

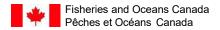
# Trans Mountain Expansion Project – Westridge Marine Terminal Monitoring

In light of the current COVID-19 pandemic, Fisheries and Oceans Canada (DFO) and Musqueam Indian Band's (Musqueam's) Indigenous Advisory and Monitoring Committee Indigenous Monitor (IAMC IM) are not conducting joint in-person monthly site inspections at the Westridge Marine Terminal (WMT), in Burrard Inlet, BC, in June 2020. Instead, DFO and representatives from the IAMC are having two conference-call meetings per month with representatives from Trans Mountain Pipeline ULC (Trans Mountain), the Project Indigenous Monitor (Project IM) from Kwikwetlem First Nation (KFN), and Kiewit Ledcor Trans Mountain Partnership (KLTP). This monitoring report provides a summary of the meeting on June 25<sup>th</sup> including current in-water and nearshore works at the WMT, any issues Trans Mountain reported during the meeting regarding mitigation or monitoring measures implemented to reduce or avoid impacts on fish and fish habitat, and how these issues have been or will be resolved.

Date	June 25, 2020		Time of Call (Start):	1:00 pm	Time of Call End:	2:20 pm		
Format	Web-based co	Web-based conference call with Trans Mountain presenting photographs, documents						
	and/or videos	and/or videos relevant to the expansion of the Westridge Marine Terminal.						
DFO	DFO - TMX Re	DFO - TMX Review and Engagement Team, Fish and Fish Habitat Protection Program:						
participants	R.L. (A/ Senio	R.L. (A/ Senior Biologist), W.B (A/ Team Lead) and K.J. (Biologist)						
IAMC	Musqueam Ind	dian Band: R.K.	. (Environmenta	I Stewardship∃	Γechnician)			
participants	IAMC – Monito	oring Subcomm	nittee: C.T. (IAM	C representativ	e – Burrard Inlet	and Lower		
	Fraser River, f	Fraser River, from Tsleil-Waututh Nation)						
Other	Trans Mountai	Trans Mountain: K.M. (Regulatory Lead), T.A (Construction Manager), S.D. (Lead						
participants	Environmental Inspector)							
	Kwikwetlem First Nation (KFN): M.J. (Project IM)							
Contractor/equip		Role						
at the time of the	call							
DB Bremerton		Moored to the east beside Junction Platforms 1 and 2. On Junction						
		Platform 1 crews have cut piles to design elevation and have started to						
			m on top of the					
Nearshore Barge		Moored along the shoreline and working to construct the sheet-pile walls						
		of foreshore Cells 1 and 2. Sheet-piles will be driven by a vibratory or						
		impact hammer, and underwater noise levels will be monitored during						
		pile driving. All works in this area are conducted in the dry (e.g., above						
	high tide or when the tide is low).							
Offshore barges (	e.g. DB	Jackets set and are being welded on top of offshore Mooring Dolphins 4,						
General)		5 and 6.						
IAMC Indigenous Monitor Observations and Comments								

#### IAMC Indigenous Monitor Observations and Comments

CT asked when and how site visits were planned to capture all of the works and activities occurring at the WMT prior to the COVID-19 pandemic. WB explained DFO and the IAMC IM conducted monthly inspections at regular scheduled times. This regular schedule allows DFO and the IAMC IM to witness various works, undertakings and activities at the WMT. Compliance is verified by witnessing works in person and asking questions. DFO and the IAMC IM are not on site for all works, so we rely on Trans Mountain's inspection teams and Project Indigenous Monitor to provide more detailed information on potential issues that arise and how they have been dealt with.



CT asked for clarification on the process of deep soil mixing (DSM), the type of obstructions encountered during it, and the purpose of the DSM columns. TA explained that obstructions capable of preventing DSM are rocks over 10 inches in diameter. TA explained that the columns support large concrete structures that in turn support heavy equipment.

CT raised concerns regarding archaeological "chance finds" during monitoring within the WMT project area. KM will flag this for Brenda Walton (Senior Indigenous Relations Advisor) to address. See notes below in the "Construction Update" for greater detail.

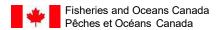
CT asked to confirm dates for the least risk biological window (LRBW). SD provided the dates.

CT asked where the jet fuel line is located. SD described its position in the foreshore.

CT asked how TM tests if the formwork is airtight prior to concrete pours? SD explained that the formwork is inspected prior to and during the concrete pour to visually inspect for gaps, checking that there are no leakages.

CT asked where concrete waste water is disposed of currently. SD explained waste water is being hauled off-site for treatment and disposal at Tervita. SD explained that a third waste water treatment facility, for use on the foreshore, will be constructed at the WMT in the coming months. CT asked if waste water will then be released directly back into Burrard Inlet. SD confirmed TM has obtained a waste discharge permit from the province of B.C., requiring that waste water be treated before it is released into the inlet. Anticipating heavy winter rain, SD explained it will be more cost effective to build a treatment facility on-site rather than hauling waste water offsite.

Musqueam Indian Band has flagged an additional question for follow-up during the next meeting: "In addition to water treatment, will TM undergo water quality testing post-treatment to ensure the water quality (pH, turbidity etc.) is in line with BC's Water Quality Guidelines for the Protection of Aquatic Life before release into Burrard Inlet?" It is essential that water quality standards for concrete waste water are upheld for this work.



### Summary of inspection discussions (use initials of participants)

#### Introductions

### **Agenda Review**

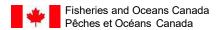
In addition to the agenda review KM addressed that DFO requested a series of photos depicting the ramp up sequence prior to impact pile driving. This is not provided during the call as TM has not conducted impact pile driving in the past two weeks. Photos will be taken of the ramp-up sequence once impact pile driving is conducted offshore, which is currently scheduled to recommence on the week of July 20.

### **Construction Update**

SD provided an overview of the site layout at the WMT and described the construction works that have occurred since the June 10<sup>th</sup> compliance verification conference call.

SD showed a labelled aerial photo of the WMT construction site, which displayed the numbered foreshore cells and arcs. SD provided an overview of the construction works in the foreshore:

- Cell 2: vibratory pile driving.
- Cell 1: vibratory pile driving and impact pile driving.
- JASCO will monitor underwater noise during impact pile driving with a hydrophone placed in the
  water for the first three sheet piles driven to ensure sound pressure levels are below the authorized
  threshold of 207 dB (outside of the least risk biological window) back calculation computed for
  equivalent sound pressure level (SPL) at R = 10 m. All pile driving for the cells is currently being
  conducted during low tide, in dry conditions.
- Ongoing activities: trench on eastern foreshore for the derailment wall, pilot DSM columns in the eastern foreshore between cells 6 and 10 and DSM columns inside cells 7 and 8.
  - o CT: What are DSM columns and what are the obstructions you are encountering?
  - TA: Explained DSM stands for deep soil mixing and obstructions that can prevent DSM are rocks over 10 inches in diameter.
  - o CT: In areas of DSM was M.J. or an archaeological monitor present?
  - SD: There was an assessment prior to construction and most of the project area was determined to have a low potential for archeological findings. There is an area on the other side of the rail tracks that is considered to have a moderate potential for archeological resources. M.J. as well as an archeological monitor will be present during construction in that area.
  - CT: During the pilot program, IM's found an artifact previously. CT realizes this may not be in DFO's purview, but would like to flag it as a concern.
  - SD/KM: The Environmental Protection Plan has a "chance find" procedure and the crew onsite have relevant training. The procedure involves halting work, bringing in a professional and engaging with local Indigenous groups. The rock found earlier was determined not to be an artifact after review from specialists.
  - CT: Indigenous caucus of the IAMC disagreed and two other specialists disagreed with the decision of that assessment; the rock is considered an artifact.
  - o KM will flag these notes for Brenda Walton for follow-up in a different meeting with the IAMC.
- New activity: building retaining wall using large sandbags (supersacks) between Cell 6 and along the shoreline to Dock 59. The wall is set in the intertidal zone and backfilling will occur behind it. This will build an access route along the jet fuel line and protect the shoreline that has been slumping.



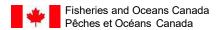
- WB: At what tidal height is the supersack wall to be located?
- SD: About 1.5 m above the average mean tide (geodetic). It is in the intertidal zone, but relatively high up. The superstack wall is being built slowly, end to end, so that there will be no pooling behind the wall where fish would have the potential to be stranded.

SD showed a schematic overview of the WMT site and a photo showing offshore works. SD provided an overview of the construction works:

- · welding jackets to Breasting and Mooring Dolphins
- welding, concrete pours and installation of decking on Loading Platform 1/2 and Junction Platform 1

## SD described specific works and mitigation measures in the foreshore:

- Cell 1: sheet piles driven with vibratory and impact hammer.
- Cell 2: sheet piles threaded around template and driven with a vibratory hammer.
  - CT: asked to confirm dates for the least risk biological window (LRBW).
  - SD responded that the extended LRBW is from August 16th to March 15th. Photos show that piles in Cell 1 and 2 are only being threaded on the south or landward side as piles on the seaward side of the cell cannot be threaded until the LRBW.
- CT: where is the jet fuel line is located?
  - SD showed an aerial photo of the foreshore and described its position.
- The remaining portion of Dock 59, a former utility dock, was demolished. Part of the dock that extended into the ocean was previously removed. A bird sweep was conducted prior to the vegetation surrounding the dock being cleared. Creosote piles were disposed of as contaminated material. Scaffolding was erected in the dock's place for access to the fire hydrant.
  - SD confirmed all works to demolish the dock were conducted above the high-water mark.
- SD showed a photo of supersacks being used to replace part of the retaining wall in cell 6.
   Supersacks will be extended along the shoreline to Dock 59. The area behind the supersacks will be backfilled with gravel.
  - WB: What is the plan following the infilling behind the supersack retaining wall once we are back into the LRBW (after August 16<sup>th</sup>)?
  - SD: Once in the LRBW the plan is to finish the remaining cells to the west. This includes fish
    and invertebrate salvages prior to backfilling the cells. Once cells are backfilled and the
    shoreline is extended then supersacks will be removed.
  - o TA: TM will reuse material inside supersacks as fill material.
  - WB: In future calls DFO will be interested in plans for fish salvages given the different slope created by the supersack wall.
  - SD confirmed the retaining wall is temporary and supersacks will be remove prior to fish salvage.
- Drill rig used for DSM columns in Cell 8 injects grout into the soil, creating a concrete column in ground, which is more structurally sound. It takes the grout a few days to harden.
  - o CT: Can you explain the purpose of the columns underground?
  - o TA: Columns support a large concrete structure that in turn supports heavy equipment.
  - Deep soil mixing and jet grouting columns are ongoing throughout the foreshore cells (takes 14 months to complete)
- WB: asked question for J.H. Would it be beneficial, as a precaution, to have a CO2 bubbler onsite in case there is any risk of stored concrete wash entering the marine environment?



- SD: TM has a waste discharge permit from the province of B.C., which allows releases from the site with restrictions (neutral range of pH required). TM is having a water treatment plant installed on the foreshore, which will enable them to lower the pH and turbidity before the water is released back into the inlet. This will be in addition to two water treatment plants that are located elsewhere at the WMT. Currently waste water generated on the foreshore is taken up by hydro vacuum excavation ("hydrovac"), stored in tanks and hauled offsite.
- o CT: Water will be released back into the inlet once there is a treatment plant on-site?
- o SD: Yes.
- o CT: Where does the water go when it is taken offsite?
- SD: Tervita handles waste materials and has treatment facilities. Moving forward it will be more cost effective to have a waste water treatment facility onsite.

#### SD described specific works and mitigation measures located offshore:

- Breasting Dolphins 7 and 8: welding sheer lugs to secure jackets to piles.
- Mooring Dolphins 4, 5 and 6: setting and welding jackets to mooring dolphins.
- Junction Platform 1: piles cut, welding and falsework underway to support concrete decking that will be installed on top of the piles. Concrete pours in piles to follow.
- Loading platform 1/2: tying girders to concrete pile caps and installing formwork for concrete pours.
- Concrete barge with concrete and pump trucks all concrete spill mitigation measures in place (e.g. plant nappies under trucks to hold any potential leaks)
- WB: Have there been any changes to mitigation measures to the formwork and concrete pours?
  - SD: No, mitigation measures are working well. Spill trays and containment bins are monitored regularly and forms are checked for leaks prior to concrete pours.
  - TA: Every vehicle gets a pre-environmental inspection before permitted on-site.
  - o CT asked how do you test if the formwork is airtight before concrete pours?
  - SD: The formwork is inspected prior to and during the concrete pour to visually inspect for gaps, checking that there are no leakages.
- WB: How is the turbidity curtain (i.e., the new turbidity curtain tailor made to bathymetric contours) working?
  - SD: Showed photos of the curtain working well by containing turbidity within the authorized footprint. The curtain performed well during a heavy 1 in 200 year rain event last week, as shown in a photo taken the day after the event.
  - There is an orange and black turbidity curtain that surrounds the entire nearshore.
     Additionally, a yellow turbidity curtain surrounds part of the main orange and black turbidity curtain and functions as an additional safety measure.
- Temporary marine access dock: relocated to north side of marine construction office trestle

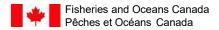
#### **Further Questions:**

WB: Is the marine construction office functional?

KM/SD: No, the structure is subject to a building permit and TM is waiting for the permit to be issued by VFPA to complete internal work.

WB: Were there sightings of marine mammals or fish around the WMT?

SD: The odd harbour seal has been spotted. No other marine mammals or juvenile salmon have been spotted in the past two weeks.



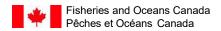
RL: Where and why are JASCO monitoring impact pile driving in the dry?

SD: Impact pile driving is required for a few sheet piles in foreshore cell 1, where harder substrate was encountered. As per a previous conversation with DFO, TM committed to verifying, through the first three sheet piles of a cell, that in-water noise was well below noise thresholds for injury or death of fish. TM submitted a memo with the monitoring plan.

CT: When talking about water treatment on foreshore facility earlier, CT was wondering why the water treatment facility was not in place prior to works?

SD: The waste discharge permit from the province of BC is only required if TM are discharging water in the inlet; however, TM is not currently doing this. Right now waste water is being hauled off-site for treatment and disposal at Tervita.

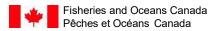
RK will provide JH with his summary notes from this meeting.



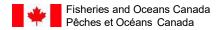
## **GENERAL AND MISCELLANEOUS MITIGATION MEASURES**

Measures specified within the Westridge Marine Terminal Fisheries Act Authorization Conditions:

Calaadiida							
Schedule							
2.2.6 All nearshore in-water F	Project construction activities (v	vithin a 50-m horizontal distance s	eaward of the higher high				
		Il only be carried out during a wor	k timing window from				
August 16 to March 15 each							
Discussed: ⊠ Yes	│Issue(s) □ Yes	lssue(s) □ Yes	Not applicable □				
□ No	identified: ⊠ No	unresolved: □ No					
	2 110						
Comments	1 1 1 1 1 1 1						
		ast two weeks, since the last c					
		ks are only being conducted of					
50 m of the higher high wa	iter large tide). Works on the	foreshore cells are being com	pleted at low tide in the				
dry.							
Action Items							
None.							
Monitoring							
	professional must be on-site d	luring the carrying on of in-water v	vorks undertakings and				
		ities on a systematic and on-going					
		and fish habitat are effective, and					
impacts to fish and fish habita		and non naphat are encente, and	inat anadinenzed				
Discussed: ⊠ Yes	Issue(s)	Issue(s) ☐ Yes	Not applicable □				
	1	` .´ .	Not applicable $\Box$				
□ No	identified: ⊠ No	unresolved:   No					
Comments							
The Lead Environmental Ir	nspector spoke throughout t	he meeting about their experie	nces over the past two				
		onmental professionals are cor					
		onmental professionals are out	iddotting monitoring of				
	construction activities at the WMT.						
Action Items							
None.							
Marine Mammal Obser	vations						
		ne mammal is observed adjacent t	to or within the project				
		rine mammal. Construction activit					
		nediate area or has not been sigh					
Discussed: ⊠ Yes	lssue(s) ☐ Yes	Issue(s) ☐ Yes	Not applicable □				
		` ' '					
☐ No	identified: No	unresolved:   No					
Comments							
Marine mammal monitoring is being conducted at WMT. Harbour seals were observed; however, pile driving							
only occurred in the dry du	ıring low tide. No work stopp	ages were reported.					
Action Items							
None.							
Temporary Structures and Decommissioning of Existing Structures							
The application for a <i>Fisheries Act</i> authorization states that a floating debris boom will be secured around the work area							
to collect drifting debris during demolition of the existing utility dock (page 3.1).							
Discussed:	Issue(s)	Issue(s)	Not applicable ⊠				
	· · · · · · · · · · · · · · · · · · ·	` ' .					
⊠ No	identified:	unresolved:					



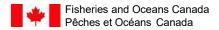
2.2.5 Temporary structures installed below the high-water mark shall be decommissioned and removed when they are no longer being used for construction purposes.						
Discussed:		□ Yes	Issue(s)	☐ Yes	Not applicable ⊠	
⊠ No		⊒ 163 ⊒ No	unresolved:	□ No	140t applicable 🖂	
Comments		_ 110				
The utility dock has been r	emoved and no s	structures a	re currently beir	ng decommissi	oned.	
Λ - 4: 14						
Action Items None.						
Pump Intake Screening 2.2.2 Water intakes of any pu		aned and ser	eened in accorda	unce with specific	eations outlined in the	
Addendum, Fisheries and Oc						
Oceans Canada 1995), and F	isheries and Ocea	ans Canada's	s Guidelines for N	Minimizing Entrai	nment and Impingement	
of Aquatic Organisms at Mari						
Discussed: ☐ Yes		☐ Yes	Issue(s) unresolved:	☐ Yes	Not applicable ⊠	
⊠ No	identified.	□ No	uniesolveu.	□ No		
Comments Screens for known water in	atakas haya boor	a discussed	during provious	s cita incoaction	as. No issues were	
reported.	nakes have been	ı uiscusseu	during previous	s site irispectioi	is. No issues were	
Action Items						
None.						
Fish Salvage						
2.2.3 Fish salvage and reloca avoid and minimize adverse i		ucted, as app	oropriate, prior to	the start of cons	truction activities so as to	
Discussed: ⊠ Yes	Issue(s)	□ Yes	Issue(s)	□ Yes	Not applicable □	
□ No	identified:	⊠ No	unresolved:	□ No		
Comments						
In the future, DFO noted that it will be interested in discussing Trans Mountain's plans for fish salvage and whether this will change based on the presence of the supersack wall. No fish salvage has taken place at WMT over the past two weeks.						
Action Items						
None.						
Integrity of Habitat Offs						
4.7 The Proponent shall not offsetting measures.	arry on any works	, undertaking	gs or activities tha	t will adversely o	disturb or impact the	
Discussed: ☐ Yes	` ,	□ Yes	Issue(s)	☐ Yes	Not applicable $oxtimes$	
⊠ No	identified: [	□ No	unresolved:	□ No		
Comments						
Offsetting measures have yet to be installed.						
Action Items						
None.						



# MITIGATION MEASURES SPECIFIC TO PILE DRIVING

Measures specified within the Westridge Marine Terminal Fisheries Act Authorization Conditions:

Underwater	<b>Sound Pre</b>	ssure Level F	Reduction			
						vater pile driving activities
			nderwater peal		t result in advers	se impacts to fish.
Discussed:	⊠ Yes	Issue(s)	☐ Yes	Issue(s)	☐ Yes	Not applicable □
	□ No	identified:	⊠ No	unresolved:	□ No	
2.2.9.1 To avoi exclusion, etc.)			sures (e.g., bu	bble curtain arour	nd the full wetted	length of the pile, fish
Discussed:	⊠ Yes	Issue(s)	☐ Yes	Issue(s)	□ Yes	Not applicable □
	□ No	identified:	⊠ No	unresolved:	□ No	11
Comments						
conditions; the levels are bein tide and that u	erefore, no m ng monitored underwater n d a memo fro	nonitoring was o via hydrophon oise thresholds	conducted via e during impa are not being	act pile driving a g exceeded. Pre	M confirmed th ctivities occurri eviously, DFO r	low tide in dry at underwater noise ing in the dry during low requested and has ng conducted in the dry
Action Items						
None.						
Underwater	Sound Pre	ssure Level I	Monitoring			
2.2.9.2 Monitoring via underwater noise recordings must be conducted continuously and within 10 meters of the pile being driven to verify that underwater sounds do not exceed the 30 kPa (209.5 dB re: 1 µPa) threshold for injury to finfish.						
Discussed:	☐ Yes	Issue(s)	☐ Yes	Issue(s)	□ Yes	Not applicable ⊠
	⊠ No	identified:	□ No	unresolved:	□ No	
2.2.9.3. Outside of the least risk window for Burrard Inlet (August 16 – February 28), a more conservative underwater sound threshold of 22.5 kPa (207 dB re: 1 µPa) will be adhered to, and monitored, to prevent injury to finfish. If sound levels exceed this threshold, or a fish kill is observed despite mitigation measures being in place, pile driving activities are to cease immediately and mitigation methods are to be reviewed and modified in consultation with DFO.						
Discussed:	⊠ Yes	Issue(s)	☐ Yes	Issue(s)	□ Yes	Not applicable □
	□ No	identified:	⊠ No	unresolved:	□ No	11
2.2.9.4 If underwater noise recordings indicate that sound levels are likely to exceed the applicable threshold defined in conditions 2.2.9.2 or 2.2.9.3, the Proponent will take appropriate action with the goal of preventing the exceedance from occurring. These actions may include adjusting the force of the hammer, adjusting the mitigation measures already in place to increase their effectiveness, or implementing additional mitigation measures.						
Discussed:	☐ Yes	Issue(s)	☐ Yes	Issue(s)	☐ Yes	Not applicable ⊠
	⊠ No	identified:	□ No	unresolved:	□ No	
2.2.9.5 Upon commencement of pile driving, or recommencement after a delay of 30 minutes or more, pile installation shall ramp-up by starting with less frequent impact strikes of lower force. This ramp-up period is designed to enable any fish that may be in the area time to leave the area prior to the generation of peak pressure and noise levels for pile installation.						
Discussed:	☐ Yes	Issue(s)	☐ Yes	Issue(s)	□ Yes	Not applicable ⊠
	⊠ No	identified:	□ No	unresolved:	□ No	, ,
Comments						

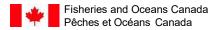


no vibratory or impact pile driving occurred in-water over the past two weeks. I M demonstrated that they are monitoring underwater noise during impact pile driving occurring in the dry at low tide and that levels have remained below the threshold specified in the authorization.							
Action Items	<u> </u>						
None.							
<b>Marine Mammal Monit</b>							
2.2.9.6 Prior to commencem monitoring must be conducted for harbor seals, which will h	ed to determine if mar	rine mamm	nals are present w	elay of 30 minute vithin an exclusio	es or more, visual on zone of 1 km (except		
Discussed: ⊠ Yes	\ /	Yes	Issue(s)	☐ Yes	Not applicable $\square$		
□ No	identified: ⊠	No	unresolved:	□ No			
2.2.9.7 Work may only community zones for 30 minutes.	nence if marine mamı	mals and h	narbor seals are n	ot observed in th	neir respective exclusion		
Discussed: ⊠ Yes	` '	Yes	Issue(s)	☐ Yes	Not applicable □		
□ No	identified: ⊠	No	unresolved:	□ No			
mammals are observed with	2.2.9.8 Exclusion zones must be monitored continuously during impact pile driving. If a marine mammal or marine mammals are observed within their respective exclusion zone, pile driving activities must cease until all marine mammals leave their respective exclusion zone or they have not been sighted for 30 minutes within their respective						
Discussed: ⊠ Yes	Issue(s)	Yes	Issue(s)	□ Yes	Not applicable □		
□ No	identified: ⊠	No	unresolved:	□ No			
2.2.9.9 If underwater noise recordings reveal that the threshold of 160 dB is exceeded at the 1 km exclusion zone boundary, the exclusion zone radius must be widened to a new outer limit, where sound recordings demonstrate that the 160 dB threshold is not exceeded. Conditions 2.2.9.6 to 2.2.9.8 will need to be complied with within this new exclusion zone.							
Discussed: ⊠ Yes	\ /	Yes	Issue(s)	☐ Yes	Not applicable □		
□ No	identified: ⊠	No	unresolved:	□ No			
2.2.9.10 Pile driving may only be carried out during daylight hours to enable effective visual monitoring of marine mammal exclusion zones.							
Discussed: ⊠ Yes	` '	Yes	Issue(s)	☐ Yes	Not applicable □		
□ No	identified: ⊠	No	unresolved:	□ No			
Comments							
TM are carrying out marine mammal monitoring. Harbour seals were observed by TM, but not prior or during pile driving as no work stoppages were noted on the conference call.							
Action Items							
None.							

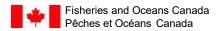
Measures specified within the Westridge Marine Terminal Environmental Protection Plan:

## Fish Salvage

35. Immediately following the installation of each sheet pile cell, and prior to excavation and infilling of that cell, conduct a salvage of commercial, recreational and Aboriginal (CRA) fishery species via crab and fish trapping/netting and seines (where appropriate). Release captured CRA fishery species in a suitable habitat at least 500 m away from marine construction activities.



Discussed:	⊠ Yes	Issue(s)	☐ Yes	Issue(s)	□ Yes	Not applicable ⊠
	□ No	identified:	⊠ No	unresolved:	□ No	
Comments						
No fish salva	ge has taken	place at WMT	over the past	two weeks.		
Action Items						
None.						
<b>Turbidity M</b>	onitoring					
Environmental	Inspector will		u sampling of			lity levels, the inits). Should turbidity
Discussed:	☐ Yes	Issue(s)	☐ Yes	Issue(s)	□ Yes	Not applicable ⊠
	⊠ No	identified:	$\square$ No	unresolved:	□ No	
Comments						
No in-water p	ile installation	n occurred over	the past two	weeks.		
Action Items						
None.						
	MITIGATIO	N MEASURES	S SPECIFIC	TO FORESH	ORE CONST	RUCTION
Dinarian DI	anting and	Material Hand	dling			
				ation Condition	ns	
						cies of vegetation.
Discussed:	⊠ Yes	Issue(s)	☐ Yes	Issue(s)	□ Yes	Not applicable □
	□ No	identified:	⊠ No	unresolved:	□ No	
Westridge Marine Terminal Environmental Protection Plan Commitments						
30. Unless oth accordance wi			n all excavated	d [marine] materia	ıl and dispose at	a land-based facility in
Discussed:	□ Yes	Issue(s)	☐ Yes	Issue(s)	□ Yes	Not applicable ⊠
2.0000000	⊠ No	identified:	□ No	unresolved:		Not applicable
Comments				<u> </u>		
	ackberry in th	ne riparian area	was remove	d around the site	e of the Dock 5	59 removal. This
				m part of the ex		
Action Items						
None.						
Water Quality Maintenance and Monitoring						
Westridge Marine Terminal Fisheries Act Authorization Conditions						
2.2.1 Effective	sediment and	erosion control r	neasures (e.g.	, a turbidity curtai	n, etc.) shall be	implemented before
starting construction and shall be maintained during construction activities, as appropriate, to avoid the deposit and dispersion of sediment into the marine environment.						
Discussed:	⊠ Yes	Issue(s)	□ Yes	Issue(s)	☐ Yes	Not applicable □



□ No	identified:	⊠ No	unresolved:	□ No			
2.2.10 A turbidity curtain must be used to isolate the work area during the excavation of riprap in order to contain marine sediment suspended in the water column and limit the extent of sediment dispersion. During severe weather conditions that may reduce the effectiveness of, or impede the visual monitoring of, the turbidity curtain (e.g., > 70 km/h							
winds, or dense fog), worl	winds, or dense fog), works, undertakings or activities that may increase suspended sediment concentrations within the turbidity curtain or adversely affect the integrity of the turbidity curtain, must be suspended.						
Discussed: ☐ Yes	Issue(s)	☐ Yes	Issue(s)	☐ Yes	Not applicable ⊠		
⊠ No	identified:	□ No	unresolved:	□ No			
Westridge Marine Ter	minal Environm	ental Protec	tion Plan Comi	mitments			
29. During in-water excavation or rip rap, conduct water quality monitoring (WQM) as per the Water Quality Management Plan during Rip Rap Removal (Appendix H of this EPP). Conduct WQM to assess the effectiveness of the turbidity curtain and modify turbidity curtain deployment, if required.							
Discussed: ☐ Yes	Issue(s)	☐ Yes	Issue(s)	☐ Yes	Not applicable ⊠		
⊠ No	identified:	□ No	unresolved:	□ No			
Westridge Marine Terminal Sediment and Erosion Control Plan Commitments							
The in-water sediment curtain will remain intact during Foreshore construction activities to ensure sediment laden water is not discharged into Burrard inlet.							
Discussed: ⊠ Yes	Issue(s)	☐ Yes	Issue(s)	☐ Yes	Not applicable $\square$		
□ No	identified:	$\boxtimes$ No	unresolved:	□ No			
Comments							
Turbidity curtains were visible in photos shown during the slideshow and Trans Mountain noted that they were working well to contain turbidity, even with heavy rainfall.							
Action Items							
None.							

# Additional comments or action items

Musqueam's questions regarding testing of water quality after treatment will be asked at a future CVA with Trans Mountain.