

Proponent Commitments to Environmental Protection and Management

s.98 Application to Construct a Railway Line – Scotford Subdivision Extension Project



Project Phase			Potential Environmental Effect	Proposed Mitigation Measures	Expected Effectiveness of Mitigation	Predicted Residual Effects	Verification	Responsibility
Design	Construction	Operations						
Changes to surface water								
	✓	✓	Accidental releases/spills of deleterious substances such as sediment and hydrocarbons to on-site drainage pathways could result in degradation of downstream aquatic habitat quality	<ul style="list-style-type: none"> Application of standard mitigation measures and Best Management Practices related to erosion and sediment control to minimize the transport of erodible soils and materials from construction areas offsite Application of standard Best Management Practices for the storage of petroleum products Implementation of Fuel Management Plan Spill Prevention and Readiness Plan available to be implemented; application of spill preparedness measures (e.g., spill containment/ clean up materials) Application of standard Best Management Practices for concrete works and grouting Spill Response Plan available to be implemented by trained personnel Environmental monitoring of construction activities On-going inspection and maintenance of subdivision by CP forces 	Proposed mitigation measures are considered to be industry best practices that have previously been successfully used by CP to effectively manage environmental risk and protect surface water quality	<ul style="list-style-type: none"> There are no permanent surface water features (streams, ponds) within the Project Footprint Residual effects on surface water quality are predicted to be very low 	Construction effects verified through on-site environmental monitoring, inspections and applicable reporting completed by independent contractor/CP Environmental Monitor. Effects of operations on the extended subdivision verified through on-going monitoring, inspection and maintenance by CP forces.	Contractor/CP Environmental Monitor/CP forces
Changes to groundwater								
	✓	✓	Accidental releases/spills of deleterious substances such as hydrocarbons occurring within the Project Footprint could result in degradation of groundwater quality	<ul style="list-style-type: none"> Application of standard Best Management Practices for the storage of petroleum products Implementation of Fuel Management Plan Spill Prevention and Readiness Plan available to be implemented; application of spill preparedness measures (e.g., spill containment/ clean up materials) Spill Response Plan available to be implemented by trained personnel Environmental monitoring of construction activities On-going inspection and maintenance of subdivision by CP forces 	Proposed mitigation measures are considered to be industry best practices that have previously been successfully used by CP to effectively manage environmental risk and protect groundwater quality		Construction effects verified through on-site environmental monitoring, inspections and applicable reporting completed by independent contractor/CP Environmental Monitor. Effects of operations on the extended subdivision verified through on-going monitoring inspection and maintenance by CP forces.	Contractor/CP Environmental Monitor/CP forces
Changes to migratory birds								
	✓		Mortality of migratory birds could occur during site preparation activities such as tree clearing and grubbing of vegetation	<ul style="list-style-type: none"> Tree clearing and grubbing of vegetation to be completed outside of the migratory bird nesting window Clearing of vegetation during the nesting window is restricted unless a “nest sweep” is completed by a Qualified Environmental Professional and confirms that no active nests occur in the area identified for clearing Environmental monitoring of construction activities 	Proposed mitigation measures are supported by applicable regulators and considered to be industry best practices that have previously been successfully used by CP to effectively manage environmental risk and protect migratory birds		Verified through on-site environmental monitoring, inspections and applicable reporting completed by independent contractor/CP Environmental Monitor	Contractor/CP Environmental Monitor
	✓		Vegetation removal and disturbance from construction activities/human presence could result in the displacement of migratory bird habitat and use of the area	<ul style="list-style-type: none"> Tree clearing and grubbing of vegetation to be completed outside of migratory bird breeding, nesting, roosting or rearing periods Environmental monitoring of construction activities Site and habitat restoration measures to be implemented as soon as possible following construction 				
Changes to species at risk								
	✓		Mortality of species at risk (barn swallow and American badger) could occur during site preparation activities such as tree clearing and grubbing of vegetation	<ul style="list-style-type: none"> Tree clearing and grubbing of vegetation within the proposed right-of-way to be completed outside of sensitive periods to avoid mortality of species at risk Environmental monitoring of construction activities Construction to be halted should the presence of any species at risk potentially subjected to negative effects of construction be confirmed within the Project Footprint Halted construction to be re-started following the development and implementation of species-specific impact mitigation plan 	Proposed mitigation measures are considered to be industry best practices that have previously been successfully used by CP to effectively manage environmental risk and protect species at risk	<ul style="list-style-type: none"> Neither barn swallow nor American badger, or their sign, have been observed incidentally or during ground searches within the Project footprint Likelihood of occurrence of these species within the Project 	Verified through on-site environmental monitoring, inspections and applicable reporting completed by independent contractor/CP Environmental Monitor	Contractor/CP Environmental Monitor

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✓	✓		Vegetation removal and disturbance from construction activities/human presence could result in the displacement of species at risk (barn swallow and American badger) critical habitat, residences and use of the area	<ul style="list-style-type: none"> Avoidance of critical habitat or residences of species at risk in Project planning and design Application of mitigation measures and standard Best Management Practices to avoid the killing, harming, harassing, capturing or taking of species at risk Environmental monitoring of construction activities Construction to be halted should the presence of any species at risk potentially subjected to negative effects of construction be confirmed within the Project Footprint Halted construction to be re-started following the development and implementation of species-specific impact mitigation plan 		Footprint is low <ul style="list-style-type: none"> Critical habitat or residences of barn swallow or American badger has not been identified incidentally or during ground searches within the Project Footprint Residual effects on species at risk are predicted to be negligible 		
Changes to human health								
	✓		Construction activities could generate fugitive dust affecting human health	<ul style="list-style-type: none"> Loads of dusty material to be covered when entering or leaving the site Access roads to be managed (e.g., wheel wash stations, road cleaning) Dust-generating activities to be minimized as much as possible during windy periods Water or other environmentally-acceptable dust suppressant and application equipment to be available to be used as needed Environmental monitoring of construction activities 	Proposed industry best practices and site-specific mitigation measures have previously been successfully implemented by CP to manage risks to human health and public safety		Construction effects verified through on-site environmental monitoring, inspections and applicable reporting completed by independent contractor/CP Environmental Monitor. Effects of operations on the extended subdivision verified through on-going monitoring inspection and maintenance by CP forces.	Contractor/CP Environmental Monitor/CP forces
	✓	✓	Construction equipment and vehicles could generate fugitive emissions affecting human health	<ul style="list-style-type: none"> All mechanical equipment required on-site to be in good working order and comply with local emissions standards Idling of vehicles and equipment to be kept to a minimum Low-sulphur fuels to be used for on-site machinery, where possible Vehicles or equipment producing excessive exhaust to be repaired or replaced prior to use on the Project Environmental monitoring of construction activities CP to minimize locomotive idling on the Scotford Sub extension as much as possible 				
	✓	✓	Construction equipment and vehicles could generate noise affecting human health	<ul style="list-style-type: none"> All equipment to be properly maintained to limit noise generation and fitted with functioning exhaust and muffler systems Equipment and machinery to be turned off when not in use Construction activities coordinated with daytime periods, as much as possible Environmental monitoring of construction activities CP to provide contact information directly to one (1) resident in the event of future noise concerns 				
✓	✓	✓	New at-grade crossings of the track extension could affect human health and safety	<ul style="list-style-type: none"> Relocation of the MP 135.00 public crossing to MP 135.14 to comply with Transport Canada's Grade Crossing standards and to improve crossing safety Truck access to local residence/business to be maintained Environmental monitoring of construction activities and on-going monitoring of crossing during operations by CP forces 				
Changes to community infrastructure use								
	✓		Increased construction traffic and/or temporary lane closures on Range Road 220 could affect road users	<ul style="list-style-type: none"> CP to communicate proposed planned construction period and activities to area residents and businesses through company website, direct contact, etc. Contractor to follow required traffic management procedures to achieve public safety standards during construction CP CommunityConnect contact information to be communicated to area residents and businesses to allow 24/7 feedback 	Proposed mitigation measures have previously been successfully used by CP to minimize negative effects on community infrastructure use		Construction effects verified through on-site monitoring, inspections and applicable reporting completed by independent contractor/CP Environmental Monitor/Strathcona County	Contractor/CP Environmental Monitor

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Changes to the quantity/quality of land and resource use								
	✓	✓	Construction and operation of the track extension will result in the loss of agricultural land within the Project Footprint	<ul style="list-style-type: none"> Minimize extent of disturbance within Project Footprint by planning and designating temporary and permanent construction areas including access routes, laydown areas, etc. Implement soil management best practices to maintain productivity Restore/revegetate disturbed areas as soon as possible following construction Where possible, consider leasing surplus lands back to local farmers to continue agricultural use (i.e., hay, cereal crop) of the Project Footprint 	Proposed mitigation measures have previously been used by CP to minimize the reduction of agricultural land		Construction effects verified through on-site environmental monitoring, inspections and applicable reporting completed by independent contractor/CP Environmental Monitor. Effects of operations on the extended subdivision verified through on-going monitoring inspection and maintenance by CP forces.	Contractor/CP Environmental Monitor
Changes to archaeological/ cultural resources								
✓	✓		Construction of the track extension could result in the disturbance or loss of archaeological and cultural resources within the Project Footprint	<ul style="list-style-type: none"> Avoidance of areas of high archaeological and cultural importance in Project planning and design Finalize draft Emergency Impact Management Plan and implement with input from interested First Nations and Métis communities Ongoing communications with representatives of interested First Nations communities and Métis settlements up to and including the construction phase 	Proposed mitigation measures have previously been successfully used by CP, in association with interested First Nations communities and Métis settlements, to effectively plan, design and construct track extensions and minimize negative effects on archaeological and cultural resources		Construction effects verified through on-site environmental monitoring, inspections and applicable reporting completed by independent contractor/CP Environmental Monitor/CP Archaeological Monitor (as appropriate)	Contractor/CP Environmental Monitor
Soil management								
✓	✓		Excess soils could require on-site stabilization or removal/disposal	<ul style="list-style-type: none"> Balancing of cuts and fills in Project design Topsoil to be removed and stockpiled separate from other excavated materials Excess soils, if any, to be graded to match existing elevations of right-of-way to reduce offsite removal Soil compaction to be minimized by identifying and operating only in designated work areas and access points Areas disturbed by construction activities to be restored and re-vegetated as appropriate 	Proposed mitigation measures are considered to be industry best practices that have been successfully used by CP to effectively plan, design and construct track extensions while managing environmental risk and protecting soil quality	<ul style="list-style-type: none"> All soils within the Project Footprint have been previously disturbed Only small areas of soils within the Project Footprint requires management Residual effects on soils are predicted to be very low 	Construction effects verified through on-site environmental monitoring, inspections and applicable reporting completed by independent contractor/CP Environmental Monitor. Effects of operations on the extended subdivision verified through on-going monitoring, inspection and maintenance by CP forces.	Contractor/CP Environmental Monitor/CP forces
	✓	✓	Accidental releases/spills of deleterious substances such as hydrocarbons occurring within the Project Footprint could result in degradation of soil quality	<ul style="list-style-type: none"> Application of standard Best Management Practices for the storage of petroleum products Implementation of Fuel Management Plan Spill Prevention and Readiness Plan available to be implemented; application of spill preparedness measures (e.g., spill containment/ clean up materials) Spill Response Plan available to be implemented by trained personnel Environmental monitoring of construction activities Contaminated soil, if any, to be excavated and hauled off-site to an authorized treatment/disposal area in accordance to the applicable Waste Control Regulation On-going inspection and maintenance of subdivision by CP forces 				
Waste management								
	✓	✓	Unmanaged liquid and solid wastes could degrade environmental quality of the	<ul style="list-style-type: none"> Garbage to be removed from the site on a regular basis Recyclable or compostable materials to be collected separately from general waste according to City of Fort Saskatchewan requirements and transported to an 	Proposed mitigation measures are considered to be industry best practices that have been		Construction effects verified through disposal records and on-site environmental monitoring, inspections and applicable	Contractor/CP Environmental Monitor/CP forces

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			Project Footprint and areas beyond	appropriate facility <ul style="list-style-type: none"> Contractors to adhere to all applicable legislation with respect to the handling, transportation, and/or disposal of all waste materials related to the Project Contractors to provide and regularly service portable sanitary facilities on-site for workers' use throughout the duration of the construction period Contractor to provide appropriately labeled separate container(s) for potentially hazardous waste such as oily rags and hydrocarbon absorbent pads Contaminated soils to be excavated and hauled off-site to an authorized treatment/disposal area in accordance to the Waste Control Regulation On-going inspection and maintenance of subdivision by CP forces 	successfully used by CP to effectively manage waste generated during construction and operations of new track		reporting completed by independent contractor/CP Environmental Monitor. Effects of operations on the extended subdivision verified through on-going monitoring, inspection and maintenance by CP forces.	
Changes from Severe weather								
	✓	✓	Severe weather could amplify or exacerbate potential effects of construction or operating activities creating risks to the environment and/or the health and safety of the public, construction works, or CP forces	<ul style="list-style-type: none"> Monitoring of meteorological conditions and forecasts Implement standard operating procedures for severe weather including wet weather shut-down protocols, worker health and safety practices, equipment care and maintenance measures Monitoring of best management practices established on-site to assess effectiveness (e.g., erosion and sediment control, petroleum storage) Inspect post-event(s) conditions and communicate results to CP 	Proposed mitigation measures are CP best practices that have been successfully used by CP to effectively manage waste generated during construction and operations of new track		Effects of severe weather on construction activities verified through on-site environmental monitoring, inspections and applicable reporting completed by independent contractor/CP Environmental Monitor following event(s). Effects of severe weather on operations on the extended subdivision verified through post-event monitoring, inspection and maintenance by CP forces.	Contractor/CP Environmental Monitor/CP forces
Changes from accidents and malfunctions								
	✓	✓	Accidents and malfunctions occurring during construction or operations could create risks to the environment and/or the health and safety of the public, construction works, or CP forces	<ul style="list-style-type: none"> Environmental monitoring during construction Spill Prevention and Readiness Plan available to be implemented, if necessary Environmental Emergency Response Plan available to be implemented by trained personnel, if necessary Spill Response Plan available to be implemented by trained personnel, if necessary Ongoing track monitoring and maintenance program by CP forces 	Proposed mitigation measures are considered to be industry best practices that have been successfully used by CP to effectively manage waste generated during construction and operations of new track		Construction effects verified through on-site environmental monitoring, inspections and applicable reporting completed by independent contractor/CP Environmental Monitor. Effects of operations on the extended subdivision verified through on-going monitoring inspection and maintenance by CP forces.	Contractor/CP Environmental Monitor/CP forces