 7, 8). Discharges from the Foreshore are visible in March 14, 15, 17, 20, 21, 22, 24, 25, 26 and 27 Drone Videos (e.g. See Appendix 2: Photos 9, 10, 11, 12). There was discharge to the Foreshore during the March 28, 2025, site inspection.
- North Creek / Hwy culvert is located upslope of the Facility and is a defined creek channel, with flow most of the year. The creek is directed across the Facility entrance and flows along the Facility Boundary to Baynes Sound (See Appendix 2: Photo 13). North Creek is a reference sampling point for surface water discharges upslope of the Facility. It does not flow onto the Facility and is not the origin of water that discharges from the Facility.

Discharge samples were collected by DWR on March 11, 2025, and by the Ministry on March 28, 2025, from discharge points with sufficient flow for sampling.

The March 2025 Monitoring Report includes results for discharge samples collected on March 11, 2025, from Sump 2, North Creek and MW1. According to the March 2025 Monitoring Report, discharge on March 11, 2025, from Sump 2 exceeded the BC WQG Short Term (Acute) limit for copper by 723% and for zinc by 8% (See Table 1).

**Table 1: Summary of Results Deep Water Recovery - Discharge Samples March 2025**

Parameter	BC WQG Marine Aquatic Life		Unit	March 11, 2025		March 28, 2025			
	Acute	Chronic		Sump 2 (South)	North Creek/Hwy Culvert	Sump 2 (South)	Sump 3 (North)	Foreshore	North Creek/Hwy Culvert
Copper (total)	3	2	ug/L	24.7	2.33	12.9	12.8	151	2.47
Lead (total)	140	2	ug/L	1.74	0.136	0.765	0.328	17.4	0.161
Zinc (total)	55	10	ug/L	59.5	<3.0	18.7	42.7	181	<3.0
0.123	Meets BC WQG								
0.123	Exceeds Chronic (long term) criteria								
0.123	Exceeds Chronic and Acute (short term) criteria								

On March 28, 2025, Officer Deagle collected discharge samples from Sump 2, Sump 3 and the gravel pad / Foreshore area, as well as a reference sample from the North Creek culvert.

- The discharge sample collected from Sump 2 on March 28, 2025, exceeded the BC WQG Short Term (Acute) limit for copper by 330%.
- The discharge sample collected from Sump 3 on March 28, 2025, exceeded the BC WQG Short Term (Acute) limit for copper by 327%.
- The discharge sample collected from the Foreshore area on March 28, 2025, exceeded the BC WQG Short Term (Acute) limit for copper by 4933% and exceeded BC WQG Short Term (Acute) limit for zinc by 229%  
(See Result Summary in Table 1 and laboratory certificates of analysis in Appendix 4).

By releasing or discharging effluent with concentrations of copper and zinc above BC WQG levels to the environment on March 11 and March 28, 2025, DWR is out of compliance with Order Requirement 1.

**This non-compliance is being referred for an Administrative Penalty.**

Long-term (Chronic) water quality guidelines are long-term averages intended to protect the most sensitive species and life stage against sub-lethal and lethal effects for indefinite exposures. Historic sampling data from the Facility is presented in the March 2025 Monitoring Report. This data shows that, since February 2023, Sump 1 and 3 have exceeded the long-term BC WQG for copper, lead and zinc. Sump 2 exceeded the long-term BC WQG for copper and zinc. The long-term averaging period extends beyond the Inspection Period and, therefore, these exceedances are not being considered in this Administrative Penalty Referral.

The Ministry has previously found DWR out of compliance with Order Requirement 1:

- In IR 228922, August 2, 2024, the Ministry found that the DWR failed to comply with Order Requirement 1 during the period of April 17, 2024 to June 26, 2024. The response was a Referral for Administrative Penalty. On December 12, 2024, DWR was issued AMP 2024-43 for \$19,450 for failure to comply with Requirement 1 of the Order. This AMP has been appealed by DWR.
- In IR 238061, January 23, 2025, the Ministry found that the DWR failed to comply with Order Requirement 1 on November 16 and November 25, 2024. The response was a Referral for Administrative Penalty (AMP 2024-075).
- In IR 238568, February 28, 2025, the Ministry found that the DWR failed to comply with Order Requirement 1 on December 28, 2024. The response was a Referral for Administrative Penalty (AMP 2024-075).

**Compliance:**

Out

**Actions to be taken:**

- Immediately cease the release or discharge of effluent with concentrations of copper, lead and zinc above BC WQG levels.

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**Requirement Description:**

**Pollution Abatement Order - Required Action 2**

2. By midnight on March 29, 2024, Cause a Qualified Professional to complete a Site Activity and Discharge Identification Update Report (Report) and submit it to the Director. This Report must include:

- a) In addition to the Sumps, identification of each location where there is effluent discharged from the Facility on a detailed site plan;
- b) A description of the activities occurring on the Facility that could be contributing to the discharge of Contaminants of Potential Concern (COPC) from any location on the Facility; and,
- c) Identification of all COPC in effluent for each site activity identified, including but not limited to metals, petroleum hydrocarbons, PAHs, VOCs, TSS, antifouling agents, and pH.

**Details/Findings:**

This requirement was previously assessed. The Discharge Report was received on April 4, 2024. DWR is in compliance with Order Requirement 2.

**Compliance:**

In

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**Ministry of Environment and Parks**

Compliance and Environmental Enforcement Branch

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## Requirement Description:

### Pollution Abatement Order - Required Action 3

3. Cause a Qualified Professional to complete an [updated](#) Effluent Sampling and Management Plan (Plan) and submit it to the Director for approval [by September 13, 2024](#). The Plan must be implemented, including any amendments to the plan identified by the Director, by a date specified in writing by the Director. This Plan must include:

- a) Ongoing inspection at least twice per week, of discharge status at each discharge location identified in the Report, with written records and photographs, and inspection of Facility to identify any other discharges that may arise, under the supervision of a Qualified Professional;
- b) Ongoing sampling at least once per calendar month and during or within 72 hours of a Significant Rainfall Event of:
  - Sump 1;
  - Sump 2;
  - Sump 3;
  - background location NC-HWY;
  - [any points of discharge to the foreshore including surface water run-off from unpaved areas outside the Sump catchments where vessel repair, maintenance, and/or dismantling activities have taken or are taking place](#);
  - [any points of discharge from the foreshore where vessel repair, maintenance, and/or dismantling activities have taken place](#), and;
  - any additional discharge locations identified by the Qualified Professional in the Reportfor laboratory analysis of:
  - Total Suspended Solids
  - pH
  - Total and Dissolved Metals
  - Any additional COPC identified in the Report *[Discharge Report]*

- c) Ongoing sampling and analysis at least once per calendar month and during or within 72 hours of a Significant Rainfall Event of:
  - each Sump location;
  - [any points of discharge to the foreshore including surface water run-off from unpaved areas outside the Sump catchments where vessel repair, maintenance, and/or dismantling activities have taken or are taking place](#), and;
  - [any points of discharge from the foreshore where vessel repair, maintenance, and/or dismantling activities have taken place](#);

for Rainbow Trout Toxicity 96 hr LC50 in 100% effluent. 96 hr LC50 100% means that, in a static bioassay on rainbow trout, at least 50% of the test fish must survive 96 hours in 100% effluent; and

[Samples collected from the Sumps/treatment system\(s\) are to be collected at the point\(s\) of discharge to the environment. All samples collected must be collected upgradient of the marine environment.](#)

- d) Actions proposed to eliminate the discharge of Total and Dissolved copper, lead and zinc in concentrations greater than BC WQG levels to the environment.
  - a. [By October 31, 2024, submit to the Director for approval, an effluent quality mitigation and treatment plan to eliminate the discharge of Total and Dissolved copper, lead and zinc in concentrations greater than BC WQG levels to the environment, developed and implemented under the direction of a Qualified Professional.](#)
  - b. [By October 18, 2024, submit to the Director for approval a design prepared by a Qualified Professional for a water treatment system\(s\) at the point of discharge on Sumps 1, 2 and 3 in order to cease the release or discharge of effluent with concentrations of copper, lead and zinc above BC Water Quality Guidelines \(BC WQG\) levels to the environment.](#)
  - c. [Under oversight of a Qualified Professional, install the approved water treatment system\(s\) including any amendments to the design as identified by the Director, by December 15, 2024.](#)

*\* Text in blue is from the July 12, 2024, amendment.*

*\*\* Dates have been updated to reflect due date extensions issued after the Order and amendment.*

On July 12, 2024, the Director issued an amendment to the Order. The amendment revised the due date for the Effluent Sampling and Management Plan, added additional sampling locations in the Foreshore, required submission of an effluent quality mitigation and treatment plan and required DWR to design and install a water treatment system to eliminate the discharge of Total and Dissolved copper, lead and zinc in concentrations greater than BC WQG levels.

The 2024 Sampling Plan was submitted by DWR on September 13, 2024. The submission met the requirements of Section 3, and the 2024 Sampling Plan was approved by the Director on September 20, 2024.

The 2024 Treatment Plan, required under 3(d)(a), was approved by the Director on November 7, 2024. The approval e-mail stated, "*in accordance with Requirement 3 of the Order, the approved water treatment system must be installed by December 15, 2024.*" The February 2025 Monitoring Report states that the water treatment system was installed by February 15, 2025, and was in the commissioning phase. According to the 2024 Treatment Plan, commissioning would take two weeks and a Commissioning Report would be completed when the system was optimized. The March 2025 Monitoring Report states the water treatment system (WTS) is in place, treating water from Sump 1 and is in the commissioning phase.

DWR is in compliance with Order Requirement 3.

## Compliance:

In

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## Requirement Description:

### Pollution Abatement Order - Required Action 4

4. On a date to be determined, Implement the approved Plan on a date to be specified in writing by the Director.

## Details/Findings:

The Plan required by Order Requirement 3 has two parts, a sampling plan and a treatment plan. The 2024 Sampling Plan was approved by the Director on September 20, 2024. That approval stated the 2024 Sampling Plan must be implemented by October 1, 2024, that the first monthly report was due November 1, 2024, and monthly thereafter. The 2024 Treatment Plan was approved by the Director on November 7, 2024. In that approval e-mail, the Director stated that the approved Treatment Plan must be implemented by November 8, 2024.

### 2024 Sampling Plan Implementation

A key objective of the 2024 Sampling Plan is to monitor discharges for exceedances of the BC WQG. The 2024 Sampling Plan states "*Ongoing sampling at least once per calendar month and during or within 72 hours of a Significant Rainfall Event of: Sump 1, Sump 2, Sump 3, background location NC-HWY, any points of discharge to the foreshore including surface water run-off from unpaved areas outside the Sump catchments where vessel repair, maintenance, and/or dismantling activities have taken or are taking place, any points of discharge from the foreshore where vessel repair, maintenance, and/or dismantling activities have taken place.*" Sampling is to occur monthly and during or immediately after significant rainfall events.

According to the March 2025 Monitoring Report, significant rainfall occurred on March 8 and March 9, 2025. DWR collected samples on March 11, 2025, from Sump 2 and the background location NC-HWY. Samples were not collected from Sump 1, Sump 3 or the Foreshore as they were not discharging on March 11, 2025.

In addition, the 2024 Sampling Plan states there will be twice weekly inspections of the sumps and the Foreshore area where the vessel Miller Freeman was located. A review of the March 2025 Monitoring Report determined that DWR conducted discharge inspections on March 4, 6, 11, 12, 17, 22, 25, 26, and 28. Inspections were carried out twice weekly.

DWR is implementing the 2024 Sampling Plan.

### 2024 Treatment Plan Implementation

The approved 2024 Treatment Plan states, "*The purpose of this plan is to present a surface water diversion and treatment plan to direct point source discharges of stormwater from the subject site at 5084 South Island Highway in Union Bay, BC, toward one discharge point so it can be readily treated to reduce Total Suspended Solids (TSS) and total and dissolved copper, lead, and zinc concentrations in water from that discharge point to satisfy the required criteria set-out in PAO 11257 and to meet the BC Water Quality Guidelines (BCWQG) (Aquatic Life – Marine) for discharge to a marine environment.*"

The 2024 Treatment Plan includes multiple actions to bring DWR into compliance with the Order. One of the key actions is installation of a new water treatment system at Sump 1 to reduce total and dissolved copper, lead, and zinc

concentrations in storm water discharged from all areas of the Facility. According to the November 2024 Monitoring Report Correction, Sump 1 receives the majority of water from the paved area of the Facility (See maps in Appendices 1 and 3). In the 2024 Treatment Plan, DWR states, "The catchment area for Sump 1 is the area where vessel repair, maintenance, and recycling will take place." The February 2025 Monitoring Report states that the water treatment system was installed by February 15, 2025, and was in the commissioning phase. The March 2025 Monitoring Report states the water treatment system is in place at Sump 1 and is in the commissioning phase.

According to the March 2025 Monitoring Report, the water treatment system holding tank has not reached capacity and has not discharged since it was installed February 15, 2025. The water treatment system was not discharging during the March 28, 2025, site inspection. There has been over 250 mm of rainfall reported in the Facility area since February 15, 2025.

There are also potential discharges from the Facility at Sump 2, Sump 3 and from the Foreshore area (See Appendix 1: Site Map). The 2024 Treatment Plan includes drainage changes to capture run-off from Sump 2, Sump 3 and the Foreshore and re-direct this effluent to the water treatment system at Sump 1 (See Appendix 3: Proposed Site Changes). Planned drainage changes include site re-grading, new and extended asphalt berms, installation of three French drains and a new oil-water separator. Each of these was discharging to the inter-tidal zone during the March 28, 2025, site inspection.

Specifically, the 2024 Treatment Plan required that DWR complete the following actions:

- Section 2.0 "SUMP 1 CATCHMENT AREA UPGRADES & MAINTENANCE", on pages 1 and 2 of the 2024 Treatment Plan, describes DWR's Sump 1 catchment area upgrades; "An additional 6 metres of asphalt berm (of equivalent combined height) along the southern asphalt surface perimeter near the foreshore is also be added. Section 2.2 "Action Plan" states, "Addition of the asphalt berm and installation of the water treatment system will start immediately, once the system design has been approved for installation".
- Section 3.0 "SUMP 2 CATCHMENT AREA UPGRADES", on pages 2 and 3 of the 2024 Treatment Plan, describes DWR's Sump 2 catchment area upgrades; "Three French Drains are to be excavated to an approximate depth of 1 metre and 1 metre in width and lined with a low-density polyethylene (LDPE) liner. The existing collection ditch will be re-routed to join at the south end of French Drain #3, which in turn is pumped to the water treatment system. In addition, the unpaved area will be graded to slope from north to south. . . Sump 2 is to then be decommissioned and filled in. . . . At the north end of French Drain #3 a small (approximately 1300 L), single chamber, two baffle oil/water interceptor will be installed and equipped with a submersible pump on a float switch." Section 3.3 "Action Plan" states, "French Drain construction, installation of the oil/water separator, and re-grading of the area will start in October with completion by mid November".
- Section 4 .0 "SUMP 3 CATCHMENT AREA UPGRADES" on pages 3 and 4 of the 2024 Treatment Plan, states that there is a large, 4500 m<sup>3</sup>, berm, constructed of wood waste generated from previous log sorting activities on this site, running along the north perimeter of the property. Section 4.1 "Upgrades" states, "Based on current understanding of the quality of stormwater collected from this catchment area, there appears to be a significant amount of leachate generated from the berm that comingles with the stormwater that collects at Sump 3." Section 4.2 "Action Plan" states, "As of October, DWR has excavated approximately 85% of the berm. The material has been relocated to southern part of the site in the area where Phase 2 of the former wood waste landfill is located. The stockpile will be tarped to prevent the generation of leachate. This area is south of the Sump 2 catchment area. . . Once the wood waste berm is completely removed, a four-inch asphalt berm is intended to be placed along the northern perimeter of the existing asphalt surface to ensure only "non-effluent" stormwater from the asphalt catchment area is collected at Sump 3. Currently, Sump 3 is a small pond, heavily overgrown with blackberry bushes and bulrushes preventing easy access. Vegetation around the sump will be removed. The sump will be excavated to clean out vegetation and sedimentation, enlarged, lined and partially filled with rock. . . The discharge from Sump 3 will be pumped by submersible pump to the catchment area of Sump 1."

In a December 15, 2024, e-mail, the DWR Operations Manager stated, "part of the water treatment process requires us to divert water from the Southern side of the haul-out ramp to an area adjacent to the asphalt which it is then to be pumped onto the asphalt and drain in to the primary sump of the work yard where it would then pass through the water treatment system. In order for us to complete these earthworks we first need to remove the Miller Freeman vessel from the ramp which we are in the process of doing. [...] I will need 60 working days or at least till the end of February. We must move the Miller Freeman in order to clear the ramp, and then we can complete the work".

Inspection photos in the January 2025 Monitoring Report show that the Miller Freeman was moved off the haul-out ramp by January 24, 2025. The January, February or March 2025 Monitoring Reports did not report site re-grading, french drain installation, oil-water separator installation or asphalt berm extension.

During the March 28, 2025 on-site inspection, Officers observed that Facility modifications listed in the 2024 Treatment Plan had not been completed. There was no 6 meter asphalt berm along the south side of the asphalt pad; the three French drains had not been installed in the gravel pad; no oil-water interceptor was installed; the gravel pad had not been re-graded to slope north-south; Sump 2 was not decommissioned; the wood waste berm was not fully removed; the stockpiled wood waste berm material south of the gravel pad was not tarped to prevent the generation of leachate; no asphalt berm was installed along the northern edge of the asphalt pad and Sump 3 was not decommissioned.

The November 7, 2024, approval required that the 2024 Treatment Plan be implemented by November 8, 2024, and the water treatment system be installed by December 15, 2024. Based on the DWR March 2025 Monitoring Report and the March 28, 2025, site inspection, the water treatment system is installed, but is not yet operational and the site drainage modifications have not been completed. The 2024 Treatment Plan has not been fully implemented, therefore, DWR is out of compliance with Order Requirement 4.

**DWR's failure to implement the approved 2024 Treatment Plan for the period of March 1, 2025 to March 31, 2025, is being referred for an Administrative Penalty.**

The Ministry has previously found DWR out of compliance with Order Requirement 4 :

- In IR 235281, issued on November 14, 2024, the Ministry found that the DWR failed to comply with Order Requirement 4 during the period of October 1, 2024, to October 31, 2024. The compliance outcome was a Warning Letter.
- In IR 236755, issued on December 13, 2024, the Ministry found that the DWR failed to comply with Order Requirement 4 during the period of November 1, 2024, to November 30, 2024. The compliance outcome was a Referral for Administrative Penalty for non-compliance with Order Requirement 4.
- In IR 238061, issued on January 22, 2025, the Ministry found that the DWR failed to comply with Order Requirement 4 during the period of December 1, 2024, to December 31, 2024. The compliance outcome was a Referral for Administrative Penalty for non-compliance with Order Requirement 1.
- In IR 238568, issued on February 28, 2025, the Ministry found that the DWR failed to comply with Order Requirement 4 during the period of December 28, 2024, to January 31, 2025. The compliance outcome was a Referral for Administrative Penalty for non-compliance with Order Requirement 1 and 4.
- In IR 240675, issued on March 25, 2025, the Ministry found that the DWR failed to comply with Order Requirement 4 during the period of February 1 to February 28, 2025. The compliance outcome was a Referral for Administrative Penalty for non-compliance with Order Requirement 4.

**Compliance:**

Out

**Actions to be taken:**

- Implement the 2024 Treatment Plan.

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**Requirement Description:**

**Pollution Abatement Order - Required Action 5**

5. On the first day of every month on a date to be determined following Plan approval, Cause a Qualified Professional to submit to the Director a monthly report of Plan activities completed in the previous calendar month. These monthly reports must include actions taken towards complying with requirements 1 through 5 of this Order, including but not limited to:

- a) Provision of written discharge inspections and photographs;
- b) Copies of all laboratory analytical reports and detailed acute toxicity test results;
- c) Description of all effluent management activities, including any onsite treatment or offsite disposal, with supporting records;
- d) Summary of the inspection and sampling results;
- e) Interpretation of the laboratory analytical results by a Qualified Professional; and
- f) Precipitation data and summary for the month.

All monthly reports must include a comparison in tabular format, showing each sampling location, the analytical data for the current reporting period along with all analytical data collected for that location since March 2023. All monthly reports must be prepared and signed by a Qualified Professional operating within their scope of practice. Monthly reports shall continue until further notice in writing from the Director.

**Details/Findings:**

The February 2025 Monitoring Report did not include Required Action 5 (b) laboratory analytical reports or 5 (e) interpretation of the inspection and sampling results by a qualified professional. DWR is out of compliance with Order Requirement 5.



**Compliance:**

Out

**Actions to be taken:**

- Ensure monthly reports include all required information, including copies of laboratory analytical reports, and interpretation of inspection and sampling results.

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**Requirement Description:****Pollution Abatement Order - Required Action 6**

6. Each time a report, plan, or monthly report is submitted to the Director, The Qualified Professional(s) performing any of the following in response to this Order: performing work, authoring reports, authoring the Report and Plan, providing reporting, sampling, analyzing, constructing or modifying works, or providing opinions must complete and submit the attached Declaration of Competency and Conflict of Interest Disclosure Statement forms.

**Details/Findings:**

The March 2025 Monitoring Report was signed and sealed by Gillian Helpard, a registered professional chemist. The submission included Declaration of Competency and Conflict of Interest Disclosure Statement forms from Ms. Helpard.

DWR is in compliance with this requirement.

**Compliance:**

In

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**Requirement Description:****Pollution Abatement Order - Required Action 7**

7. All information required above must be submitted to the Director by email at: [environmentalcompliance@gov.bc.ca](mailto:environmentalcompliance@gov.bc.ca)

**Details/Findings:**

Reports were sent to the appropriate e-mail address.

**Compliance:**

In

**Compliance History:**

- 2025-03-25 IR 240675 AMP: Pollution Abatement Order - Required Action 4
- 2025-02-28 IR 238568 AMP: Pollution Abatement Order - Required Action 1, Required Action 3, Required Action 4
- 2025-01-23 IR 238061 AMP: Pollution Abatement Order - Required Action 1, Required Action 3, Required Action 4
- 2024-12-13 IR 236755 AMP: Pollution Abatement Order - Required Action 4, Required Action 5, Required Action 6
- 2024-11-21 IR 235281 Warning: Pollution Abatement Order - Required Action 4, Required Action 5
- 2024-08-23 IR 230462 Warning: Pollution Abatement Order - Required Action 3
- 2024-08-02 IR 228922 AMP: Pollution Abatement Order - Required Action 1
- 2024-04-22 IR 222735 Warning: Pollution Abatement Order - Required Action 2, Required Action 3, Required Action 6

The Ministry of Environment Compliance and Enforcement Policy and Procedure (C&E Policy) prescribes common requirements and procedures for all Ministry staff to ensure consistent and risk-based assessment and response to non-compliance. Using the Non-Compliance Decision Matrix, the compliance determination for this inspection has been assessed as **Level 2, Category C, AMP**.

More information about Environmental Compliance, the Non-Compliance Decision Matrix, and reporting and data submission requirements can be found at the links below:

General compliance information:

[www.gov.bc.ca/environmentalcompliance](http://www.gov.bc.ca/environmentalcompliance)

Non-Compliance Decision Matrix information:

[www2.gov.bc.ca/gov/content/environment/natural-resource-stewardship/natural-resource-law-enforcement/environmental-compliance/consequences-of-non-compliance#non-compliance-decision-matrix](http://www2.gov.bc.ca/gov/content/environment/natural-resource-stewardship/natural-resource-law-enforcement/environmental-compliance/consequences-of-non-compliance#non-compliance-decision-matrix)

Reporting and data submission requirements (to be sent to EnvAuthorizationsReporting@gov.bc.ca):

[www2.gov.bc.ca/gov/content/environment/waste-management/waste-discharge-authorization/comply](http://www2.gov.bc.ca/gov/content/environment/waste-management/waste-discharge-authorization/comply)

Please be advised that this inspection report may be published on the provincial government website within 7 days.

If you have any questions about this letter, please contact the undersigned.

Yours truly,



Jurgen Deagle  
Environmental Protection Officer

cc: BC Conservation Officer Service - North Island Zone

**Attachments:**

- Appendix 1: Site Map
- Appendix 2: Site Photographs
- Appendix 3: Proposed Site Changes from 2024 Treatment Plan
- Appendix 4: Laboratory Analytical Reports for March 28, 2025

**Deliver via:**

Email:     Fax:     Mail:   
 Registered Mail:     Hand Delivery:

**Ministry of Environment and Parks**

Compliance and Environmental Enforcement Branch

Mailing Address:  
2080-A Labieux Rd  
Nanaimo BC V9T 6J9

Telephone: 250 751 3100  
Facsimile: 250 751 3103  
Website: [www.gov.bc.ca/env](http://www.gov.bc.ca/env)

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**Ministry of Environment  
and Parks**

Compliance and  
Environmental  
Enforcement Branch

Mailing Address:  
2080-A Labieux Rd  
Nanaimo BC V9T 6J9

Telephone: 250 751 3100  
Facsimile: 250 751 3103  
Website: [www.gov.bc.ca/env](http://www.gov.bc.ca/env)

**DISCLAIMER:**

Please note that sections of the order, permit, regulation or code of practice referenced in this inspection record are for guidance and are not the official version. Please refer to the original order, permit, regulation or code of practice.

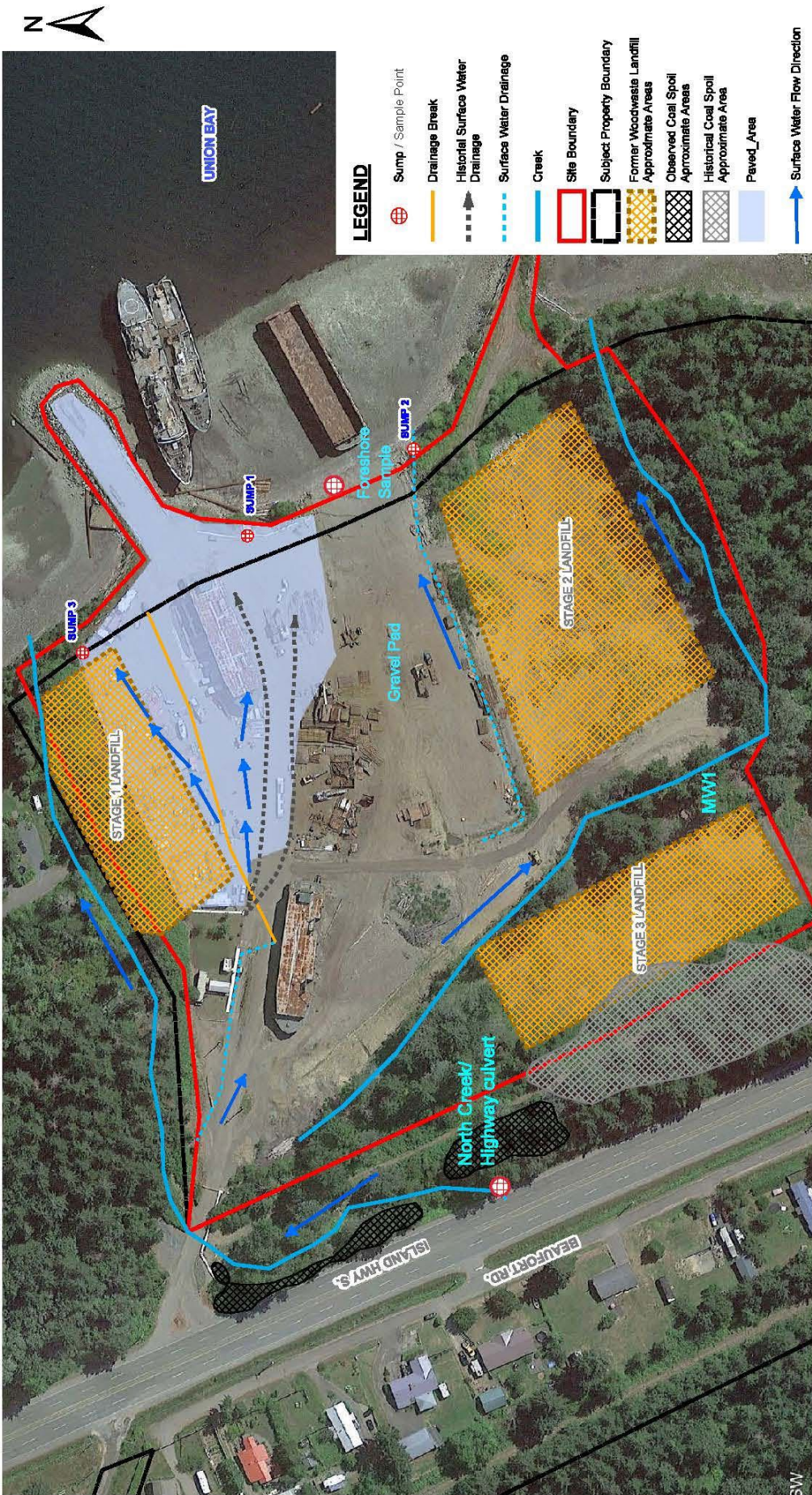
To see the most up to date version of the regulations and codes of practices please visit <http://www.bclaws.ca>

If you require a copy of the original order, please contact the inspector noted on this inspection record.

It is also important to note that this inspection record does not necessarily reflect each requirement or condition of the order, therefore, compliance is noted only for the requirements or conditions listed in the inspection record.

## **Appendix 1: Site Map**

This map is adapted from Figure 1 from the Surface Water Sampling and Management Plan, by Envirochem Services Ltd., dated September 13, 2024.



## **Appendix 2: Site Photographs**

<b>Authorization:</b> PAO112057	<b>Client Name:</b> Deep Water Recovery
<b>IR #:</b> 241941	<b>Site Inspection</b> 2025-03-28

Photo 1

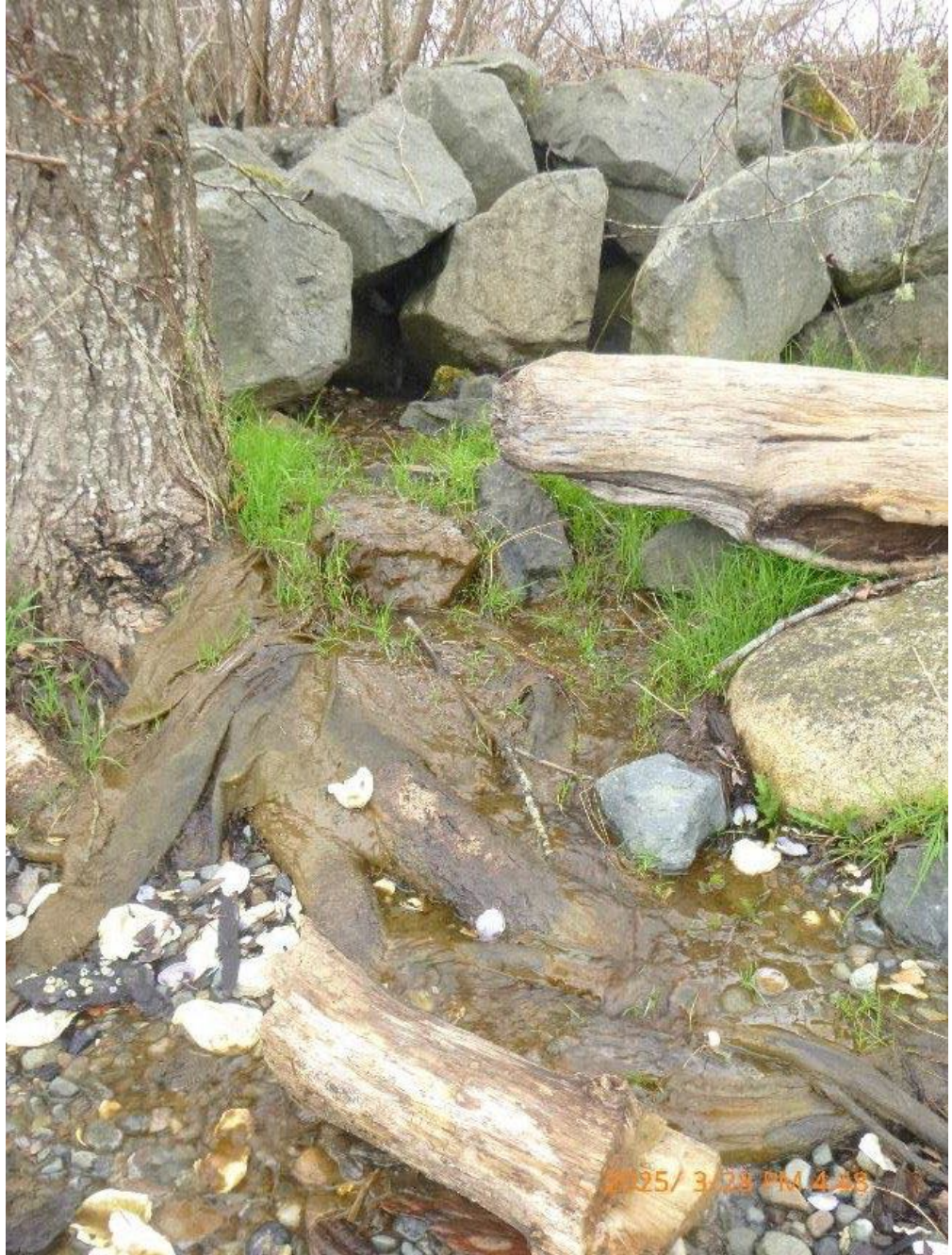
Sump 1

March 28,  
2025



<b>Authorization:</b> PAO112057	<b>Client Name:</b> Deep Water Recovery
<b>IR #:</b> 241941	<b>Site Inspection</b> 2025-03-28

Photo 2  
Sump 2  
Discharge  
March 28,  
2025





<b>Authorization:</b> PAO112057	<b>Client Name:</b> Deep Water Recovery
<b>IR #:</b> 241941	<b>Site Inspection</b> 2025-03-28

Photo 3

Sump 2  
Catchment  
Area

Figure 5-5  
from DWR  
2024  
Treatment  
Plan October  
31, 2024



Photo 4

Sump 2  
Catchment  
Area (approx.)

March 11,  
2025

Image from:  
<https://www.youtube.com/@dronevideos1617/videos>



<b>Authorization:</b> PAO112057	<b>Client Name:</b> Deep Water Recovery
<b>IR #:</b> 241941	<b>Site Inspection</b> 2025-03-28

Photo 5

Sump 2  
Catchment Area  
(approx.)

March 28, 2025

Image from:  
<https://www.youtube.com/@dronevideos1617/videos>



<b>Authorization:</b> PAO112057	<b>Client Name:</b> Deep Water Recovery
<b>IR #:</b> 241941	<b>Site Inspection</b> 2025-03-28

Photo 6

Sump 3  
Discharge

March 28, 2025



<b>Authorization:</b> PAO112057	<b>Client Name:</b> Deep Water Recovery
<b>IR #:</b> 241941	<b>Site Inspection</b> 2025-03-28

Photo 7

Foreshore  
Area w.  
discharge  
channel

March 28,  
2025



<b>Authorization:</b> PAO112057	<b>Client Name:</b> Deep Water Recovery
<b>IR #:</b> 241941	<b>Site Inspection</b> 2025-03-28

Photo 8

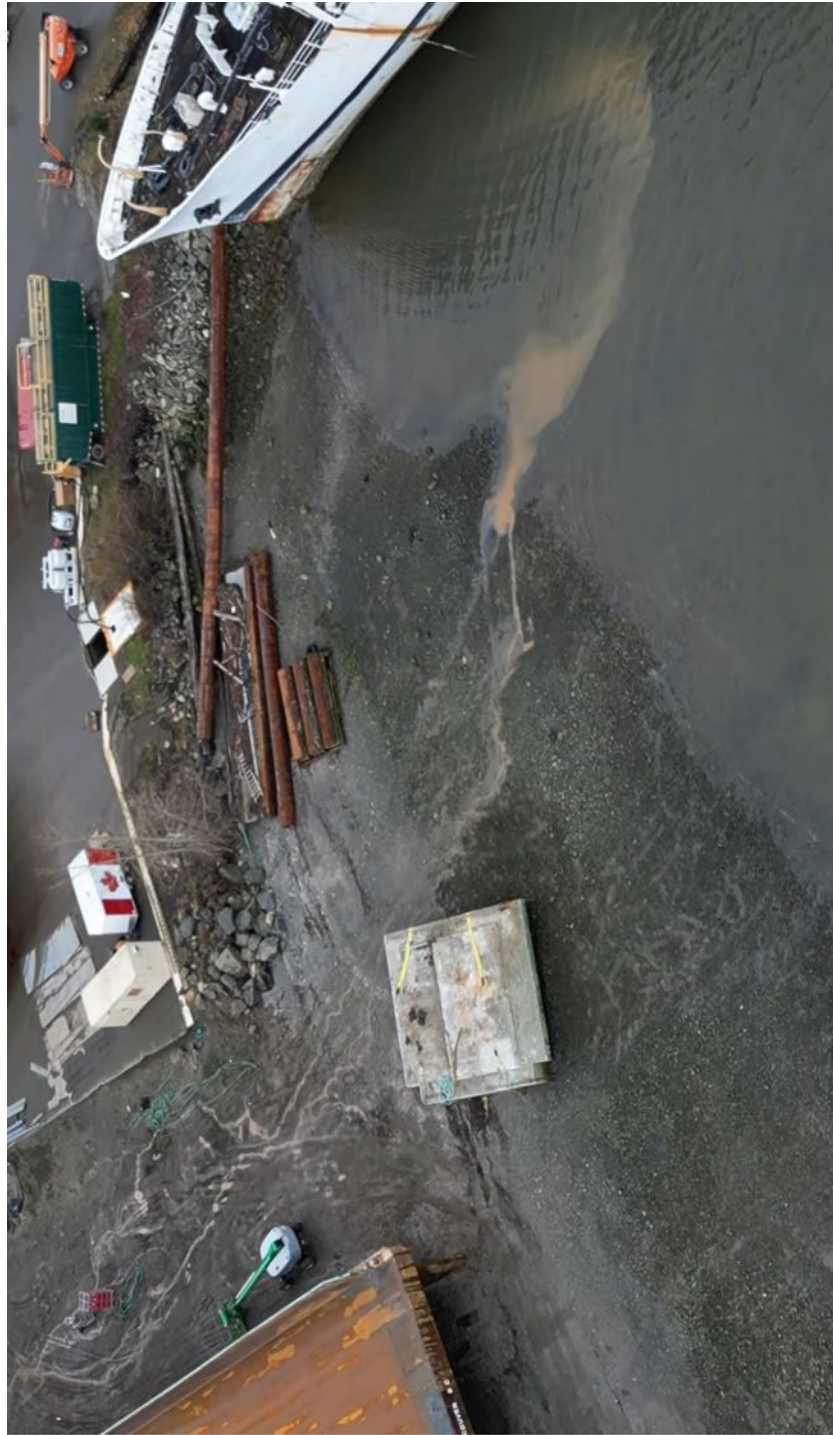
Foreshore  
Area  
Discharge

March 28,  
2025



<b>Authorization:</b> PAO112057	<b>Client Name:</b> Deep Water Recovery
<b>IR #:</b> 241941	<b>Site Inspection</b> 2025-03-28

Photo 9  
Foreshore  
Area  
Discharge  
March 15,  
2025



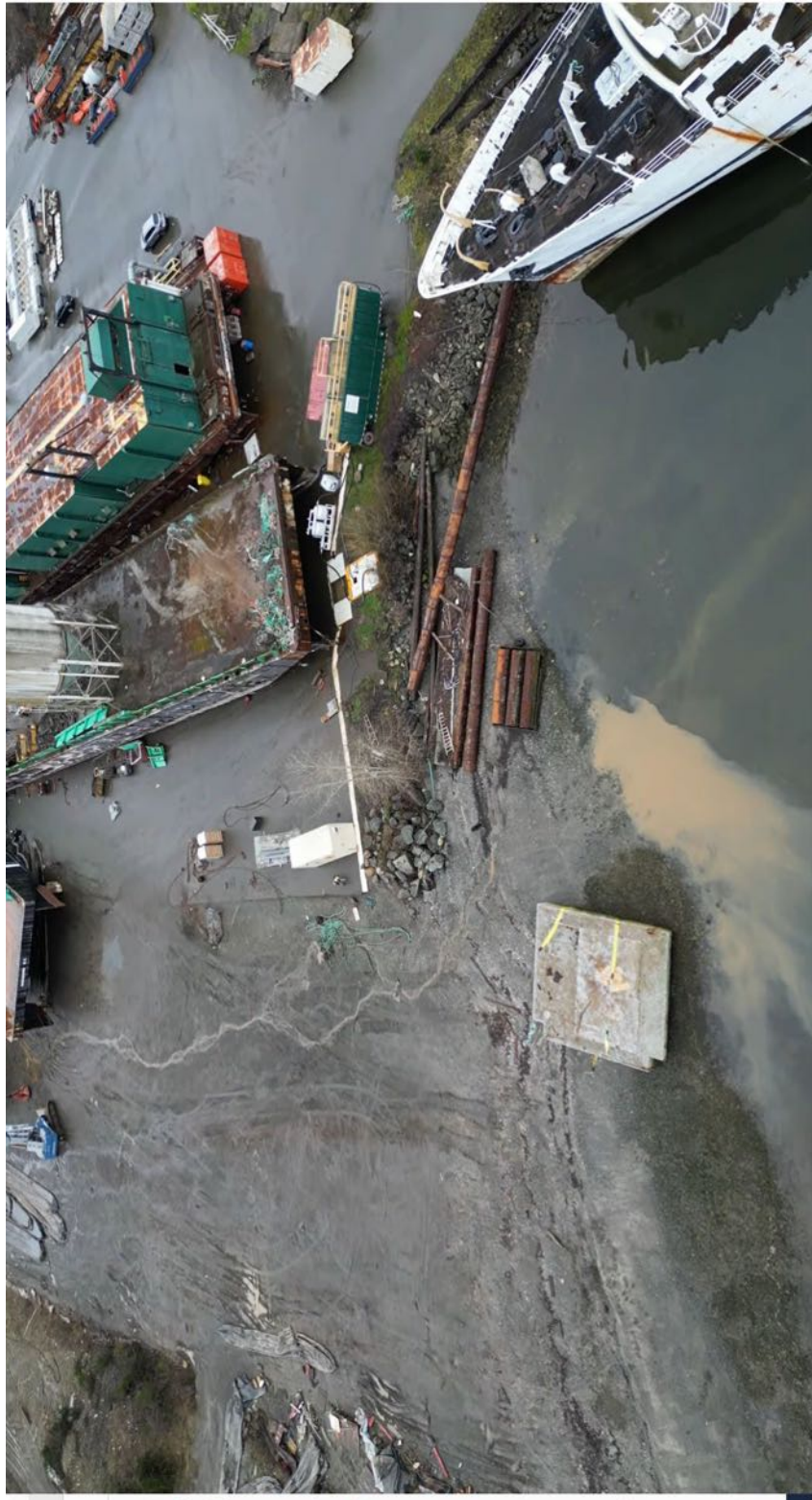
<b>Authorization:</b> PAO112057	<b>Client Name:</b> Deep Water Recovery
<b>IR #:</b> 241941	<b>Site Inspection</b> 2025-03-28

Photo 10  
Foreshore  
Area  
Discharge  
March 21, 2025



<b>Authorization:</b> PAO112057	<b>Client Name:</b> Deep Water Recovery
<b>IR #:</b> 241941	<b>Site Inspection</b> 2025-03-28

Photo 11  
Foreshore  
Area  
Discharge  
March 24, 2025





<b>Authorization:</b> PAO112057	<b>Client Name:</b> Deep Water Recovery
<b>IR #:</b> 241941	<b>Site Inspection</b> 2025-03-28

Photo 12  
Foreshore  
Area  
Discharge  
March 25, 2025



<b>Authorization:</b> PAO112057	<b>Client Name:</b> Deep Water Recovery
<b>IR #:</b> 241941	<b>Site Inspection</b> 2025-03-28

Photo 13

North Creek /  
Highway Culvert  
Sample Point

March 28, 2025



## Appendix 3: Proposed Site Changes for the Effluent Quality Mitigation and Treatment Plan

This is Appendix A from the Effluent Quality Mitigation and Treatment Plan, Envirochem Services Ltd., October 2024, submitted to the Ministry on October 31, 2024 and approved on November 7, 2024.

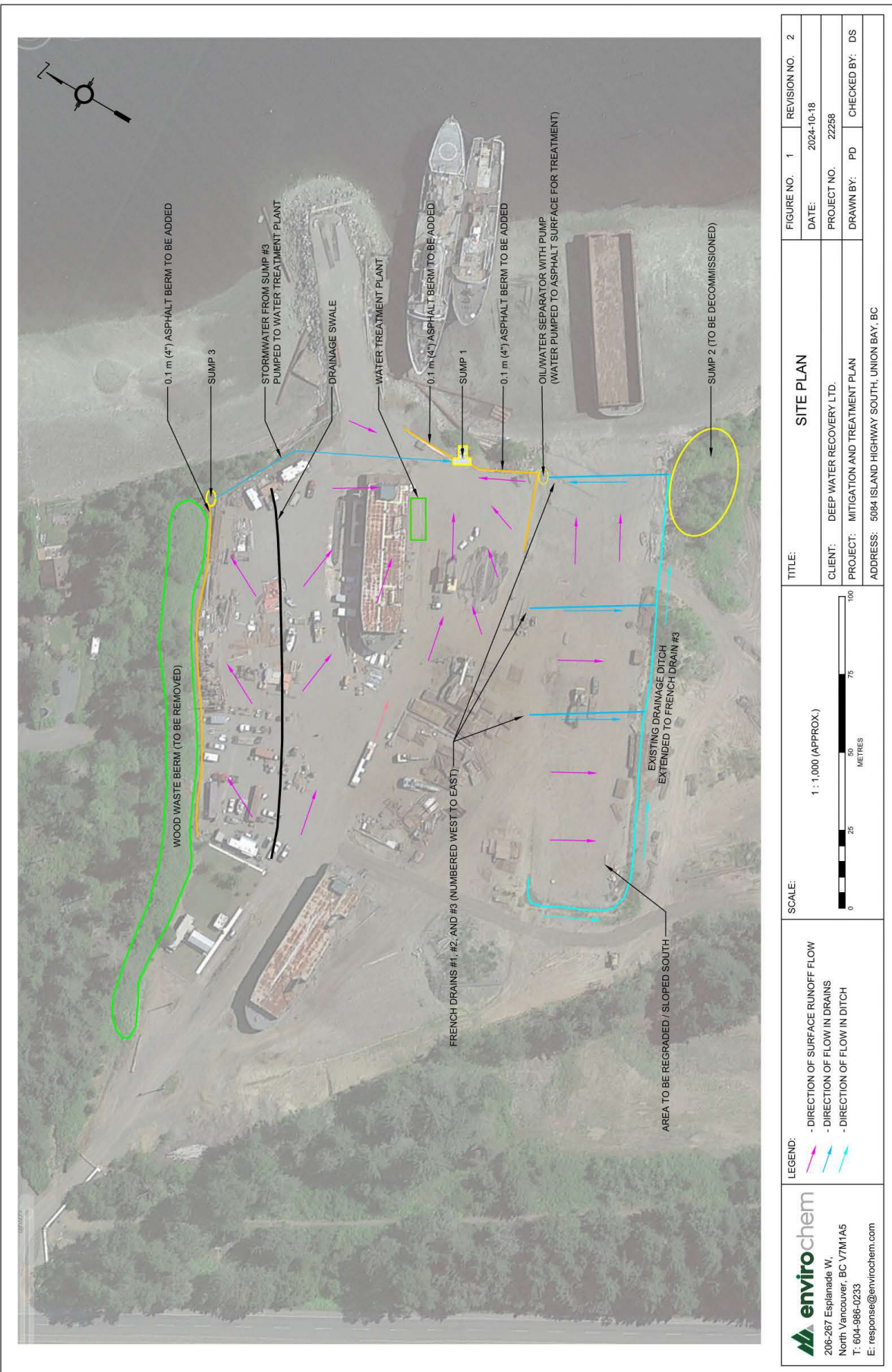


FIGURE NO.	1	REVISION NO.	2
DATE:	2024-10-18		
PROJECT NO.	22258		
DRAWN BY:	PD	CHECKED BY:	DS

**TITLE:** SITE PLAN  
**CLIENT:** DEEP WATER RECOVERY LTD.  
**PROJECT:** MITIGATION AND TREATMENT PLAN  
**ADDRESS:** 5084 ISLAND HIGHWAY SOUTH, UNION BAY, BC

**SCALE:** 1:1,000 (APPROX.)

- LEGEND:**
- DIRECTION OF SURFACE RUNOFF FLOW
  - DIRECTION OF FLOW IN DRAINS
  - DIRECTION OF FLOW IN DITCH

**envirochem**  
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 North Vancouver, BC V7M1A5  
 T: 604-986-0233  
 E: response@envirochem.com