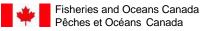


Trans Mountain Expansion Project – Westridge Marine Terminal Compliance Verification Activity Report

This monitoring report provides a summary of the in-person site inspection on September 28, 2020, including current in-water and nearshore works observed at the WMT, related mitigation or monitoring measures, issues reported or observed during the inspection, and how these issues have been or will be resolved. In response to the COVID-19 pandemic, in-person site inspections had been previously suspended since March 2020 and were replaced with two conference-call meetings per month with representatives from Fisheries and Oceans Canada (DFO), representatives from the Indigenous Advisory Monitoring Committee (IAMC) (including the Musqueam IAMC Indigenous Monitor), Trans Mountain Pipeline ULC (TM), the Project Indigenous Monitor (Project IM) from Kwikwetlem First Nation (KFN), and Kiewit Ledcor Trans Mountain Partnership (KLTP).

Date	September 28	, 2020	Site visit start time:	11:00 AM	Site visit end time:	3:20 PM
Format	In-person site	inspection.		•	•	
DFO attendees	K.J. (Biologist)					
IAMC attendees	· · · · · · · · · · · · · · · · · · ·	igenous Monitor,	Seabird Island	d Band)		
Other		d Environmental I			nmental Inspe	ctor), T.A.
attendees	(Construction	Manager), and K.I	M. (Senior Re	gulatory Advise	or)	
	Kwikwetlem Fi	rst Nation (KFN):	M.J. (Project	M)		
	Note: K.M. atte	ended pre and pos	st site inspecti	on meetings v	ia phone	
On-site contracto	or/equipment	Role				
Trans Mountain		Site Manageme	nt			
KLTP		Prime construction contractor				
JASCO		Underwater noise monitoring during vibratory and impact pile driving.				
Nearshore barges Columbia and DB						re driven by a
DB General DB General is moored along the shoreline in preparation for impact driving of Trestle Span 0 (TS0) this week. TM plans to use four searcoustic deterrent devices during impact pile driving. TS1 and TS subsequently be impacted in the coming weeks.				four seal		
DB Patrick DB Patrick is currently located offshore and is used to primarily driv smaller diameter piles.				arily drive		
IAMC Indigenous	s Monitor Obse	rvations and Cor	mments			
		gical monitoring at		1 14 1		

- SD confirmed the Canadian Pacific Railway tracks were built along the natural shoreline. SD explained that eventually TM will drill under the railway tracks where there is a higher potential to find artifacts. SD referred to the "chance find" procedure outlined in Trans Mountain's Environmental Protection Plan. SD stated an archaeological monitor will be onsite at the time of those works (occurring approximately 1.5 years from now).
- JL asked about the ability of TM to notify Indigenous Monitors prior to fish salvages (as that was discussed in the previous CVA call).

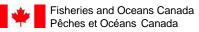


- KM to get back to JL on this with further details as KM was trying to recall what was previously discussed.
- KJ added that she recalled that the timeline of salvage after the cells are closed is what TM noted made it difficult to notify Indigenous Monitors in advance.
- TM does notify DFO prior to conducting a fish salvage.
- There are only three sheet-pile arcs left to salvage.

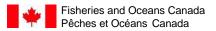
IM Notes and Observations:

- Observed concrete pouring for construction of train derailment wall
- Observed temporary marine construction office fully operational as of a few weeks ago
- Observed deep soil mixing and jet grouting activity on foreshore
 - Pre drilling in process for grout filling
 - Arc 8A and Arc 9A are containment for spoils
 - o Grout spoils are trucked off site
- Observed current work on Cell 5 sheet piles installed
 - Currently setting template for Arc 3A
 - Cells along foreshore to be fully completed by the end of November
- Crab and minnow traps currently set for fish salvage
 - Minimum of 3 sets during day salvage plus over-night soaks
 - Salvaged marine life are relocated to Barnet Marine Park
 - Fish salvage to wrap in November when cells are complete
- Five marine mammal observers are present during times of in water works
 - Several seal sightings per day (up to 120)
 - Testing seal deterrent on 10/02/2020
 - JASCO to provide analysis on acoustic deterrents
- Observed rebar installation in process at JP Platform 1
- Trestle 6 build in process
 - No concrete pours or pile driving off shore happening the day of inspection
- Observed turbidity curtain around length of cells on foreshore
 - Water is tested inside and outside foreshore curtain to ensure MOE requirements are met
 - o Curtain made of nylex mesh and suspected to last until the end of the pre-construction project
 - Cleaned and inspected monthly during warmer months to prevent weigh down from marine growth
- No work happening around area of potential archeological sensitivity until 2021
 - \circ $\;$ Archeological monitor will be present during work at that time
 - Heritage resource discovery contingency plan in place

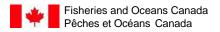
Time	Inspection Activity
11:00 AM	Upon arrival at the KASK site, a KLTP representative gave JL and KJ a Health and Safety Orientation.
	 Prior to going out on site SD, TA, BJ, JL and KJ had a pre-site inspection call with KM. SD provided an overview of the site layout at the WMT and described the construction works that have occurred since the August 31 compliance verification conference call: Foreshore (deep soil mixing, jet grouting and work on the derailment wall); Nearshore/in-water (completed Cell 4, working on Cell 5 and starting works on Arc 3A); Offshore (welding and installing formwork on Junction Platform 1 and preparing for
	impacting of TS0, TS1 and TS2).
	 Other items discussed: Discussed the SealFence seal acoustic deterrent system: JASCO performed a sound source characterization study on September 25, 2020, including sound transmission losses at various distances while using one seal deterrent. TM will use four seal acoustic deterrents within the 150 m harbour seal specific exclusion zone later this week while impacting Trestle Span 0. Five marine mammal monitors will be present prior to and during operation of the devices to perform continuous visual monitoring of a 1,400 m exclusion zone for cetaceans and marine mammal species at risk. TM Confirmed that the new wastewater facility on the foreshore is operational. TM Confirmed fish salvages have occurred in Cell 4 (completed) and a fish salvage in Cell 5 is ongoing SD confirmed minnow and crab traps are used during the salvages. A sculpin, a gunnel fish and crabs have been salvaged from Cell 5 most recently. SD reviewed Triton's fish salvage process (multiple sets are completed until fewer fish and fewer fish are captured).
	 Confirmed that an Indigenous Monitor from Semiahmoo First Nation is located at the Burnaby Terminal (not at Westridge Marine Terminal).
12:45	Arrive at the Westridge Marine Terminal.
12:45 – 13:00	 View of works from above (prior to walking along the foreshore) SD provided the names of the barges and discussed associated works. Observed the grout spoil pits in Arcs 8A and 9A and current works on the foreshore. SD stated that the foreshore cells should be completed by November 2020.
13:00 - 13:30	Walk along foreshore to the west
	 Observed sumps, pumps and hoses that are used to move water towards the new wastewater treatment plant located on the western foreshore (note the site is moveable). This treatment plant is being used to treat surface water run-off at WMT prior to it entering the marine environment. Sampling is conducted inside and outside of the foreshore turbidity curtain to ensure pH and turbidity levels meet the requirements of Trans
	Mountain's BC Ministry of Environment (MOE) discharge permit.



	 Observed various ESC mitigation measures (e.g. silt fencing, straw wattles and berms). KJ asked if there have been any changes to the erosion and sediment control (ESC) measures on the foreshore and if they are still working well. SD confirmed ESC mitigation measures are working well and are regularly maintained. Viewed wastewater containment pit for grout works and appropriate ESC
	surrounding the pit (silt fencing and a small trench with built up sides). This wastewater is currently taken offsite for treatment and disposal. Trans Mountain is working to obtain a permit from the BC MOE to treat this wastewater onsite at the new wastewater treatment plant on the foreshore as this will help limit transport and treatment offsite.
	 Observed a few remaining creosote piles from Dock 59 (the piles will eventually be removed and disposed offsite).
	 In general, the marine water along the foreshore (inside and outside of the turbidity curtain) was cloudy. SD indicated this may be due to an algae bloom as the water is at times much clearer.
	 Observed the turbidity curtain that encompasses the foreshore cells to be working well (the curtain was keeping the more turbid water from entering the adjacent marine environment).
	 KJ asked how the turbidity curtain is maintained. SD explained it is cleaned monthly during the spring and summer to reduce build-up from marine growth (e.g. mussels and algae), which weigh the curtain down. The curtain will be maintained throughout the fall and winter as necessary.
	Observed that foreshore Cells 1 and 2 and Arcs 1A and 2A are backfilled with
	 gravel. Observed plant nappies present on some of the nearshore barges beneath equipment with the potential for hydrocarbon leakage.
	 Observed the fish acoustic deterrent suspended by winches on an offshore barge. Observed the temporary marine construction office (operational 2-3 week ago). Observed a second turbidity curtain around a water outfall located on the westernmost foreshore area that drains water from residential storm grates and water from a treated wastewater containment tank at WMT.
13:30 - 14:30	Walk along foreshore to the east
	 Observed ongoing deep soil mixing and jet grouting works and the grout spoil pits. KJ asked if there are any concerns for the spoil pits to overflow with heavy rain or for wastewater from the pits to leach into the marine environment through the sheet pile walls.
	 SD explained TM is not concerned about the pits overflowing. TM tests the water quality outside of the foreshore cells and arcs to ensure water higher in pH is not leaching out of the sheet pile cells as they are not 'water tight'. Observed the conveyor previously used to transport hardened grout spoils onto a stress of the conveyor previously used to transport hardened grout spoils onto a stress of the conveyor previously used to transport hardened grout spoils onto a stress of the conveyor previously used to transport hardened grout spoils onto a stress of the conveyor previously used to transport hardened grout spoils onto a stress of the conveyor previously used to transport hardened grout spoils onto a stress of the conveyor previously used to transport hardened grout spoils onto a stress of the conveyor previously used to transport hardened grout spoils onto a stress of the conveyor previously used to transport hardened grout spoils onto a stress of the conveyor previously used to transport hardened grout spoils onto a stress of the conveyor previously used to transport hardened grout spoils onto a stress of the conveyor previously used to transport hardened grout spoils onto a stress of the conveyor previously used to transport hardened grout spoils onto a stress of the conveyor previously used to transport hardened grout spoils onto a stress of the conveyor previously used to transport hardened grout spoils of the conveyor previously used to transport hardened grout spoils of the conveyor previously used to transport hardened grout spoils of the conveyor previously used to transport hardened grout spoils of the conveyor previously used to transport hardened grout spoils of the conveyor previously used to transport hardened grout spoils of the conveyor previously used to transport hardened grout spoils of the conveyor previously used to transport hardened grout spoils of the conveyor previously used to transport hardened grout spoils of the conveyor previously used to transport
	 Observed the conveyor previously used to transport hardened grout spoils onto a barge for offsite disposal. The conveyor is not currently operating as there were concerns about the effectiveness of the plastic sheet previously used for additional containment below the conveyor (e.g. excess water and moisture during rainfall potentially entering the marine environment). KLTP is still working on getting a rigid plastic containment fitted for the conveyor.
	KJ asked if there were any additional issues with concrete or grout pours.



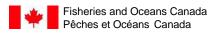
	 SD and TA confirmed no pours were occurring today and since previous additional mitigation measures (discussed during the previous CVA) have been implemented there have been no problems. KJ asked if marine mammals other than harbour seals have been observed recently. SD confirmed a Stellar sea lion and a California sea lion have been observed.
15:00 – 15:20	 Fost site inspection call KJ asked about TM's plans to test the secondary bubble curtain. SD explained JASCO has recommended to test the secondary bubble curtain by rupping it for the full duration of impacting a pile and to then
	curtain by running it for the full duration of impacting a pile and to then compare those results with piles of same size impacted without the secondary curtain (TM already has that data). The testing is likely a month away.
	 KM stated that the preliminary seal deterrent plan will be provided to DFO in the coming days.



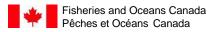
GENERAL AND MISCELLANEOUS MITIGATION MEASURES

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

Schedule						
						eaward of the higher high k timing window from
August 16 to M	,	•		an only be carried	out during a wor	k unning window from
Discussed/	⊠ Yes	lssue(s)	□ Yes	lssue(s)	□ Yes	Not applicable \Box
observed:	□ No	identified:	🛛 No	unresolved:	🗆 No	
Comments		· · · · · ·				
Nearshore wo	orks are takin	g place within	the work timir	ng window.		
Action Items						
None.						
Monitoring						
activities, and s	hall monitor th avoidance me	ne works, undert asures to avoid	takings or activ	ities on a system	atic and on-going	vorks, undertakings and g basis to ensure that that unauthorized
Discussed/	⊠ Yes	lssue(s)	□ Yes	Issue(s)	□ Yes	Not applicable \Box
observed:	□ No	identified:	⊠ No	unresolved:	□ No	
Comments						
Trans Mounta inspection.	in EI and the	Trans Mounta	ain Indigenous	s Monitor (TM IN	1) were on site	at the time of the
Action Items						
None.						
Marine Mam						
area such that	there is risk of	direct physical I	harm to the ma	arine mammal. Co	nstruction activit	to or within the project ies may only resume once ted for 30 minutes.
Discussed/	⊠ Yes	lssue(s)	□ Yes	Issue(s)	□ Yes	Not applicable \Box
observed:	□ No	identified:	🛛 No	unresolved:	🗆 No	
Comments						
			•	• •	• •	to the presence of one cement of pile driving.
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).						
to collect driftin Discussed:	g debris durinę	g demolition of t	he existing utili	ty dock (page 3.1). □ Yes	Not applicable 🕅
	⊡ res ⊠ No	identified:	□ res □ No	unresolved:	\square No	Not applicable 🗵



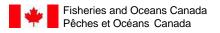
2.2.5 Temporary structures in no longer being used for con		ter mark shall be deco	ommissioned and	d removed when they are
Discussed/	Issue(s)	Issue(s)	□ Yes	Not applicable 🖂
observed: 🛛 No	identified: 🗆 No	unresolved:		
Comments				
No structures are currently	being decommissioned	1.		
Action Items				
None.				
Pump Intake Screenin				
2.2.2 Water intakes of any pu Addendum, Fisheries and Od Oceans Canada 1995), and of Aquatic Organisms at Mar	ceans Canada's <i>Freshwate</i> Fisheries and Oceans Car	er Intake End-of-Pipe I ada's Guidelines for N	Fish Screen Guid Ainimizing Entra	delines (Fisheries and inment and Impingement
Discussed/ 🛛 Yes	Issue(s) 🛛 🗆 Yes	Issue(s)	□ Yes	Not applicable 🖂
observed: 🛛 No	identified: 🗆 No	unresolved:	🗆 No	
Comments				
Screens for known water i reported.	ntakes have been discu	ssed during previous	s site inspectio	ns. No issues were
Action Items				
None.				
Fish Salvage				
2.2.3 Fish salvage and relocation and minimize adverse		as appropriate, prior to	the start of cons	struction activities so as to
Discussed/ 🛛 Yes	Issue(s) 🗆 Yes	Issue(s)	□ Yes	Not applicable
observed: 🗌 No	identified: 🛛 🖂 No	unresolved:	🗆 No	
Comments				
A fish salvage was conduct foreshore Cell 5. Fish salv were used. Captured fish	ages are conducted pric	or to impacting any s	heet-piles. Min	now and crab traps
Action Items				
None.				
Integrity of Habitat Off				
4.7 The Proponent shall not offsetting measures.			at will adversely	disturb or impact the
Discussed/ □ Yes observed: ⊠ No	Issue(s) □ Yes identified: □ No	lssue(s) unresolved:	□ Yes □ No	Not applicable 🖂
Comments				
Offsetting measures have	yet to be installed.			
Action Items				
None.				



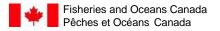
MITIGATION MEASURES SPECIFIC TO PILE DRIVING

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

Underwater Sound Pressure Level Reduction						
2.2.8 A vibratory hammer will be used for pile driving where practical and feasible, and all in-water pile driving activities will be monitored via hydrophone to ensure underwater peak pressures do not result in adverse impacts to fish.						
Discussed/ 🛛 Yes	Issue(s)	Issue(s)	Not applicable 🗆			
observed: 🗆 No	identified: 🛛 🕅 No	unresolved: 🗆 No				
2.2.9.1 To avoid death of fish exclusion, etc.) must be imple		bubble curtain around the full w	vetted length of the pile, fish			
Discussed/ 🖂 Yes	Issue(s) 🗌 Yes	Issue(s) 🗆 Yes	Not applicable 🗆			
observed: 🗌 No	identified: 🖂 No	unresolved: 🗌 No				
Comments						
for pile driving were discus impact pile driving and wh month).	sed: using the new Tand en the testing of the seco	the time of the site inspection em APE-600 vibratory hamm ndary bubble curtain is to oc in July and 209.2 dB in Augu	cur (in approximately one			
U U U U U U U U U U	,	ising the APE 300-6 hamme ated with the hammer itself.	r were also discussed. TM			
Action Items	, ,					
None.						
Underwater Sound Pre	ssure Level Monitorir	D				
2.2.9.2 Monitoring via underv	vater noise recordings must	be conducted continuously and eed the 30 kPa (209.5 dB re: 1				
Discussed/ 🖂 Yes	Issue(s) 🗆 Yes	Issue(s) 🗆 Yes	Not applicable			
observed: 🗌 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 μ Pa) 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 observed: ⊠ No	Issue(s) □ Yes identified: □ No	Issue(s) □ Yes unresolved: □ No	Not applicable 🛛			
conditions 2.2.9.2 or 2.2.9.3,	the Proponent will take appr / include adjusting the force	opriate action with the goal of p of the hammer, adjusting the m	applicable threshold defined in preventing the exceedance from itigation measures already in			
Discussed/ Yes	Issue(s)	Issue(s) 🗆 Yes	Not applicable 🖂			
observed: 🖂 No	identified: 🗆 No	unresolved: 🗆 No				
2.2.9.5 Upon commencemen shall ramp-up by starting with fish that may be in the area to installation.	t of pile driving, or recomment less frequent impact strikes me to leave the area prior to	ncement after a delay of 30 mir s of lower force. This ramp-up p the generation of peak pressu	eriod is designed to enable any re and noise levels for pile			
Discussed/ 🛛 Yes	Issue(s) 🛛 Yes	Issue(s) 🛛 Yes	Not applicable 🖂			



observed:	⊠ No	identified:	□ No	unresolved:	□ No	
Comments						
No vibratory or impact pile driving was occurring at the time of the site inspection. TM noted that as we are within the least risk biological timing window the underwater noise threshold for impact pile driving is 209.5 dB re: 1μ Pa.						
Action Items						
None.						
Marine Mam						
monitoring mus	t be conducte		f marine mamn			s or more, visual n zone of 1 km (except
Discussed/	⊠ Yes	lssue(s)	□ Yes	Issue(s)	□ Yes	Not applicable \Box
observed:	🗆 No	identified:	🛛 No	unresolved:	🗆 No	
2.2.9.7 Work m zones for 30 mi		ence if marine r	nammals and h	harbor seals are n	ot observed in th	eir respective exclusion
Discussed/	⊠ Yes	lssue(s)	□ Yes	lssue(s)	□ Yes	Not applicable \Box
observed:	🗆 No	identified:	🛛 No	unresolved:	🗆 No	
mammals are o	bserved within their respecti	n their respective	e exclusion zor	ne, pile driving ac	tivities must ceas	e mammal or marine se until all marine within their respective
Discussed/	⊠ Yes	lssue(s)	□ Yes	Issue(s)	□ Yes	Not applicable \Box
observed:	🗆 No	identified:	🛛 No	unresolved:	🗆 No	
boundary, the e	exclusion zone shold is not ex	radius must be	widened to a r	new outer limit, wh	nere sound recor	km exclusion zone dings demonstrate that /ith within this new
Discussed/	⊠ Yes	Issue(s)	□ Yes	Issue(s)	□ Yes	Not applicable
observed:	🗆 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.						
		be carried out	during daylight	hours to enable e	effective visual m	onitoring of marine
		be carried out (during daylight	hours to enable e	effective visual m	onitoring of marine Not applicable
mammal exclus	sion zones.	1		1		-
mammal exclus Discussed/	ion zones. ⊠ Yes	Issue(s)	□ Yes	Issue(s)	□ Yes	-
mammal exclused Discussed/ observed: Comments	sion zones. ⊠ Yes □ No	Issue(s) identified:	□ Yes ⊠ No	Issue(s) unresolved:	□ Yes □ No	-
mammal exclus Discussed/ observed: Comments Recently, the	sion zones. ⊠ Yes □ No consistent pr	Issue(s) identified: resence of hark	□ Yes ⊠ No	Issue(s) unresolved: served within th	☐ Yes ☐ No e seal-specific	Not applicable
mammal excluse Discussed/ observed: Comments Recently, the prior to the co recommence	sion zones. ☑ Yes □ No consistent pr mmencemen impact pile d	Issue(s) identified: resence of hard nt of pile driving riving at Trest	☐ Yes ⊠ No bour seals ob g has resulted e Span 0 late	Issue(s) unresolved: served within th in multiple work r this week. TM	☐ Yes ☐ No e seal-specific < stoppages. TI will be using fo	Not applicable 150 m exclusion zone M is scheduled to ur seal acoustic
mammal exclus Discussed/ observed: Comments Recently, the prior to the co recommence deterrents with	ion zones. ☑ Yes ☑ No consistent pr mmencemen impact pile d hin the 150 n	Issue(s) identified: resence of hark at of pile driving riving at Trest n seal specific	☐ Yes ⊠ No bour seals ob g has resulted e Span 0 late exclusion zor	Issue(s) unresolved: served within th in multiple worl r this week. TM he as a mitigatio	☐ Yes ☐ No e seal-specific < stoppages. TI will be using fo n measure to a	Not applicable 150 m exclusion zone M is scheduled to ur seal acoustic void adverse impacts
mammal exclus Discussed/ observed: Comments Recently, the prior to the co recommence deterrents with (e.g., auditory	ion zones. ☐ Yes ☐ No consistent pr mmencemen impact pile d hin the 150 n injury) to 'fis	Issue(s) identified: resence of hark nt of pile driving riving at Trestl n seal specific h' (which inclu	☐ Yes ⊠ No bour seals ob- g has resulted e Span 0 late exclusion zor des marine m	Issue(s) unresolved: served within the in multiple worl r this week. TM ne as a mitigatio nammals) during	Yes No e seal-specific stoppages. TI will be using fo n measure to a impact pile driv	Not applicable 150 m exclusion zone M is scheduled to ur seal acoustic void adverse impacts ving (Condition 2.2.8 of
mammal exclus Discussed/ observed: Comments Recently, the prior to the co recommence deterrents with (e.g., auditory the Fisheries	ion zones. ☑ Yes ☑ No consistent pr mmencemen impact pile d hin the 150 m injury) to 'fis Act Authoriza	Issue(s) identified: resence of hark nt of pile driving riving at Trestl n seal specific h' (which inclu ation). Prior to	☐ Yes ⊠ No bour seals ob- g has resulted e Span 0 late exclusion zor des marine m and during op	Issue(s) unresolved: served within th in multiple worl r this week. TM ne as a mitigatio nammals) during peration of the fo	☐ Yes ☐ No e seal-specific < stoppages. TI will be using fo n measure to a i impact pile dri our seal deterre	Not applicable 150 m exclusion zone M is scheduled to ur seal acoustic void adverse impacts ving (Condition 2.2.8 of nts, five marine
mammal exclus Discussed/ observed: Comments Recently, the prior to the co recommence deterrents with (e.g., auditory the <i>Fisheries</i> mammal mon	sion zones. ☑ Yes ☑ No consistent pr mmencemen impact pile d hin the 150 n injury) to 'fis Act Authoriza itors will perfe	Issue(s) identified: resence of hart at of pile driving riving at Trestl n seal specific h' (which inclu ation). Prior to orm continuous	☐ Yes ⊠ No bour seals ob g has resulted e Span 0 late exclusion zor des marine m and during op s visual monit	Issue(s) unresolved: served within the in multiple work r this week. TM he as a mitigatio hammals) during beration of the foctoring of a 1,400	☐ Yes ☐ No e seal-specific < stoppages. The will be using fo n measure to a impact pile drive our seal deterre m exclusion zec	Not applicable 150 m exclusion zone M is scheduled to ur seal acoustic void adverse impacts ving (Condition 2.2.8 of nts, five marine one for cetaceans and
mammal exclus Discussed/ observed: Comments Recently, the prior to the co recommence deterrents with (e.g., auditory the <i>Fisheries</i> , mammal mon marine mamm	ion zones. ☑ Yes ☑ No Consistent pr mmencement impact pile d hin the 150 m injury) to 'fis Act Authorizations will performed hal species at	Issue(s) identified: resence of hark at of pile driving riving at Trestl n seal specific h' (which inclu ation). Prior to orm continuous t risk. This zon	☐ Yes ⊠ No bour seals ob- g has resulted e Span 0 late exclusion zor des marine m and during op s visual monit he, identified b	Issue(s) unresolved: served within the in multiple work r this week. TM he as a mitigatio hammals) during beration of the for toring of a 1,400 by JASCO, corre	☐ Yes ☐ No e seal-specific < stoppages. The will be using fo n measure to a impact pile drive our seal deterre m exclusion zo esponds to the o	Not applicable 150 m exclusion zone M is scheduled to ur seal acoustic void adverse impacts ving (Condition 2.2.8 of nts, five marine one for cetaceans and conservative area within
mammal exclus Discussed/ observed: Comments Recently, the prior to the co recommence deterrents with (e.g., auditory the <i>Fisheries</i> , mammal mon marine mamm which underw	ion zones. ∑ Yes ∑ No consistent pr mmencement impact pile d hin the 150 m injury) to 'fis Act Authorizations will performant ater noise from	Issue(s) identified: resence of hark n of pile driving riving at Trestl n seal specific h' (which inclu ation). Prior to orm continuous t risk. This zon om the operatio	☐ Yes ⊠ No bour seals ob- g has resulted e Span 0 late exclusion zor des marine m and during op s visual monit he, identified b on of four dete	Issue(s) unresolved: served within the in multiple work r this week. TM he as a mitigation hammals) during beration of the for toring of a 1,400 by JASCO, corre	☐ Yes ☐ No e seal-specific < stoppages. TI will be using fo n measure to a impact pile driv our seal deterre m exclusion zo esponds to the o eed 120 dB RM	Not applicable 150 m exclusion zone M is scheduled to ur seal acoustic void adverse impacts ving (Condition 2.2.8 of nts, five marine one for cetaceans and
mammal exclus Discussed/ observed: Comments Recently, the prior to the co recommence deterrents with (e.g., auditory the <i>Fisheries</i> , mammal mon marine mamm which underw and Atmosphe exclusion area	ion zones. ∑ Yes ∑ No Consistent pr mmencemen impact pile d hin the 150 m injury) to 'fis Act Authorizations will performate ater noise from eric Administrational species and ater noise from eric Administrational species and eric Administrat	Issue(s) identified: resence of hark nt of pile driving riving at Trestlen h' (which inclu ation). Prior to orm continuous t risk. This zon om the operation ration's marine usted following	☐ Yes ⊠ No bour seals ob- g has resulted e Span 0 late exclusion zor des marine m and during op s visual monit he, identified b on of four dete e mammal bef	Issue(s) unresolved: served within th d in multiple work r this week. TM he as a mitigatio hammals) during peration of the fo toring of a 1,400 by JASCO, corre- errents may exc haviour underwa	☐ Yes ☐ No e seal-specific < stoppages. TI will be using fo n measure to a i impact pile drivent our seal deterre m exclusion zo esponds to the output of t	Not applicable 150 m exclusion zone M is scheduled to ur seal acoustic void adverse impacts ving (Condition 2.2.8 of nts, five marine one for cetaceans and conservative area within IS (National Oceanic
mammal exclus Discussed/ observed: Comments Recently, the prior to the co recommence deterrents with (e.g., auditory the <i>Fisheries</i> , mammal mon marine mamm which underw and Atmosphe	ion zones. ∑ Yes ∑ No Consistent pr mmencemen impact pile d hin the 150 m injury) to 'fis Act Authorizations will performate ater noise from eric Administrational species and ater noise from eric Administrational species and eric Administrat	Issue(s) identified: resence of hark nt of pile driving riving at Trestlen h' (which inclu ation). Prior to orm continuous t risk. This zon om the operation ration's marine usted following	☐ Yes ⊠ No bour seals ob- g has resulted e Span 0 late exclusion zor des marine m and during op s visual monit he, identified b on of four dete e mammal bef	Issue(s) unresolved: served within th d in multiple work r this week. TM he as a mitigatio hammals) during peration of the fo toring of a 1,400 by JASCO, corre- errents may exc haviour underwa	☐ Yes ☐ No e seal-specific < stoppages. TI will be using fo n measure to a i impact pile drivent our seal deterre m exclusion zo esponds to the output of t	Not applicable 150 m exclusion zone M is scheduled to ur seal acoustic void adverse impacts ving (Condition 2.2.8 of nts, five marine one for cetaceans and conservative area within IS (National Oceanic hold). The radius of his



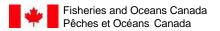
None.

Measures specified within the Westridge Marine Terminal Environmental Protection Plan:

Fish Salvage						
a salvage of commercial, reci	installation of each sheet pile reational and Aboriginal (CRA) Release captured CRA fishery s	fishery species vi	a crab and fish t	rapping/netting and		
Discussed/ ⊠ Yes observed: □ No	Issue(s) □ Yes identified: ⊠ No	lssue(s) unresolved:	□ Yes □ No	Not applicable		
Comments		•				
occur prior to impacting sh	A fish salvage recently occurred within foreshore Cell 4 and is currently ongoing within Cell 5. The salvages occur prior to impacting sheet piles (if necessary) and excavation and infilling of the cell. The fish salvages used minnow and crab traps. All fish and invertebrates captured are released at Barnet Marine Park. No issues were reported					
Action Items						
None.						
Turbidity Monitoring						
43. Should visual monitoring during in-water pile installation indicate concern regarding turbidity levels, the Environmental Inspector will arrange for in situ sampling of turbidity (nephelometric turbidity units). Should turbidity levels exceed specified thresholds, pile driving will temporarily be halted.						
Discussed/ 🛛 Yes	Issue(s) 🛛 Yes	lssue(s)	□ Yes	Not applicable \Box		
observed: 🛛 No	identified: 🛛 🕅 No	unresolved:	🗆 No			
Comments						
No vibratory or impact pile driving was occurring at the time of the site inspection. TM noted that water is sampled on an ad hoc basis (i.e., when turbidity is observed).						
Action Items						
None.						

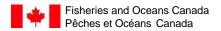
MITIGATION MEASURES SPECIFIC TO FORESHORE CONSTRUCTION

Disaster Disation and Material Handling						
Riparian Planting and Material Handling						
Westridge N	Westridge Marine Terminal Fisheries Act Authorization Conditions					
2.2.4 Disturbed	d riparian areas	s shall be replan	ted as appropr	iate, with native r	non-invasive spe	cies of vegetation.
Discussed/	□ Yes	lssue(s)	□ Yes	lssue(s)	□ Yes	Not applicable 🛛
observed:	🛛 No	identified:	🗆 No	unresolved:	🗆 No	
Westridge N	larine Termi	nal Environm	ental Protec	tion Plan Com	mitments	
30. Unless otherwise approved by DFO, retain all excavated [marine] material and dispose at a land-based facility in accordance with applicable regulations.						
Discussed/	□ Yes	lssue(s)	□ Yes	lssue(s)	□ Yes	Not applicable 🛛
observed:	🛛 No	identified:	🗆 No	unresolved:	🗆 No	
Comments						



lot applicable.	
ction Items	
lone.	

Water Quality Maintena	ance and Mo	nitoring			
Westridge Marine Terminal Fisheries Act Authorization Conditions					
2.2.1 Effective sediment and erosion control measures (e.g., a turbidity curtain, 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	lssue(s)	□ Yes	Not applicable
observed: 🗌 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), 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 🖂
observed: 🖂 No	identified:	□ No	unresolved:	🗆 No	
Westridge Marine Term					
29. During in-water excavation Management Plan during Rip the turbidity curtain and modi	Rap Removal (/	Appendix H of	this EPP). Condu		
Discussed/ 🛛 Yes	lssue(s)	□ Yes	lssue(s)	□ Yes	Not applicable 🖂
observed: 🛛 🕅 No	identified:	🗆 No	unresolved:	🗆 No	
Westridge Marine Term	nal Sediment	and Erosion	Control Plan	Commitments	
The in-water sediment curtai water is not discharged into E		ct during Fore	shore construction	n activities to ens	sure sediment laden
Discussed/ ⊠ Yes observed: □ No	Issue(s) identified:	□ Yes ⊠ No	lssue(s) unresolved:	□ Yes □ No	Not applicable 🗆
Comments					
A turbidity curtain remains in place around the sheet pile cells and attaches to the foreshore. The curtain is cleaned monthly during the spring and summer to reduce build-up from marine growth (e.g. mussels and algae), which weigh the curtain down. The curtain will be maintained throughout the fall and winter as necessary.					
Another turbidity curtain is drains water from resident					
Silt fencing surrounding th installed as a precautionar pit rose over the berm.					
Berms built up around the as they harden.	grout curing pit	s on the fore	shore appeared	to easily conta	in the liquid grout spoils
Action Items					
None.					
					11



Additional comments or action items None.