



Monitoring Report: SV-2021-01-26

Trans Mountain Expansion Project – Westridge Marine Terminal (WMT) Compliance Verification Activity (CVA) Report

Date	January 26, 2021	Call start time:	1:00 PM	Call end time:	2:45 PM
Format	Web-based conference call with Trans Mountain presenting photographs, documents and/or videos relevant to the expansion of the WMT.				
Fisheries and Oceans Canada (DFO) attendees	W.B. (Senior Biologist), K.J. (Biologist) and I.M. (Biologist)				
Indigenous Advisory Monitoring Committee (IAMC) attendees	Musqueam Nation: R.K. (Environmental Analyst for Musqueam) and B.G. (Environmental Monitor) Tsleil-Waututh Nation: A.S. (Environmental and Archaeological Monitor) IAMC – Monitoring Subcommittee: C.T. (IAMC representative – Burrard Inlet and Lower Fraser River, from Tsleil-Waututh Nation)				
Other attendees	Trans Mountain Corporation (TMC): K.M. (Regulatory Lead), S.D. (Lead Environmental Inspector), B.J. (Chief Environmental Inspector) and J.A. (Field Regulatory Advisor) Kwkwetlem First Nation (KFN): M.J. (Project IM)				
On-site contractor/equipment	Role				
Trans Mountain Corporation	Site Management				
Kiewit Ledcor Trans Mountain Partnership (KLTP)	Prime construction contractor				
JASCO Applied Sciences	Underwater noise monitoring during vibratory and impact pile driving.				
Triton Environmental Consultants	Marine mammal monitoring				
Keller	Deep soil mixing (DSM) and jet grouting works on the foreshore.				
DB General	DB General drove piles for Loading Platform 3 via vibratory pile driving.				
IAMC Indigenous Monitor/IMSC Representative Questions and Comments					
<p>During discussion of the project’s safety stand down: CT asked if there will be greater potential for construction to impact the sensitive periods for fish and other marine life when construction resumes after the safety stand down. KM stated that Trans Mountain Corporation (TMC) is still required to work within the least risk timing windows identified in the Fisheries Act authorization (FAA). SD confirmed this and that nearshore works must be completed before March 15. SD also described how the end of the least risk window coincides well with observations of the arrival of juvenile pink and chum salmon in nearshore areas.</p> <p>CT also asked about the dates for completion for the WMT Expansion and offsetting measures. WB confirmed that TMC is required to complete both by set dates specified within the FAA. If TMC cannot achieve these dates, TMC will need to request an amendment to the FAA. CT asked who decides that the offsetting measures are completed correctly. SD and WB both responded that conditions related to effectiveness monitoring of offsetting are included in the FAA, and that monitoring reports are required to be sent to the IAMC and DFO.</p> <p>During the general overview of WMT Construction: CT described the past use of riprap elsewhere along the foreshore of Burrard Inlet (shoreline hardening) and the change and negative impact it caused on fish habitat. SD described the differences between the rock-reef complex proposed at the WMT for habitat offsetting and shoreline hardening. SD discussed the focus on creating habitat complexity for fish, variable sizes of rock depending on the species at different depths, and</p>					



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the integration of the rock reef complexes with the sheet pile cell walls to avoid hardening of the shoreline. SD noted other examples of rock reef enhancement in Burrard Inlet that has seen algal colonization and use by fish. WB described the ways in which DFO and IAMC IMs could monitoring the rock reef construction and associated reports.

AS asked TMC if there have been any observed issues with the erosion and sediment control measures at the WMT. SD responded that site runoff has been pretty clean to date, but that heavy rainfall has tested the water treatment plants. SD also mentioned measures that need to be touched up periodically and additional measures that will be installed at Cell 11 when work resumes, and touched on ongoing water quality monitoring at discharge points into Burrard Inlet.

RK asked if fully covering barges and cells during shut down has been considered to avoid potential issues with high rainfall. SD responded that the area is too large to feasibly cover, but that smaller items (e.g., winches on barges with greased bearings) have been covered. The onsite water treatment plant has been used as a more practicable solution for dealing with elevated pH water and rainfall on site.

RK asked TMC if the acoustic fish deterrent system is still being used at the WMT. SD stated that it is still used every time impact pile driving takes place, but that minimal impact pile driving has taken place in the last two months.

WB asked a question on JH's behalf (IM not present for meeting) regarding how works will resume once shut down is over and if a ramp-up will take place. SD answered that the restart will be slow, as is necessary for safety and that senior management has requested that crews do not come back immediately at 100% capacity. SD stated that fish may be using the piles as cover, but that fish acoustic deterrents, barge movements and a general ramp-up should be sufficient for mitigating impacts on fish.

AS asked whether TMC has additional mitigation measures beyond the bubble curtain for underwater noise. SD responded that the internal threshold is slightly lower than that stated in FAA, and that internal Standard Operating Procedure is to stop piling if the lower threshold is reached. SD described the steps taken to ensure bubble curtains are functioning properly (e.g., diver checks, valve pressure checks), the use of secondary bubble curtains at certain sites to further attenuate noise, and acoustic fish deterrents to deter fish from area prior to pile driving.

Summary of inspection discussions (use initials of participants)

Voluntary safety shut down and update on construction schedule

KM provided an update on the shut down. Due to a serious injury locally and an earlier fatality, a voluntary suspension of work began on December 18 to review corporate safety measures. As yet, there is no scheduled return to work date, and the overall impact on the WMT's construction schedule is not yet known. WB stated that DFO and the IAMC would like to be kept updated on the restart and whether any amendments to the *Fisheries Act* authorization will be required.

Introduction to Westridge Marine Terminal site and construction activity

SD provided slides, photos and a video as a background and overview of the WMT expansion. The summary covered all of the project elements, the authorized serious harm to fish, and the rock-reef complex that will offset it.



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Work undertaken at Westridge since last CVA and safety shut-down measures

Overview:

- **Foreshore** – Graded and consolidated backfill material and cut off sheet piles at Cells 3-5, 10 and 11, continued ground improvements on eastern and western foreshore, loaded grout spoils on barge using conveyor, completed demolition/removal of old jet fuel pipe and installation of new jet fuel pipe.
- **Marine** – Impacted piles for pile driving analysis and set jackets at MD1 and MD3, installed five pile bottoms for Loading Platform 3, concrete works for Loading Platform 1/2 and Trestle Span 5 and 6.

SD presented a number of slides and photos that included: foreshore and offshore drone overviews; engineering drawings of LP1/2, TS5 and TS6, and MD1 and MD3; above view of foreshore with completed derailment wall and ground improvements; concrete containment on TS5; completed concrete on TS6; and DB General stabbing piles for berth 3.

WB asked TMC about mitigation measures that have needed to be maintained during the safety stand-down. SD described the measures and confirmed that erosion and sediment control measures are still being monitored during shut down 24/7. In addition, the Project's Inspection Team, including the Project hired Indigenous Monitor, are on site daily during the shut down.

Marine mammal monitoring program

At DFO's request, KM initiated a discussion on marine mammal monitoring. SD described the marine monitoring plan developed by Triton. The plan considers the need to monitor larger zones (between 1700 to 2600 m radius) during the operation of multiple seal acoustic deterrents, the use of spotting scopes from an elevated platform on DB General, the limitations of monitoring and the conditions that prevent adequate monitoring and thus require the suspension of piling activities.

WB asked TMC about the number of seal acoustic deterrents being used, their respective results in terms of seal avoidance, and under what circumstances additional deterrents would be required. SD stated that only four deterrents have been used to date and that with less seal sightings during winter, there has been no need to use more than four deterrents. The 2600 m radius marine mammal exclusion zone would apply if all seven seal deterrents were operated at once. DFO and TMC agreed that, where practicable, avoiding the use of or reducing the number of deterrents operated is preferred.

Further Questions

WB asked MJ directly if they had any site issues or concerns that have been raised recently. MJ responded that there are no outstanding concerns and that KLTP has acted on all items raised during daily inspections.

KJ asked if there have been other marine mammals spotted recently other than harbour seals, to which SD responded no.

Responding to DFO's request, KM said that TMC would forward the new CVA participants a link to the Firmex site where the CVA presentation could be accessed.



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GENERAL AND MISCELLANEOUS MITIGATION MEASURES

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

Schedule					
2.2.6 All nearshore in-water Project construction activities (within a 50-m horizontal distance seaward of the higher high water large tide level) at the Westridge Marine Terminal shall only be carried out during a work timing window from August 16 to March 15 each year.					
Discussed/ observed:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Issue(s) identified:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Issue(s) unresolved:	<input type="checkbox"/> Yes <input type="checkbox"/> No Not applicable <input type="checkbox"/>
Comments					
No nearshore in-water works are currently taking place; however, such work would be authorized given this period is within the work timing window.					
Action Items					
None.					
Monitoring					
3.1 A qualified environmental professional must be on-site during the carrying on of in-water works, undertakings and activities, and shall monitor the works, undertakings or activities on a systematic and on-going basis to ensure that standards and avoidance measures to avoid impacts to fish and fish habitat are effective, and that unauthorized impacts to fish and fish habitat are avoided.					
Discussed/ observed:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Issue(s) identified:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Issue(s) unresolved:	<input type="checkbox"/> Yes <input type="checkbox"/> No Not applicable <input type="checkbox"/>
Comments					
The Lead Environmental Inspector spoke throughout the meeting about their experiences at the WMT during construction since the last compliance verification site visit on November 26 th . Qualified environmental professionals are conducting monitoring of construction activities at the WMT and erosion and sediment control measures during the period of work stoppage.					
Action Items					
None.					
Marine Mammal Observations					
2.2.7 In-water construction activities must cease if any marine mammal is observed adjacent to or within the project area such that there is risk of direct physical harm to the marine mammal. Construction activities may only resume once the marine mammal has been confirmed to have left the immediate area or has not been sighted for 30 minutes.					
Discussed/ observed:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Issue(s) identified:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Issue(s) unresolved:	<input type="checkbox"/> Yes <input type="checkbox"/> No Not applicable <input type="checkbox"/>
Comments					
TMC noted that harbour seals were observed within and around the 150 m exclusion zone; however, no issues with work stoppages were reported. Limited impact pile driving occurred in early December.					
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:	<input type="checkbox"/> Yes	Issue(s)	<input type="checkbox"/> Yes	Issue(s)	<input type="checkbox"/> Yes Not applicable <input checked="" type="checkbox"/>



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<input checked="" type="checkbox"/> No	identified: <input type="checkbox"/> No	unresolved: <input type="checkbox"/> No	
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/ observed: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Issue(s) identified: <input type="checkbox"/> Yes <input type="checkbox"/> No	Issue(s) unresolved: <input type="checkbox"/> Yes <input type="checkbox"/> No	Not applicable <input checked="" type="checkbox"/>
Comments			
No structures are currently being decommissioned.			
Action Items			
None.			
Pump Intake Screening			
2.2.2 Water intakes of any pumps shall be designed and screened in accordance with specifications outlined in the Addendum, Fisheries and Oceans Canada's <i>Freshwater Intake End-of-Pipe Fish Screen Guidelines</i> (Fisheries and Oceans Canada 1995), and Fisheries and Oceans Canada's <i>Guidelines for Minimizing Entrainment and Impingement of Aquatic Organisms at Marine Intakes in British Columbia</i> (Fisheries and Oceans Canada 1991).			
Discussed/ observed: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Issue(s) identified: <input type="checkbox"/> Yes <input type="checkbox"/> No	Issue(s) unresolved: <input type="checkbox"/> Yes <input type="checkbox"/> No	Not applicable <input checked="" type="checkbox"/>
Comments			
Screens for known water intakes have been discussed during previous site inspections. No issues were reported.			
Action Items			
None.			
Fish Salvage			
2.2.3 Fish salvage and relocation shall be conducted, as appropriate, prior to the start of construction activities so as to avoid and minimize adverse impacts to fish.			
Discussed/ observed: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Issue(s) identified: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Issue(s) unresolved: <input type="checkbox"/> Yes <input type="checkbox"/> No	Not applicable <input type="checkbox"/>
Comments			
All fish salvage within the foreshore cells and arcs is now complete. No further fish salvage has occurred since the last compliance verification activity call on November 26, 2020.			
Action Items			
None.			
Integrity of Habitat Offsets			
4.7 The Proponent shall not carry on any works, undertakings or activities that will adversely disturb or impact the offsetting measures.			
Discussed/ observed: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Issue(s) identified: <input type="checkbox"/> Yes <input type="checkbox"/> No	Issue(s) unresolved: <input type="checkbox"/> Yes <input type="checkbox"/> No	Not applicable <input checked="" type="checkbox"/>
Comments			
Offsetting measures have yet to be installed.			
Action Items			
None.			



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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/ observed:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Issue(s) identified:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Issue(s) unresolved:	<input type="checkbox"/> Yes <input type="checkbox"/> No	Not applicable <input type="checkbox"/>
2.2.9.1 To avoid death of fish, mitigation measures (e.g., bubble curtain around the full wetted length of the pile, fish exclusion, etc.) must be implemented.						
Discussed/ observed:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Issue(s) identified:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Issue(s) unresolved:	<input type="checkbox"/> Yes <input type="checkbox"/> No	Not applicable <input type="checkbox"/>
Comments						
Mitigation measures used to deter fish from the area prior to pile driving were described, including the ways to verify that bubble curtains are functioning properly.						
Action Items						
None.						
Underwater Sound Pressure Level 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/ observed:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Issue(s) identified:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Issue(s) unresolved:	<input type="checkbox"/> Yes <input type="checkbox"/> No	Not applicable <input type="checkbox"/>
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/ observed:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Issue(s) identified:	<input type="checkbox"/> Yes <input type="checkbox"/> No	Issue(s) unresolved:	<input type="checkbox"/> Yes <input type="checkbox"/> No	Not applicable <input checked="" type="checkbox"/>
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/ observed:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Issue(s) identified:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Issue(s) unresolved:	<input type="checkbox"/> Yes <input type="checkbox"/> No	Not applicable <input type="checkbox"/>
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/ observed:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Issue(s) identified:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Issue(s) unresolved:	<input type="checkbox"/> Yes <input type="checkbox"/> No	Not applicable <input type="checkbox"/>
Comments						
Underwater noise thresholds and the use of hydrophones were discussed during a conversation about mitigation measures.						
Action Items						



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None.						
Marine Mammal Monitoring						
2.2.9.6 Prior to commencement of pile driving, or recommencement after a delay of 30 minutes or more, visual monitoring must be conducted to determine if marine mammals are present within an exclusion zone of 1 km (except for harbor seals, which will have an exclusion zone of 150 m).						
Discussed/ observed:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Issue(s) identified:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Issue(s) unresolved:	<input type="checkbox"/> Yes <input type="checkbox"/> No	Not applicable <input type="checkbox"/>
2.2.9.7 Work may only commence if marine mammals and harbor seals are not observed in their respective exclusion zones for 30 minutes.						
Discussed/ observed:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Issue(s) identified:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Issue(s) unresolved:	<input type="checkbox"/> Yes <input type="checkbox"/> No	Not applicable <input type="checkbox"/>
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 exclusion zone.						
Discussed/ observed:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Issue(s) identified:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Issue(s) unresolved:	<input type="checkbox"/> Yes <input type="checkbox"/> No	Not applicable <input type="checkbox"/>
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/ observed:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Issue(s) identified:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Issue(s) unresolved:	<input type="checkbox"/> Yes <input type="checkbox"/> No	Not applicable <input type="checkbox"/>
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/ observed:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Issue(s) identified:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Issue(s) unresolved:	<input type="checkbox"/> Yes <input type="checkbox"/> No	Not applicable <input type="checkbox"/>
Comments						
Prior and during impact pile driving, and only when needed, TMC is using four seal acoustic deterrents within the 150 m seal-specific exclusion zone as a mitigation measure to avoid adverse impacts (e.g., auditory injury) to 'fish' (which includes marine mammals such as seal) (Condition 2.2.8 of the <i>Fisheries Act</i> Authorization). Since completing the Seal Deterrent Sound Source Characterization Study Report produced by JASCO Applied Sciences, TMC is now monitoring a larger marine mammal exclusion zone (1,700 m radius) prior to and during the deployment of 4 seal acoustic deterrent devices. Only harbour seals have been observed since the previous CVA on November 26, 2020. Limited impact pile driving occurred in early December 2020.						
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.

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Discussed/ observed:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Issue(s) identified:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Issue(s) unresolved:	<input type="checkbox"/> Yes <input type="checkbox"/> No	Not applicable <input type="checkbox"/>
Comments						
All fish salvage within the foreshore cells and arcs is now complete. No further fish salvage has occurred since the last compliance verification activity call on November 26, 2020.						
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/ observed:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Issue(s) identified:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Issue(s) unresolved:	<input type="checkbox"/> Yes <input type="checkbox"/> No	Not applicable <input type="checkbox"/>
Comments						
No water quality issues were reported during in-water pile installation. Turbidity curtains are in place and water quality monitoring has recorded no exceedance in water quality guidelines for turbidity outside of the turbidity curtain.						
Action Items						
None.						

MITIGATION MEASURES SPECIFIC TO FORESHORE CONSTRUCTION

Riparian Planting and Material Handling						
<i>Westridge Marine Terminal Fisheries Act Authorization Conditions</i>						
2.2.4 Disturbed riparian areas shall be replanted as appropriate, with native non-invasive species of vegetation.						
Discussed/ observed:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Issue(s) identified:	<input type="checkbox"/> Yes <input type="checkbox"/> No	Issue(s) unresolved:	<input type="checkbox"/> Yes <input type="checkbox"/> No	Not applicable <input checked="" type="checkbox"/>
<i>Westridge Marine Terminal Environmental Protection Plan Commitments</i>						
30. Unless otherwise approved by DFO, retain all excavated [marine] material and dispose at a land-based facility in accordance with applicable regulations.						
Discussed/ observed:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Issue(s) identified:	<input type="checkbox"/> Yes <input type="checkbox"/> No	Issue(s) unresolved:	<input type="checkbox"/> Yes <input type="checkbox"/> No	Not applicable <input checked="" type="checkbox"/>
Comments						
Not applicable.						
Action Items						
None.						

Water Quality Maintenance and Monitoring						
<i>Westridge Marine Terminal Fisheries Act Authorization Conditions</i>						
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/ observed:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Issue(s) identified:	<input type="checkbox"/> Yes <input type="checkbox"/> No	Issue(s) unresolved:	<input type="checkbox"/> Yes <input type="checkbox"/> No	Not applicable <input type="checkbox"/>



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observed: <input type="checkbox"/> No	identified: <input checked="" type="checkbox"/> No	unresolved: <input type="checkbox"/> 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/ observed: <input checked="" type="checkbox"/> No	Issue(s) identified: <input type="checkbox"/> No	Issue(s) unresolved: <input type="checkbox"/> No	Not applicable <input checked="" type="checkbox"/>
Westridge Marine Terminal Environmental Protection Plan Commitments			
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/ observed: <input checked="" type="checkbox"/> No	Issue(s) identified: <input type="checkbox"/> No	Issue(s) unresolved: <input type="checkbox"/> No	Not applicable <input checked="" type="checkbox"/>
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/ observed: <input checked="" type="checkbox"/> Yes	Issue(s) identified: <input checked="" type="checkbox"/> No	Issue(s) unresolved: <input type="checkbox"/> No	Not applicable <input type="checkbox"/>
Comments			
A turbidity curtain remains in place around the sheet-pile cells and attaches to the foreshore. During backfilling in foreshore Cells and behind Arcs, TMC conducts water sampling inside and outside the turbidity curtain. Other turbidity curtains are in place around water outfalls that drain water from residential storm grates and treated surface wastewater from the WMT.			
Action Items			
None.			

Additional comments or action items
Responding to DFO's request, KM said that TMC would forward the new CVA participants a link to the Firmex site where the CVA presentation could be accessed.