

Grand Rapids Pipeline GP Ltd.

Applications for the Grand Rapids Pipeline Project

October 9, 2014



Alberta Energy Regulator

Decision 2014 ABAER 012: Grand Rapids Pipeline GP Ltd., Applications for the Grand Rapids Pipeline Project

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2014 ABAER 012

Grand Rapids Pipeline GP Ltd. Applications for the Grand Rapids Pipeline Project

Applications No. 1771853, et al.

Decision

[1] Having carefully considered all of the evidence, the Alberta Energy Regulator (AER) approves Applications No. 1771853, et al. with the following exceptions:

- Application No. 1773896 is approved for the MacKay and Heartland terminals, but denied with
 regard to the Saleski terminal. The panel has refused to issue an approval for Applications No. 001350276 and MLL130090 with its associated access LOC131042 as Grand Rapids Pipeline GP Ltd.
 (Grand Rapids) has not demonstrated a need for the Saleski terminal. The Saleski terminal would
 have consisted of storage tanks, a pump station, and associated equipment at the location of Legal
 Subdivision (LSD) 15, Section 25, Township 85, Range 19, West of the 4th Meridian.
- Application No. 1793176 is approved as it relates to the Thornbury, Wandering River, and Grassland pump stations. However, the portions of the application relating to the Newbrook pump station proposed at LSD 2-33-060-20W4M are not approved as Grand Rapids requested during the hearing that this portion of the application be withdrawn.
- The panel has refused to issue an approval for *Public Lands Act* Applications No. PLA130672 and PLA130662 for the crossing of the Athabasca River in Section 27-082-17W4M, recognizing that Grand Rapids intends to submit a new application for a revised route that would be parallel and contiguous with the Stony Mountain pipeline. The new applications would result in less disturbance than the originally applied-for route.
- The segment of the proposed pipeline route that would parallel and be immediately north of the Canadian National (CN) rail line and cross the MEG Energy Corp. (MEG) lands in Sections 26, 27, and 35 of Township 055-21W4M must not be constructed unless Grand Rapids satisfies the panel that the applied-for route is the superior route. Additionally, Grand Rapids must not construct or carry out any incidental activities, including the clearing or preparation of the ROW, for the segments of the main lines between LSD 16-6-056-20W4M to the Heartland terminal at SE 28-55-21W4M at this time. The panel requires Grand Rapids to identify an alternative route that does not cross the MEG lands that it would be prepared to construct and provide a detailed analysis and comparison of the applied-for route and the alternative route identified.

The segment of the proposed pipeline route that is located within the city of Fort Saskatchewan and crosses the Fort Industrial Estates Ltd. (Fort Industrial) lands in the west half of Section 1-055-22W4M and the D&A Guenette Farms Ltd. (Guenette Farms) lands in the south half of Section 34-054-22W4M, NW 27-054-22W4M, and NE 28-054-22W4M must not be constructed unless Grand Rapids satisfies the panel that the applied-for route is the superior route. Additionally, Grand Rapids must not construct or carry out any incidental activities, including the clearing or preparation of the ROW, on the proposed pipeline route between NE 7-055-21W4M and SE 6-054-22W4M at this time. The panel requires Grand Rapids to identify an alternative route that it would be prepared to construct that does not enter the city of Fort Saskatchewan or cross Fort Industrial's lands and the Guenette lands and provide a detailed analysis and comparison of the applied-for route and the alternative route identified.

[2] Approval of the applications is subject to the conditions outlined in <u>appendix 1</u>. In making its decision, the panel has considered all factors relevant to the various applications.

Introduction

Applications

[3] Grand Rapids, which is jointly owned by TransCanada PipeLines Limited (TransCanada) and Phoenix Energy Holdings Limited (Phoenix), applied under the *Pipeline Act*, the *Public Lands Act*, and the *Environmental Protection and Enhancement Act (EPEA)* for approval to construct, operate, and reclaim the Grand Rapids pipeline project (the project) (see <u>figure 1</u>). The proposed project would consist of two main transmission pipelines (main lines), two smaller diameter lateral pipelines (lateral lines), four pump stations, and three terminals. At the hearing, Grand Rapids later requested to reduce the number of pump stations to three. A detailed description of all the applications related to the project is in <u>appendix 2</u>.

[4] The two main lines would each be about 460.3 kilometres (km) long with maximum outside diameters (OD) of 508.0 mm (20 inches) and 914.0 millimetres (mm) (36 inches), respectively. The main lines would transport bitumen blend (diluted bitumen and hydrocarbon diluents) between the Grand Rapids MacKay terminal in the northwest quarter of LSD 6, 10, and 11 of Section 34-089-14W4M (6-34) and a meter station in the Edmonton area at LSD 15-32-052-23W4M. The capacity of the 508.0 mm main line would be 52 470 cubic metres per day (m³/d) (330 000 barrels per day [bbl/d]). The capacity of the 914.0 mm main line would be 143 090 m³/d (900 000 bbl/d). Grand Rapids would construct the 508.0 mm main line first and initially use it to transport diluted bitumen from the MacKay terminal south to the Edmonton area. Once construction of the 914.0 mm main line is complete, it would be used to ship diluted bitumen south from the MacKay terminal to the Edmonton area to the MacKay terminal. This would require an amendment application for substance change and flow reversal as per AER *Directive 056: Energy Development Applications and Schedules*.

[5] Of the two lateral lines, the first would transport bitumen blend (diluted bitumen) from the proposed MacKay receipt station at LSD 9-11-090-14W4M (9-11) to the MacKay terminal at 6-34. The MacKay receipt station will be located next to a tank farm operated by Brion Energy Corporation (Brion) as part of their MacKay commercial project. The second lateral line would transport hydrocarbon diluents from the MacKay terminal at 6-34 to the receipt station at 9-11. The proposed pipelines would each be about 4.56 km long with a maximum OD of 610.0 mm (24 inches) and 406.4 mm (16 inches).

[6] The four pump stations that Grand Rapids applied for—Thornbury, Wandering River, Grassland, and Newbrook—would have pump ratings of 33 183 kilowatts (kW), 28 337 kW, 38 031 kW, and 33 184 kW, respectively. The Thornbury pump station would be located at an existing terminal site. At the hearing, Grand Rapids requested that the portion of the application for the pump station at Newbrook be withdrawn.

[7] The three terminals proposed were the MacKay, Saleski, and Heartland terminals. The Heartland and MacKay terminals would be located near the end points of the main lines. The Saleski terminal would be located about 70 km south of the MacKay terminal and about 200 m from the previously approved but unconstructed Laricina bulk storage facility (Laricina tank farm). The MacKay terminal located at 6-34 would be a receipt point for blended crude bitumen and a delivery point for diluent. The Saleski terminal would be located at LSD 15-25-085-19W4M and would be used as a point of storage and future connectivity to regional oil sands production operations for blended crude bitumen and diluent. The Heartland terminal would be located at LSD 8-28-055-21W4M and would be a delivery point for blended crude bitumen and a receipt point for diluent.

[8] Each terminal would have a pump station to allow pressurized flow of blended crude bitumen and diluent through the pipeline. Each terminal would also have two aboveground storage tanks, with one holding up to 56 000 m³ (350 000 bbl) of blended crude bitumen and the other up to 24 000 m³ (150 000 bbl) of diluent. Together, the total maximum petroleum storage capacity of all three terminals would be 168 000 m³ (1 050 000 bbl) of blended crude bitumen and 72 000 m³ (450 000 bbl) of diluent, for a combined total hydrocarbon storage capacity of 240 000 m³ (1 500 000 bbl).

Background

[9] The AER issued a notice of hearing on April 29, 2014, to request participation from interested parties and to announce that the hearing would start on June 9, 2014. On April 29, 2014, the panel also advised 34 statement-of-concern filers that they were eligible to participate in the hearing and would be granted participant status if they responded to the notice of hearing. The AER received 23 requests to participate and granted participant status to 20 of those. Of the remaining 3 requests, 2 were withdrawn before the panel's decision on participation. The third was a trapper who applied after the deadline for filing a request had passed. The panel denied the request for participant filing deadline was insufficient and

the information given did not establish a degree of location or connection between the disturbance associated with the project and his use of the lands within or near the project.

[10] On June 2, 2014, a notice of postponement of hearing was issued to accommodate requests from participants for more time to prepare submissions and to handle scheduling constraints. A notice of rescheduling was issued on June 11, 2014, announcing that the hearing would open on June 23, 2014, in Edmonton, Alberta. To accommodate the large number of participants and scheduling constraints, participants that were not available to participate in the hearing during the week of June 23, 2014, were advised that they could cross-examine Grand Rapids and provide their direct evidence the week of July 14, 2014.

[11] Before the start of the hearing, seven participants withdrew from the hearing. In addition, on July 8, 2014, a letter was sent to the Bigstone Cree Nation indicating that the panel deemed them to have withdrawn from the hearing as they didn't file a submission in response to the notice of hearing; they did not register at the hearing when it opened on June 23, 2014; and the panel did not receive a response to its inquiries.

Interventions

[12] The AER received hearing submissions from twelve participants including D. and D. Trenholm (the Trenholms), Cactus Holdings Ltd. and Westways Contractors (1986) Ltd. (Cactus Holdings and Westways), MEG, McLeod Services & Contracting Ltd. (McLeod Services), Fort Industrial, Guenette Farms, the Athabasca Chipewyan First Nation (ACFN), Laricina Energy Ltd. (Laricina), A. Komant, N. and D. Pentelechuk and 631913 Alberta Ltd. (the Pentelechuks), M. Mitchell, and M. Mucha (on behalf of F. Mazurenko, D. Turko, D. Babiak, C. Mazurenko, and T. Mazurenko).

[13] Participants raised concerns that included the need for the Saleski terminal, pipeline routing and facility siting, construction and reclamation methods and schedule, the effects of the project on land use (including effects on industrial development and agricultural operations), the effects on wildlife and their habitat, emergency response procedures and capability, the effects on aboriginal rights and traditional land use, and stakeholder consultation.

Hearing

[14] The AER held a public hearing in Edmonton, Alberta, before hearing commissioners A. H. Bolton (presiding), R. C. McManus, and C. Macken. The hearing commenced on June 23, 2014, and adjourned on June 25, 2014. The hearing resumed on July 14, 2014, and closed on July 18, 2014. Those that appeared at the hearing are listed in <u>appendix 3</u>.

Questions of Constitutional Law

[15] On June 9, 2014, the panel received a notice of questions of constitutional law (NQCL) from ACFN, which posed the following two questions:

- Is section 21 of the Responsible Energy Development Act (REDA) constitutionally invalid?
- Is the entire structure of *REDA* constitutionally invalid?

[16] In response to the NQCL, the panel requested submissions from the governments of Alberta and Canada as well as from any affected parties on matters arising on the NQCL that may bear on the panel's jurisdiction over the questions presented. ACFN was also given an opportunity to reply to the submissions received.

[17] After reviewing the submissions it received from Grand Rapids, the Minister of Justice and the Attorney General of Alberta, as well as from counsels for Bigstone Cree Nation and ACFN, the panel determined that while it may have jurisdiction over the first question, it would be premature for the panel to consider it. With regard to the second question, the panel found that it did not have jurisdiction to consider it. The panel advised ACFN that notwithstanding the panel's findings with respect to the NQCL, it would consider all evidence and argument on the potential effects of the project on all participants. A copy of the panel's decision on the NQCL is in <u>appendix 4</u>.

[18] ACFN withdrew from the hearing before finishing its cross-examination of Grand Rapids and before giving any direct evidence.

Issues

[19] The panel considers the issues respecting the applications to be

- the need for the project;
- pipeline design and integrity management program;
- pipeline construction and reclamation;
- pipeline routing and facility siting;
- air emissions;
- noise;
- potential effects on watercourses and fish;
- potential effects on wetlands;
- potential effects on wildlife and wildlife habitat;
- spill prevention and emergency response;

- potential effects on aboriginal traditional land use;
- consultation and participant involvement;
- foreign ownership and accountability; and
- the completeness of the applications.

[20] In reaching its decision, the panel has considered all relevant materials constituting the record of this proceeding, including the evidence and argument of each party. Accordingly, references in this decision to specific parts of the record are intended to assist the reader in understanding the panel's reasoning on a particular matter and do not mean that the panel did not consider all relevant portions of the record with respect to that matter.

[21] The panel recognizes that, with the enactment of *REDA* in June 2013, the AER's regulatory processes are transitioning to an integrated application process. The panel intends that this decision facilitates this integrated application process. As part of this transition, a number of the applications under the *Public Lands Act* and *EPEA* considered by the panel were previously submitted and partially reviewed by Alberta Environment and Sustainable Resource Development (ESRD) before being transferred to the AER for final decision.

Need for the Project

[22] The project would transport up to 900 000 bbl/d of blended crude bitumen and 330 000 bbl/d of diluent between the west Athabasca Oil Sands Area and the Edmonton and Heartland areas. Grand Rapids submitted that the capacity of the project would be fully subscribed between its anchor shipper (Brion) and future anticipated production from area oil sand producers. Brion is co-owned by Phoenix. Phoenix and TransCanada are both co-owners of the project.

[23] Brion has committed production to the project, which is estimated by Grand Rapids to eventually amount to about 520 000 bbl/d of blended crude bitumen. Brion's production is to come from its MacKay commercial and Dover projects. Brion's MacKay commercial project is expected to come on stream in late 2015 and is one of the factors influencing Grand Rapids' project schedule.

[24] Grand Rapids expects to find shippers for its remaining capacity from expected growth of the oil sands. Grand Rapids submitted that about 15 producers, which together own 22 oil sands production projects, would all be within 50 km of the project's route. Because of existing commitments from Brion, Grand Rapids submitted that they would need to start moving production in low volumes by the end of 2015. For this reason, Grand Rapids is proposing to construct the project in phases, with the 508.0 mm main line to be constructed and put into operation for the shipping of diluted bitumen before constructing and operating the 914.0 mm main line.

[25] The panel notes that with the exception of the storage component of the Saleski terminal, none of the participants questioned the need for the project. In terms of short-term need, the panel recognizes that Grand Rapids' plans are being driven by its commercial arrangements with Brion. With respect to the long-term need for and capacity of the project, the panel notes that there was some conflicting evidence on the timing and volumes of future production in the region. However, the panel accepts that additional pipeline capacity will be required to meet the significant production growth expected to occur in the west Athabasca Oil Sands Area and that Grand Rapids' strategy of designing and building its project to accommodate this future growth is reasonable. The panel finds that based on the current commitments of shippers and the future growth expected, there is a need for the project both in the short and long term subject to the panel's findings on the Saleski terminal.

Saleski Terminal

[26] Grand Rapids submitted that a storage terminal in the Saleski area had always been part of the plans for the project because of the significant growth in oil sands production expected to occur in this area. Grand Rapids believed that of the 1.5 million bbl of bitumen production expected to occur in the area in the future, about 900 000 bbl has the potential to enter the Saleski terminal.

[27] No receipt or delivery infrastructure (i.e., lateral pipeline or truck loading and unloading facilities) is currently planned for the site as Grand Rapids stated that it is still discussing deliveries into the Saleski terminal with area producers. Grand Rapids advised that it currently does not have any agreements in place for the terminal, but that it was confident it could reach agreements with area shippers in the next two to three years. Grand Rapids requested an extended approval period of three years for the Saleski terminal instead of the two years typically granted by the AER and committed that it would not begin any on-site development or clearing for the Saleski terminal until agreements were reached and it had determined that the facilities were required.

[28] Laricina raised concerns with the need for the storage component of the Saleski terminal. The Saleski terminal would be located about 200 m from its previously approved but unconstructed Laricina tank farm. Laricina submitted that a facility of the size Grand Rapids proposed was not needed to accommodate current regional needs. Laricina also submitted that the Saleski terminal was not properly designed to serve the needs of area producers as all area producers currently truck out production and Grand Rapids did not apply for truck unloading facilities at the Saleski terminal.

[29] Laricina requested that Grand Rapids' applications be modified or denied to remove the storage component and associated pumps and equipment of the Saleski terminal. It also requested that the size of the plot plan be decreased accordingly. This would reduce the overall footprint of the Saleski terminal by about 50 per cent. Laricina acknowledged that there may be a need for additional storage in the future but that more time was required to permit development to be defined in the area and to enable producers to coordinate their plans so that appropriate infrastructure could be correctly designed, sized, and located.

[30] Grand Rapids questioned Laricina's reasons for objecting to the storage component of the Saleski terminal and suggested that Laricina was attempting to protect its commercial interests and create barriers for other producers. Further, it submitted that the approved Laricina tank farm is not sufficient to meet future regional needs as the tanks are not adequately sized, Laricina had not yet committed the finances or made a corporate decision to build the Laricina tank farm, and that as an oil sands producer rather than a transportation provider, Laricina lacked the expertise and motivation required to serve the needs of other producers. Grand Rapids submitted that in contrast, it had the necessary focus and expertise to serve the needs of regional producers and that the Saleski storage tanks would help area producers aggregate their production volumes and enhance pipeline reliability by enabling the receipt of production without interruption in the event of a pipeline outage.

[31] Laricina asserted that it was interested in working with other area producers to create efficiencies. This would decrease costs and avoid additional surface disturbance. Further, it submitted that its plans for the Laricina tank farm were not uncertain as it had raised 1.5 billion dollars in financing and expected to begin construction in 2016. Laricina estimated that it would have 70 000 bbl of storage available for third parties. Laricina also questioned Grand Rapids' argument that mid-pipeline storage at the Saleski terminal was needed to mitigate any pipeline outages, stating that it is normal practice for producers to maintain enough storage at their own sites for operational flexibility.

[32] Laricina submitted that the storage component of the Saleski terminal constitutes a duplication of facilities and creates unnecessary surface disturbance and associated impacts, contrary to the AER's proliferation policy and the Government of Alberta's integrated land management (ILM) principles.

[33] Grand Rapids disagreed with Laricina's assertion that its proposed storage component was inconsistent with the ILM principles and noted that the terminal was proposed along developed roads in an area where there is existing electrical service and infrastructure. Grand Rapids submitted that there would be no duplication as the Laricina tank farm had yet to be constructed and there did not appear to be any firm construction plans. Grand Rapids also submitted that the incremental approach to development proposed by Laricina of designing only for current need as opposed to future need would, ultimately, lead to greater disturbance.

[34] Grand Rapids questioned the applicability of the AER's proliferation policy, noting that it originated in the context of sour gas development and that the intent of the policy is to avoid overcapacity where there are existing processing facilities with unused capacity. Grand Rapids argued that the policy did not apply to unconstructed facilities. Laricina did not contest that the proliferation policy originated in the context of sour gas and that it typically applies to existing facilities, but submitted that the spirit and intent of avoiding the construction of unnecessary or duplicate facilities should apply to the project.

[35] One of the panel's tasks is to determine whether the applications are consistent with the economic, orderly, and efficient development of Alberta's oil and gas resources. To assist in that

endeavour, the panel has considered the AER's policies, including its proliferation policy, and the Government of Alberta's ILM principles.

[36] The panel agrees with Grand Rapids that the AER's proliferation policy originated in the context of sour gas development and typically applies when assessing a new facility proposed near an existing facility where capacity exists to handle sour gas production. However, its principles can be applied to all development as they are consistent with economic, orderly, and efficient development. In comparing the proposed Saleski terminal to the approved Laricina tank farm, the panel notes that both facilities would have storage tanks. However, the storage tanks at the Laricina tank farm appear to be designed to meet short-term needs in the area whereas those for the Saleski terminal are much larger and, therefore, potentially better suited to meet the long-term needs of the area. While the panel recognizes that there would be some duplication if both facilities were to be constructed, the mere duplication of facilities will not always be sufficient to deny an application. The panel must consider whether duplication would result in harm beyond simply creating competition. Given the uncertainty of the timelines for constructing the Saleski terminal and the Laricina tank farm, the panel finds that it is unable to conclude that approval of the Saleski terminal would be inconsistent with the AER's proliferation policy.

[37] The panel finds that the ILM principles, while helpful, are also not determinative. While one of the goals of the principles is to reduce surface disturbance through integrated planning, the panel must balance this goal with other factors, such as limiting interference with private enterprise, protecting the environment and public safety, and ensuring resource conservation. The panel notes that Grand Rapids has taken steps to minimize disturbance by proposing a site for the Saleski terminal that follows existing disturbances and is in the vicinity of existing services. The panel also agrees with Grand Rapids that incremental development can increase disturbance. Therefore, it is necessary to ensure that the site is properly designed for current and future needs and it is important that Grand Rapids collaborate with area stakeholders so that the Saleski terminal meets area needs and the associated disturbance is minimized.

[38] The panel notes that Grand Rapids does not have any committed volumes to support the need for the storage component of the Saleski terminal and that it has work to do to clarify the needs of area producers and potentially explore opportunities with Laricina to minimize disturbance. While additional storage may be required in the Saleski area at some point, even if the Laricina tank farm is constructed, the timing, capacity required, and infrastructure needs of area producers are largely unknown. Given this, the panel finds that there does not appear to be any short-term need for storage at the Saleski terminal. This is supported by Grand Rapids' request for an extended approval, by its commitment to wait until agreements are reached with area producers before constructing the storage tanks (about two to three years from now), and by Laricina's decision to delay constructing the Laricina tank farm. Therefore, the panel denies the applications for the Saleski terminal without prejudice.

[39] The panel denies the parts of *Pipeline Act* Application No. 1773896 for the Saleski terminal and any equipment proposed at LSD 15-25-085-19W4M. The panel also refuses to approve *EPEA*

Application No. 001-350276 and *Public Lands Act* Application No. MLL130090 for the Saleski terminal as well as the associated access for the terminal (LOC131042). While the panel recognizes that a pump station and associated equipment may be needed, it encourages Grand Rapids to reapply for equipment as currently needed. The AER is prepared to consider a new public lands application for the needed equipment at LSD 15-25-085-19W4M from Grand Rapids subject to the same priority held by Application No. MLL130090 if it receives it within one year from the date this decision is issued. The panel encourages Grand Rapids, Laricina, other area producers, and area synergy groups (such as the Atoske Action Group) to work together to establish storage needs for a facility that would best meet the needs of area producers in both the short and long term. The AER is prepared to receive the appropriate applications once this work is complete and the need for storage tanks has been demonstrated.

Heartland and MacKay Terminals

[40] None of the participants questioned the need for either the Heartland or the MacKay terminal. Since these two terminals would be near the two end points of the main lines, the panel finds that there is a need for these facilities to aggregate shipper volumes and to provide operational flexibility. These terminals will also allow product to continue to be received if there is a pipeline outage.

Lateral Pipelines

[41] The lateral lines would be about 4.5 km long and be required to transport diluted bitumen and hydrocarbon diluents between the MacKay terminal and the MacKay receipt station. The MacKay receipt station would be a receipt point for blended crude bitumen from Brion's MacKay commercial project and would also be a diluent delivery point to that production facility.

[42] No concerns were raised about the lateral lines. Because of their length, the panel expects that the effects of the lines will be minimal and notes that Grand Rapids will have to comply with all applicable requirements. The panel accepts that there is a need for the lateral lines to connect the MacKay receipt station to the MacKay terminal and approves the applications for these pipelines (Applications No. 1771855 and 1771856).

[43] The remainder of the decision will focus on issues related to the main lines and terminals.

Pipeline Design and Integrity Management Program

Canadian Standards Association Design and Regulatory Requirements

[44] Grand Rapids proposed to design, construct, and operate the project in accordance with the *Pipeline Act*, the *Pipeline Rules*, applicable requirements in AER *Directive 077: Pipeline Requirements and Reference Tools*, the latest pipeline standards from the Canadian Standards Association (CSA), and the latest standards from the American Petroleum Institute (API).

[45] To ensure that hydrocarbon products are transported safely and reliably and at the specified design conditions, Grand Rapids proposed using pipe manufactured in Canada; valves, flanges, and fittings that would meet or exceed the design pressure of the pipelines; and heavy-walled pipe for applicable crossing locations.

[46] Grand Rapids submitted that because the operating temperature of the main lines would be below 60 degrees Celsius, they would not require the stress level of the design to be derated. The hydrogen sulphide (H_2S) content of the fluid would also be well below the level required for sour service materials.

[47] Grand Rapids designed the main lines for a maximum operating pressure corresponding to an internal-hoop stress level of 80 per cent, which is consistent with CSA standards. The maximum operating pressure is based on the pressure design formula in *CSA Z662: Oil & Gas Pipeline Systems*. This formula considers pipe specifications and factors for design, location, joints, and temperature. Grand Rapids submitted that an 80 per cent stress level is acceptable to CSA for pipe made to CSA standards in non-sour hydrocarbon liquid service and that TransCanada has a proven track record of designing and operating pipelines to an 80 per cent stress level.

[48] The panel notes that the design pressure and stress level is a function of the design factor in *CSA Z662*. The design factor used to vary with the class location or zone of the pipeline. It was later changed to a constant of 0.8. A location factor was also added to the pressure design formula to deal appropriately with the various applications for each class location. The panel notes that *CSA Z662* permits certain types of pipe to operate at an 80 per cent stress level, including those made to CSA standards. The type of pipe being proposed by Grand Rapids is made to CSA standards. Therefore, considering the pipe specification, the type of service, the location of the project, the welding process, and the operating temperature range of the proposed pipelines, the panel is satisfied that the 80 per cent stress level meets CSA requirements and that the pipelines have been designed appropriately.

[49] Grand Rapids proposed installing the main lines at a minimum depth of 0.9 m below stripped ROW with additional cover at water crossings and other applicable locations. This depth would exceed both AER requirements and CSA standards. It also proposed installing buoyance control measures at all sections of the pipelines that would occur below water level during peak hydrological conditions.

[50] To limit damage from accidental discharge, Grand Rapids proposed installing sectionalizing valves at major water crossings as required by CSA. It would place additional valves along the pipelines with electric actuators for remote operation. All horizontal directional drilling water crossings would meet *CSA Z662* requirements.

[51] Grand Rapids stated that it would equip the proposed pipelines and facilities with overpressure protection to protect the pipelines and equipment from high-pressure conditions and to ensure that operations are within licensed pressure limits. In case of overpressure, a supervisory control and data

acquisition (SCADA) system would alarm, notifying staff at the Operations Control Centre in Calgary who would then take corrective action to protect the entire system.

Integrity Management

[52] Grand Rapids submitted that the proposed pipelines would be integrated into TransCanada's pipeline integrity management program. Specific integrity plans would be developed and reviewed annually.

[53] Grand Rapids designed its pipelines to be 100 per cent piggable. It would use in-line inspections to assess corrosion and anomalies. A baseline in-line inspection run would be performed during initial operations and engineering evaluations used to determine the appropriate frequency of subsequent inspections. Grand Rapids indicated that the next in-line inspection would likely be within the first five years. Grand Rapids further proposed that it would monitor the thickness of the pipe wall at select locations inside the facilities.

[54] To control internal corrosion, Grand Rapids would use cleaning pigs and chemical inhibitors. Sediment samples would also be collected by pig runs to assess the corrosivity of the fluid. To control external corrosion, Grand Rapids would use a fusion-bond epoxy coating system and an impressedcurrent cathodic protection designed to meet CSA standards. Any section installed using horizontal directional drilling would have an abrasion-resistant overlay fusion-bond epoxy coating to protect the pipeline while being installed.

[55] To remotely monitor and control the pipelines and associated installations and sectionalizing valves, as well as to respond to emergency situations, Grand Rapids proposed a computerized SCADA system. It would design, test, and remotely operate this system in accordance with the *Pipeline Rules* and *CSA Z662*. The SCADA system would be located at the Operations Control Centre in Calgary, which is staffed 24 hours a day, 7 days a week, and is responsible for the safe and efficient operation of the pipelines. The staff there would continuously monitor pipeline flow conditions and equipment status using the system and issue commands for pump starts and stops, valve opening and closing, and pressure set points. A secondary control centre would be located outside Calgary in the event of an emergency. Grand Rapids would also equip pipeline installations with an automatic local control system. This local control system would continuously monitor flow conditions for safe operation and initiate shut down if necessary. Telemetry between the SCADA system and the local control system would occur via a secure telecommunications network.

[56] The panel is satisfied that Grand Rapids' proposed pipelines will be designed, constructed, and operated in accordance with AER regulatory requirements and CSA standards. To ensure the safe construction and operation of the proposed pipelines, the panel expects Grand Rapids to meet all the commitments it has made in its applications, including increasing the burial depth, using pipe-wall

thickness monitoring inside facilities, conducting in-line inspections, establishing a secondary control centre outside Calgary to deal with emergency situations, conducting aerial surveillance to monitor leak incidents, using a SCADA system to remotely monitor and control pipeline operations, using abrasion-resistant coating on horizontal directional drilling sections, and installing automatic local control systems on pipeline installations to regulate operating parameters.

[57] Grand Rapids is required to meet all CSA standards. The panel notes in March 2014, *CSA Z245.1* was replaced by *CSA Z245.1-14: Steel Pipe*. As a result, Grand Rapids is required to comply with the revised standard.

Pipeline Construction and Reclamation

Phased Construction and Schedule

[58] Grand Rapids stated that phased construction is necessary to meet service delivery commitments in early 2015 and that the lack of available equipment and contractors precludes concurrent construction of the two main lines. Grand Rapids stated that concurrent construction would, however, occur at certain locations, including select watercourses and within specified utility corridors.

[59] Grand Rapids would construct the part of the 508.0 mm main line that would be within the white area during the fall of 2014 and the part that would be within the green area during the winter of 2014/2015. The 508.0 mm main line is expected to be in service by summer 2015. Grand Rapids would then construct the part of the 914.0 mm main line that would be within the white area during the summer and fall of 2015 and the part that would be within the green area during the winter of 2015/16. The main lines would be constructed in separate ditches within a common ROW. Topsoil replacement and reclamation of the ROW would commence after spring in 2016.

[60] Additionally, Grand Rapids stated that topsoil replacement and reclamation of the ROW for the 508.0 mm main line in construction spread 4 (kilometre point [KP] 221.4 to KP 226) would be completed in spring 2015, before construction of the 914.0 mm main line.

[61] The panel heard concerns from parties about the extended construction period associated with the phased construction and the potential for increased erosion, sedimentation, surface water ponding, and weed infestation from leaving the ROW open through more than one construction season. The specific concerns of the various parties are discussed in more detail in the section "<u>Pipeline Routing and Facility</u> <u>Siting</u>."

[62] Grand Rapids submitted that the monitoring and mitigation measures described in the applications would prevent, minimize, or remediate the potential erosion, sedimentation, water ponding, and weed impacts, and that it would complete the reclamation of the ROW as soon as possible after construction.

[63] The panel notes that concurrent construction of dual blended bitumen and diluent pipeline systems is a more common construction approach and has the advantage of reducing the width of the ROW required to install the two pipelines by using a common trench and reducing the duration of impacts to land use. Grand Rapids' phased construction and commissioning of the pipelines requires that the second pipeline be constructed a safe distance from the first in-service pipeline. As a result, the ROW would be wider than it would be if constructing them at the same time. It would also require that the ROW remain open for more than one construction season.

[64] While Grand Rapids has proposed not using the most common construction method, the panel accepts Grand Rapids submission that concurrent construction for the entire 470 km pipeline route is not feasible. The panel notes Grand Rapids' evidence that a lack of contractors and equipment prevent it from constructing the two main lines in time to meet its initial service delivery requirements in 2015 was not contested by the parties and was in fact supported by MEG's pipeline expert, B. Bauhuis.

[65] The panel finds that the proposed phased construction approach and schedule are acceptable, but that robust monitoring of the ROW throughout the construction period is essential to ensure the success of the proposed mitigation measures until such time as the ROW is reclaimed. Grand Rapids stated that construction would be monitored by experienced environmental inspectors to ensure that the conditions in the regulatory approvals and proposed mitigation measures described in the conservation and reclamation (C&R) plan are followed. The panel has some concerns with Grand Rapids' ability to effectively monitor the full length of the ROW and to respond to issues that may arise during the extended construction period before the ROW is reclaimed. The panel finds that a more detailed ROW monitoring and response plan is required to demonstrate these abilities, particularly for areas of the ROW where initial construction activities have been completed and where active construction has been suspended while construction occurs along other areas of the ROW.

[66] Therefore, the panel requires that Grand Rapids prepare and submit, to the satisfaction of the AER, a detailed ROW monitoring and response plan to the AER for review on or before February 28, 2015. This plan must be prepared for both the white and green areas. Within the plan, Grand Rapids must

- identify areas at high risk of wind and water erosion, water body sedimentation, surface water ponding, and weed establishment;
- state what methods it will use to monitor the ROW and any identified high-risk area (e.g., aerial reconnaissance, ground-based inspections, landowner observations);
- include when and how frequent it will monitor high-risk areas/sites;
- describe how it will respond to wind and water erosion, sedimentation, and the onset of weed growth, including logistics and timing; and

• list the types and locations of materials and equipment it will use to facilitate a timely and effective response to any issues that may arise.

[67] The panel has set the submission deadline to February 28, 2015, to give the AER sufficient time to review, ask questions, and discuss the proposed plan before spring runoff, which is when the risk of erosion, sedimentation, and ponding is high.

[68] The panel encourages Grand Rapids to use concurrent construction in areas with noted environmental sensitivities where practical. This would include areas such as key wildlife and biodiversity zones (KWBZs), fish-bearing watercourses, and wetlands where species of special conservation status have been identified or are expected.

Construction in the Green Area

[69] The green area encompasses a portion of the province of Alberta that is primarily Crown owned. For the project, the pipelines north of Section 36-072-16W4M or north of about KP 219 are all in the green area. Grand Rapids indicated that the pipeline route through the green area would be about 219 km in length and that about 202 km or 92 per cent of the route in the green area would be parallel to and adjacent to existing linear disturbances.

[70] Grand Rapids has committed to using minimal disturbance practices when preparing the ROW in the green area. This would include working on frozen ground and no stripping of the soil beyond the trench except where grading is required. Where grading is required, the organic layer of the soil would be salvaged for replacement during reclamation. Grand Rapids stated that it intends to fill the trench in as soon as possible after lowering the pipe into the ground.

[71] The panel notes that Grand Rapids, as part of the application process, submitted environmental field reports for the green area. The AER requires these reports in applications for major projects in the green area. These reports include information required to assess impacts on wildlife, the environment, sensitive areas, vegetation, and historical resources. They also describe how the pipeline would be constructed and reclaimed to meet environmental standards.

[72] Although not a regulatory requirement, Grand Rapids submitted a draft environmental protection plan (EPP) for the portion of the project in the green area in its application binder. However, the tables identifying site-specific features and mitigation measures had not been completed. During the hearing, Grand Rapids submitted an updated EPP, which included the site-specific mitigation measures, at the request of the panel. The EPP outlined

- the measures it would take to avoid, reduce, and mitigate potential negative environmental impacts during the construction, reclamation, and operation of the pipeline;
- post-construction monitoring and assessment processes; and

• contingency plans for any unplanned events, such as spills, adverse weather, fires, erosion, discovery of plants or animal species of concern and discovery of heritage resources and traditional land-use sites.

[73] The panel notes that Grand Rapids' mitigation measures for the green area are industry standard practices that have proven to be effective at mitigating the effects of pipeline construction. The use of minimal disturbance techniques is a best management practice that will reduce the potential for adverse effects from pipeline construction, such as erosion and sedimentation of water bodies and also speed up post-construction reclamation. Therefore, the panel requires that Grand Rapids use the minimal disturbance techniques outlined in the EPP for the green zone and its applications for construction in the green area.

Construction in the White Area

[74] The white area includes the portion of the province of Alberta that primarily comprises privately owned lands and occupied Crown lands. For the project, those pipelines south of Section 36-072-16W4M or south of about KP 219 are in the white area. The pipeline route through the white area is about 241 km in length. About 91 per cent of the route through the white area is parallel or adjacent to existing linear disturbances.

[75] Before constructing the 508.0 mm main line, Grand Rapids would salvage the topsoil across the entire ROW in the white area. It would then store it in windrows (piles that are parallel to the pipeline) along one edge of the ROW until it completed constructing the second pipeline. Grand Rapids believed that doing this would avoid the repeated stripping and handling that would normally occur if the two pipelines were constructed separately. The only exception was the section of the main lines in construction spread 4 (KP 221.4 to KP 266) as discussed in the section "Phased Construction and Schedule."

[76] The panel accepts that the phased construction method is beneficial in that it allows topsoil to be handled only once. This reduces the potential for topsoil loss and degradation during its salvage and replacement. However, the extended period between topsoil salvage and replacement increases the risk of water and wind erosion, the sedimentation of water bodies, the disruption of surface water flows and surface water ponding, and weed infestation on the exposed ROW and the topsoil stockpiles. The phased construction schedule also significantly extends the period for which there is a loss of land use on the ROW (for more than one construction season).

[77] The C&R plan submitted with the application addresses the main lines in the white area. Grand Rapids submitted that the mitigation measures it proposes in this plan are standard and successful methods used by industry and comply with all regulatory requirements. This plan includes

- biophysical resource surveys along the proposed ROW (where land access was granted by landowners);
- an assessment of potential impacts on these resources;
- the EPP describing the mitigation measures for the project; and
- an agricultural land management plan and contingency plans for unexpected impacts, including spills, adverse weather, flood and excessive flow, wet soils, fire suppression, soil handling, soil erosion, drilling mud release, plant species and ecological communities of concern discovery, wildlife species of concern discovery, heritage resource discovery, and traditional land-use site discovery.

[78] The preparation and implementation of a comprehensive construction and reclamation plan is essential for the identification of potential environmental impacts and avoidance measures, and for effective mitigation and reclamation. The panel finds that the phased construction method and schedule for the white area presents some unique challenges that must be addressed to avoid or mitigate the potential impacts of the project. The panel accepts that the C&R plan contains standard mitigation methods that comply with regulatory requirements. However, published evidence for success for all measures is limited and some studies show mixed success. Additionally, given the phased construction schedule and the need to stockpile soils for up to two growing seasons, more robust mitigation and monitoring measures may be required.

[79] The panel notes that the C&R plan was prepared in May 2013 and that some changes to the proposed pipeline route have occurred since then. Additionally, the C&R plan states that further assessments of soils, vegetation, wildlife, watercourses, and wetlands were to be conducted in the white area in 2013 to complete the identification of potential impacts and the appropriate mitigation measures. However, Grand Rapids did not submit any of these additional assessments. As a result, it is unclear to the panel which assessments have been completed and which remain to be completed. While the panel understands that some of these assessments have been completed and that Grand Rapids has been updating the C&R plan to reflect these assessments, it has not provided an updated and complete version of the C&R plan to the AER. It is important that these assessments be completed and that the C&R is updated to reflect all of the assessments conducted and any rerouting that has occurred to ensure that all potential impacts have been identified and that the mitigation measures are appropriate.

[80] The panel wants to ensure that the C&R plan not only accurately reflects the route to be constructed but has also identified and addressed all potential impacts of the project. Therefore, the panel requires that Grand Rapids update its C&R plan and EPP for the green area to reflect the changes made to the route and the results of the additional assessments. Grand Rapids must submit its updated C&R plan and EPP to the satisfaction of the AER. The AER will review the plan and must be satisfied with it before Grand Rapids can begin construction on the project.

Width of Right-of-Way and Temporary Workspace

[81] During the hearing, the issue of ROW widths and the sizes of the temporary workspaces were discussed.

[82] Within the green area, Grand Rapids proposed that the width of the ROW be 38-42 m for the main lines, plus temporary workspace as required.

[83] Within the white area, Grand Rapids proposed the following widths for the project's ROW:

- a 35 m permanent ROW plus a 30 m temporary workspace (from the boundary between the white and green areas to the north half of Section 31-055-20W4M)
- a 35 m permanent ROW plus a 37 m temporary workspace (north half of Section 31-055-20W4M to Heartland terminal)
- a 24 m permanent ROW plus a 41 m temporary workspace (Heartland terminal to the Edmonton Transportation and Utility Corridor [TUC])
- a 15 m permanent ROW plus a 50 m temporary workspace (the TUC to Edmonton)

[84] Grand Rapids stated that these ROWs and the widths of the temporary workspaces are required to efficiently and safely construct and operate the pipelines in accordance with its phased construction and schedule. It would use adjacent ROWs for temporary workspace where feasible.

[85] Grand Rapids stated that it requires these widths of ROW and temporary workspaces to accommodate the trenches for the main lines, the piles for spoil, topsoil, organic matter and for snow storage. It would need to maintain adequate separation between these piles and between the lay-up areas, work lanes, and travel lanes for construction equipment and vehicles. Grand Rapids indicated that it would need additional temporary workspace at stream crossings; at bends in the pipeline, roads, or pipeline crossings; and for log decks to store timber.

[86] In the white area, there are areas where space for ROW is limited, such as those areas within or near the TUC and the North-East Penetrator Corridor (NEPC). Grand Rapids submitted that for these areas, it would make the ROW narrower by constructing the second pipeline shortly after constructing the first pipeline in ditches spaced much closer together. However, Grand Rapids stated that this approach was not practical over long distances as doing so would significantly affect the cost and schedule for the project and its ability to meet its service delivery commitments.

[87] Grand Rapids was questioned as to how it had determined the distance between the main lines and whether this distance could be reduced, and, if so, whether a shorter distance would change the width of the ROW. Grand Rapids responded that, generally, the distance between the main lines would be between 9 and 12 m. In some short sections within the congested areas of the white area, the distance would be as little as 5 m. Grand Rapids stated that safety was the primary reason for the 12 m separation between the main lines in that the first line would be operational by the time construction began on the second line. Grand Rapids also stated that the green area had an abundance of wet areas and a potentially unstable trench. As a result, it had to maintain enough distance between the two lines to accommodate sloping of the ditches where required.

[88] During the hearing, Grand Rapids provided the panel with a list of the adjacent disposition holders in the green area from which they were seeking temporary workspace agreements. Grand Rapids also stated that it continued to discuss using existing ROWs for temporary workspace with other pipeline operators within the white area. The panel supports sharing ROWs for temporary workspace as a way to reduce the area required for construction and to minimize surface disturbance. The panel is satisfied that Grand Rapids is making good efforts to use temporary workspace in adjacent ROWs as opposed to clearing new land. The panel encourages Grand Rapids to continue its efforts to finalize agreements with other parties to share existing ROWs for temporary workspace.

[89] The panel recognizes that Grand Rapids was able to enter into agreements with most landowners along its proposed pipeline route within the white area. This suggests that Grand Rapids was able to address concerns these landowners may have had about the proposed project, including concerns about the phased construction or the location and width of the ROW. While several participants in the hearing raised concerns about the route and the phased construction, the width of the ROW was not generally identified as a key concern. Site-specific concerns about the ROW are addressed in the section "Pipeline Routing and Facility Siting."

[90] The panel is not aware of any regulatory requirements or standards that specify or give guidance on the appropriate width of ROWs for pipelines, whether for the white area or green area. The panel acknowledges Grand Rapids' efforts to minimize the amount of new disturbance created by the project by paralleling existing disturbances and making use of existing ROWs for temporary workspace where feasible. In the absence of such requirements or standards, the panel accepts Grand Rapids' justification for the width of the proposed ROWs and temporary workspace in the white and green areas as reasonable subject to the panel's site-specific conditions to address the concerns of individual landowners in the white area.

[91] Although the panel accepts Grand Rapids' ROW and temporary workspace requirements for the green area as being reasonable, the panel notes that a significant amount of the proposed pipeline route within the green area (about 130 km) is located within woodland caribou range. Woodland caribou are a high-profile species at risk not only within Alberta but within Canada as a whole. The panel is concerned that any additional and unnecessary disturbance within woodland caribou range may negatively affect woodland caribou populations already under significant pressure. Therefore, the panel would like to emphasize to Grand Rapids that it is imperative that Grand Rapids ensure that the width of the ROW and any new disturbance is minimized to the extent practical. The potential for the project to affect woodland

caribou habitat and measures to mitigate these effects are discussed further in the section "<u>Woodland</u> <u>Caribou</u>."

[92] As the project advances, the panel recognizes that Grand Rapids may need to adjust the ROWs and temporary workspace because of site-specific conditions and microrouting decisions. It expects Grand Rapids to apply for any necessary amendments to its applications.

Reclamation

[93] The panel heard concerns from parties about the timely and effective reclamation of the pipeline ROW.

[94] Grand Rapids stated that its reclamation measures, including regrading to align with the surrounding landscape, preparation of the subsoil, replacement of the topsoil, and revegetation measures, are outlined in its C&R plan and EPP for the green area. Grand Rapids submitted that the measures within these plans are standard and successful methods in industry and comply with regulatory requirements and accepted practices.

[95] Grand Rapids stated that in the green area, its primary means of revegetating the ROW would be natural recovery, allowing areas to revegetate naturally from undisturbed root zone and adjacent native seed sources. Grand Rapids stated that with respect to natural recovery on past projects, its experience was that some sites revegetated quickly to willow, alder, and poplar while other sites were slower to revegetate. Grand Rapids suggested that the use of minimal disturbance techniques was one of the best methods for encouraging natural recovery. In the white area, revegetation of the ROW would be completed in consultation with the landowners.

[96] Grand Rapids committed to conducting timely post-construction monitoring and a postconstruction reclamation assessment. It would compare adjacent undisturbed lands or agricultural crops to ensure that the ROW is reclaimed to equivalent capability.

[97] Grand Rapids intends to reclaim the ROW to an equivalent capability in a timely and effective manner. The panel finds that the reclamation measures proposed by Grand Rapids, including post-construction monitoring and post-construction reclamation assessment, are acceptable. The panel recognizes the 2010 reclamation criteria under *EPEA* and the requirements under the *Public Lands Act* as the regulatory authorities for assessing reclamation of pipelines and notes that the *EPEA* approval and Crown-land lease agreements will include conditions for post-construction monitoring and reclamation assessments.

[98] Reclamation for the KWBZ is described in the section "<u>Wildlife and Wildlife Habitat</u>."

Pipeline Routing and Facility Siting

[99] The proposed route of Grand Rapids' main lines runs between the west Athabasca Oil Sands Area and the Edmonton and Heartland areas. It also follows existing linear disturbances for the majority of the route, such as

- formal government designated corridors, such as the TUC and the NEPC;
- preferred pipeline alignments and corridors identified in various planning studies and documents; and
- features such as highways, power lines, and rail lines.

[100] While formal government-designated corridors reflect land-use planning decisions of various levels of government, the same cannot be assumed for some corridors that merely represent a preferred alignment or a de facto corridor with no formal designation. For the purposes of this decision, de facto corridors are informal pipeline corridors not designated by government that in many cases occur as the unintended result of multiple pipelines being planned and approved independently but constructed parallel to one another.

[101] In addition to considering options for using existing corridors, Grand Rapids selected its route from several options. It selected its proposed route based on its ability to

- maintain control points (i.e., terminals/receipt stations for the delivery of bitumen or diluent);
- minimize, considering the other route selection objectives, the total route length;
- ensure operations and maintenance access and power availability;
- minimize the impact on stakeholders, including aboriginal communities, and the environment;
- follow existing linear disturbances wherever possible to
 - minimize the area of new disturbance and cumulative impacts,
 - maximize the amount of temporary workspace on existing ROWs, and
 - reduce the potential fragmentation of wildlife habitat;
- avoid or reduce effects on environmentally sensitive areas;
- minimize the number of watercourse crossings;
- avoid park lands, cemeteries, and historical sites;
- comply with existing regional land use plans; and
- factor in hydraulic design, constructability, and cost.

[102] For the purposes of discussing routing issues, the Grand Rapids pipeline consists of five distinct segments from north to south:

- Segment 1 (kilometre 0–4.5): MacKay receipt station to the MacKay terminal (lateral lines)
- Segment 2 (kilometre 0–144): MacKay terminal to Thornbury terminal (main lines)
- Segment 3 (kilometre 144–419): Thornbury terminal to Heartland terminal (main lines)
- Segment 4 (kilometre 419 435): Heartland terminal to the NEPC and TUC (main lines)
- Segment 5 (kilometre 435–459): NEPC/TUC to the Enbridge Edmonton terminal (main lines)

Segment 1

[103] This segment of the project includes the two lateral lines that connect the MacKay receipt station at the MacKay River central plant to the MacKay terminal. The initial location proposed for the MacKay terminal resulted in a route that crossed about 10 km of undisturbed lands before meeting up with the Nova Gas Transmission Ltd. (NGTL) Fort MacKay ROW. By moving the MacKay terminal next to the NGTL Fort MacKay ROW, Grand Rapids was able to align the pipeline along existing disturbances for some of its length. This significantly reduced how much of the route would go through undisturbed lands. The panel finds the proposed route for segment 1 acceptable, noting that none of the participants raised any specific concerns about this segment of the pipeline.

Segment 2

[104] Grand Rapids considered several routes for segment 2, which includes the part of the main lines that are between the MacKay terminal and the Thornbury terminal. The proposed routing for segment 2 follows existing linear disturbances for much of its length and none of the parties raised any specific concerns about this segment. Therefore, the panel finds the proposed route to be acceptable except as noted below.

[105] Grand Rapids applied for an access road (LOC131296) adjacent to the ROW to access a valve site located in Section 25-085-19W4M. Accessing the valve site through the terminal, rather than constructing new access along the pipeline would reduce the amount of new disturbance.

[106] The panel has refused to approve MLL130090 for the Saleski terminal. Therefore, the panel also refused to approve LOC131402 for access to the Saleski terminal. In addition, the panel refuses to approve LOC131296 for access to the valve site. The panel expects Grand Rapids will consider opportunities to minimize disturbance associated with access to the valve site as part of any future facility applications Grand Rapids may make, in consultation with the AER regional staff.

[107] During the hearing, Grand Rapids also advised that it intended to amend its application for the crossing of the Athabasca River in Section 27-082-14W4M to use the proposed route from the Stony Mountain pipeline project and not its applied-for route. Grand Rapids advised that they had completed geotechnical studies to confirm that this revised route consists of very stable formations.

[108] The panel agrees that the proposed Stony Mountain pipeline project crossing is preferable to the applied-for crossing because its routing will decrease the amount of new disturbance required. Accordingly, the panel refuses to approve applications PLA130672 and PLA130662 for the applied-for crossing of the Athabasca River in Section 27-082-14W4M and expects Grand Rapids to submit a new application for a crossing route parallel to and contiguous with the Stony Mountain pipeline, including amendments to the approvals for Applications No. 1771853 and 1771854.

Segment 3

[109] Segment 3 of the Grand Rapids Pipelines runs from the Thornbury terminal to the Heartland terminal. The panel heard from five participants that own land located within segment 3: McLeod Services, the Trenholms, M. Mitchell, the Mazurenkos, and MEG Energy.

McLeod Services and Contracting Ltd.

[110] McLeod Services operates an automotive recycling facility near the village of Boyle, on NE 5-065-19W4M. Grand Rapids proposes routing the main lines immediately west of existing ROWs that bisect the McLeod lands. The existing ROWs consist of seven pipelines and one utility line. McLeod Services is opposed to having Grand Rapids' main lines routed on its lands because it would further limit the land available to it for vehicle storage.

[111] The panel notes that McLeod Services' current operations are confined to the east of the existing ROWs whereas Grand Rapids' ROW would be to the west of the existing ROWs. However, Mr. McLeod advised that over the long term, McLeod Services plans on expanding its vehicle storage west of the existing ROWs.

[112] Based on Grand Rapids' evidence, the panel understands that McLeod Services is only allowed to use the McLeod lands that are east of the existing ROWs for vehicle storage and is not allowed to develop within 30 m of the existing ROWs. Furthermore, in the absence of any evidence to the contrary, it appears that McLeod Services currently has more than 2300 vehicles stored on its lands, well in excess of the maximum vehicle storage limit allowed under its development permit. Under this permit, it is limited to storing 413 vehicles. Athabasca County has directed McLeod Services to reduce the number of vehicles it has stored to the allowable limit. For reasons that remain unclear to the panel, Mr. McLeod chose not to tender McLeod Services' development permits as evidence in this hearing, nor did he challenge Grand Rapids on the evidence it gave about McLeod Services' development restrictions under those same permits.

[113] The panel notes that the route of the main lines adjacent to the existing ROWs is consistent with established routing criteria and does not affect the current approved use of the lands. While the McLeod lands are zoned as "heavy industrial," the panel finds that McLeod Services' ability to operate and expand its automotive recycling business is restricted to the east side of the existing ROWs under the current

development permit. Therefore, the panel finds that Grand Rapids' proposed route on the west side of the existing ROWs on the McLeod lands will not significantly affect McLeod Services' current automotive recycling business and is appropriate under the circumstances.

[114] However, Grand Rapids noted it was willing to help McLeod Services clear additional land west of Grand Rapids' ROW and construct a crossing of the Grand Rapids ROW if McLeod Services were to get development approval to use these lands for its business. Grand Rapids also indicated that while it prefers a width of 35 m for the permanent ROW on the McLeod lands, it would be willing to reduce this width to 24 m.

[115] Because all of the McLeod lands are zoned as heavy industrial and the possibility that McLeod Services may get approval to use some or all of the lands to the west of the existing ROWs for its business in the future, the panel finds that additional measures are necessary to mitigate potential effects to McLeod Services' future use of the lands. In the absence of an agreement between McLeod Services and Grand Rapids, the panel requires that Grand Rapids limit the width of its permanent ROW on the McLeod lands to 24 m. The panel recognizes Grand Rapids commitment that should McLeod Services obtain approval in the future to use the lands to the west of the ROW for its business activities, it will provide a suitable crossing of its ROW. The panel notes Grand Rapids also offered to assist with the clearing of additional lands, if needed. The panel expects Grand Rapids to live up to its commitments to McLeod Services.

The Trenholms

[116] The Trenholms own and occupy the land in SE and NE 10-062-20W4M on which the main lines would be routed. The Trenholms' concerns were not specifically about routing but were about weed infestation of topsoil windrows that sit for long periods of time.

[117] They stated that standard weed control equipment is not suited for windrows and may result in limited weed control and create long-term weed control issues. They were also concerned about how thorough Grand Rapids' weed surveys for the project were. They were more concerned about the potential for long-term weed control problems by letting the topsoil sit in windrows for an extended period of time than about the soil admixing that would result from handling the soil twice. The Trenholms indicated that if the project were to be approved, they preferred that the main lines be constructed as two separate projects. This way, construction and reclamation of the ROW for the first main line would be complete before construction and reclamation began on the second main line.

[118] In Grand Rapids' C&R plan, Grand Rapids stated that it has already conducted one partial weed survey and would be doing another one before construction begins. It would then use information from these surveys to identify and implement appropriate weed control measures. Such measures would

include washing construction equipment before entry on the lands, seeding a cover crop on select topsoil windrows, and controlling weed growth both mechanically and chemically.

[119] The panel agrees with the Trenholms that leaving the topsoil stockpiled for a prolonged period of time increases the risk of weed control issues. The panel also finds that the detail in the C&R plan does not sufficiently address the Trenholms' concerns about soil handling and weed control. In the absence of any agreement with the Trenholms about construction methods and schedule for crossing their lands, the panel requires that Grand Rapids construct the 508.0 mm main line and reclaim the ROW in a single construction season before stripping the ROW for constructing the 914.0 mm main line. This way, only the ROW required for constructing the 508.0 mm main line would be stripped initially, with the soils replaced along the ROW as soon as possible, within the same construction begins and would be reclaimed as soon as possible after construction is complete. However, the panel will accept an alternative construction and reclamation method and schedule if it is agreeable to the Trenholms and addresses their concerns. If Grand Rapids and the Trenholms reach agreement on an alternative plan, the panel requires that Grand Rapids notify the AER of the plan for the Trenholms' lands at least 14 days before construction begins on the Trenholms' lands.

The Mazurenkos

[120] F. Mazurenko is the owner of lands in the northeast corner of Section 28-060-20W4M, which are next to the proposed Newbrook pump station in SE 33-060-20W4M. M. Mucha filed written submissions on behalf of F. Mazurenko, D. Babiak, C. Mazurenko, T. Mazurenko, and herself (collectively, the Mazurenkos).

[121] The Mazurenkos were opposed to the location of the proposed Newbrook pump station due to concerns about noise, traffic, emissions, and effects on wildlife and property values. At the hearing, Grand Rapids withdrew its application for the Newbrook pump station. The panel accepts Grand Rapids' withdrawal of its application for the Newbrook pump station and finds that it is unnecessary to make any findings on whether the location of the Newbrook pump station was appropriate.

Ms. Mitchell

[122] M. Mitchell is the owner of nearly 42 acres of land in NE 32-058-20W4M immediately east of the hamlet of Radway. The majority of Ms. Mitchell's lands are pasture where Ms. Mitchell keeps horses and cattle. Grand Rapids' main lines would follow an existing pipeline alignment that already crosses her lands. Ms. Mitchell did not specifically address routing in her evidence or in her cross-examination of Grand Rapids' witness panel.

[123] However, in closing argument, P. Kennedy, on Ms. Mitchell's behalf, submitted that rerouting Grand Rapids' pipelines about 3 km to the east of Ms. Mitchell's lands would resolve Ms. Mitchell's

concerns. Since this alternative route was not raised until closing argument neither Grand Rapids nor the panel had a reasonable opportunity to consider it, nor was any evidence given on this alternative route. The panel further notes that before closing arguments, Ms. Mitchell did not raise any concerns about the route of the pipeline. Instead, her concerns focused on access to the east side of her property for her and her livestock during the extended construction period, surface water ponding experienced over an existing ROW on her lands, and concerns with the safety record of Grand Rapids' parent company, and partial foreign ownership of the Grand Rapids project.

[124] Grand Rapids stated that it is willing to work with Ms. Mitchell to ensure that the fencing around the ROW is appropriate and that there is access across the ROW to the east side of her property. It stated that it is confident that its proposed mitigation and reclamation measures would address surface water ponding during construction and reclamation.

[125] In the absence of any evidence to the contrary, the panel is satisfied that Grand Rapids' proposed route through Ms. Mitchell's lands is acceptable. However, the panel also finds Ms. Mitchell's concerns about water management and access to her pasture to be valid. Therefore, the panel requires that Grand Rapids consult with Ms. Mitchell to develop a plan to address her concerns. The plan should address fencing and access across the ROW to the east side of her pasture during construction and her concerns about water ponding. To assist Grand Rapids and Ms. Mitchell in reaching a mutually agreed to plan, the parties may request the assistance of the AER's alternative dispute resolution program. The panel requires that Grand Rapids submit the results of this concerns to the AER at least 14 days before beginning construction on her lands. If Grand Rapids is unable to reach a mutually agreed to plan with Ms. Mitchell, it must submit to the panel a summary of its efforts to do so, and all proposed mitigation plans it has presented to Ms. Mitchell to address her concerns. Upon review, the panel may require that further work occurs prior to commencing construction on Ms. Mitchell's lands.

MEG

[126] MEG is an energy company with a focus on oil sands, SAGD development, and production in the southern Athabasca Oil Sands Area. MEG owns land west of Bruderheim in Sections 26, 27, and 35 of Township 055-21W4M (the MEG lands) in Alberta's Industrial Heartland. Grand Rapids' proposed pipeline route makes use of an existing but unused NGTL ROW and is north of and parallel to an existing CN rail line that runs along the southern boundary of the MEG lands (figure 2). MEG recently acquired the MEG lands with the intention of developing midstream industrial facilities, including a commercial-scale, high-Q-bitumen upgrading operation and a rail terminal that would be sited adjacent to and on the north side of the CN rail line. MEG reported that to date it has invested more than \$178 million dollars to acquire these lands and develop its project.

Effects on MEG's Future Development Plans

[127] MEG asserted that Grand Rapids' proposed route would significantly interfere with MEG's plans to construct a rail terminal, which would require access to the CN rail line, and with other future development of its lands. MEG provided conceptual plans for its proposed rail operations and stated that its proposed rail facilities would be located on top of the applied-for ROW for Grand Rapids' main lines. Its plans would include rail sidings that would parallel the existing CN rail line and cross Grand Rapids' proposed route at either end and connect to the CN rail line.

[128] Grand Rapids argued that MEG's development plans are speculative and only involve two rail crossings of its proposed main lines. Grand Rapids maintained that it could easily accommodate MEG's rail access and mitigate the effects of its main lines on MEG. Furthermore, during the hearing, Grand Rapids offered to reduce the width of the permanent ROW through these lands to the 25 m width of the NGTL ROW.

[129] Grand Rapids submitted that its use of an existing NGTL ROW on the lands for the main lines would be compatible with MEG's conceptual and speculative plans. Grand Rapids noted that an operator with lands immediately adjacent to the MEG lands that also has plans to develop a rail loading terminal has accepted the proposed route on its lands.

[130] MEG submitted that if Grand Rapids' use of the NGTL ROW is approved, it would need significant mitigation measures in place when constructing the main lines, such as those in Transport Canada's *TC E-10: Standards Respecting Pipeline Crossings Under Railways* and in *CSA Z662*. Such measures require deeper burial, thicker pipe, casing pipe, concrete slabs, or other measures to ensure that stress levels during rail installation and operation comply with Cooper E80 track loading criteria.

[131] Grand Rapids asserted that MEG refused to consider mitigation measures that could be implemented to accommodate MEG's plans. Grand Rapids submitted that it is prepared to consider the following mitigation measures on the MEG lands:

- having a permanent ROW of 25 m to avoid needing an expanded or supplemental 10 m ROW,
- increasing the depth of cover,
- installing heavy wall pipe for the full length of the ROW to accommodate MEG's plans for a rail loading and unloading terminal,
- installing concrete slabs at spur line crossing locations,
- establishing a joint-use access road that would be within the existing ROW between the pipelines to accommodate MEG's rail car inspection operations, and
- having partial realignment around the long run exploration well to rejoin the ROW sooner.

[132] MEG also submitted that if Grand Rapids' main lines are approved, it would be required under the AER's current requirements to seek Grand Rapids' approval for any construction and operations activity MEG proposes on Grand Rapids' ROW. According to MEG, the risks and complexities of constructing, operating, maintaining, and repairing any future facility it proposes over and adjacent to Grand Rapid's proposed main lines would be onerous for MEG. It asserted that Grand Rapids could easily refuse its requests and, therefore, limit MEG's ability to develop and safely and effectively operate any future facilities it proposes for the site.

[133] MEG also stated that its ability to conduct surface contouring to manage surface water could be limited. MEG reported that surface water management was an existing problem on the MEG lands. It also cited a potential for land sterilization from development due to the proposed ROW.

[134] Based on the evidence before it, and as noted in MEG's own expert report, the panel finds that it would be possible to mitigate the effects of Grand Rapids' pipelines on MEG's future development plans. However, the panel is concerned that it appears MEG was unwilling to consider the possibility of the proposed route on its lands and refused to discuss potential mitigation measures with Grand Rapids. In the panel's view, it is not constructive or helpful for a party to refuse to consider reasonable mitigations to concerns they have raised and simply assert that the effects on their lands are unacceptable.

Alternative Pipeline Routes

[135] MEG submitted that there are routes superior to the one Grand Rapids' proposes. MEG argued that it was not given information to substantiate that Grand Rapids had sufficiently considered alternative routes, including those MEG proposed near the MEG lands. MEG had been given a summary of the consultation Grand Rapids did with landowners south of the CN rail line along one of MEG's preferred routes. However, the summary did not indicate that the consultation consisted of anything beyond phone calls and initial attempts to make contact with landowners.

[136] Grand Rapids maintained that its evidence is both complete and adequate on all matters concerning consultation and routing. Grand Rapids considered the following three alternative routes to the one it proposed on the MEG lands in its application: (1) an existing pipeline corridor to the east and south of the MEG lands (the east corridor), (2) an existing pipeline corridor north and west of the MEG lands (the north corridor), and (3) a route that partially parallels the proposed Pembina Cornerstone pipeline project located south of the CN rail line and south of the MEG lands (the south route).

[137] MEG decided to acquire ROW interests on an alternative route that it submits addresses its concerns. MEG indicated that it was prepared to assign its interests in these lands (the south route) to Grand Rapids by way of an agreement. MEG also submitted two other routes that it contends are superior to the one Grand Rapids proposed. MEG presented a comparison of these routes in the Sunstone report,

which concluded that Grand Rapids had not adequately assessed alternative routes to ensure that the route it proposed was the superior one.

[138] MEG submitted that there is insufficient information for the panel to make an informed decision on routing and asked the panel to approve Grand Rapids' project but to deny the part of the project that crosses the MEG lands. Grand Rapids stated that they had assessed these three alternative routes that were proposed by MEG but had determined that they were inferior to the proposed route. These three alternative routes are all longer than the proposed route. Each of them also has unique disadvantages. In a comparison of the routes that Grand Rapids considered, it noted that the east corridor would have resulted in more surface impacts than the one it proposed in its application and claimed that it was too congested. Grand Rapids asserted that the north corridor faced virtually universal opposition from landowners. Similarly, Grand Rapids experienced opposition from landowners concerning the south route.

[139] Grand Rapids noted that MEG's proposed alternative routes were identified late in the process and that the additional public consultation necessary to assess them could adversely affect its project schedule.

[140] The panel is not convinced that Grand Rapids adequately considered alternative routes for the MEG lands. The panel notes that Grand Rapids is obligated to consider alternatives when landowners or stakeholders may be negatively affected by a project. The evidence before the panel suggests that Grand Rapids' desire to use the NGTL ROW as well as the project's construction schedule limited the extent of analysis it was prepared to conduct of alternative routes MEG proposed. It appears that Grand Rapids only did a superficial consultation and investigation of an alternative route MEG suggested in June of 2013. This may be partly explained by the fact that Grand Rapids had already investigated and dismissed a possible south route. However, prior inquiry does not discharge Grand Rapids' duty to meaningfully consult with MEG and landowners on options proposed by MEG.

[141] MEG suggested a number of other issues or factors that it believed resulted in Grand Rapids' unwillingness to meaningfully consider an alternative pipeline route to the south of the CN rail line, including MEG's proposed south route. MEG reported that Pembina Pipeline Corporation's (Pembina) proposed Cornerstone pipeline project was to be routed along the south side of the CN rail line and through lands located in the northeast quarter of Section 26 and the northwest quarter of Section 25-055-21W4M (the Symic lands). MEG noted that its most recent proposed south route would be located in this same area and also cross the Symic lands.

[142] MEG suggested that TransCanada had an option to purchase the Symic lands and had recently told Pembina that it did not want to see a pipeline routed along the south side of the rail line and that Pembina should use the east corridor for its pipeline instead. MEG further suggested that the reason that TransCanada did not want a pipeline located on the south side of the CN rail line was that it had plans for a rail terminal on the Symic lands. Grand Rapids confirmed that a TransCanada affiliate has an option to

purchase the Symic lands, but submitted that MEG's suggestion that TransCanada had plans to construct a rail terminal on those lands was merely speculation.

[143] MEG also reported that TransCanada's proposed Heartland to Hardisty pipeline would parallel a portion of MEG's proposed south route through Sections 22 and 23-055-21W4M south of the CN rail line. MEG questioned Grand Rapids as to whether this represented an opportunity to route both the Grand Rapids and Heartland pipelines through this area within a common ROW or along a common alignment to the south of the rail line. However, the panel does not find Grand Rapid's evidence or responses to the issues raised by MEG to be very clear or helpful. The panel still has some unanswered questions about whether Grand Rapids proposed route to the north of the CN rail line is in fact superior to an alternative route to the south of the rail line near the MEG lands.

[144] Grand Rapids admitted that it did not consult on the east corridor. However, the panel finds that given that the east corridor is an existing preferred alignment, Grand Rapids should have done so. The panel notes that Grand Rapids consulted on the north corridor and advised that three industrial operator/owners were opposed to the north corridor. However, it did not give any evidence on the operator/owner's concerns, potential mitigation measures, or a written record of consultation for the north corridor. Further, the panel notes that much of the evidence Grand Rapids gave on routing was created after it had chosen its proposed route. This suggests that Grand Rapids had not adequately considered the alternative routes when it filed its applications with the AER.

NGTL Right-of-Way

[145] Grand Rapids urged the panel to approve its proposed route at least in part because it would follow an existing ROW through the MEG lands—the former NGTL ROW. NGTL had initially acquired the NGTL ROW in the early 2000s for a previous pipeline project. That project was not approved. The NGTL ROW was later assigned to Grand Rapids in 2013. Grand Rapids submitted that MEG was aware of the NGTL ROW when it purchased its lands.

[146] MEG submitted that the existing NGTL ROW is incomplete and that provisions in the ROW agreements limit pipeline construction to only one line.

[147] The panel acknowledges that Grand Rapids has acquired the NGTL ROW and that this provides certain rights. The panel also notes MEG's submission that the NGTL ROW appears to be insufficient for what Grand Rapids proposes. Nine of the seventeen tracts only allow for one pipeline while the remainder allow for two, which is what is required for the project. Moreover, the ROW is not continuous as it does not include access to one parcel (SW 26-055-21W4M), which is immediately adjacent to the MEG lands. The panel accepts that these are contractual matters between the lessees and lessor and that if Grand Rapids is unable to resolve them successfully, they will be required to seek other options.

A New De Facto Corridor

[148] MEG's lands are located within Strathcona County's heavy industrial policy area as defined by the Strathcona County's *Alberta's Industrial Heartland Area Structure Plan*. The area structure plan identifies the intended land use as being "to accommodate heavy industry such as petrochemical processing and manufacturing, oil and gas refining, and directly associated support service industries." MEG argued that the proposed route would create a new de facto pipeline corridor that ignores the area structure plan and needlessly affects high-value industrial land and its future development.

[149] MEG argued that given the number and size of pipelines being proposed in the industrial Heartland area, planning needs to be managed and coordinated in a manner that would not restrict future industrial development options in the area.

[150] Grand Rapids noted that the MEG lands are currently being used for agricultural purposes and suggested that MEG's plans for industrial use of the lands are conceptual and speculative.

[151] The panel notes MEG's concern that approving Grand Rapids' proposed route along the north side of the CN rail line in an area where no pipelines have been built yet may create a new de facto pipeline corridor that may negatively affect MEG's development plans. MEG has made a significant investment to acquire the lands to advance its development plans.

[152] The panel is concerned that Grand Rapids' proposed pipeline route does not follow an existing preferred alignment or corridor and may result in a new de facto pipeline corridor. The panel notes that although the MEG lands are currently zoned as "agricultural," they are located in Strathcona County's heavy industrial policy area—an area that is explicitly designated for heavy industrial use. Routing a pipeline through lands proposed for heavy industrial use rather than through lands designated for agricultural use could adversely affect future industrial development.

[153] Since Grand Rapids' project is expected to last 50 years or more, the panel finds that applicants should take a longer term perspective when considering potential impacts on future land use. Relying strictly on current land use and zoning is unlikely to preserve maximum flexibility for future land use decisions. The panel finds it is important to avoid areas with the potential for urban or industrial development where possible. This is particularly true where there may be existing pipeline corridors or routing alternatives that would avoid or minimize potential conflicts. The panel is not convinced that creating a new de facto corridor is appropriate, especially when the de facto corridor could negatively affect lands designated for future heavy industrial development through plans such as the area structure plan.

Summary

[154] Given the panel's concerns that alternative routes were not considered sufficiently concerning the MEG lands, the panel will not permit Grand Rapids to construct or carry out any incidental activities,

including the clearing or preparation of the ROW, on the segments of the main lines between LSD 16-6-056-20W4M to the Heartland terminal at SE 28-055-21W4M at this time. Grand Rapids must conduct an analysis of at least one alternative pipeline route that avoids the MEG lands and the lands located along the north side of the CN rail line and within Strathcona County's heavy industrial policy area that Grand Rapids is prepared to construct. The analysis must include a comparison of the identified alternative route with the currently applied-for route and detailed information on any stakeholder concerns. Once the analysis is complete, Grand Rapids must submit it to the panel for review. Upon review, the panel may require further analysis, direct Grand Rapids to file an amendment application for the alternative route, or permit Grand Rapids to proceed with the currently applied-for route if it is satisfied it is the most suitable one.

[155] Finally, the panel agrees with MEG's suggestion that the planning of pipeline infrastructure needs to be coordinated. Such an approach will be particularly important given that more pipelines are almost certain to be constructed in this area to accommodate anticipated growth in oil sands production. While the need for such planning has been previously recognized and some planning was conducted by municipal and provincial authorities between 2004 and 2009, recent growth appears to be outpacing the planning that was completed. Some pipeline corridors, which are no more than preferred alignments or de facto corridors, currently contain about 12 to 14 pipelines and additional pipelines are being proposed. The NEPC and the TUC also appear to be reaching full capacity. While it makes sense to concentrate effects on land use within existing corridors, at some point, congestion and effects on landowners may become so significant that alternative alignments and corridors will need to be identified, considered, and used. It would be preferable to have additional pipeline corridors added or existing alignments/corridors expanded in a planned and thoughtful manner rather than on a pipeline-by-pipeline basis as different projects are applied for, reviewed, and approved. While this is not an issue for the panel to resolve, the panel encourages industry and the various levels of government to work together to develop a coordinated approach to proposed energy infrastructure development within the Edmonton and Heartland areas.

Segment 4

[156] Segment 4 is the part of the main lines that run from the Grand Rapids Heartland terminal to the NEPC and TUC. The panel heard from three participants located within segment 4 who identified routing or facility siting concerns: Cactus Holdings and Westways, Fort Industrial, and Guenette Farms.

Cactus Holdings and Westways

[157] Westways is an industrial maintenance and fabrication business that assembles and services pressure vessels and piping on a seven-acre parcel of land at Section 28-055-21W4M (the Cactus lands). Cactus Holdings is a related company that owns the lands and rents them to Westways. The Cactus lands are south of and immediately adjacent to Grand Rapids' proposed Heartland terminal. The proposed
Heartland terminal would be located immediately east of the previously approved TC Terminals project, operated by TC Terminals GP Ltd., a wholly owned subsidiary of TransCanada.

[158] Cactus Holdings and Westways believed that the project, as it affects them, should not be approved because the dangers presented by the Heartland terminal are incompatible with its daily business activities (e.g., welding, metal cutting). Cactus Holdings and Westways expressed concerns that the Heartland terminal presented unacceptable risks, such as fire and explosion, occupational health and safety concerns (e.g., exposure to fumes and emergency evacuation), insurance and liability issues, and worksite access problems, and customer concerns arising from the potential for a disruption in its delivery schedule. Cactus Holdings and Westways further indicated that it would be effectively landlocked and would not be able to expand its business. If a major event at the Heartland terminal were to happen, it noted that Westways could, quite possibly, be put out of business. Westways further advised that it was exploring the possibility of relocating its operations to a new site.

[159] Grand Rapids argued that the AER's spacing requirements for equipment under AER *Directive 055: Storage Requirements for the Upstream Petroleum Industry* are sufficient to mitigate and prevent safety risks from tank vapours. Grand Rapids also stated that it would develop an emergency response plan (ERP) and consult with Westways during its development.

[160] In the panel's view, the equipment spacing requirements in *Directive 055* are sufficient to mitigate Westways' concerns about fire and explosion hazards during routine terminal operations. With respect to hazards from spills and other operational upsets, the panel requires that Grand Rapids consult with Cactus Holdings and Westways during the development of its ERP to ensure that the plan adequately addresses its concerns about emergency response procedures. The panel also expects that Grand Rapids will ensure ongoing communication with Cactus Holdings and Westways so that it can ensure its emergency response procedures take into account the presence of the Heartland terminal.

[161] The panel notes that Cactus Holdings and Westways' statement of concern included concerns about the loss of lands because of Grand Rapids' pipeline route and Cactus Holdings and Westways' inability to replace those lands. Grand Rapids argued that the loss of land was for a potential future county road realignment project that was unrelated to Grand Rapids' main lines. The panel agrees with Grand Rapids on this point and notes that this concern was not raised at the hearing.

Fort Industrial

[162] Fort Industrial is a land development company that owns two quarter sections (the west half of Section 1-055-22W4M) adjacent to Highway 15 in Fort Saskatchewan (the FIE lands). The FIE lands would be directly affected by Grand Rapids' proposed route as the proposed route runs through the FIE lands diagonally from northeast to southwest (figure 3).

[163] R. Horton testified on behalf of Fort Industrial that the company is in favour of pipelines. Fort Industrial has allowed three pipelines to be routed across its lands over the past three years alone, with a total of ten pipelines crossing its lands at present. This has caused Fort Industrial to lose about 28 acres (11.3 hectares) of land that would otherwise have been developed for about fifteen businesses.

[164] According to Mr. Horton, Grand Rapids' pipelines would require an additional 5.68 acres (2.3 hectares) of FIE lands. This would likely mean losing two more potential businesses and would shrink the land base over which it must spread its development costs. Given the number of pipelines currently crossing the FIE lands, Fort Industrial stated that it believes it has reached its limit in terms of the number of pipelines it should be asked to accommodate. Given the impacts, it stated that Grand Rapids' proposed route (route A) is an inferior route to the alternative route evaluated by Grand Rapids (route B) (figure 3), which crosses farmland. Unlike farmland, which can continue to be farmed after a pipeline is installed, industrial land ends up essentially sterilized once it is taken up by a pipeline ROW as it is not possible to build within such an ROW.

[165] Fort Industrial also relied on the testimony of R. Berrien of Berrien Associates Ltd., an expert on route planning. Mr. Berrien authored a report on the route for a part of Grand Rapids' segment 4. He testified that the criteria Grand Rapids used to select its proposed route did not include important factors such as the avoidance of urban areas and residences. Mr. Berrien gave his own set of criteria together with a quantitative comparison of Grand Rapids' routes A and B, which concluded that route B was the superior route.

[166] S. Clark, land manager of capital projects with TransCanada, testified on behalf of Grand Rapids about the specific considerations that resulted in the adoption of route A. Mr. Clark submitted that route B would be 3 km longer than route A and would not be as closely aligned with Grand Rapids' proposed control points. Therefore, it would cause greater disturbance and increase costs. Route A would also follow the route used by the most recent pipelines constructed in the area and would be more closely aligned with Strathcona County's preferred pipeline corridor. In addition, Mr. Clark stated that the FIE lands are currently used for agricultural purposes and are undeveloped and unserviced. Grand Rapids noted that the FIE lands fall within the *Josephburg Road North Industrial Area Structure Plan* (ASP), which expressly contemplates a pipeline corridor along route A with no maximum width specified for the corridor.

[167] B. Romanesky, a planning expert with Romanesky Urban Planning and Management Ltd., also testified on behalf of Grand Rapids. Mr. Romanesky's evidence was that no short- or medium-term demand for developing the FIE lands exists. He noted that the presence of the pipeline corridor and Grand Rapids main lines would not prevent future development of the FIE lands, acknowledging that it would, of course, not be possible to construct buildings on top of the pipeline ROWs.

[168] During the hearing, there was considerable discussion about the current zoning of the FIE lands, when and if development would occur, and the effect Grand Rapids' proposed pipelines would have on development plans. The panel is not satisfied with Grand Rapids' assessment of both routes A and B. The panel notes that the onus is on Grand Rapids to demonstrate that route A is the superior route, especially given the various competing factors when compared to other potential routes. In the panel's view, Grand Rapids has failed to do so for the part of segment 4 that affects the FIE lands. Grand Rapids acknowledged that the avoidance of urban areas was not part of its routing criteria. It asserted that the pipeline route would only cross lands currently used for agriculture, even though the proposed route would cross lands within the city of Fort Saskatchewan that are zoned to allow for future industrial development. The fact that the ASP contemplates the potential for additional pipelines does not exempt Grand Rapids from a thorough weighing of alternative routes.

[169] The FIE lands are currently zoned as "industrial reserve." Lands zoned as such either will or could be developed in the future. This is different from lands zoned as agricultural, which have little potential to be developed in the foreseeable future. In light of the long projected lifespan of the Grand Rapids project, the panel finds that it is somewhat short sighted for Grand Rapids to rely on current land use and projected short- or even medium-term demand for development land to suggest that the Grand Rapids project will have little effect on Fort Industrial's proposed development plans. It is also not sufficient to rely mainly on the fact that route A is the shortest route between two points to justify the proposed route. The panel considers it important to avoid urban and industrial areas where possible and where an alternative exists in order to reduce impacts on landowners and future development. There must be compelling reasons to justify doing otherwise.

[170] Furthermore, the panel notes that Grand Rapids did not submit a quantitative route comparison of routes A and B as it did for the east corridor with respect to MEG in segment 3. The panel agrees with Mr. Berrien that Grand Rapids not only failed to adequately consider relevant criteria, such as the avoidance of urban areas, but also failed to provide an in-depth comparison of the two routes it identified.

[171] The panel acknowledges that Grand Rapids proposed route follows one of Strathcona County's preferred pipeline corridors. However, as noted before, these are not formal corridors as they do not have defined boundaries and the lands within the corridors have not been acquired by the government. They are really just preferred alignments or informal de facto corridors where landowners often bear the burden of a continuously increasing number of pipelines along the alignment.

[172] Given the panel's concerns that Grand Rapids consideration of alternative routes for the FIE lands was insufficient, the panel will not permit Grand Rapids to construct or carry out any incidental activities, including the clearing or preparation of the ROW, for the segments of the main lines between NE 7-055-21W4M and SE 6-054-22W4M at this time. Grand Rapids must conduct an analysis on at least one alternative pipeline route that avoids the FIE lands and the lands within the city of Fort Saskatchewan that Grand Rapids is prepared to construct. The analysis must include a comparison of the identified

alternative route with the currently applied-for route and detailed information on any stakeholder concerns. Once the analysis is complete, Grand Rapids must submit it to the panel for review. Upon review, the panel may require further analysis, direct Grand Rapids to file an amendment application for the alternative route, or permit Grand Rapids to proceed with the currently applied-for route if it is satisfied that it is the most suitable route.

Guenette Farms

[173] Guenette Farms is a family farming operation that owns four quarter sections that are near the northeast boundaries of the city of Fort Saskatchewan and would be affected by Grand Rapids' proposed route: the south half of Section 34-054-22W4M, NW 27-054-22W4M, and NE 28-054-22W4M (the Guenette lands). The Guenette lands are zoned as "agricultural general."

[174] D. Guenette, a principal of Guenette Farms, testified that Guenette Farms supports Grand Rapids' proposed pipelines and believes that it should be approved. However, Guenette Farms asked the panel to deny approving the part of the route in segment 4 (route A) that would run diagonally and to the northeast through the Guenette lands along the boundary of the city of Fort Saskatchewan (figure 3).

[175] Mr. Guenette advised that he was previously employed in pipeline construction and has previously agreed to the installation of about nine or ten pipelines on the Guenette lands. However, he indicated that he is no longer willing to sacrifice the value of his lands for the sake of additional pipelines. Thirteen pipelines are already on the one quarter section of the Guenette lands (NE 28-054-22W4M). In his words, "he has done his share" and it's time for pipeline operators to look somewhere else to route their pipelines. Guenette Farms acquired the Guenette lands because of their location near Fort Saskatchewan, anticipating that these lands could eventually be developed or sold for residential or commercial use when Fort Saskatchewan expands. Mr. Guenette suggested that Grand Rapids should adopt the alternative route it identified as route B (figure 3).

[176] Mr. Guenette also objected to Grand Rapids' proposed two-year schedule to construct the pipelines. The ROW would have to be left open for at least 16 months, which would greatly interfere with farming operations and would present unacceptable water management, soil erosion, and weed control issues. Given the size of his equipment, Mr. Guenette submitted that he would not be able to access parts of his fields for farming or for controlling weeds while the pipelines are being constructed.

[177] Mr. Berrien's evidence on routing was given on behalf of both Guenette Farms and Fort Industrial and discussed previously.

[178] Grand Rapids' testimony and argument on routing was essentially the same in respect of Guenette Farms as it was concerning Fort Industrial. However, because of the location of the Guenette lands and the fact they are zoned as agricultural land, Grand Rapids submitted additional evidence. This additional evidence was on planning policies and the process by which use of the Guenette lands could be re-

designated. Mr. Romanesky testified on behalf of Grand Rapids that nothing suggests the possibility of any near- or medium-term development on the Guenette lands. Mr. Romanesky further advised that no annexation by Fort Saskatchewan of additional land is anticipated in the next twenty years. This contradicts Mr. Guenette's evidence in which it was noted that the mayor of Fort Saskatchewan had publicly stated that the current land reserve availability in the city of Fort Saskatchewan is five to seven years.

[179] In light of the panel's decision above on Grand Rapids' routing analysis of the FIE lands, the panel also finds that Grand Rapids has failed to demonstrate that route A is the superior route in respect of that portion of segment 4 as it affects the Guenette lands. The panel expects applicants to conduct a thorough quantitative and qualitative comparison of route options and submit it to the AER when an applicant seeks approval of a given route over any alternatives. That was not done here. Indeed, what was most glaring was the fact that quantitative comparisons were only selectively provided for other portions but not for this particular portion of the proposed route.

[180] Given the panel's concerns that Grand Rapids' consideration of alternative routes for the Guenette lands is insufficient, the panel will not permit Grand Rapids to construct or carry out any incidental activities, including clearing or preparation of the ROW, for the segments of the main lines between NE 7-055-21W4M and SE 6-054-22W4M at this time. Grand Rapids must conduct an analysis of at least one alternative pipeline route that would avoid the Guenette lands and that Grand Rapids would be prepared to construct. The analysis must include a comparison of the alternative route identified with the route Grand Rapids has currently applied for and detailed information on any stakeholder concerns. Once the analysis is complete, Grand Rapids must submit it to the panel for review. Upon review, the panel may require further analysis, direct Grand Rapids to file an amendment application for the alternative route, or permit Grand Rapids to proceed with the currently applied-for route should the panel be satisfied that it is the most suitable route.

The NEPC and TUC

[181] Segment 5 is the part of the main lines that would be within or adjacent to the NEPC and TUC. The TUC forms a ring around the current residential area of the city of Edmonton. The NEPC runs from an area east of Highway 21 and north of Highway 16 to the southwest and joins the TUC. The TUC is a multiuse corridor catering to pipelines, roads, and other utilities while the NEPC is designated for pipelines. The Province of Alberta administers both the TUC and the NEPC and owns all of the land in the TUC, but doesn't own all of the land in the NEPC.

[182] The panel heard from two interveners located within segment 5 who raised routing or facility siting concerns: the Pentelechuks and A. Komant.

The Pentelechuks

[183] The Pentelechuks own the following lands adjacent to the NEPC on which they operate a certified seed potato farming operation: the west half of SE 35-053-23W4M, SW 35-053-23W4M, NW 26-053-23W4M, and SE 27-053-23W4M (the Pentelechuk lands).

[184] Grand Rapids proposed routing its main lines on parts of the Pentelechuk lands. It would begin from the north and cross the west half of SE 35-053-23W4M from east to west (figure 4). A 15 m permanent ROW and a temporary working space of about 50-60 m would be required across the entire parcel near the southern end of the lands. The proposed route would parallel and be located partially within the existing NEPC on the north side of the corridor. However, part of the permanent ROW and all of the temporary working space would be located outside of the NEPC, which, in this area, already contains about 13 or 14 pipelines. While the NEPC has been surveyed on the west half of SE 35-053-23W4M, the lands were never acquired from the Pentelechuks. The proposed route would then turn south where it would affect the southeast corner of the SW 35-053-23W4M. While no permanent ROW was proposed for SW 35-053-23W4M, about 50-70 m of temporary workspace would be required—all of which would be located outside of the NEPC. After turning south, the proposed route would follow the west side of the NEPC along the full length of the eastern boundary of NW 26-053-23W4M. The proposed route would then turn west and follow the north side of the NEPC along the southern boundary of NW 26-053-23W4M. A permanent ROW would not be required on NW 26-053-23W4M as the pipelines would be located on adjacent lands. However, about 50–60 m of temporary workspace would be required along the east boundary and a portion of the south boundary of this parcel. The proposed route would then leave the Pentelechuk lands for a short distance—crossing Mr. Komant's lands—before it would cross SE 27-053-23W4M from east to west. A 15 m permanent ROW and about 50-70 m of temporary working space would be required on SE 27-053-23W4M, of which the majority would be located outside of the NEPC. More temporary workspace would also be required on SE 27-053-23W4M to accommodate a directional drill under the NEPC and 137 Avenue which is discussed further below.

[185] The Pentelechuks oppose the construction and operation of the main lines on its lands because it would damage the Pentelechuks' seed potato business. It would disturb the topsoil, affect compaction of soil, interfere with crop rotation, and possibly introduce pathogens. The Pentelechuks also raised concerns about affecting a wetland located on the northwest quarter of Section 26. The Pentelechuks proposed three alternatives to Grand Rapids' proposed route (figure 4). The first choice (choice 1) would route the pipelines completely away from all of the Pentelechuk lands. The second and third choices (choices 2 and 3) would divert the main lines away from some of the Pentelechuk lands to reduce the need for temporary workspace on some of the Pentelechuk lands.

[186] Choice 2 would route the main lines on the opposite side of the NEPC from what Grand Rapids has proposed. This route would eliminate the need for temporary workspace on SW 35-053-23W4M and NW 26-053-23W4M. However, there would still be a permanent ROW and workspace required on SW 35-053-23W4M and SE 27-053-23W4M.

[187] Choice 3 would follow a similar route as choice 2. It would start in the north but would cross the NEPC from east to west at NW 26-053-23W4M. It would then remain on the north and west side of the NEPC as it runs south. Choice 3 would eliminate the need for temporary workspace on SW 35-053-23W4M and reduce the amount of temporary workspace required on NW 26-053-23W4M.

[188] At the hearing, D. Pentelechuk provided evidence on behalf of the Pentelechuks. He indicated that SW 35-053-23W4M and NW 26-053-23W4M currently have no pipeline ROWs and that their desire was to avoid encumbrances on these lands.

[189] Grand Rapids stated that it had previously considered an alternative route to the east and south of the NEPC that would have reduced the need for temporary workspace on the Pentelechuk lands. However, the route was not acceptable to two adjacent landowners. Grand Rapids submitted that its proposed route is appropriate as it would be routed across the Pentelechuk lands to use the NEPC to the extent that space remains. Otherwise, it would be immediately adjacent to existing pipeline corridors that cross the Pentelechuk lands, with the exception of the part of the route in SE 27-053-23W4M, which would deviate from existing pipeline alignments when the route turns south. This deviation would be required to avoid an environmental reserve area and any technical issues that would arise from the proposed horizontal directional drilled crossing of the existing pipeline corridor at 137 Avenue.

[190] Mr. Pentelechuk expressed concern that Grand Rapids had not seriously considered their proposed alternatives. He was also concerned he had received conflicting information from Grand Rapids on its ability to construct these alternatives. Mr. Pentelechuk also indicated that he had had a discussion with the adjacent landowner to the east of his property and that this landowner had indicated to him that he was not opposed to the pipelines being on his lands.

[191] It is apparent to the panel that the NEPC is nearing its full capacity. Consequently, the approval of additional pipelines in this area will likely see increasing opposition from landowners in the area as new ROWs and temporary workspace are proposed outside of the defined NEPC corridor. The choices available to Grand Rapids and the Pentelechuks highlight the importance and need for integrated planning in this area going forward. The panel notes that Grand Rapids' proposed route follows the NEPC and seeks to make use of existing room in the NEPC to the extent possible. The panel also observes that two additional crossings of the corridor would result from the Pentelechuks' choices, both of which would require additional temporary workspace. The additional temporary workspace required would increase disturbance. While wetlands are on either side of the north–south segment of the NEPC along the boundary of NW 26-053-23W4M, they appear to be more laterally extensive on the east side of the NEPC

where the Pentelechuks' choice 2 and choice 3 are proposed. Some potential constructability and slope issues would arise under choice 2 and choice 3 along the south side of the NEPC, which is on Mr. Komant's lands.

[192] Given the above, the panel finds Grand Rapids proposed routing through the Pentelechuk lands to be the most appropriate option given the apparent constructability issues with the Pentelechuks' proposed alternatives. However, the panel is concerned with Grand Rapids' work plan for constructing the pipelines and Grand Rapids' poor communication with this landowner. During the hearing, Mr. Pentelechuk outlined the Pentelechuks' concerns about the proposed construction methods to be used for the project and their potential to adversely affect their seed potato farming operation. Mr. Pentelechuk submitted that seed potatoes are a high-value crop subject to stringent quality control requirements to maintain certification. He described the serious effects the introduction of pathogens, such as the potato cyst nematode, bacterial ring rot, and club root, would have on their ability to maintain certification for their operation and their concerns about the adequacy of the equipment cleaning measures proposed by Grand Rapids. Mr. Pentelechuk also described their experience with previous pipeline projects, reporting that in their experience, the productivity of the lands never fully returns. They attributed this to compaction and the fact that potatoes are a root crop.

[193] Grand Rapids submitted that the mitigation measures proposed adequately addressed the Pentelechuks' concerns regarding compaction and the introduction of pathogens and that it had gone the extra step of developing a customized construction work plan to address them. Mr. Pentelechuk responded by noting that the plan wasn't customized but was merely a compilation of existing standard mitigation measures, many of which, in his opinion, were inadequate. Mr. Pentelechuk also noted that the construction work plan had not been created until quite recently, in the period immediately leading up to the hearing.

[194] The panel notes that the Pentelechuks indicated that if temporary workspace was necessary on the Pentelechuk lands, they would prefer that soil disturbance be minimized, possibly by not stripping the topsoil and working on top of it. He also indicated that they preferred that construction equipment from other sites not be used on their lands. However, if the project were to be approved across their lands, he stated that Grand Rapids would need to use appropriate equipment cleaning procedures. The panel agrees with the Pentelechuks that these are important issues that need to be addressed. The panel finds that it is possible to mitigate the potential effects the Pentelechuks have described with careful planning and control. Therefore, the panel requires that Grand Rapids consult with the Pentelechuk lands. In addition to construction methods and schedule, the plan must specifically address equipment cleaning measures and actions to minimize topsoil disturbance. To assist the parties in reaching an agreement on the terms of the construction work plan, they may request alternative dispute resolution through the AER. The panel requires that Grand Rapids submit the final construction and reclamation plan that addresses

the Pentelechuks' concerns to the AER at least 14 days prior to construction on their lands. If Grand Rapids is unable to reach a mutually agreed to plan with the Pentelechuks, it must submit a summary of its efforts to do so, and all proposed plans it has presented to the Pentelechuks to address their concerns. Upon review, the panel may require that further work occurs prior to commencing construction on the Pentelechuk lands.

Mr. Komant

[195] A. Komant owns SW 26-053-23W4M (the Komant lands). Mr. Komant was not opposed to the proposed routing of the main lines. However, he asked the panel to not approve a valve site and associated access road on his property because they would affect the future development of his land.

[196] Grand Rapids proposes installing isolation valves on both sides of the crossing of Oldman Creek, which flows across the Komant lands and drains into the North Saskatchewan River. The proposed valve site and access road to which Mr. Komant objects would be on the south side of Oldman Creek. Mr. Komant's position was that applications for the access road and the valve site are not currently before the AER.

[197] While Grand Rapids has applied-for pipeline installation leases for valves and some licences of occupation for access roads on Crown land, it did not include a valve site or access road plans for the Komant lands in its applications. Grand Rapids submitted that it is in the process of finalizing precise valve locations. Nevertheless, Grand Rapids did submit two preliminary surveys showing the proposed location of the valve site and access road on the Komant lands in its reply submission dated July 4, 2014. Grand Rapids also testified that it located the valve site at a safe distance from the top of the ravine to minimize any effects on Mr. Komant's farming operation—a distance that would be as close to that ravine as was practical, at the extreme edge of Mr. Komant's farmable land.

[198] Furthermore, Grand Rapids testified that it would be a responsible practice to have isolation valves on both sides of that crossing. In its closing argument, Grand Rapids indicated that it could manage the proposed valve site on the Komant lands without an access road.

[199] The panel notes that the AER does not require an application or approval for a valve site or access road to a pipeline valve site on privately owned land. The panel finds that Grand Rapids' proposal to install isolation valves on both sides of the Oldman Creek crossing is not only appropriate but necessary given Oldman Creek's proximity to and drainage into the North Saskatchewan River.

[200] If the main lines are to cross the Komant lands, they would need adequate watercourse protection (i.e., isolation valves). What remains unclear to the panel is whether the proposed isolation valves have to be located on the Komant lands. Grand Rapids originally proposed locating the valve site and access road on lands adjacent to the Komant lands in SE 27-053-23W4M.

[201] Grand Rapids advised that it continues to engage and consult landowners on the acquisition of valve site locations. It is prepared to discuss adjustments to location and access to reasonably accommodate landowner preferences. Grand Rapids also indicated that it is willing to discuss alternatives with Mr. Komant. The panel urges Grand Rapids to further consult with Mr. Komant, and neighbouring landowners if necessary, to arrive at a mutually satisfactory location for the valve site on the south side of the Oldman Creek crossing and any necessary access road.

Air Emissions

[202] The panel notes that the project would have few sources of emissions. Grand Rapids confirmed that all of the pumps at the pump stations and terminals would be electrically powered and would, therefore, not be a source of on-site emissions. The most significant source of emissions would be the storage tanks at the terminals. With respect to intermittent sources of emissions, each pump station would have two 100 kW emergency diesel generators for emergency power so that they could be isolated and shut down safely in the event of a major power failure. Pipeline pigging and other maintenance operations may also be sources of intermittent fugitive emissions during operations.

[203] Grand Rapids submitted refined modelling assessments for each terminal. It used AERMOD and followed the 2009 *Air Quality Model Guideline (AQMG)* for the assessments. For the storage tanks, it considered the following six substances: benzene, toluene, ethylbenzene, xylenes, H₂S, and mercaptans (expressed as methyl mercaptans). The assessments found that the predicted ground-level concentrations for all six substances for all terminals were below the applicable *Alberta Ambient Air Quality Objectives* (*AAAQO*) or the *Ontario Ambient Air Quality Criteria* (*AAQC*).

[204] The panel notes that Grand Rapids assumed that each storage tank would have twelve turnovers per year for the modelling assessments. Grand Rapids acknowledged that air emissions from storage tanks might vary with changes in their throughput. The panel finds that while the air modelling assessments are satisfactory for the review of the applications, the panel encourages Grand Rapids to review and, where necessary, to update the assessments to ensure that they accurately reflect actual operating conditions and to ensure ongoing compliance of the facilities with the *AAAQO*.

[205] The panel notes that Grand Rapids did not determine any ambient baseline concentration for methyl mercaptan. However, Grand Rapids argued that it did not establish any baseline concentrations because no ambient monitoring standards for mercaptans in Alberta exist, nor is the addition of a baseline value for mercaptans a specific regulatory requirement. Despite this, the panel finds that representative baseline values can still be extracted from literature, as can values from historical monitoring and representative monitoring from other areas.

[206] The panel is also aware of the *AQMG*, which states that when conducting a screening or refined air modelling assessment, the baseline value for the same substance must be added to the predicted value

before a comparison to the *AAAQO* is made. It also states that if an *AAAQO* for a substance does not specify a value, the lesser of Ontario point-of-impingement or Texas Commission of Environmental Quality's effects screening levels concentrations should be used. If neither Ontario nor Texas has a value for the substance of interest, a risk assessment should be conducted.

[207] The *AQMG* clearly implies that a baseline value needs to be determined for substances that are modelled, even if an *AAAQO* does not exist for it. However, the panel notes that Grand Rapids' air assessment indicated that each terminal's maximum points of impingement for mercaptans are on the respective terminal property boundaries. As substances move away from their source, they disperse. Therefore, the panel does not expect that the *AAQC* for mercaptans would be exceeded beyond the terminal property boundary. The *AAQC* are odour-based criteria; as no exceedances are predicted at and beyond the property boundary, it is reasonable to assume that off-site mercaptan odours are unlikely to occur.

[208] To reduce emissions of volatile organic compounds, Grand Rapids stated that the roofs of the storage tanks would have mechanical shoe seal and rim-mounted secondary seal systems. Blended crude bitumen storage tanks would have external floating roofs and diluent storage tanks would have internal floating roofs. Each of its tanks would conform to the 1995 *Environmental Guidelines for Controlling Emissions of Volatile Organic Compounds from Aboveground Storage Tanks* from the Canadian Council of Ministers of the Environment (CCME), as amended. The guidelines contain design specifications and inspection and record keeping requirements for controlling emissions of volatile organic compounds from to include vapour recovery units for the storage tanks, noting that one was not required to meet the CCME requirements.

[209] Given the above, the panel finds that the project will have few sources of emissions and that the project's design and mitigation measures meet existing regulatory requirements for air emissions.

Noise Impacts

[210] Grand Rapids submitted noise impact assessments for all three terminals in accordance with AER *Directive 038: Noise Control.* Grand Rapids stated that cumulative sound levels from each terminal would comply with the sound levels permitted under the directive and that the potential for low frequency noise would be low.

[211] The panel notes that the project will have few sources of continuous noise. It also finds that both the project's use of electric drive pumps at the terminals and its compliance with *Directive 038* requirements will help it mitigate potential noise from the project.

Watercourse Crossings

[212] The proposed pipeline route would start in the Athabasca River Basin in northeast Alberta and end in the North Saskatchewan River Basin in central Alberta.

[213] Within the Athabasca River Basin, the proposed pipeline route would cross two Athabasca River sub-basins (i.e., the House River and La Biche River sub-basins); the Athabasca and Livock Rivers; the Buffalo, Loon, and Boivin Creeks; and several unnamed tributaries within the Athabasca River Basin. The Livock River and Buffalo, Loon, and Boivin Creeks drain directly into the Athabasca River. Within the House River sub-basin, the proposed pipeline route would cross the House River at two different locations, as well as Dropoff Creek and several unnamed tributaries to the House River, Dropoff Creek, and Crow Lake. Within the La Biche River sub-basin, the proposed pipeline route would cross the La Biche and Wandering Rivers and unnamed tributaries to Pine Creek, Flat Lake, and Flat Creek. The Wandering River flows southwest through Lyle Lake and into the La Biche River. Flat Creek flows through Flat Lake and drains directly into Pine Creek, which is a direct tributary to the La Biche River.

[214] Within the North Saskatchewan River Basin, the proposed pipeline route would cross the North Saskatchewan River and Namepi, Beaverhill, Astotin, Ross, Pointe-aux-Pins, and Oldman Creeks, as well as several unnamed tributaries to the North Saskatchewan River and Beaverhill Creek.

[215] Several species of sportfish, coarse fish, and small-bodied fish are present in these systems. The area in which the pipelines have been proposed is also significant to fish with special designations, including

- lake sturgeon (threatened species—Alberta's Endangered Species Conservation Committee),
- arctic grayling (species of special concern-Alberta's Endangered Species Conservation Committee),
- sauger (sensitive—General Status of Alberta Wild Species),
- northern redbelly dace (sensitive—General Status of Alberta Wild Species),
- spoonhead sculpin (may be at risk—General Status of Alberta Wild Species),
- pearl dace, finescale dace, brassy minnow, quillback, silver redhorse, and red shiner (all undetermined—General Status of Alberta Wild Species).

[216] Grand Rapids stated that all watercourse crossings would comply with provincial and federal regulatory requirements, including Alberta's *Code of Practice for Pipelines and Telecommunication Lines Crossing a Water body*, one of the codes referred to in the *Water Act*, and the fisheries protection provisions of Canada's *Fisheries Act* and its supporting *Fisheries Protection Policy*.

[217] Grand Rapids lists the objectives of its mitigation measures for watercourse crossings in the EPPs for the white and green areas. These include avoiding or reducing adverse impacts, maintaining habitat

quality at crossing locations, protecting riparian areas in proximity to watercourse crossings, and maintaining the ecosystem function of riparian areas.

The proposed mitigation measures for watercourse crossings and protection of aquatic resources [218] are outlined in the EPPs for the white and green areas. Mitigation measures proposed by Grand Rapids for the project include: complying with applicable regulatory requirements and codes of practice; complying with restricted activity periods unless the watercourse is dry or frozen to bottom, trenchless methods are employed, or consent of regulatory authority is obtained; using setbacks and minimizing clearing and narrowing up the ROW in riparian zones; minimizing grading of the banks of watercourse crossings; employing sediment and erosion control measures; ensuring that vehicle and equipment crossings comply with the Code of Practice for Watercourse Crossing and relevant Fisheries and Oceans Canada (DFO) guidance; minimizing the duration of in-stream activities; completing isolated and dry open cut crossings in accordance with the DFO's Measures to Avoid Serious Harm to Fish Habitat and best practices described in the DFO's former Isolated or Dry Open Cut Stream Crossings Operational Statement; implementing water quality monitoring where warranted; conducting fish salvage for isolated cuts; reestablishing surface drainage patterns; using roll backs to mitigate against erosion; reclaiming riparian areas; and conducting long-term monitoring to ensure mitigation and reclamation measures are performing as expected.

[219] Grand Rapids submitted that the mitigation methods outlined in the EPPs for the white area and green area are industry standard measures that have proven to be effective and that these measures, combined with monitoring of the ROW during construction, would be sufficient to mitigate erosion and sedimentation of watercourses.

[220] Grand Rapids used a combination of open-water assessments and a search of historical information from the ESRD's Fisheries and Wildlife Management Information System (FWMIS) to help identify potential fish species at crossing locations, to classify the watercourses in accordance with the *Code of Practice for Pipelines and Telecommunication Lines Crossing a Water Body* and to determine the crossing methods and mitigation measures. Open-water assessments were completed by qualified aquatic environment specialists in September 2012 and additional assessments were completed in 2013. Grand Rapids submitted that all major watercourses have been inspected and assessed and that it would assess all watercourses in accordance with the requirements of the *Code of Practice for Pipelines and Telecommunication Lines Crossing a Water Body* before constructing the crossings. Grand Rapids reported that additional assessments were planned for the spring of 2014 for a limited number of watercourses where landowner consent was previously not obtained or where rerouting of the pipelines had occurred.

[221] Grand Rapids identified about 120 watercourse crossings along the proposed project route, of which 64 were indicated by Grand Rapids to be non-fish-bearing watercourses. In the white area, Grand Rapids identified 23 watercourse crossings that fall under the *Code of Practice for Pipelines and*

Telecommunication Lines Crossing a Water Body and the *Code of Practice for Watercourse Crossings* with defined beds and banks, and 3 fish-bearing drainages. The EPP for the green area identified 26 watercourse crossings with defined beds and banks and 6 fish-bearing drainages. No critical fish habitat protection areas or class A or B watercourses would be crossed. Grand Rapids confirmed that, pursuant to the *Code of Practice for Pipelines and Telecommunication Lines Crossing a Water Body*, a notice would be submitted to the AER at least 14 days prior to construction activity at these watercourses.

[222] Grand Rapids is proposing seven trenchless crossings using horizontal directional drilling: the Athabasca River, two separate crossings of the House River, the La Biche River, the North Saskatchewan River, an unnamed tributary to the North Saskatchewan River, and one crossing of Cloverbar Creek. The trenchless method is listed as an alternative to isolated or open cut crossings for four other crossings: Buffalo Creek, an unnamed tributary to Loon Creek, Boivin Creek, and an unnamed tributary to Wandering River. Most watercourse crossings would be completed by isolated open cut if water is present in the watercourse or open cut if the watercourse is dry or frozen to the bottom. Grand Rapids submitted that the proposed watercourse crossing methods meet the requirements in the *Code of Practice for Pipelines and Telecommunication Lines Crossing a Water Body* and the DFO's fishery protection requirements.

[223] The panel notes that the proposed construction methods and timing will require two crossings of most watercourses and wetlands, one in 2014 and the other in 2015, and that reclamation of the ROW will not begin until spring of 2016. This extended timing raises concerns about bank or shore and pipeline trench erosion and resulting sedimentation of watercourses and adverse effects on aquatic resources.

[224] For watercourse crossings to be completed by the isolated open cut or open cut methods, the panel is concerned about the potential for increased disturbance caused to sensitive watercourse and riparian areas resulting from two separate entries in two consecutive years to install pipelines within a common ROW. Of concern to the panel are open cut crossings of potentially fish-bearing watercourses where in-stream disturbance will occur over both years. The panel is also concerned that isolation materials and temporary crossings will be installed twice, reclamation efforts will be delayed, and the potential for slope instability and sedimentation issues will increase.

[225] The panel accepts Grand Rapids' argument that installing both pipeline crossings at the same time will be logistically more challenging due to the need for different construction equipment to handle the different size of the pipelines. It will likely result in a larger terrestrial disturbance footprint due to the need for additional workspace to accommodate the additional equipment and pipe required for concurrent construction. The panel also recognizes that if Grand Rapids had applied for each pipeline separately rather than bundling them together into a single project, construction would likely have occurred in subsequent years, assuming all regulatory requirements had been satisfied and that the projects had been approved by the AER. While the panel recognizes the potential for additional effects to watercourses from two separate construction events, it finds that the mitigation measures proposed by Grand Rapids,

combined with the panel's condition about the development and implementation of a comprehensive ROW monitoring and response plan, should be sufficient to mitigate the effects of the two separate construction events.

[226] The panel finds that the mitigation measures proposed by Grand Rapids meet current regulatory requirements. However, the panel notes that the documents provided by Grand Rapids that set out the mitigation measures were difficult to navigate and understand. Information on the total number of crossings was not well presented and no information could be found in the applications on the 64 non-fish-bearing channels. The panel noted some discrepancies between the EPP for the green area, the C&R plan and hearing testimony on the number of watercourse crossings proposed for the project. Some of this can be explained by the fact that the version of the C&R plan provided as part of the applications was created in May 2013 and had not been updated to reflect the results of additional assessments and rerouting that has occurred since that time. While Grand Rapids did submit a letter updating the C&R plan in April 2014, an updated and current version of the complete C&R plan was not provided, making the review of materials more difficult. The panel also noted some differences between the mitigation measures proposed in the C&R plan submitted in 2013 and those proposed in the EPP for the green area submitted in July 2014. The reason for these differences was not always apparent.

[227] The panel understands that Grand Rapids has plans to conduct additional field assessments at a limited number of crossings. These assessments would occur at crossing locations where landowner access was not previously given and where route changes have occurred since the previous assessments were completed to confirm that its crossing methods are appropriate. The panel accepts Grand Rapids commitment to ensuring that all watercourses comply with the *Code of Practice for Pipelines and Telecommunication Lines Crossing a Water Body*.

[228] The panel requires that prior to construction of the project, Grand Rapids submit, to the satisfaction of the AER, an updated and current C&R plan and EPP for the green area that incorporates the results of all field assessments completed and all route changes that have occurred.

[229] The panel recognizes that the *Code of Practice for Pipelines and Telecommunication Lines Crossing a Water Body* is the regulatory authority for watercourse crossings and describes acceptable crossing methods for the various classes of watercourses. The panel also acknowledges that this particular code of practice permits isolated and open cut crossings for class C watercourses. However, this code was developed prior to a shift to a more cumulative effects approach under the *Alberta Land Stewardship Act*. Isolated open cuts, and open cuts of crossings frozen to the bottom cause disturbance to the bed and shore, the riparian area, and the valley. This disturbance can contribute to ongoing sedimentation and slope instability. Given that these would be major pipelines that would act cumulatively with other pipelines sharing the ROW and land use in the watershed, Grand Rapids should make every effort to avoid or minimize unnecessary disturbances within watercourses and their valleys, going beyond minimum industry standard mitigation practices where necessary. [230] ESRD has developed the *Integrated Standards and Guidelines* to support public land applications that follow the enhanced approval process. These standards and guidelines were developed with input from industry and provide environmental outcomes, approval standards, operating conditions, and best management practices for enhanced approval process regulated activities. The panel understands that the proposed main lines are regulated pipelines as defined in *EPEA* and are applied for under the *Public Lands Act* through the environmental field report process and that *EPEA* regulated pipelines and non-enhanced approval process regulated surface activities do not have to follow the *Integrated Standards and Guidelines*. However, the panel recognizes the importance of using best management practices and recommends using this document to guide construction practices, mitigate effects on surrounding sensitive areas, and protect wildlife habitat.

[231] Section 100.4.8 of the *Integrated Standards and Guidelines* states that large and small permanent watercourses must be bored unless geotechnical data indicates unsuitable bore conditions or watercourses are non-fish-bearing. The panel notes that trenchless methods are generally viewed as being less environmentally invasive than open cut methods.

[232] During the review of the applications, ESRD requested that Grand Rapids use trenchless methods in streams that contain arctic grayling, especially those that may provide overwintering habitat. ESRD identified six watercourses that Grand Rapids proposed crossing by isolated or open cut methods that ESRD believed have the potential to support arctic grayling. In its response to ESRD, Grand Rapids gave its rationale for its choice of crossing methods, stating that arctic grayling had not been identified at or near these crossings during the open-water assessments it had completed or in the historical information contained in the FWMIS. Grand Rapids also stated that it was unlikely for arctic grayling to be present at these crossing locations as they generally had unsuitable to poor habitat for spawning and rearing and only poor to fair overwintering habitat. The panel understands ESRD's concern that a lack of documented fish does not necessarily mean that no fish are present. The panel also acknowledges ESRD's concern about the potential impacts of the project and cumulative effects to arctic grayling. However, the panel finds that Grand Rapids has made reasonable efforts to confirm the presence of fish and that the proposed crossing methods are consistent with the fisheries information collected and the *Code of Practice for Pipelines and Telecommunication Lines Crossing a Water Body*.

[233] Notwithstanding the above, the panel recognizes that the fisheries information available may not provide a complete understanding of the species present at the proposed crossing locations. The panel also notes that Grand Rapids has not made any specific commitments in the EPPs on water quality monitoring at crossing locations, indicating that implementing water quality monitoring will be at the discretion of the pipeline environmental inspector. Given concerns about the potential effect of the project on arctic grayling, lake sturgeon, and other species of concern, the panel requires that Grand Rapids use a qualified aquatic environment specialist to assess the status of all fish-bearing watercourse crossings at the time of construction to verify that the proposed crossing method remains valid. Furthermore, the panel requires

that where watercourses are not dry or frozen to bottom at the time of construction and where flowing water occurs, the qualified aquatic environment specialist must ensure that a water quality monitoring program is implemented during construction to monitor and confirm the effectiveness of the mitigation measures employed. This requirement applies to both horizontal directional drilling and isolated open cut crossings. The panel requires that any exceedance of the ESRD's suspended sediment thresholds be reported to the AER immediately and that appropriate mitigation measures be implemented.

[234] The panel recommends that disturbance in riparian areas be minimized to the greatest extent possible. While Grand Rapids has proposed a 10 m buffer for riparian areas at watercourse crossings, section 100.4.4 of the *Integrated Standards and Guidelines* includes requirements for a 45 m setback from the top of the break for intermittent and small watercourses and a 100 m setback for large permanent watercourses for activities such as pipeline bore sites. Grand Rapids should consider increasing the size of the buffer used for riparian areas to ensure increased protection for the watercourse, particularly those that have the potential to contain sport fish or species of conservation concern. All temporary workspace, associated infrastructure, and any other related disturbances that are not part of the direct construction of the pipeline trench should be located outside the riparian buffer to the extent possible.

[235] The panel has previously identified the need for a comprehensive and robust monitoring plan for the entire ROW to confirm how Grand Rapids will monitor and respond to issues that arise along the ROW throughout construction of the project, to ensure the effectiveness of the proposed mitigation measures and to ensure that stated environmental outcomes have been met. The panel requires that the ROW monitoring and response plan include specific measures that will be taken to monitor and respond to erosion and sedimentation issues that could arise at watercourse crossing locations between periods of active construction and before final reclamation.

[236] Grand Rapids has committed to conducting a post-construction reclamation assessment that includes monitoring of watercourse crossings to monitor erosion and sediment control structures adjacent to watercourses as well as bank protection and fish habitat enhancements at watercourses. It has also committed to implementing remedial measures if these sediment control structures are not performing as designed. The panel requires Grand Rapids to develop and implement an aquatic monitoring and mitigation plan that is specific to watercourse crossings, fish, and fish habitat. The temporal scope of the plan must extend beyond the construction season to the operation of the pipeline to ensure that installation, reclamation, and habitat recovery have been adequate. The plan must outline monitoring frequency, mitigation, and proposed response timing to address any issues noted in the monitoring. The plan must be provided to the AER by February 28, 2015. The panel recommends that the plan be developed in consultation with AER staff.

[237] The panel notes that Grand Rapids proposes water use for a variety of activities, including freezedown and hydrostatic testing. The withdrawal of water from surface water bodies for construction activities and for hydrostatic testing could have negative consequences for fish depending on the source, volumes, and timing. The volume of water required for hydrostatic testing is assumed to be large, based on the size and length of the pipeline. The specific plans for the use and release of water during construction and testing of the pipeline were not found in the application materials. However, the EPPs include a commitment to follow the *Code of Practice for the Temporary Diversion of Water for Hydrostatic Testing of Pipelines* and the *Code of Practice for the Release of Hydrostatic Test Water from Hydrostatic Testing of Petroleum Liquid and Gas Pipelines*. Grand Rapids also committed to using the northeast fisheries water source hierarchy provided by ESRD in early 2013 when considering water sources for the project.

[238] The panel recommends that Grand Rapids use water from sources other than streams supporting species of special designation, unless it is clear that there are no issues with a particular stream. Grand Rapids should address this as a part of its *Water Act* applications.

Wetlands

[239] Grand Rapids conducted a survey of the proposed ROW to identify wetlands that would be crossed by the pipelines to aid in classifying the wetlands and to assist in the determining the proposed crossing methods and mitigation measures. The survey consisted of a desktop review (available/historical information, satellite imagery, and aerial photography), aerial reconnaissance, and field assessments of representative wetlands. Initial ground-based field assessments were completed in 2012. Additional field assessments were completed in 2013 to confirm and refine wetland classifications and a supplementary desktop review was completed during the winter of 2014 for portions of the route not originally assessed in 2013. Grand Rapids confirmed that the C&R plan for the white area and EPP for the green area have been updated to reflect the results from the supplementary field assessments and desktop review.

[240] The C&R plan for the white area and the EPP for the green area identify 279 wetlands of various classes that would be crossed by the proposed pipeline route, including 186 wetlands within the green area and 93 wetlands within the white area. Grand Rapids stated that much of the proposed route would be adjacent to existing linear disturbances that also traverse these wetlands. Grand Rapids proposed using isolated open cut or open cut methods to cross these wetlands and submitted that this method complies with the *Code of Practice for Pipelines and Telecommunication Lines Crossing a Water Body*.

[241] At the hearing, Grand Rapids reported that 48 of 278 wetlands had been subject to ground-based field inspections. Grand Rapids submitted that additional field assessments were not required.

[242] As for watercourses, the panel noted some inconsistencies in the numbers of wetlands reported between the EPP for the green zone, the C&R plan for the white area, and testimony at the hearing. The panel attributes this to the fact that the C&R plan filed with the applications was prepared in May 2013 and has been updated to reflect the results of additional field studies and rerouting completed since that time. In contrast, the EPP for the green area was created more recently. Therefore, the panel requires

Grand Rapids to ensure that the updated and complete versions of the C&R plan and EPP for the green area are submitted to the AER before construction begins and reflect all of the wetland assessments that have been completed for the project. Furthermore, the panel directs Grand Rapids to submit to the AER the results of any wetland assessments that have not previously been provided to the AER.

[243] The EPP and environmental field reports for the green area and the C&R plan and application for *EPEA* approval for the portion of the pipeline located in the white area identify the following mitigation measures for wetland crossings:

- constructing under frozen conditions;
- reducing grading within the boundaries of these areas;
- not using temporary workspace within the boundaries of wetlands unless required for site-specific purposes;
- conducting ground-level cutting, mulching, or mowing of vegetation instead of grubbing;
- preventing ground disturbance by using a protective layer such as frost packing, snow, ice, or matting between the wetland root or seedbed and construction equipment;
- replacing trench material as soon as possible and re-establishing preconstruction contours within the wetland to ensure drainage across the ROW; and
- installing berms, cross ditches, and/or silt fences between wetlands and disturbed areas when deemed necessary by the environmental inspector.

[244] Grand Rapids submitted that based on TransCanada's successes on past projects, its proposed mitigation and reclamation measures are effective at mitigating the effects associated with disturbances to wetlands.

[245] The panel recognizes that wetlands may provide habitat for species of special conservation concern and be more sensitive to disturbance than other terrestrial habitats. The panel acknowledges that desktop reviews and aerial reconnaissance by themselves are inadequate to completely identify the potential impacts and appropriate mitigation measures for those wetlands that did not receive field assessments. Desktop reviews are largely based on past observations and registered occurrences and, therefore, may not accurately reflect the presence or absence of these species in areas previously not investigated.

[246] Grand Rapids reported that in addition to the wetland surveys completed, amphibian surveys were conducted in May and June of 2013. Wetlands and watercourses with the potential to support breeding amphibians were searched for individuals, egg masses, and tadpoles using "present/not present" detection methods with guidance from section 2.0 "Amphibians: Non-Acoustic Survey Guideline" of ESRD's *Sensitive Species Inventory Guidelines* (2013). Additional surveys were planned for spring 2014 to

evaluate areas where access was not granted or where reroutes occurred after the timing window for amphibian surveys. Proposed mitigation for amphibians include scheduling clearing and construction activities outside the breeding period for amphibians during dry or frozen soil conditions to minimize disturbance to wetlands. Where clearing and construction are scheduled during the amphibian breeding season and within 100 m of a wetland or watercourse with the potential to support breeding amphibians, the wetland or watercourse would be searched before clearing and construction activities. If amphibians are identified, appropriate mitigation would be implemented, such as the use of silt fencing or regular sweeps of the wetland during construction, to avoid direct mortality of amphibians.

[247] The panel recognizes that open cut crossings of wetlands are currently an accepted industry practice and finds that the proposed mitigation measures satisfy current regulatory requirements. The panel is also aware that ESRD and the AER use the *Code of Practice for Pipelines and Telecommunication Lines Crossing a Water Body* process for authorizing wetland crossings but notes that this particular code was designed for watercourse crossings and its use for wetlands has been an interim process. The code does not describe preferred or required methods for crossing the various classes of wetlands.

[248] ESRD has announced plans to replace the *Wetland Management in the Settled Area of Alberta: an Interim Policy* (1993) and the *Provincial Wetland Restoration and Compensation Guide* with the new *Alberta Wetland Policy*. ESRD recently announced the implementation timeline for the new wetland policy on its website as follows:

- The new Alberta Wetland Policy will be implemented in the white area on September 1, 2014.
- From September 2014 to May 2015, ESRD will sequentially introduce a series of directives, guides, and tools to enable implementation.
- Where planning for development commences after September 2, 2014, *Water Act* applications should be prepared in accordance with directives, guides, and tools under the *Alberta Wetland Policy* as they become available.
- Where wetland field assessments are completed before or on May 31, 2015, the AER will continue to receive and assess *Water Act* applications for development in wetlands "within the primary context" of the *Wetland Management in the Settled Area of Alberta: an Interim Policy* (1993).
- Where wetland field assessments are completed on or after June 1, 2015, *Water Act* applications for development in wetlands will be evaluated in accordance with the administrative procedures under the new *Alberta Wetland Policy*.
- As of June 1, 2015, proponents will be expected to submit wetland-related *Water Act* applications in accordance with new requirements established under the *Alberta Wetland Policy*.

- The *Alberta Wetland Policy* does not apply retroactively to *Water Act* approvals issued before the policy implementation date. Any pending *Water Act* applications for which no decision has been made may be grandfathered under the *Wetland Management in the Settled Area of Alberta: an Interim Policy* (1993) if the impact of wetland development is not fundamentally changed from the original application.
- *Alberta Wetland Policy* implementation remains subject to the signing director's discretion and may vary on an individual project basis.
- Implementation of the new Alberta Wetland Policy in the green area will occur in 2016.

[249] The panel recognizes that Grand Rapids has largely completed its wetland assessments and expects to commence construction of the project in the near future if the project is approved. As a result, the project will not be subject to the requirements of the new *Alberta Wetlands Policy* within the white area or the green area. However, the panel notes that under the new policy, avoidance of impacts is the primary and preferred approach to protecting wetlands. This may require the use of trenchless pipeline crossing methods for some wetlands, particularly for wetlands containing species of special conservation concern or wetlands with high biodiversity value. The panel notes that the new *Alberta Wetland Policy* has been in draft form for several years and energy resource companies have been aware of and engaged throughout its development. It is unlikely that Grand Rapids would not have been aware of the impending policy or its implications. Given the scope and size of Grand Rapids' project and its phased construction schedule, the panel recommends that Grand Rapids consider the spirit and objectives of the new policy when updating its C&R plan for the white area and its EPP for the green area.

[250] The EPPs for the white and green areas include a commitment to monitor wetlands for hydrological function as part of a post-construction reclamation assessment and to implement remedial measures if there are indications of impeded wetland function. The panel finds that isolated and open cut crossings of wetlands require confirmation of reclamation success and therefore requires, as a condition of the C&R approval, the submission of a post-construction reclamation assessment based on the *2010 Reclamation Criteria for Wellsites and Associated Facilities* or the most recent reclamation criteria available at the time of reclamation. Further, the panel requires that monitoring of wetland hydrological function in both the white and green areas be a component of the post-construction reclamation assessment.

Wildlife and Wildlife Habitat

[251] The EPP for the green area and the C&R plan for the white area identify wildlife features, including those of special conservation concern, requiring mitigation. Included are caribou ranges, KWBZs, raptors and other birds, amphibian breeding areas, and beaver dams and ponds.

[252] Wildlife fieldwork was conducted along the proposed ROW during August and September 2012, and in January and March 2013, before Grand Rapids submitted its C&R plan. Supplemental surveys were completed during May to June 2013. During the supplemental surveys, no species listed under the *Species at Risk Act* or locally unique habitat types that would warrant special mitigation were identified along the portion of the route within the white area. Supplemental surveys were planned for the spring and summer of 2014 where landowner consent was not previously available or where rerouting occurred.

[253] In their submissions, ACFN expressed concern that the cumulative effects of widening pipeline corridors and lack of revegetation success on these corridors would adversely affect vegetation communities and the wildlife that use them.

[254] Grand Rapids stated that the mitigation and reclamation measures proposed for the project included following existing linear disturbances, sharing adjacent ROWs for temporary workspace requirements, using minimal disturbance construction methods in the green area (such as limiting stripping to the ditch area and construction on frozen ground), using natural revegetation methods, and completing a post-construction reclamation assessment based on the principle of comparison to adjacent undisturbed lands. Grand Rapids stated that these are all industry standard mitigation measures that have been proven to be successful and meet or exceed regulatory requirements. Grand Rapids submitted that collectively, the proposed mitigation measures would minimize the amount of new disturbance and ensure that the ROW would be reclaimed to equivalent capability.

[255] Grand Rapids also proposed a number of general mitigation measures for wildlife. Such measures include: not permitting workers to have dogs, not permitting firearms in project vehicles, not allowing recreational use of ATVs, not permitting personnel to hunt or fish, disposing of construction debris and other waste material daily at an approved facility, leaving gaps in windrows (grubbing piles, topsoil, grade spoil, rollback) and pipe strings at obvious drainages and wildlife trails.

[256] Grand Rapids advised that access control techniques would be implemented, where warranted, in order to limit access to the project area. Where segments of the ROW require rollback for erosion, it would ensure that ample material would be available. Trenching operations would be followed as closely as possible by pipe installation and backfilling. The amount of open trench would be minimized and the open trench would be monitored for wildlife in the trench.

[257] Grand Rapids argued that the Lower Athabasca Regional Plan (LARP), rather than the review of individual projects, was the appropriate mechanism for establishing disturbance limits and managing regional cumulative effects and that the proposed project complied with the requirements of the LARP.

[258] The panel accepts that the mitigation measures proposed by Grand Rapids are industry standard mitigation measures to minimize the amount of new disturbance and reduce impacts and also meet current regulatory requirements. The panel also accepts that the project satisfies the current requirements under

the LARP. However, the panel also recognizes the potential for cumulative effects from the construction of new pipelines and the progressive widening of common pipeline ROW alignments. While the panel agrees that regional planning under the Land-use Framework is the appropriate process for addressing the regional cumulative effects of development, including the contribution of pipelines, some key deliverables from the LARP are still under development. The Biodiversity Management Framework and the Landscape Management Plan will be the primary mechanisms under LARP to address the cumulative effects of resource development on biodiversity. However, they have not yet been announced or implemented. In the absence of the framework and any associated thresholds or disturbance limits, the panel does not have a basis upon which to assess the significance of the project's contribution to cumulative effects to wildlife or biodiversity, with the exception of woodland caribou, which are discussed in a later section.

Key Wildlife and Biodiversity Zones

[259] The project transects several KWBZs consisting of about 11.2 km in the green area (the Athabasca and House Rivers) and 4.6 km in the white area (La Biche and North Saskatchewan Rivers). These are areas previously identified as being very important wildlife habitat areas, such as winter range for ungulates, wildlife movement corridors, and areas used for hiding and thermal cover. These areas are typically major riparian areas with complex vegetation structure and regionally significant and diverse habitats. These areas do not overlap with caribou range.

[260] Applicable standards and best management practices established for the KWBZs for both the green and white areas are outlined in the *Integrated Standards and Guidelines*. Grand Rapids has committed to adopting a number of measures from the guidelines to reduce impacts within the KWBZs. These include the following measures:

- Scheduling clearing, construction, and cleanup within the KWBZ and PNT area 930006 (a habitat area protected by a Protective Notation through Public Lands Legislation) to occur outside of the January 15 to April 30 restricted activity period, unless otherwise approved by the AER.
- Working expeditiously in order to maintain a tight spread (interval between front-end and back-end work) to reduce the duration of activities within the KWBZ and the above PNT.
- Horizontal drilling of watercourse crossings within the KWBZ, specifically the La Biche, North Saskatchewan, Athabasca, and House Rivers.
- Managing public access to the area and monitoring.
- Restoring the area with minimal disturbance techniques, including preserving the root mass, where applicable, so that natural vegetation can come back through the root mass. Planting would also be considered in some situations.

• Using roll back (i.e., putting back tree material that has been cleared from the line onto the pipeline ROW) to manage human traffic and minimize erosion.

[261] Grand Rapids advised that on previous projects TransCanada had submitted a KWBZ plan with specific mitigations. The panel notes that no such plan was provided for this project. Such a plan would have provided the panel greater confidence in Grand Rapids' proposed plans for protecting the KWBZs. While Grand Rapids appears to have a general understanding of the intent of a KWBZ, it has not committed to any specific mitigation measures for these zones, except for identifying the restricted activity period for these zones. Even here it is not clear that Grand Rapids intends to observe the timing restrictions as the EPPs include the phrase "unless otherwise approved by the AER" leaving the door open to requests to waive the timing restriction. The AER requires certainty regarding the setbacks proposed by Grand Rapids from water courses and river breaks, details on management of access (such as proximity to all weather access), access to be used when not in proximity to all weather roads, how access would be managed during construction and between phases of development both during construction and operations, details of restoration, and the use of rollback.

[262] Accordingly, the panel requires that prior to construction, Grand Rapids submit to the satisfaction of the AER, a KWBZ mitigation plan and schedule that identifies specific measures to minimize disturbance and address access management, restoration, and long-term monitoring. The KWBZ mitigation plan can be a standalone document or the details can be included in the updated C&R plan for the white area and the EPP for the green area that are to be submitted to the AER prior to construction. The KWBZ mitigation plan should be developed in discussion with AER staff and should follow direction in the KWBZ section of *Integrated Standards and Guidelines*. Where it is not feasible to follow the guidance in the *Integrated Standards and Guidelines*, Grand Rapids must provide a justification as to why the guidance in the document cannot be followed.

Woodland Caribou

[263] Grand Rapids proposed pipelines would transect the ranges of several woodland caribou populations in Alberta. Grand Rapids indicated that within the green area, 131.6 km of the pipeline has been proposed within the east and west sides of the Athabasca caribou range. In this area, 89.7 per cent of the pipeline length would parallel existing linear disturbances while 10.3 per cent of the length (13.52 km) would be in undisturbed lands not adjacent to other linear development. The proposed pipelines would also transect the east side of the Athabasca caribou range for about 7.7 km in the white area.

[264] Woodland caribou are affected by pipelines in several ways, including loss and fragmentation of habitat, sensory disturbance from activity, increased disturbance and predation from humans and predators from increased access and ROW development, and pipeline activity blocking animal travel.

[265] Several documents provide direction on the management of woodland caribou in Alberta, including the *Alberta Woodland Caribou Recovery Plan* (2005), *A Woodland Caribou Policy for Alberta*

(2011), *Recovery Strategy for the Woodland Caribou*, *Boreal Population in Canada* (2012), and *Integrated Standards and Guidelines*.

[266] Woodland caribou are a high-profile species in Alberta and Canada. The *National Recovery Strategy for Woodland Caribou* has called for plans that provide for 65 per cent of the habitat in each caribou range to be greater than 500 m from most manmade disturbances, which is the standard Alberta is expected to meet. Currently, most ranges are well above this habitat disturbance threshold, with the east side of the Athabasca range at less than 30 per cent undisturbed. This means that steps should be employed to reclaim existing disturbance, minimize future disturbance, and reclaim any future disturbance as completely and as quickly as possible.

[267] From exchanges that occurred between Grand Rapids and ESRD staff during the review of the applications for the project, it appears that Grand Rapids is aware of the plight of woodland caribou populations and the pressures on caribou habitat. In a letter to ESRD in October 2013, Grand Rapids referred to the *Woodland Caribou Policy for Alberta*, the *Alberta Woodland Caribou Recovery Plan 2004/05–2013/14*, and the federal *Recovery Strategy for the Woodland Caribou Boreal Population (rangifer tarandus caribou) in Canada* and committed to developing a project-specific caribou habitat restoration plan. In the same letter, Grand Rapids stated that details of the mitigation to be provided for the project would be given in the EPP and the caribou protection plan for the project.

[268] The panel understands that Grand Rapids is still working on its caribou protection plan. However, one was previously prepared for geotechnical work completed this year. No copy of that plan or draft of the proposed new caribou protection plan was filed on the record despite ACFN expressing specific concerns about woodland caribou.

[269] In terms of mitigation measures specific to caribou, Grand Rapids identified a number of planned or possible actions it could take, including sharing existing access with other users as much as possible and using multipassenger vehicles to transport crews. Concerning the February 15 to July 15 timing restriction, an "early in/early out" strategy would be employed to reduce disturbance to caribou by initiating activity as early as possible and working to limit late winter activities. Consultation with the AER on caribou activity within the timing window would also occur. Grand Rapids also advised that minimum disturbance construction techniques would be implemented to promote rapid recovery of vegetation on the ROW. This would be done through a combination of natural recovery and accelerated reclamation. Accelerated reclamation methods may include site preparation (mounding), planting conifer seedlings, and willow and shrub live staking at riparian areas. Also, conifer limbs would be delimbed and retained on site as a potential seed source for natural regeneration.

[270] Grand Rapids also advised that locations along the construction ROW where wildlife are observed would be noted and precautions would be taken. Expectations to follow speed limits would be communicated. Welded pipe higher than 0.75 m would not remain on the ground on skids for more than

3 days. Gaps would be placed in locations such as slopes, crossings, and bends to facilitate wildlife crossings. Where warranted, techniques to control access and to reduce line of sight would be implemented. Where segments of the ROW require roll back for access management or erosion control, Grand Rapids would ensure that sufficient timber of an appropriate size is available. Vegetation control would be limited along the ROW during the operation phase to the extent feasible.

[271] While Grand Rapids made a number of statements about planned or possible actions it could take to mitigate effects to wildlife and woodland caribou, it is unclear to the panel what mitigation measures will actually be implemented and where. The panel is concerned that to date, Grand Rapids has provided very few specific details on how it will mitigate effects to woodland caribou. This is evident in Grand Rapids' lack of clarity in its application about how the caribou restricted activity period will be managed and built into its construction plan. Similarly, while Grand Rapids has highlighted that about 90 per cent of the pipeline route will be adjacent to existing disturbance, it has not taken steps to decrease the width of the permanent ROW below 35–42 m or to reduce the distance between the pipes to less than 12 m within caribou range as it has committed to do in other areas such as the NEPC and TUC.

[272] Given the above, the panel requires that Grand Rapids submit, to the satisfaction of the AER, its caribou protection plan for the project prior to construction in defined caribou range. The plan must include a site-specific construction schedule and an access management plan to minimize the effect of human activity on caribou. The plan must also clarify the specific mitigation measures it will use and where they will be used and incorporate relevant guidance from the section "Caribou Range" in the *Integrated Standards and Guidelines*. The panel recommends that Grand Rapids consult with AER staff during development of the caribou protection plan.

[273] The panel requires that Grand Rapids seek approval from the AER for any activity proposed within defined caribou ranges during the restricted activity period from February 15 to July 15.

[274] The panel recognizes Grand Rapids commitment to developing a project-specific caribou habitat restoration plan consistent with existing regulatory policies for caribou such as the *Woodland Caribou Policy for Alberta*. The panel requires that Grand Rapids submit, to the satisfaction of the AER, its caribou habitat restoration plan for disturbance that occurs within defined caribou range by February 28, 2015. The plan must identify the strategies, specific measures, and schedule that will be used for habitat restoration efforts within caribou range and demonstrate how the activities will support the objectives of Alberta's and Canada's recovery strategies and plans. The panel recommends that Grand Rapids consult with AER staff during development of the caribou habitat restoration plan.

Other Species of Special Conservation Concern

[275] The proposed pipelines transect significant habitat for many species of conservation concern, including both plants and animals.

[276] Grand Rapids searched existing databases and compiled list of plants and animals of conservation concern likely to be in the area. They also conducted inventories to identify the occurrence of these plants and animals.

[277] For wildlife and plants, Grand Rapids conducted a search of provincial databases (the FWMIS and Alberta Conservation Information Management System) for species of known conservation status within 2 km of the project. More than 40 species of wildlife, as well as ranges for a number of species, were recorded. In addition, wildlife fieldwork was conducted along the proposed pipeline route in late summer 2012, winter 2013, spring 2013, and during spring 2014. The ESRD's *Sensitive Species Inventory Guidelines* (2013) was used.

[278] Inventory results were summarized by Grand Rapids and used in the development of its plans. Most of the results were observations related to individual members of a species. A few nests, dens, and mineral licks were identified.

[279] Grand Rapids noted that there were two sharp tailed grouse leks and a peregrine falcon nest indicated through the FWMIS records. These were deemed not to be active through field investigation. It was noted that at least 60 km of the project in the white area is in bald eagle range. One stick nest was observed near the Lac La Biche River, which could be attributed to eagles. Grand Rapids advised that it would be monitored to determine occupancy. The requirement for a 1000 m setback from the nest was observed for the proposed pipeline route.

[280] For nesting birds, Grand Rapids indicated that it would work to avoid the restricted activity period with winter construction. For any proposed work within the restricted activity periods, "sweeps" of the ROW would be conducted before clearing to identify any active nests. Appropriate mitigation would be provided, such as employing a buffer or modifying the construction schedule. For sharp tailed grouse within 500 m of the pipelines and raptors within 1000 m of the pipelines, Grand Rapids advised that if active nests are discovered during the construction period, it would discuss mitigation with the AER.

[281] Grand Rapids has developed a wildlife species of concern discovery contingency plan, which it would implement if species with special conservation status are identified during construction of the project.

[282] Pipelines have the potential for both short- and long-term effects on species of special conservation concern through combinations of habitat loss and fragmentation, sensory disturbance, and direct mortality through construction activity. The panel expects Grand Rapids to take all reasonable steps to identify species likely to be present and to minimize impacts when they occur. If the construction or reclamation schedule conflicts with a species restricted activity period or if a species or habitat concern is identified, the panel expects that Grand Rapids will make every effort to resolve the issues before beginning any site disturbance.

[283] The *Integrated Standards and Guidelines* include setback requirements and restricted activity periods for sensitive wildlife species. The panel requires that Grand Rapids ensure that the setbacks and restricted activity periods in the updated and complete C&R plan for the white area and the EPP for the green area are consistent with those in the *Integrated Standards and Guidelines*. The panel also expects that Grand Rapids will make every effort to follow sensitive species setback and timing restrictions and to mitigate potential effects where disturbance activities must occur within a restricted activity period.

[284] Where disturbance activities must occur within a restricted activity period, Grand Rapids must ensure a thorough search along the ROW and within an appropriate buffer on either side of the ROW for wildlife and unique habitat features such as nests, active dens, leks, mineral licks, and amphibian breeding areas. The search must be undertaken before clearing and construction by experienced personnel using the *Sensitive Species Inventory Guidelines*. Appropriate mitigation is to be applied following direction in the *Integrated Standards and Guidelines* and the results are to be provided to the AER.

[285] Grand Rapids must have a qualified wildlife specialist available during clearing and construction activities to ensure sensitive areas are clearly marked, to deal with issues that arise, and to ensure plans and conditions are being followed as intended.

[286] The mitigation measures proposed by Grand Rapids along with the panel's conditions will be sufficient to ensure effects to species of special conservation concern are appropriately mitigated.

Spill Prevention and Emergency Response

[287] Ms. Mitchell expressed concerns about pipeline safety and integrity, stating that TransCanada has a history of pipeline leaks, spills, and explosions, and that it is not capable of operating a pipeline safely. In particular, Ms. Mitchell indicated that she was concerned about TransCanada's track record of spills and leaks associated with the recently completed Keystone pipeline and its overall operational ability to prevent spills. Ms. Mitchell raised concerns with the adequacy of operational controls and asked Grand Rapids how previous experience would help improve its pipeline safety. Since Grand Rapids is relying on TransCanada's experience for the design and operation of this project, she submitted that TransCanada's previous compliance and spill response record with the National Energy Board (NEB) is pertinent to this project. She submitted results from previous audits from the NEB where the NEB found that TransCanada's integrity management programs had been noncompliant. These noncompliances were in the areas of

- hazard identification, risk assessment, and control;
- operational control in upset or abnormal operation conditions;
- inspection, measurement, and monitoring; and
- management review.

[288] Ms. Mitchell also raised concerns about how Grand Rapids' ERP would work and how information would flow from Grand Rapids to landowners and other agencies.

[289] D. Hankinson of Cactus Holdings and Westways also raised concerns about spills and the risk of explosions and fires from industrial welding operations on the Cactus lands. Mr. Hankinson noted that Grand Rapids had not provided any information about its emergency response procedures to Cactus Holdings and Westways and that they are concerned about their own ability to ensure the safety of their employees in the event of an emergency at the neighbouring Heartland terminal.

[290] In response, Grand Rapids stated that it takes concerns about spills and leaks seriously and that it has proposed various measures to prevent incidents from happening. Grand Rapids stated that while its efforts are focused on spill prevention, it would also be preparing a corporate-level ERP that could be fully implemented to help protect people, property, and the environment in the event of a pipeline incident or release. Grand Rapids stated that TransCanada has maintained a strong safety and environmental record for more than 60 years, as demonstrated by TransCanada's low pipeline incident frequency rates and the low severity of incidents and limited volume of product released, and that it would benefit from this experience.

[291] Grand Rapids stated that its focus is on minimizing the potential for leaks anywhere along the pipelines, especially at watercourse crossings. To do this, it would use preventive measures, such as material selection and quality control, installing heavy wall pipe at watercourse and other crossings, ensuring sufficient depth of cover and construction techniques, overpressure protection design, construction inspection and welding process control, hydrostatic testing and in-line inspections, and integrity assessment programs.

[292] In addition to these prevention measures, Grand Rapids proposed the following detection and response measures. Grand Rapids proposed to follow CSA standards for leak detection in liquid hydrocarbon pipelines. Through the principles of mass balance and a real-time transient model, alarms from any suspected leak events would alert Operations Control Centre staff who could then take appropriate action to shut down and isolate the pipeline system as required. Grand Rapids indicated that its transient leak detection model would be capable of detecting a loss as low as two per cent of the throughput of the pipeline. Grand Rapids also proposed conducting periodic aerial surveillance and ground surveys to identify third-party activities near the pipelines. Grand Rapids also indicated that it would put into place a public awareness program on reporting small leaks that might not be detected by the leak detection system.

[293] Ms. Mitchell expressed concern that based on her calculations, up to 192 000 litres of product could be released over a 10-minute period at 2 per cent of the design flow volume. Ms. Mitchell also questioned how long a leak could go undetected by the operational controls if the leak was under the 2 per cent threshold. She also questioned Grand Rapids' ability to respond to a spill of this magnitude.

[294] Grand Rapids stated that TransCanada actively participates in the research and development of new leak detection techniques. Grand Rapids also stated that if a leak is suspected, operators are required to shut down the pipeline. Grand Rapids confirmed that a complete physical inspection of the area of the suspected leak is required and would be conducted to confirm that no leak or rupture had occurred before it attempted to restart the pipeline. Grand Rapids indicated that operating at full capacity, the volume travelling through the 914.0 mm line would be 99 364 litres per minute and that it would take about 4 to 5 minutes for the SCADA system to shut in the pipeline in the event of an emergency.

[295] Grand Rapids stated that the design for the main lines currently includes about 25 to 30 isolation valves. The average space between each valve ranges from 20 to 35 km. Grand Rapids further stated that its valve optimization study was about 95 per cent complete. Grand Rapids stated that it uses field-based information and feedback from other parties to refine the design up until the start of construction.

[296] With respect to Ms. Mitchell's concerns about spills on the Keystone pipeline, Grand Rapids stated that the spills were not from the pipeline but were leaks from aboveground facilities that were built with containment that prevented oil from migrating off of the site.

[297] Grand Rapids stated that each tank for the project would be contained in a dedicated secondary containment system, built with precast concrete and with a minimum volumetric capacity of 110 per cent of tank's gross shell volume. Each secondary containment system would be lined with an impervious geosynthetic membrane, with layers of sand and compacted granular material placed on top of the liner. Grand Rapids stated that the secondary containment systems would comply with *Directive 055*.

[298] Grand Rapids indicated that it would be joining the Western Canadian Spill Services Co-op before starting up the pipeline and that it would design its ERP to go above the requirements set out in *Directive 071: Emergency Preparedness and Response Requirements for the Petroleum Industry* by developing a spill response plan as a part of its ERP, even though it is not required to do so if it is a member of a spill co-op. It would also have a public awareness program to share information at specific locations along the pipeline. Grand Rapids committed to sharing its ERP with Cactus Holdings and Westways.

[299] The panel agrees with Grand Rapids that pipeline companies should focus on incident prevention, which is why the AER requires pipeline system integrity management programs. To ensure safe and reliable service, Grand Rapids is required by the AER to develop and implement a pipeline integrity management program consistent with Annex N of *CSA Z662-11* considering the various aspects of the pipeline, including its design, construction, operation, safety, and maintenance and repair.

[300] The panel notes Ms. Mitchell's and other participants' concerns with pipeline safety and the potential for spills. None of the evidence before the panel suggests that the proposed pipelines will not be operated safely or are likely to leak, nor did any of the evidence suggest that Grand Rapids would be

unable to meet the AER's regulatory requirements for spill prevention and response. While the panel notes that TransCanada had some past noncompliance issues with the integrity management program it filed with the NEB, the panel expects that Grand Rapids will apply any learnings from these audits to its integrity management program for the project to address the issues identified.

[301] The panel notes that the design of the project is appropriate for the blended crude bitumen and diluent products to be transported. The design incorporates various factors of safety, the selection of materials, and the determination of operating parameters. The panel acknowledges that the project would be designed, constructed, and operated in accordance with regulatory requirements, including those under the *Pipeline Act* and *Pipeline Rules*, and applicable industry standards, including those in *CSA Z662*. Grand Rapids has committed to using state-of-the-art materials, quality control and assurance programs, and corrosion prevention measures, including protective coatings and cathodic protection.

[302] While the panel is encouraged by Grand Rapids' commitment to prevention, a significant amount of diluted bitumen or diluent could be lost if there were to be a sudden leak or rupture given the size of the proposed pipelines and the volume of product it could transport. Such an event would be considered a high consequence event. The panel notes that Grand Rapids did not contest the calculated volumes Ms. Mitchell gave. The panel requires Grand Rapids to assess all of its pipeline water crossings to ensure that all isolation valves are appropriately located and operated in a manner that could be released in the event of an incident.

[303] The panel notes that Grand Rapids is required under *Directive 071* to submit its corporate ERP to the AER upon request. The panel requires Grand Rapids to submit this plan to the AER prior to commencing its pipeline operations. The panel also notes Grand Rapids commitment to develop a spill response plan. The spill response plan should include site-specific response measures for crossings of fish-bearing streams. The panel further requires Grand Rapids to file the site-specific spill response plan to the AER. Further, in recognition of the concerns raised by Ms. Mitchell and Cactus Holdings and Westways, the panel requires Grand Rapids to consult with and review spill response and emergency response procedures with Ms. Mitchell and Cactus Holdings and Westways and any other landowner along the ROW who expresses an interest in emergency response or spill response procedures during the preparation of its corporate emergency and spill response plans.

Potential Effects on Aboriginal Traditional Land Use

[304] The panel granted participant status to two First Nations, Bigstone Cree Nation and ACFN. Bigstone Cree Nation did not file any submissions on the hearing record and was deemed to have withdrawn before the hearing began. ACFN filed submissions before the hearing, including a number of witness statements and affidavits on individual member's use of the area in and around the project and a report prepared by Management and Solutions in Environmental Science that reviewed the applications and associated environmental information for the project. ACFN withdrew from the hearing prior to completing its cross-examination of Grand Rapids and providing its direct evidence on impacts and the adequacy of Grand Rapids proposed mitigations. As a result, the panel's information on how the project would affect aboriginal traditional land use was limited to ACFN's written submissions. These submissions were untested by Grand Rapids and the panel through oral cross-examination.

[305] In ACFN's written submissions, it advised that it was not opposed to the project. It only wanted to ensure that the project proceeded in a safe and environmentally responsible way that respected both its treaty rights and its ability to exercise them as well as the public's interest in strong economic development based on wisely managed resources and a healthy environment. ACFN raised concerns with the Government of Alberta's and Grand Rapids' adequacy of consultation. ACFN also raised concerns about the possibility of a spill or change in the Athabasca River's water level and flows that would directly affect ACFN, disturbances to wildlife, vegetation impacts, and the potential for the project to encourage further development within its traditional territory.

[306] In response, Grand Rapids noted that the Government of Alberta's Aboriginal Consultation Office (ACO) did not direct Grand Rapids to consult with ACFN. Notwithstanding the ACO's direction, Grand Rapids advised that it had engaged ACFN in discussions. Grand Rapids stated that both parties agreed to the completion of a traditional land and resource use management plan in lieu of a traditional land-use study due to concerns with the amount of time required by ACFN to prepare a traditional landuse study. In the absence of a traditional land-use study that could assist Grand Rapids in understanding effects of the project on ACFN, Grand Rapids intended to rely upon its contingency plan for traditional land-use site discovery.

[307] Grand Rapids also advised that it was not contesting that ACFN is a Treaty 8 member, that a portion of the project falls within Treaty 8 lands, and that ACFN uses the area. However, Grand Rapids did contest whether the project was on or within ACFN's traditional territory. Further, Grand Rapids submitted that although ACFN provided affidavits that included general statements that they hunt, fish, and gather in areas near the project, no specifics about traditional territory were provided. Grand Rapids did not directly respond to the issues raised by ACFN other than to state that the onus was on ACFN to prove that they would be directly and adversely affected. It also stated that ACFN had not provided evidence indicating that the effect of the project would be such that no meaningful right to hunt, fish, or gather remains within their traditional territory, nor did they give any evidence to support any of the assertions regarding treaty infringement. Grand Rapids stated in the alternative that there was no indication that the effects of the project could not be mitigated through reasonable measures.

[308] In terms of mitigating potential effects of the project on traditional land-use sites identified before or during construction, Grand Rapids prepared a traditional land-use site discovery contingency plan as part of its EPP for the green area. The plan contains mitigation measures to address potential effects on trails and travel ways, culturally modified trees, habitation sites, plant harvesting, hunting, trapping,

gathering places, and sacred areas. Grand Rapids proposed addressing these potential effects identified in the plan through detailed recording and mapping, controlling access to trails, scheduling construction during periods of least impacts, avoiding traditional land-use sites, limiting the use of chemical applications, and leaving breaks in windrows and strung pipe to allow animals to cross.

[309] Before ACFN withdrew from the hearing, ACFN's Chief Adam read a statement into the record. He advised that ACFN's relationship with the governments of Canada and Alberta has been far too onesided and that if ACFN proceeded to participate in the hearing it would be consenting to even further prejudice of their rights. Chief Adam further advised that Grand Rapids had consistently dealt with them in bad faith and that ACFN felt that the AER's regulatory process was fundamentally flawed.

[310] The panel finds that ACFN's withdrawal from the process was regrettable as participation in AER hearings greatly assists panels in understanding the concerns of First Nations and provides the opportunity for panels to address their concerns. ACFN's withdrawal precluded a full, transparent, oral presentation of their submissions and cross-examination of their evidence by Grand Rapids and the AER. Its submissions have therefore been weighted accordingly by the panel in its deliberations. Despite ACFN's withdrawal, to the extent that ACFN's concerns relate to consultation efforts by Grand Rapids, potential impacts on water, wildlife, fish, caribou and vegetation as well as the potential for future spills, these issues were considered by the panel as part of its review of the applications.

[311] The panel notes that the majority of potential effects on traditional land use will occur during construction and relate to impacts on wildlife habitat and potential area access. It is expected that the effects of construction would be relatively short term and that access to the area for traditional land use will not necessarily be precluded during this time. Further, the panel notes that Grand Rapids' plans to parallel existing linear disturbances for about 92 per cent of its route will further mitigate the effects of the project.

[312] The panel accepts the mitigation measures proposed by Grand Rapids and acknowledges the ACO's finding that the consultation with the First Nations that was required of Grand Rapids was adequate. The panel notes that the ACO had no advice on actions that may be required for the project to address potential impacts on existing rights of aboriginal people or traditional land use. In addition to Grand Rapids' proposed mitigation measures, the panel encourages Grand Rapids to continue to engage local aboriginal communities, including ACFN, to ensure that appropriate mitigation measures are put in place for the traditional land-use sites identified as being potentially affected by the project. This would ensure that parties practicing traditional land uses have reasonable access and opportunities to continue these practices in areas affected by Grand Rapids activities, particularly during construction and reclamation.

Consultation and Participant Involvement

The Crown's Duty to Consult with First Nations

[313] The Government of Alberta (through the ACO) determines whether its duty to consult with First Nations has been met. The ACO directed Grand Rapids to consult with Heart Lake First Nation, Whitefish (Goodfish) #128 First Nation, Saddle Creek First Nation, Bigstone Cree Nation, Beaver Lake Cree Nation, Fort McMurray #468 First Nation, Fort McKay First Nation, and Mikisew Cree First Nation.

[314] The ACO advised the panel during the hearing in a letter on July 17, 2014, that consultation was deemed adequate by the ACO for the eight First Nations groups it directed Grand Rapids to consult with. It also reaffirmed that consultation with ACFN was not required for the project.

Grand Rapids Consultation and Participant Involvement Program

[315] The most detailed directions on consulting with potentially impacted parties are in the AER's *Directive 056*. However, effective consultation by applicants is also required for applications made under *EPEA* and the *Public Lands Act. Directive 056* requires a proponent to develop and conduct an effective participant involvement program before submitting an application. The program includes distributing the applicant's information package and the required AER publications; responding to questions and concerns; discussing options, alternatives, and mitigating measures; and seeking to resolve issues through collaborative efforts. *Directive 056* applies to personal consultation and notification with all First Nations, Métis groups, landowners, and other potentially affected parties.

[316] Grand Rapids submitted that its participant involvement program included notification or personal consultation with landowners, residents, occupants, industry, local authorities, provincial and federal government agencies, and known parties with concerns along the proposed ROW and in the area of the proposed project.

[317] Grand Rapids reported that in addition to the eight First Nations it had been directed to consult with by the ACO, it had also engaged with a number of other First Nations in the area. These additional First Nations included ACFN, Chipewyan Prairie Dene First Nation, Peerless Trout First Nation #478, Alexander First Nation, Alexis Nakota Sioux Nation, Enoch Cree Nation #440, Ermineskin Tribe, Kehewin Cree Nation, Louis Bull Tribe, Montana First Nation, Paul First Nation, Saddle Creek Cree Nation, Samson Cree Nation, and the Christina River Dene Nation Council. Grand Rapids also engaged with several Métis groups, including the Métis Settlements General Council, Buffalo Lake Métis Settlement, Elizabeth Métis Settlement, Fishing Lake Métis Settlement, Kikino Métis Settlement, and Métis Nation of Alberta Regions 1, 2, 4, and 5.

[318] Grand Rapids stated that they were able to reach amicable resolutions with the vast majority of stakeholders who were potentially affected by its project. They also submitted that they will continue efforts to seek to resolve the remaining outstanding objections to the project.

[319] While Grand Rapids resolved concerns with many stakeholders as part of its participant involvement program, some participants expressed concerns about its consultation approach. Numerous references were made in statements of concern, submissions, and oral testimony to "heavy-handed" tactics employed by land agents, Grand Rapids' use of nondisclosure agreements, reluctance by Grand Rapids to provide information above the minimum information it was required to provide, and the difficulty stakeholders had in obtaining specific information about the project. Several of the hearing participants indicated that they were not opposed to pipeline projects and had previously worked successfully with other pipeline companies to facilitate pipeline crossings of their lands, but had found Grand Rapids particularly difficult to deal with.

[320] Ms. Mitchell was very critical of Grand Rapids' use of nondisclosure confidentiality agreements. She submitted that Grand Rapids asked her to sign a nondisclosure agreement before discussing her concerns or compensation proposals. She noted that of the other companies with projects on her lands, none had ever asked her to sign such an agreement. This includes Inter Pipeline Ltd., a company that recently installed a pipeline on her property. She stated that this undermines her confidence and trust in Grand Rapids. She saw being required to sign a nondisclosure confidentiality agreement as imposing a "gag order" on her activities and felt it was fundamentally wrong. Ms. Mitchell questioned Grand Rapids on its rationale for using a nondisclosure agreement. Grand Rapids' response did not satisfy Ms. Mitchell or the panel as to what possible objective having to sign such an agreement would accomplish other than creating suspicion as to Grand Rapids' motives.

[321] The panel notes that on more than one occasion in the hearing, Grand Rapids seemed to expect that stakeholders were obligated to put forward mitigation measures. The panel notes that under *Directive 056*, an applicant must respond to questions and concerns and discuss options alternatives and mitigating measures before filing its application. The development of mitigation and solutions to address concerns is expected to be a joint collaborative process between the applicant and affected parties.

[322] While the panel recognizes that Grand Rapids was able to reach agreements with the majority of landowners and other stakeholders along the proposed project route, it appeared to the panel that communication and information sharing had not been effective with some stakeholders, including the thirteen participants who chose to present their concerns to the panel during the hearing.

[323] The panel notes that some of the dialogue and consultation with these parties was very recent, occurring in the period leading up to and immediately preceding the hearing. While the panel encourages ongoing communication by project proponents with stakeholders, the panel believes that some of the issues raised at the hearing may have been resolved before the hearing if Grand Rapids had engaged in more meaningful consultation and dialogue with the parties earlier.

[324] The panel finds that Grand Rapids has met the minimum requirements for notification and consultation. However, given the scope of the project and some of its unique aspects, the panel is of the

view that Grand Rapids could have done more to meet the spirit and intent of the consultation requirements. Applicants are expected to engage in meaningful discussions with landowners and other stakeholders about concerns, alternatives, and mitigation measures. At a minimum, such discussions would have given landowners a better understanding of alternatives and the proposed mitigation measures, and possibly could have improved trust and relationships between Grand Rapids and the landowners directly affected by the project.

[325] Further, some of the routing issues raised at the hearing may have been resolved had Grand Rapids made more fulsome attempts at exploring options with landowners along the alternative routes. The panel does not find a single attempt at contacting a person or the response to a brief telephone conversation and the provision of limited information to be sufficient to characterize a person as being strongly opposed to a proposed alternative pipeline route. Such limited attempts did not provide the panel with sufficient information about stakeholder issues or concerns to assist its deliberations on these alternative routing proposals.

[326] The panel notes that developing a fulsome understanding of landowner and stakeholder concerns and developing effective mitigation measures and exploring other possible solutions to their concerns often requires going beyond minimum regulatory notification or consultation requirements. The panel encourages Grand Rapids to engage in meaningful consultation with potentially affected landowners and other stakeholders as it completes the additional work required to satisfy the conditions the panel has outlined in this decision and to support any subsequent applications Grand Rapids makes to the AER.

Foreign Ownership and Accountability

[327] Ms. Mitchell raised concerns about foreign ownership of the project. Specifically, Ms. Mitchell raised concerns about Phoenix (a subsidiary of PetroChina) being a fifty per cent partner with TransCanada in the project. Her concerns originate, in part, from media reports of investigations into corruption within PetroChina. Ms. Mitchell noted other companies' projects in Alberta where in the application phase, projects were co-owned with foreign investors. Then, in the operation phase, the foreign investor would buy out its Canadian partner and gain control of the project. Ms. Mitchell questioned how a foreign operator would be held accountable for any spills or damages that might occur and for reclamation.

[328] The panel advised the participants to the hearing that the matter of foreign ownership was outside the scope of this hearing and the AER's mandate. Under AER legislation, the licensee on record is responsible for ensuring that it acts in accordance with all applicable requirements. The panel notes that the public interest is protected in that all companies that have a licence to operate in the oil and gas industry in Alberta are held to the same standards by the regulator and are required to have and maintain appropriate insurance coverage. The panel notes that any transfer of the licences for ownership of the project from Grand Rapids will also need to be approved by the AER.
Completeness of the Applications

[329] Grand Rapids' application binder was very large due to the number of applications (90 separate applications). It was also not very well organized, which made it difficult to review. Grand Rapids also created some confusion and frustration by revising and updating the binder and submitting different versions. The last version was received on June 10, 2014, due to errors with document page numbers—only 13 days before the start of the hearing. Participants at the hearing expressed their frustration that printed copies of the binder, when requested, were not delivered to them in a timely manner.

[330] During the hearing, the panel heard testimony from Fort Industrial's witness that there were serious inconsistencies between the mapping and the text in Grand Rapids' application materials on the routing of the proposed pipeline on Fort Industrial's land.

[331] The panel notes that this was the first AER hearing to consider applications under the *Pipeline Act, EPEA*, and the *Public Lands Act*. The transition to this new regulatory process may have affected Grand Rapids' and other stakeholders' expectations on what to include in the applications. For example, Grand Rapids submitted a draft EPP for the green area. ACFN and AER staff both requested site-specific information that was missing in the draft EPP. Grand Rapids then submitted the updated plan during the hearing at the request of the panel. While providing an EPP for the green area is not a regulatory requirement, it provided useful information to the panel and participants at the hearing and would have served the process better if it had been submitted before the hearing.

[332] During the hearing, Grand Rapids frequently responded to questions from participants with the response "it's not a regulatory requirement." While Grand Rapids was correct in most instances, the panel notes that regulatory requirements are the minimum standards that must be met. For large or complex projects, the AER expects an applicant to do more than just meet the minimum regulatory requirements to address landowner or stakeholder concerns or to respond to current societal expectations. Applicants for large projects are encouraged to go beyond minimum regulatory requirements where doing so might assist in addressing concerns and increasing stakeholders' understanding and acceptance of proposed projects. For example, for projects in the green area, applicants are encouraged to submit a complete EPP, including site-specific information and mitigation measures, along with the application or well before a hearing where environmental concerns have been identified.

[333] Grand Rapids advised that it still has additional work to complete. Some of the outstanding work includes finalizing its caribou protection plan, confirming the location of placing isolation valves, completing soil assessments on lands it has not previously been able to obtain access to, and completing additional assessment of watercourse crossings and wildlife field surveys. The panel notes that it is not uncommon for project designs to continue to evolve as more information is gathered from feedback and information from stakeholders and through processes such as this hearing. The panel recognizes that the completion of this additional work, compliance with the panel's conditions, and site-specific conditions at

the time of construction may result in the need for future amendments to the project. Such amendments are expected to result in further refinement of the project and may further mitigate any residual impacts associated with the project.

Conclusion

[334] Subject to the exceptions and the conditions outlined in <u>appendix 1</u>, the panel approves the project. In making its decision, the panel considered the need for the project, the concerns raised by the parties, and the environmental impacts of the project.

[335] The panel notes that the project is being proposed to respond to both current and future demand for the transportation of blended crude bitumen and diluent between the Athabasca Oil Sands Area and the Edmonton and Heartland areas. The project will help ensure sufficient capacity for producers to get their product to market and to help support future development in the Athabasca Oil Sands Area. The panel notes that none of the participants contested the need for the project as a whole. In many instances, participants were supportive of the project, but sought either conditions or reroutes to the part of the main lines that would cross their land.

[336] The exception to this was the storage component of the Saleski terminal. While the panel recognizes that the pump station component of the Saleski terminal may be needed for operational purposes, the panel finds that Grand Rapids failed to demonstrate a short-term need for the storage component of the terminal. Accordingly, the panel denies the Saleski terminal and associated access and instructs Grand Rapids to file a new application if it requires the pump station and/or is able to establish a need for the Saleski terminal.

[337] In terms of participant concerns, the majority of concerns raised can be classified into one of the following three categories: landowner impacts, safety, and routing. The panel finds that the concerns raised about the effects of the project on the participants' use of their lands along the ROW can be adequately dealt with, in most instances, by placing conditions on its approval of the applications. This is especially the case on lands designated for agricultural use as agricultural use can continue following installation of the pipelines. To facilitate ongoing use of the lands for agriculture, the panel notes that Grand Rapids will implement weed control measures, develop a construction plan, monitor the ROW, and prepare a post-construction reclamation assessment. The panel addressed the concerns raised about access across the ROW during construction through the conditions it placed on its approval of the project.

[338] The panel has acknowledged that given the size of the proposed main lines, significant quantities of diluted bitumen or diluent could be released in the unlikely event of a sudden rupture or leak. While current regulatory requirements are designed to prevent such a leak or release, the panel expects Grand Rapids to conduct further assessments to ensure that its isolation valves are appropriately located to limit the amount of product that could be released and that pipeline integrity measures are implemented to

maintain the operational integrity of the system throughout its lifetime. The panel also requires Grand Rapids to consult with any landowner along the ROW who expresses an interest in Grand Rapids' emergency response procedures while it prepares its ERP. Grand Rapids must then submit its complete corporate ERP and its site-specific spill response plan to the AER.

A number of participants expressed concerns with Grand Rapids' proposal to route the main lines [339] across their lands. Their issues related primarily to impacts of the route on future development and whether the existing pipeline corridors on their land were full. In terms of impacts on future development, the panel notes that where land has been either zoned or identified for future industrial or urban development, the construction of pipelines on the land reduces the size of the land that can be developed. Further, the existence of the pipelines on the land can lead to subsequent pipelines being planned for the lands, which further reduces the land available for development. While the panel encourages applicants to consider existing linear disturbances when assessing routes, it is important that they also consider the designated land use and any associated development plans and consider the long-term effects of its chosen route. While using land zoned as agricultural land may limit short-term effects on land use since it can still be farmed after construction, the same cannot be said for lands zoned as industrial, commercial, or residential. Lands zoned as such end up effectively being "sterilized" over the life of a pipeline so that even where there are no immediate or short-term plans for development, further plans could be negatively affected. This can lead to negative socioeconomic impacts for an area by affecting how much growth and development can occur.

[340] Using designated pipeline corridors and common ROW alignments, limits the effect of pipeline development on future growth by concentrating development into specific areas. The panel heard from some landowners with more than ten pipelines on their land who continue to be approached about additional lines. As these de facto corridors have no defined widths, how does one know when a corridor is full and enough is enough? While this issue is beyond the scope of what the panel was tasked with considering, the panel encourages applicants to consider not only the current and potential future zoning of the land but also the number of pipelines already on a landowner's land when selecting a route. The panel also encourages applicants to seriously consider and assess alternative routes before filing their applications and to ensure that their analysis and information on any alternative routes considered is sufficient and part of the application. Had this been done for Grand Rapids' proposed route, the panel may not have needed to require Grand Rapids to conduct further analysis for certain segments of the main lines. The panel notes the increase in the number of pipeline applications in the Fort Saskatchewan and Strathcona County area and is aware that more applications are anticipated in the next several years. The panel encourages proponents to work together collaboratively with the appropriate levels of government and planning bodies to proactively consider the need for additional formally designated corridors.

[341] The panel recognizes that the width and length of the main lines, chosen construction methodology and proposed route for the main lines through wetlands, caribou zones, and KWBZs will

result in environmental effects. These effects need to be balanced against the need for the pipelines, the economic efficiency and constructability of the route, and Grand Rapids' ability to mitigate the effects. While the panel recognizes that some additional work is still required to limit the effects of the project to the extent possible, the panel is satisfied that most of the effects will be short term and confined to the width of the ROW. The panel further finds that through the combination of regulatory requirements, Grand Rapids' commitments, the panel's conditions, and the additional standard conditions that will form part of the approval documents, that most of the effects can be mitigated.

[342] In making the above decision, the panel is satisfied that the project, as approved, is consistent with the AER's mandate and, more specifically, the efficient, safe, orderly and environmentally responsible development of energy resources in Alberta.

[343] This decision is not intended to limit the ability of AER staff to include standard approval conditions that would normally be included in the approvals issued under the *Pipeline Act*, *EPEA*, or the *Public Lands Act*.

Dated in Calgary, Alberta, on October 9, 2014.

Alberta Energy Regulator

<original signed by>

A. H. Bolton, P.Geo. Presiding Hearing Commissioner

<original signed by>

R. C. McManus, M.E.Des. Hearing Commissioner

<original signed by>

C. Macken Hearing Commissioner

Appendix 1 Conditions

Conditions generally are requirements in addition to or otherwise expanding upon existing regulations and guidelines. An applicant must comply with conditions or it is in breach of its approval and subject to enforcement action by the AER. Enforcement of an approval includes enforcement of the conditions attached to that licence. Sanctions imposed for the breach of such conditions may include the suspension of the approval, resulting in the shut-in of a facility. The conditions imposed by the panel below will be incorporated into the relevant approval documents along with any standard AER conditions.

The AER notes that Grand Rapids Pipelines GP Ltd. (Grand Rapids) may have made certain undertakings, promises, and commitments (collectively referred to as commitments) to parties involving activities or operations that are not required under AER requirements. These commitments are separate arrangements between the parties and do not constitute conditions to the AER's approval of the applications. The AER expects the applicant to comply with commitments made to all parties.

- Grand Rapids must construct, operate, and reclaim the project in accordance with the specifications, standards, regulatory commitments, and other information referred to in its approved applications unless the AER directs otherwise.
- 2) Grand Rapids must prepare and submit to the satisfaction of the AER on or before February 28, 2015, a detailed right-of-way monitoring and response plan for both the white and green areas. The plan must demonstrate its ability to effectively monitor the full length of its ROW and respond to issues that may arise during the extended construction period before the ROW is reclaimed. Within the plan, Grand Rapids must
 - a) identify areas at high risk of wind and water erosion, water-body sedimentation, surface water ponding, and weed establishment, including watercourse crossing locations;
 - b) state what methods it will use to monitor the ROW and any identified high-risk area (e.g., aerial reconnaissance, ground-based inspections, landowner observations);
 - c) include when and how frequent it will monitor high-risk areas and sites;
 - d) describe how it will respond to wind and water erosion, sedimentation, and the onset of weed growth, including logistics and timing; and
 - e) list the types and locations of materials and equipment it will use to facilitate a timely and effective response to any issues that may arise.
- 3) Prior to construction, Grand Rapids must submit, to the satisfaction of the AER, an updated and current C&R plan, and EPP for the green area that incorporates the results of all field assessments and all route changes that have occurred.
- 4) Grand Rapids must use the minimal disturbance techniques outlined in its EPP for the green area and its applications for construction in the green area.

- 5) Grand Rapids must ensure that the setbacks and restricted activity periods in the updated and complete C&R plan for the white area and EPP for the green area are consistent with those in the *Integrated Standards and Guidelines*.
- 6) Grand Rapids must obtain approval from the AER for any activity proposed within a restricted activity period. If AER approval is obtained, Grand Rapids must ensure a thorough search along the ROW and within an appropriate buffer on either side of the ROW for wildlife and unique habitat features such as nests, active dens, leks, mineral licks, and amphibian breeding areas. The search must be done by experienced personnel using the *Sensitive Species Inventory Guidelines* before clearing and construction. Appropriate mitigation must be applied following direction in the *Integrated Standards and Guidelines* and the results are to be submitted to the AER.
- 7) Grand Rapids must have a qualified wildlife specialist available during clearing and construction activities to ensure sensitive areas are clearly marked, to deal with issues that arise, and to ensure plans and conditions are being followed as intended.
- 8) In the absence of any other agreement between Grand Rapids and McLeod Services & Contracting Ltd. regarding the width of the ROW on their lands, Grand Rapids must limit the width of its permanent ROW to 24 m on NE 5-065-19W4M.
- 9) In the absence of any other agreement between Grand Rapids and D. and D. Trenholm (the Trenholms) about construction methods and schedule for crossing their lands, Grand Rapids must construct the 508.0 mm main line and reclaim that portion of the ROW in a single construction season before stripping the ROW and constructing the 914.0 mm main line on SE and NE 10-062-20W4M (Trenholms' lands). If Grand Rapids and the Trenholms reach an agreement on an alternative construction and reclamation method or schedule, Grand Rapids must notify the AER of the plan for the Trenholms' lands at least 14 days before construction begins on the Trenholms' lands.
- 10) Grand Rapids must consult with M. Mitchell to develop a plan to address her concerns regarding fencing and access across the ROW to the east side of her pasture during construction and her concerns about water ponding. Grand Rapids must submit the results of this consultation with Ms. Mitchell and the final construction and reclamation plan that addresses Ms. Mitchell's concerns to the AER at least 14 days before beginning construction on her lands located in NE 32-058-20W4M. If Grand Rapids is unable to reach a mutually agreed to plan with Ms. Mitchell, it must submit to the panel a summary of its efforts to do so, and all proposed mitigation plans it has presented to Ms. Mitchell to address her concerns. Upon review the panel may require that further work occurs prior to commencing construction on Ms. Mitchell's lands.
- 11) Grand Rapids must not construct or carry out any incidental activities, including clearing or preparing the ROW, for the segments of the main lines between LSD 16-6-056-20W4M and SE 28-055-21W4M unless Grand Rapids satisfies the panel that the applied-for route is the superior route. Grand Rapids must conduct an analysis of at least one alternative pipeline route that avoids the MEG lands

located in Sections 26, 27, and 35 of Township 055-21W4M and the lands located along the north side of the CN rail line and within Strathcona County's heavy industrial policy area that Grand Rapids is prepared to construct. The analysis must include a comparison of the identified alternative route with the currently applied-for route and detailed information on any stakeholder concerns. Once the analysis is complete, Grand Rapids must submit it to the panel for review. Upon review, the panel may require further analysis, direct Grand Rapids to file an amendment application for the alternative route, or permit Grand Rapids to proceed with the currently applied-for route if it is satisfied it is the most suitable one.

- 12) Grand Rapids must not construct or carry out any incidental activities, including clearing or preparing the right-of-way, for the segments of the main lines between NE 7-055-21W4M and SE 6-054-22W4M unless Grand Rapids satisfies the panel that the applied-for route is the superior route. Grand Rapids must conduct an analysis on at least one alternative pipeline route that avoids the Fort Industrial Estates Ltd. (FIE) lands located in the west half of Section 1-055-22W4M and the lands within the city of Fort Saskatchewan that Grand Rapids is prepared to construct. The analysis must include a comparison of the identified alternative route with the currently applied-for route and detailed information on any stakeholder concerns. Once the analysis is complete, Grand Rapids must submit it to the panel for review. Upon review, the panel may require further analysis, direct Grand Rapids to file an amendment application for the alternative route, or permit Grand Rapids to proceed with the currently applied-for route if it is satisfied that it is the most suitable route.
- 13) Grand Rapids must not construct or carry out any incidental activities, including clearing or preparing the ROW, for the segments of the main lines between NE 7-055-21W4M and SE 6-054-22W4M unless Grand Rapids satisfies the panel that the applied-for route is the superior route. Grand Rapids must conduct an analysis of at least one alternative pipeline route that avoids the Guenette lands located in the south half of Section 34-054-22W4M, NW 27-054-22W4M, and NE 28-054-22W4M that Grand Rapids would be prepared to construct. The analysis must include a comparison of the alternative route identified with the currently applied-for route and detailed information regarding any stakeholder concerns. Once the analysis is complete, Grand Rapids must submit it to the panel for review. Upon review, the panel may require further analysis, direct Grand Rapids to file an amendment application for the alternative route, or permit Grand Rapids to proceed with the currently applied for route should the panel be satisfied that it is the most suitable route.
- 14) Grand Rapids must consult with N. and D. Pentelechuk and 631913 Alberta Ltd. (collectively the Pentelechuks) to develop a construction plan to address their concerns regarding effects to their agriculture operations. In addition to construction methods and schedule, the plan must specifically address equipment cleaning measures and actions to minimize topsoil disturbance. Grand Rapids must submit the final construction and reclamation plan, which addresses the Pentelechuks' concerns, to the AER at least 14 days prior to construction on their lands. If Grand Rapids is unable to reach a mutually agreed to plan with the Pentelechuks, it must submit a summary of its efforts to do so, and

all proposed plans it has presented to the Pentelechuks to address their concerns. Upon review, the panel may require that further work occurs prior to commencing construction on the Pentelechuks lands located at the west half of SE 35-5-23W4M, SW 35-053-23W4M, NW 26-053-23W4M, and SE 27-053-23W4M.

- 15) Grand Rapids must assess all of its pipeline water crossings to ensure that all isolation valves are appropriately located and operated in a manner that complies with clause 4.4.8 in *CSA Z662* and to take steps to further limit the amount of bitumen or diluent that could be released in the event of an incident.
- 16) Grand Rapids through the use of a qualified aquatic environment specialist must assess the status of all fish-bearing watercourse crossings at the time of construction to verify that the proposed crossing method remains valid.
- 17) Where watercourses are not dry or frozen to bottom at the time of construction and where flowing water occurs, Grand Rapids must, through the use of a qualified aquatic environmental specialist, ensure that a water quality monitoring program is implemented during construction to monitor and confirm the effectiveness of the mitigation measures employed. This requirement applies to both horizontal directional drilling and isolated open cut crossings.
- 18) Any exceedance of ESRD's suspended sediment thresholds must be reported to the AER immediately and appropriate mitigation measures must be implemented.
- 19) Grand Rapids must develop, submit and implement to the satisfaction of the AER, a post-construction aquatic monitoring and mitigation plan that is specific to watercourse crossings, fish, and fish habitat. The temporal scope of the plan must extend beyond the construction season to the operation of the pipeline to ensure that installation, reclamation, and habitat recovery have been adequate. The plan must outline monitoring frequency, mitigation, and proposed response timing to address any issues noted in the monitoring. The plan must be provided to the AER on or before February 28, 2015.
- 20) Grand Rapids must submit to the satisfaction of the AER, a post-construction reclamation assessment based on the *2010 Reclamation Criteria for Wellsites and Associated Facilities* or the most recent reclamation criteria available at the time of reclamation. The assessment is to be submitted no later than two growing seasons following completion of reclamation. Monitoring of wetland hydrological function in both the white and green areas must be included as a component of the post-construction reclamation assessment.
- 21) Prior to construction, Grand Rapids must submit to the satisfaction of the AER, a KWBZ mitigation plan and schedule that identifies specific measures to minimize disturbance and address access management, restoration, and long-term monitoring. The KWBZ mitigation plan can be a standalone document or the details can be included in the updated C&R plan for the white area and EPP for the green area that are to be submitted to the AER prior to construction. Where it is not feasible to follow

the guidance in the *Integrated Standards and Guidelines*, Grand Rapids must provide justification as to why the guidance in the document cannot be followed.

- 22) Grand Rapids must submit, to the satisfaction of the AER, its caribou protection plan for the project prior to construction in defined caribou range. The plan must include a site-specific construction schedule and an access management plan to minimize the effect of human activity on caribou. The plan must also clarify the specific mitigation measures it will use and where they will be used and incorporate relevant guidance from the section "Caribou Range" in the enhanced approval process *Integrated Standards and Guidelines*.
- 23) Grand Rapids must obtain approval from the AER for any activity proposed within defined caribou ranges during the restricted activity period from February 15 to July 15.
- 24) Grand Rapids must submit, to the satisfaction of the AER, its caribou habitat restoration plan for disturbance that occurs within defined caribou range by February 28, 2015. The plan must identify the strategies, specific measures, and schedule that will be used for habitat restoration efforts within caribou range and demonstrate how the activities will support the objectives of the Government of Alberta's and Canada's recovery strategies and plans.
- 25) Grand Rapids must consult with and review its spill response and emergency response procedures with Michele Mitchell and Cactus Holdings Ltd. and Westways Contractors (1986) Ltd. and any other landowner along the ROW who expresses an interest in emergency response or spill response procedures during the preparation of its corporate ERP and site-specific spill response plan.
- 26) Grand Rapids must submit its corporate ERP and site-specific spill response plan to the AER prior to commencement of its pipeline operations.

Appendix 2 Grand Rapids Pipeline Project Applications

Pipeline Act Applications No. 1771853, 1771854, 1771855, 1771856, 1773896, 1788926, and 1793176

Grand Rapids Pipeline GP Ltd. (Grand Rapids) applied under Part 4 of the *Pipeline Act* for approval to construct and operate the Grand Rapids pipeline project, which consists of the following:

- Applications No. 1771853 and 1771854 for two B121 pipelines to transport bitumen blend (crude oil) from the Grand Rapids MacKay Terminal at Legal Subdivision (LSD) 6 of Section 34, Township 89, Range 14, West of the 4th Meridian, to a meter station in the Edmonton area at LSD 8-5-053-23W4M. The proposed pipelines would each be about 460.3 kilometres (km) long with maximum outside diameters of 914.0 and 508.0 millimetres (mm), respectively, and would transport crude oil with a maximum hydrogen sulphide (H₂S) concentration of 0.06 moles per kilomole (0.006 per cent).
- Application No. 1771855 for one B121 pipeline about 4.56 km long with an outside diameter of 610.0 mm to transport crude oil with a maximum H₂S concentration of 0.06 moles per kilomole (0.006 per cent) from a tank farm at LSD 9-11-090-14W4M to a tank farm at LSD 6-34-089-14W4M.
- Application No. 1771856 for one B121 pipeline about 4.56 km long with an outside diameter of 406.4 mm to transport hydrocarbon diluents from a tank farm at LSD 6-34-089-14W4M (Grand Rapids MacKay Terminal) to a tank farm at LSD 9-11-090-14W4M, with a maximum H₂S concentration of 0.06 moles per kilomole (0.006 per cent).
- Application No. 1773896 for three B130 crude oil tank farms located at
 - LSD 11-34-089-14W4M (Grand Rapids MacKay terminal), comprising storage tanks and a pump station with a pump rating of 34 736 kilowatts (kW);
 - LSD 15-25-085-19W4M (Grand Rapids Saleski terminal), comprising storage tanks and a pump station with a pump rating of 38 775 kW; and
 - LSD 8-28-055-21W4M (Grand Rapids Heartland terminal), comprising storage tanks and a pump station with a pump rating of 33 704 kW.
- Application No. 1788926 for one B121pipeline about 2.85 km long with an outside diameter of 914.0 mm to transport crude oil with a maximum H₂S concentration of 0.06 moles per kilomole (0.006 per cent) from a tie-in at LSD 06-04-053-23W4M to the property line of the Enbridge south Edmonton terminal at LSD 15-32-052-23W4M (the south Edmonton expansion).

- Application No. 1793176 for three B133 crude oil pump stations located at
 - LSD 10-29-079-14W4M (Grand Rapids Thornbury terminal) with a pump rating of 33 183 kW;
 - LSD 13-19-073-16W4M (Grand Rapids Wandering River pump station) with a pump rating of 28 337 kW; and
 - LSD 10-15-067-18W4M (Grand Rapids Grassland pump station) with a pump rating of 38 031 kW.

Public Lands Act Applications No. LOC131042, LOC131293, LOC131294, LOC131295, LOC131296, LOC131301, LOC131302, LOC131427, LOC131488, LOC131490, MLL130090, MLL130091, MLL130179, PIL130308, PIL130309, PIL130310, PIL130311, PIL130312, PIL130313, PIL130314, PIL130441, PIL130468, PLA130645, PLA130650, PLA130651, PLA130652, PLA130653, PLA130654, PLA130655, PLA130656, PLA130657, PLA130662, PLA130663, PLA130664, PLA130655, PLA130666, PLA130667, PLA130668, PLA130669, PLA130670, PLA130671, PLA130672, PLA130673, PLA130674, PLA130675, PLA130676, PLA130677, PLA130678, PLA130679, PLA130680, PLA130681, PLA130682, PLA130683, PLA130685, PLA130686, PLA130699, PLA130699, PLA130699, PLA130701, PLA130702, PLA130704, PLA130705, PLA130707, PLA130708, PLA130709, PLA130710, PLA130711, PLA131145, PLA131154, PLA131155, PLA131156, PLA131177, PLA131305, and PLA131759

Grand Rapids applied under the *Public Lands Act* for approval to use public lands for this project at the locations listed above for the *Pipeline Act* applications. The application codes are LOC = licence of occupation (access roads), MLL = miscellaneous leases (tank farm, terminal station), PIL = pipeline installation leases, and PLA = pipeline lease agreement.

- Applications No. MLL130090, MLL130179, and MLL130091 for two tank farms with a total area of 35.75 hectares (ha), or 88.34 acres (ac), and a terminal station of 36 ha (88.96 ac). Of the three facilities, two would be accessed by routes proposed in LOC applications.
- Application No. PIL130441 is for a LACT (lease automatic custody transfer site) and Application No. PIL131488 is for a pump station. These two applications represent a collective area of 9.48 ha (23.43 ac). These would be accessed by routes proposed in LOC applications with an average width of 8 metres (m) and a total length of 652 m.
- Seven of the remaining PIL applications are for valve sites with a collective area of 0.43 ha (1.06 ac). Six of these would be accessed by routes proposed in LOC applications with an average width of 5 m and a total length of 677 m. Application No. PIL130468 would be accessed by a route proposed in PLA130682.
- The PLA applications have approximate ROW widths ranging from 15–42 m and have a total length of 237.8 km on public lands. These applications consist of two pipes—one for diluent and one for bitumen— within one ROW with the exception of Application No. PLA131759, which consists of one pipe for bitumen that is 10 m wide and 282.7 m long.

EPEA Applications No. 001-328929, 001-336043, 001-350276, and 001-350277

Grand Rapids has applied under Part 2 of *EPEA* for approval of the C&R plan for the project at the same locations as listed above in the *Pipeline Act* applications. Application No. 001-328929 is for the C&R plan, which includes construction and post-construction reclamation of the portion of the project that is located in the white area.

Application No. 001-336043 is for industrial approval of the Heartland terminal. Grand Rapids has applied to the AER under *EPEA*'s *Activities Designation Regulation*, Schedule 1, Division 2, Part 8(h)(vi), for an approval to construct, operate, and reclaim a bulk petroleum storage facility. The proposed facility would be located at LSD 8-28-055-21W4M, approximately 13 km northeast of Fort Saskatchewan and approximately 7 km southwest of Bruderheim. The proposed facility would include one aboveground storage tank for storing blended crude bitumen with a maximum storage capacity of 56 000 cubic metres (m³) (350 000 barrels [bbl]), and one aboveground storage tank for storing diluent with a maximum storage capacity of 24 000 m³ (150 000 bbl).

Application No. 001-350276 is for industrial approval of the Saleski terminal. Grand Rapids has applied to the AER under *EPEA*'s *Activities Designation Regulation*, Schedule 1, Division 2, Part 8(h)(vi), for an approval to construct, operate, and reclaim a bulk petroleum storage facility. The proposed facility would be located on Crown lands within the Municipal District of Opportunity No. 17. The proposed facility would be located at LSD 15-25-085-19W4M, approximately 90 km southwest of Fort McMurray. The proposed facility would include one aboveground storage tank for storing blended crude bitumen with a maximum storage capacity of 56 000 m³ (350 000 bbl) and one aboveground storage tank for storing diluent with a maximum storage capacity of 24 000 m³ (150 000 bbl).

Application No. 001-350277 is for industrial approval of the MacKay terminal. Grand Rapids has applied to the AER under EPEA's *Activities Designation Regulation*, Schedule 1, Division 2, Part 8(h)(vi), for an approval to construct, operate, and reclaim a bulk petroleum storage facility. The proposed facility would be located on Crown lands within the Municipal District of Wood Buffalo at LSD 6-34-089-14W4M, approximately 40 km west of Fort McMurray. The proposed facility would include one aboveground storage tank for storing blended crude bitumen with a maximum storage capacity of 56 000 m³ (350 000 bbl) and one aboveground storage for storing diluent with a maximum storage capacity of 24 000 m³ (150 000 bbl).

Principals and Representatives	Witnesses
Grand Rapids Pipeline GP Ltd.	
L. Olthafer	N. Affleck
D. Harper	D. Alexander
S. Damji	G. Bridgewater
D. Pragnell	D. P. Cherkas
T. Angen	S. Clark
	L. Gibb, of
	CH2M HILL Canada Ltd.
	D. Morrison
	J. Paquin
	T. Ramanat
	B. Romanesky, of
	Romanesky Urban Planning and Management
	Ltd.
Fort Industrial Estates Ltd.	
K. Wilson	R. F. Horton
	R. A. Berrien, of
	Berrien Associates Ltd.
D & A Guenette Farms Ltd.	
K. Wilson	D. Guenette
Park Lane Farms, D. Trenholm, and D. Trenholm	
D. Carter	D. Trenholm
	D. Trenholm
Cactus Holdings Ltd & Westways Contractors (1986) Ltd.	
M. Chwok	
MEG Energy Corp.	
B. Gilmour	T. Corscadden
T. Myers	B. Bauhuis, of
C. Price	Sunstone Projects Ltd.

Appendix 3 Hearing Participants

Athabasca Chipewyan First Nation	
L. Land	A. Adam
M. McClurg	
Laricina Energy Ltd.	
J. Jamieson	D. Keller
	G. Schmidt
F. Mazurenko	
M. Mucha	
A. Komant	
D. Bishop	
McLeod Services & Contracting Ltd.	
K. McLeod	K. McLeod
N. Pentelechuk & Son Potato Growers	
W. McElhannev	D. Pentelechuk
I. McDougall	
M M(-1-1)	
M. Mitchell	M Mitchell
P. Kennedy	M. Mitchell
Alberta Energy Regulator staff	
K. Cameron, AER Counsel	
J. Moore, AER Counsel	
D. Barter	
R. Bjorge	
G. Cheema	
A. Habib	
S. Lee	
T. MacMillan	
D. McCabe	
C. Rosa	
R. Ruddell	
J. Kyan	
M. Schuster	
A. Snukaikina	

Appendix 4 Panel's Decision on ACFN's Notice of Questions of Constitutional Law



June 20, 2014

Via Email

Calgary Head Office Suite 1000, 250 – 5 Street SW Calgary, Alberta T2P 0R4 Canada

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To: Athabasca Chipewyan First Nation and the Minister of Justice and Solicitor General of Alberta

Re: Grand Rapids Pipeline Project (Applications No. 1771853, et al.) Notice of Question of Constitutional Law

The Alberta Energy Regulator ("AER") received a notice of question of constitutional law ("NQCL") from the Athabasca Chipewyan First Nation ("ACFN") dated June 9, 2014. The Panel provided the participants in this proceeding and the addressees of the NQCLs with a process to provide written submissions with regard to matters that may bear on the Panel's jurisdiction over or consideration of the questions presented in the NQCL. The Panel also gave ACFN an opportunity to provide submissions in reply to those filed by other participants. The Minister of Justice and the Attorney General of Alberta ("Alberta"), Grand Rapids Pipeline GP Ltd. ("Grand Rapids") and counsel for Bigstone Cree Nation filed written submissions on June 13, 2014. ACFN provided a reply submission on June 17, 2014.

ACFN's NQCL posed the following questions:

- Is s.21 of the Responsible Energy Development Act ("REDA") constitutionally invalid? ("Question 1")
- 2. Is the entire structure of REDA constitutionally invalid? ("Question 2")

ACFN's NQCL requested the following relief:

- 1. That the AER consider s.21 of *REDA* to be invalid and proceed to assess the adequacy of Aboriginal consultation in this case; or
- That the AER conclude that the entire structure of *REDA* is invalid, and stay these proceedings pending the unconstitutional gap being repaired.

To ensure that the decision is issued prior to the commencement of the hearing on June 23, 2014, the Panel has not set out the detailed positions of the parties but has instead referred to some aspects of the parties' positions within the Panel's reasons. Although the Panel has not included a full summary of each party's position, the Panel assures participants that it has considered all of the written submissions provided in this part of the proceeding.

The Panel has made the following decision in relation to the NQCL filed by ACFN:

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- While the Panel may have jurisdiction over the first question of constitutional law raised in the NQCL, given the relief being sought, it would be premature for the Panel to consider the question. The Crown advised through the June 13, 2014 letter from Alberta's Aboriginal Consultation Office ("ACO") that the ACO intends to observe the hearing and provide a final report that "will supplement the ACO's written statement of June 6, 2014" prior to the Panel's decision. As a result, the evidentiary portion of the hearing will inform the Crown's decision about constitutional consultation and if the Crown determines in its final report that constitutional consultation is adequate, ACFN will be entitled to challenge the Crown's decision if they are not satisfied with the results of that process.
- With regard to the second question of constitutional law raised in the NQCL, the Panel finds that it does not have the jurisdiction to consider it.
- Notwithstanding the foregoing, the Panel will consider all evidence and argument relating to the potential effects of the Project on all participants.

The reasons for the Panel's decisions are set out below.

The Questions of Constitutional Law

Adequacy of Notice

The Panel notes that both Grand Rapids and Alberta raised concerns regarding the adequacy of notice. Grand Rapids submitted that the notice was filed out of time and while Alberta took no position with regard to the timing of the notice, Alberta raised concerns regarding the sufficiency of the information provided within the NQCL. In reply, ACFN submitted that the notice was filed within the proper prescribed timeframe as the *Interpretation Act* allows for filing on the day after a "holiday" and Sunday, June 8, 2014, the last day that the notice could be filed satisfies the definition of "holiday" under the *Interpretation Act*. With regard to the sufficiency of information provided, ACFN submits that the NQCL sets out essentially its entire argument including detailed pinpoint citations to legal authorities.

The Panel is satisfied that the provisions of the Administrative Procedures and Jurisdiction Act ("APJA") apply to its ability to consider the questions of constitutional law. In particular, section 12 of the APJA and Schedule 2 of the Designation of Constitutional Decision Makers Regulation ("Regulation") require the filer of a NQCL to provide to the Minister of Justice and Attorney General of Alberta and the Attorney General of Canada ("Canada") certain information including:

- the grounds to be argued and reasonable particulars of the proposed argument, including a concise statement of the constitutional principles to be argued, references to any statutory provision or rule on which reliance will be placed and any cases or authorities to be relied upon;
- the law in question, the right or freedom alleged to be infringed or denied, or the aboriginal or treaty right to be determined, as the case may be:

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- the material and documents that will be filed with the decision-maker; and
- a list of witnesses intended to be called to give evidence before the decision-maker and the substance of their proposed testimony.

The provisions of the *APJA* and the *Regulation* are mandatory. The Panel has no discretion to cure defects in NQCLs provided to Alberta, Canada or any other parties to the proceeding entitled to the notice. The legislation is clear that a notice meeting all of the foregoing criteria must be given to the Panel, Grand Rapids, Alberta and Canada.

The Panel accepts that the purpose of the notice requirement is to ensure that the relevant parties are informed of the substance of the constitutional questions being raised so that they can respond to them appropriately. The Panel also accepts that a contravention of the *APJA* deprives the Panel of any jurisdiction it might otherwise have to consider the constitutional questions posed in the NQCL.

The Panel accepts ACFN's interpretation of the filing requirements under the *Interpretation Act*. With regard to the sufficiency of information provided, while the Panel agrees with Alberta that ACFN's NQCL could have been clearer, it does find that at least with regard to Question 1 sufficient information was provided to enable the Panel to generally understand ACFN's submissions regarding the same. The Panel finds that Question 2 is unclear as to whether ACFN is seeking to have all of the provisions within *REDA* determined invalid and if so, the basis for same. This confusion could foreseeably prejudice the parties as has been alleged by Alberta, as sufficient information is required to enable Alberta to understand the case it has to meet.

The Panel's Jurisdiction Regarding Question 1

ACFN, Grand Rapids and Alberta agree that the Panel has the jurisdiction to consider Question 1. The Panel acknowledges that it has the authority to decline to apply a provision of its enabling statute on the ground that the provision violates the Charter or Constitution. It also notes that it does not have the authority to declare any or all provisions of *REDA* invalid generally, nor does it have the authority to grant a remedy that is outside of its jurisdiction.

While the Panel does have the authority in this instance to determine whether section 21 of *REDA* is constitutionally invalid for the purpose of this proceeding, it notes the remedy ACFN is seeking is that the Panel assess the adequacy of Aboriginal consultation.

Section 21of *REDA* provides that the Regulator has no jurisdiction with respect to assessing the adequacy of Crown consultation associated with the rights of aboriginal peoples as recognized and affirmed under Part II of the *Constitution Act*, *1982*. This has been supplemented by Ministerial Order 141/2013 ("Ministerial Order") that was issued in accordance with section 67 of *REDA* and provides that: AER processes will constitute part of Alberta's overall consultation process as appropriate and that Alberta retains the responsibility to assess the adequacy of crown consultation in respect of energy applications.

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In accordance with the Ministerial Order, the Panel received correspondence from the ACO dated May 8, 2014, June 6, 2014 and June 13, 2014. In its June 6, 2014 correspondence, the ACO advised that it found consultation to be adequate pending the outcome of the AER process with Bigstone Cree Nation, and adequate with the remaining First Nations it required Grand Rapids to engage. The ACO also noted that it did not direct consultation with ACFN because the ACO does not ordinarily require consultation with ACFN in the Project area. In its June 13, 2014 correspondence, the ACO advised that it intends to observe the hearing and provide a final written report in accordance with the Ministerial Order. The report is to be provided prior to the Panel's decision. While the ACO's letter is silent as to what this final report is to contain, having regard for the Ministerial Order and the previously provided report in the form of the ACO's June 6, 2014 letter, it is reasonable to presume that it may include Alberta's final determination regarding adequacy in addition to any advice on actions that may be required to address potential impacts on the rights of Aboriginal People, thus addressing the potential "gap" alleged by ACFN. In any event, until the report is received, the Panel finds that it is premature to consider the question raised by ACFN. This is especially the case, given that the hearing process may still inform Alberta's decision on adequacy. Additionally, it may assist in addressing some or all of ACFN's concerns and mitigate any potential adverse impacts. Accordingly, a decision by the Panel on the adequacy of Crown consultation appears to be both premature and unnecessary. Should ACFN still have concerns regarding the adequacy of Crown consultation following the hearing and release of the ACO's final report, ACFN's recourse will be to seek judicial review of Alberta's finding through the courts. This recourse is consistent with ACFN's request that the constitutional questions be referred to the court for determination in any event.

The Panel's Jurisdiction Regarding Question 2

Both Grand Rapids and Alberta submit that the Panel lacks the jurisdiction to consider Question 2. Grand Rapids submits that Question 2 does not raise a question of constitutional law as defined in the *APJA* and requests that the AER make findings on matters well outside its statutory mandate. Grand Rapids submits that Question 2 would require the AER to make findings about Alberta's consultation framework and policy that extend outside the AER's mandate and jurisdiction. Similarly, Alberta submits that Question 2 is not a valid question of constitutional law as it seeks to challenge the "entire structure" of *REDA* rather than a legislative enactment. Additionally, Alberta submits that Question 2 is beyond the AER's mandate and consideration of the applications before it. In reply, ACFN submits that the Panel should either consider both of the questions or neither, as the two cannot logically be severed. Further, ACFN submits that the complaint that underlies both questions is that there is an impermissible and unconstitutional gap in the legislative scheme. In considering the questions, ACFN submits that the Panel must consider whether there are any legislative or policy measures that anyone might put forward as potentially filling the gap. The Panel agrees with Alberta and Grand Rapids that it lacks the jurisdiction to consider Question 2. 1-855-297-8311 24-hour bergency 1-800-222-6514

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requires looking beyond the AER's legislation to consider other legislation and policy that is not within the AER's mandate. Further, such a review goes beyond the scope of the Panel's consideration of the applications before it and could involve making findings with regard to parties that are not part of the proceeding and over whom the AER has no jurisdiction

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For the reasons provided above, the Panel declines to decide the questions raised within the NQCL. In accordance with its mandate, it will however consider all the evidence and arguments provided as part of the proceeding in relation to the potential effects of the Project on all participants. It also will refrain from making a decision on the applications until it has received and considered the final report of the ACO.

Sincerely,

<original signed by>

Alex H. Bolton, P. Geo. Hearing Panel Chair

cc: Hearing Participants

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Legend

Grand Rapids proposed pipeline
Grand Rapids proposed pipeline
Proposed pump station
Proposed terminal
Alberta Industrial Heartland
Land owners
Major lakes and rivers

Figure 1. Grand Rapids' proposed pipeline project.



Figure 2. MEG lands and proposed alternative routes.



Figure 3. Fort Industrial and Guenette lands and Grand Rapids' proposed alternative routes.



Figure 4. Pentelechuk lands and proposed alternative routes.