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## **MEMORANDUM**

**From:** Andrew MacKay, Envirochem                      **Date:** January 31, 2019  
**To:** Anika Calder, VFPA                                      **Cc:** Andre Olivier, PCT  
Tiffany Paul, ECCC    Colin Reddin, PCT  
Mark Adams, Envirowest  
**RE: PACIFIC COAST TERMINAL DREDGE WEEKLY MONITORING REPORT #7**  
**JANUARY 14-20, 2019**

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This report summarizes capital dredging conducted in Port Moody Arm, BC for the week of January 14-20, 2019. All work continued under relevant permits issued by VFPA, ECCC, DFO and Transport Canada.

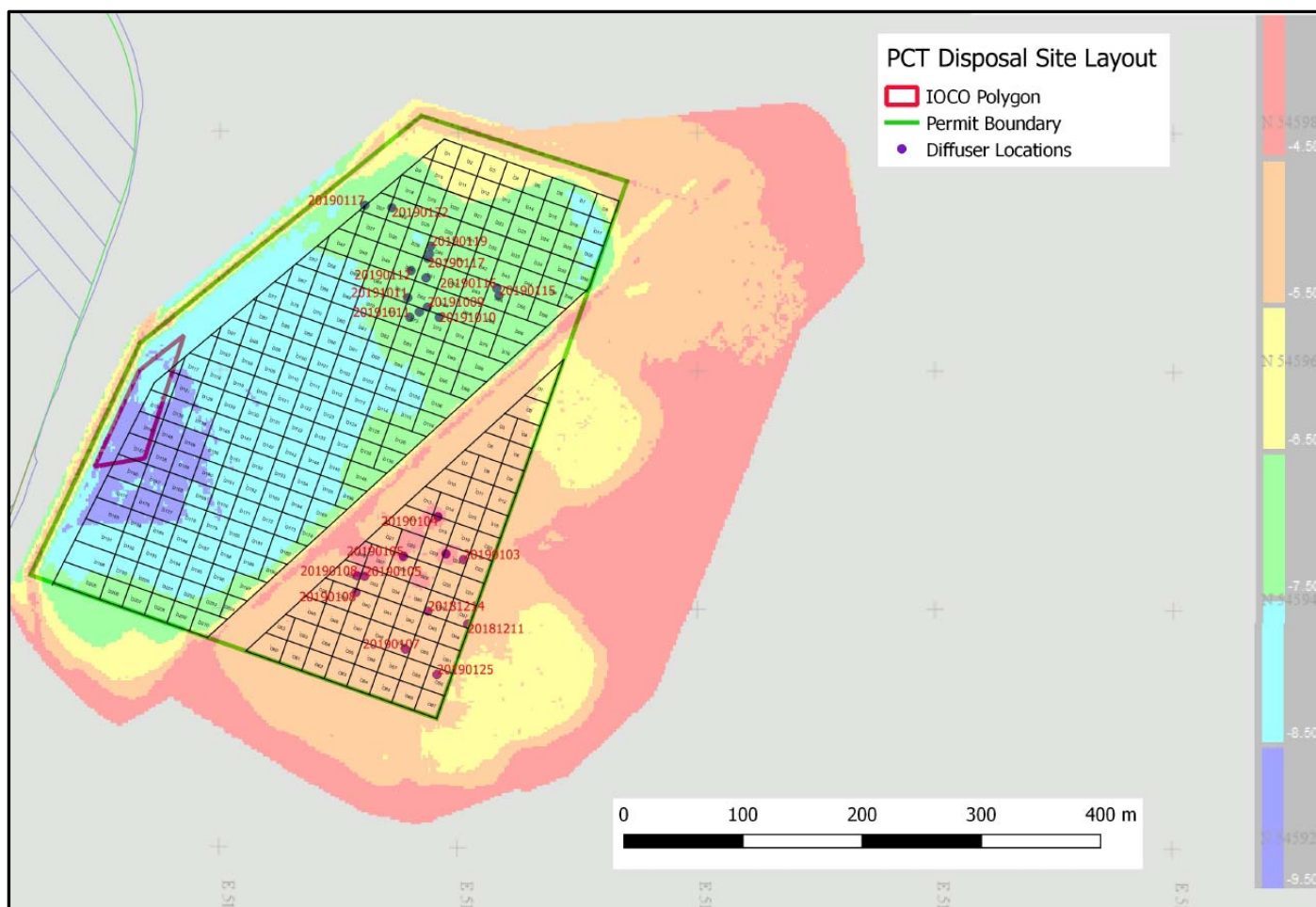
### **OPERATIONS SUMMARY**

Cutter suction works continued for the week with two shifts per day (e.g., 6 am to 10 pm). Operating (pumping) occurs approximately 50%-70% daily with the balance for advancing (repositioning) and / or de-coupling pipelines occasionally when marine carriers transit to and from the terminal. There were no operations on Sunday, January 20, 2019.

The surveyed volume dredged for the reporting period was 40,808m<sup>3</sup> and the cumulative total to January 19, 2019 was 124,070m<sup>3</sup>. Sediment continued to be discharged with turbidity controlling silt curtain in the southeast portion of the existing containment basin. As the previous week, presence of the foam originating from the diffuser discharge was largely reduced between shifts, particularly during interim non-operating period from Saturday evening to Monday morning. Monitors, PCT and FRPD assessed additional foam management options including the prospect of adding harbour boom in the diffuser discharge area. Installation was planned for the next week after examining boom available at the PCT dock.

Intermittent small volume leaks were noticed at the pipeline coupling near the diffuser discharge area located within the containment berm structure. A surface water sample was obtained and the low total suspended solids results indicated there would be negligible effect to the receiving marine environment from this discharge.

As dredging advances, the diffuser is relocated within the containment basins to ensure even distribution of discharged sediment. The image below indicates diffuser locations which have all been within the ECCC sediment release limit.



## TURBIDITY MONITORING

### Open Water Monitoring

As per the predictive model, no exceedances of induced turbidity of 8 NTU over 24 hours at 300m from the disposal area were measured during operations. Similar to the previous week, the summary of measurements below indicate that turbidity levels are remaining close to background and at depth (reference 5m) relative to the surface to 3m interval.

As noted in the previous report, the reported values were corrected retroactively after detecting faulty meter readings and thus incorrect data during January 11-15, 2019. Corrected values for these dates are reported in lieu of no values at all. The readings generated by the current

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(replacement) meter are correct and consistent with the original meter as evidenced under similar operating conditions (e.g., sediment physical properties and discharge rates).

TSS sample results at each 300m transect from the containment structure and Reed Point were collected on January 16 and 19, 2019. The results for this reporting period had near non-detect levels on January 16, 2019 and relatively elevated readings on January 19, 2019 more likely due to nearby turbid stormwater discharges.

#### Shoreline Monitoring Results

Shoreline turbidity was measured on January 19, 2019. Results predominantly indicate levels at or below the new background collected on January 7, 2019 with noted anomalies at Reed Point and Barnet Park on January 12, 2019. As induced turbidity from dredging has been low (e.g., less than 5 NTU on average), it is possible that other sources such as storm sewer outfalls are causing slightly elevated shoreline readings from time to time. Additional monitoring in these areas will be done.

#### **FISH, MARINE MAMMAL AND CRAB SALVAGE OBSERVATIONS**

No dead or distressed fish or marine mammals were observed in the dredging or disposal area. Dungeness crabs were salvaged from six (6) pot traps along the southern margin of the navigation channel measured and released west of the pier at Barnet Marine Park from 8:55am to 9:08am west of the pier at Barnet Marine Park. A total of 19 subadult-adult male crabs were salvaged carapace width ranged from 11.5 to 14.5 cm.

#### **ARCHAEOLOGICAL**

No cultural (archaeological) artifacts were observed in the dredge or disposal works areas.