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MEMORANDUM

From: Andrew MacKay, Envirochem **Date:** January 24, 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 #6
JANUARY 7-13, 2019

This report summarizes capital dredging conducted in Port Moody Arm, BC for the week of January 7-13, 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 13, 2019.

The estimated volume dredged for the reporting period was 46,222m³ and cumulative estimated total to January 12, 2019 was 83,262m³. This was the largest weekly volume dredged to date. 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 will continue to observe the production and extent of foam including variation with climatic conditions and discharge depths.

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, turbidity levels are remaining close to background and at depth (reference 5m) relative to the surface to 3m interval.)

The reported values were corrected retroactively after detecting errors in field data obtained January 11 and 12, 2019 (and January 14 and 15 of the following week).

TSS sample results at each 300m transect from the containment structure and Reed Point were collected on January 7 and 9, 2019. The results for this reporting period continued at low levels established during the previous week.

Shoreline Monitoring Results

Shoreline turbidity was measured on January 11, 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. Values at Reed Point and Barnet Marine Park remained high possibly due to other external influences (e.g., stormwater outfalls). Potential confounding sources to be examined in closer detail.



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 along the southern margin of the navigation channel, from about northern end of Reed Shoals to just south of Reed Point Marina, on January 8-9, 2019. Six (6) pot traps were set from 10:35am to 10:51am January 8, and retrieved from 8:49am to 09:03am on January 9, 2019. Crabs were released into Port Moody Arm west of the pier at Barnet Marine Park from 9:15am to 9:25am January 9, 2019. The following were salvaged:

- 14 subadult-adult male crabs were salvaged; carapace width ranged from 9.5 to 15.0 cm.
- 4 subadult-adult female crabs were salvaged; carapace width ranged from 11.0 to 12.5 cm.



ARCHAEOLOGICAL

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