

Shell Canada Limited

An Application for Two Pipeline Licences and an Application for a Pipeline Agreement Ferrier Field

February 1, 2017

Alberta Energy Regulator

Decision 2017 ABAER 002: Shell Canada Limited, An Application for Two Pipeline Licences and an Application for a Pipeline Agreement, Ferrier Field

February 1, 2017

Published by **Alberta Energy Regulator**Suite 1000, 250 – 5 Street SW

Calgary, Alberta

T2P 0R4

Telephone: 403-297-8311

Inquiries (toll free): 1-855-297-8311

E-mail: inquiries@aer.ca Website: www.aer.ca

Contents

| Contents | i |
|---|----|
| Decision | 1 |
| Introduction | 1 |
| Applications | 1 |
| Proposed Amendments | 2 |
| Hearing Participants | 2 |
| Framework for Addressing the Issues | 3 |
| Hearing | 5 |
| Issues | 6 |
| Is the Project Needed and Does it Provide for the Efficient and Orderly Development of Albert Energy Resources? | |
| Is the Main Pipeline Needed? | 7 |
| Is the Spare Pipeline Needed? | 7 |
| Are Other Options Available to Transport Gas from the Rocky 7 Well and Were They A by Shell? | |
| Conclusion on the Project Need and the Efficient and Orderly Development of Alberta's Resources | |
| Is the Applied-for Pipeline Route Suitable? | 9 |
| Conclusion on the Suitability of the Applied-for Route | 12 |
| Can the Proposed Project be Constructed and Operated Safely | 13 |
| Conclusion on Whether the Project can be Constructed and Operated Safely | 13 |
| What are the Potential Environmental Effects of the Proposed Pipelines and are the Proposed Mitigation Measures Sufficient? | |
| Non-Permanent Seasonal Wetland Crossing | 15 |
| Creek Crossings | 16 |

| | Wildlife Effects | 16 |
|-------|--|------|
| | Vegetation Effects | 17 |
| | Reclamation | 18 |
| | Environmental Protection Plan | 18 |
| | Proposed Environmental Mitigations | 19 |
| | Conclusion on Whether the Potential Environmental Effects of the Proposed Pipelines and the Proposed Mitigation Measures are Sufficient? | |
| | are the Effects on the O'Chiese Members' Ability to Exercise their Aboriginal and Treaty Right lave These Effects Been Adequately Mitigated? | |
| | Background of the O'Chiese | 20 |
| | Current use of the project area lands by the O'Chiese | 22 |
| | Would the Project Affect the O'Chiese's Use of the Project Area for Practicing its Aboriginal a Treaty Rights? | |
| | Legal Restrictions to Use or Access | 23 |
| | Physical Restrictions to Use or Access | 27 |
| | Future Use of or Avoidance of the Project Area | 28 |
| | Shell's Proposed Commitments to Mitigate Effects on O'Chiese | 30 |
| | Conclusion on the Effects on the O'Chiese's Ability to Exercise its Aboriginal and Treaty Righ | ts3′ |
| What | are the Social and Economic Effects? | 32 |
| | Traffic, Dust, and Noise | 32 |
| | Employment | 33 |
| | Economic Effects | 33 |
| | Conclusion on the Social and Economic Effects | 34 |
| Has t | he Applicant Met Requirements for Stakeholder Engagement for the Project? | 34 |
| | Conclusion on Whether the Applicant Met Requirements for Stakeholder Engagement for the Project? | 34 |
| | | |

| Со | nclusion | | 34 | |
|-----|------------------------------------|---------------------------------------|----|--|
| Ар | pendix 1 | Summary of Conditions and Commitments | 36 | |
| Со | nditions | | 36 | |
| Со | mmitments | by Shell | 36 | |
| Ар | pendix 2 | ACO Hearing Report | 37 | |
| Ар | pendix 3 | Hearing Participants | 40 | |
| Ар | pendix 4 | Table of Concordance | 42 | |
| Fig | jures | | | |
| 1 | Map of the | e project area | 56 | |
| 2 | 2 Detailed map of the project area | | | |

2017 ABAER 002

Shell Canada Limited An Application for Two Pipeline Licences and an **Application for a Pipeline Agreement**

Applications 1823846 and PLA 150215 Proceeding ID 341

Decision

[1] The Alberta Energy Regulator (AER) approves Shell Canada Limited's (Shell's) application 1823846 and its application for public lands agreement (PLA) 150215 subject to the conditions in appendix 1.

Introduction

Applications

- [2] On February 20, 2015, Shell filed application 1823846 under the *Pipeline Act* (the pipeline application) for approval to construct and operate two pipelines: a main pipeline and a spare pipeline. On February 6, 2015, Shell also filed PLA 150215 (the PLA application) for a pipeline agreement under the *Public Lands Act*. These two applications (the applications) relate to the Rocky 7 pipeline project (the project). The project would be located about 6 kilometres (km) northwest of Rocky Mountain House, Alberta, and about 27 km southeast of the O'Chiese First Nation (O'Chiese or OCFN) Reserve Lands (I.R. 203). The location of the project will be referred to throughout this decision report as the project area (see figures 1 and 2).
- [3] The main pipeline would be constructed from an existing well at Legal Subdivision (LSD) 9, Section 8, Township 40, Range 8, West of the Fifth Meridian (the Rocky 7 well), to an existing ConocoPhillips Canada compressor station at LSD 13-1-40-8W5M (the 13-1 compressor). It would transport natural gas with a hydrogen sulphide (H₂S) content of 0 per cent and would have a length of 6.99 km and an outside diameter of 114.3 millimetres (mm).
- The pipeline application also included a request for the approval of a spare pipeline for the purpose of prebuilding infrastructure under Prentice Creek and a nearby unnamed creek. It would be installed blind-end to blind-end from LSD 13-2-40-8W5M to LSD 12-2-40-8W5M. It would transport natural gas with 0 per cent H₂S and would have a length of 0.43 km and an outside diameter of 114.3 mm.

[5] Shell submitted the PLA application for a pipeline agreement that would grant access to a permanent right-of-way (ROW) with a width of 10 metres (m) in most instances and, during construction, an additional 5-metre wide temporary workspace in some locations. The ROW would be located in an area with existing oil and gas development and with other industrial disturbances. It would parallel existing linear features (i.e., a road, a powerline, and existing pipelines) for most of its length.

Proposed Amendments

- [6] On July 27, 2016, Shell committed to apply to the AER for a pipeline licence amendment if the pipeline application were to be approved and a pipeline licence issued. It proposed amending the main pipeline to change the applied-for tie-in point from the 13-1 compressor to an existing Shell riser located at LSD 12-1-40-8W5M. This change to the tie-in point would reduce the total length of the main pipeline from 6.99 km to 6.77 km.
- [7] In Shell's written submission dated August 2, 2016, it noted that the endpoint of LSD 12-2-40-8W5M in the title of the survey plan submitted for the spare pipeline was incorrect. The incorrect endpoint had then been used to populate Schedule 3.1 of the pipeline application. To correct this error, Shell requested that if its pipeline application were to be approved and a pipeline licence issued, such approval should be subject to the condition that Shell apply to the AER for a pipeline licence amendment to change the endpoint of the spare pipeline to the location of LSD 11-2-40-8W5M (the proposed route amendment.)
- [8] During the course of the hearing, Shell said that the application supplement filed with the PLA application indicated that the project would not be a multi-pipe installation. Shell noted that this was not correct and that the project would be a multi-pipe installation.
- [9] In this proceeding, the panel considered the evidence with respect to Shell's proposed amendments and also accepts the PLA application as a multi-pipe installation despite the reference in one of the schedules to the contrary. The panel finds that amending the endpoint of the main pipeline will reduce the overall length of the pipeline by 200 m and will reduce the overall footprint of the project. The panel agrees that it is necessary to correct the error on the endpoint of the spare pipeline through a licence amendment application following this proceeding.

Hearing Participants

[10] On September 29, 2014, the O'Chiese filed a pre-application statement of concern about the proposed pipelines.

- [11] On February 6 and February 24, 2015, the AER issued a public notice of application for the PLA application and the pipeline application, respectively. In response to the notices, the O'Chiese filed statements of concern.
- [12] The O'Chiese's statements of concern outlined a number of concerns, including that the pipelines would likely create habitat fragmentation for species important to it, increase opportunities for wildlife predation, increase traffic (and therefore wildlife fatalities), increase noise and dust, decrease its harvesters' sense of solitude, and prevent its harvesters from hunting in the area during construction and operation due to safety concerns. It stated that "construction of the pipeline projects will prevent the O'Chiese elders, harvesters, and other members from using the project areas."
- [13] On February 24, 2016, the AER issued a notice of hearing and on February 25, 2016, it issued an amended notice of hearing. On March 16, 2016, the O'Chiese filed a request to participate and Shell responded on March 23, 2016. On April 17, 2016, the AER advised that it would permit the O'Chiese to participate in the hearing.

Framework for Addressing the Issues

- [14] In making its decision, the panel assigned to consider the applications (the panel) considered the mandate of the AER as articulated in section 2(1) of the Responsible Energy Development Act (REDA), which is
 - a) to provide for the efficient, safe, orderly and environmentally responsible development of energy resources in Alberta through the Regulator's regulatory activities, and
 - b) in respect of energy resource activities, to regulate
 - (i) the disposition and management of public lands,
 - (ii) the protection of the environment, and
 - (iii) the conservation and management of water, including the wise allocation and use of water,

in accordance with energy resource enactments and, pursuant to this Act and the regulations, in accordance with specified enactments.

- [15] When considering the pipeline application under the *Pipeline Act*, the panel considered, as required under section 15 of REDA and section 3 of the Responsible Energy Development Act General Regulation, the following factors:
 - the social and economic effects of the proposed pipelines and
 - the effects of the proposed pipelines on the environment.

- [16] As well, the panel considered the applicable requirements of the *Public Lands Act* and the *Pipeline Act*, and the regulations and rules under them, including the provisions of the *Pipeline Act* that enable the AER to examine any matter relating to
 - the economic, orderly, and efficient development in the public interest of pipeline facilities in Alberta; and
 - the observance of safe and efficient practices in the construction and operation of pipelines.
- [17] In addition, although not explicitly set out in *REDA* or any of the other legislation administered by the AER, the AER, as a statutory decision-maker, is required to consider potential adverse impacts of energy resource applications and activities on existing rights of aboriginal peoples and the exercise of those rights, even if those impacts fall outside of the considerations listed above.
- [18] The Aboriginal Consultation Office (ACO), which has the authority for assessing the adequacy of aboriginal Crown consultation, was given all relevant notices and materials related to the PLA application. This was done in accordance with the ministerial order on aboriginal consultation (Energy 105/2014 and Environment and Sustainable Resource Development 53/2014) (ministerial order) and the Joint Operating Procedures for First Nations Consultation on Energy Resource Activities (joint operating procedures).
- [19] The ministerial order and joint operating procedures apply only to AER applications for energy resource activity approvals under the specified enactments (in this instance the *Public Lands Act*), all as defined by *REDA*. As such, the ministerial order and joint operating procedures are relevant to the panel's decision on the PLA application for a pipeline agreement.
- [20] The ACO determined in the First Nations Consultation Adequacy Assessment with respect to the PLA application dated December 9, 2014, (FNC201407950) that consultation was deemed adequate.
- [21] The ministerial order and the joint operating procedures require that before it makes a decision (in this instance a decision on the PLA application under the *Public Lands Act*), the AER must request advice from the ACO on two things: (1) whether the Government of Alberta has found consultation to have been adequate and (2) on actions that may be required to address potential impacts on existing aboriginal rights or traditional uses. The panel requested advice from the ACO before closing the evidentiary portion of the hearing. The effect of the ministerial order is that the AER is to consider the advice of the ACO on whether actions may be required to address potential adverse impacts on existing rights of aboriginal peoples or on traditional uses. The ACO gave its advice to the panel in a report (the ACO hearing report; see appendix 2). The panel considered recommendations from the ACO hearing report in its deliberations.

[22] The O'Chiese was critical of the content of the ACO's hearing report, stating that the report's conclusions were flawed. To the extent this criticism is of the ACO's determination that Crown consultation with the O'Chiese was adequate, the panel notes that, as per section 21 of REDA, it has no jurisdiction to assess the adequacy of the Crown's consultation with the O'Chiese. Therefore, that issue is outside the scope of this hearing. With regard to the O'Chiese's concerns about the ACO's characterization of the potential adverse impacts on the continued exercise of the O'Chiese's treaty and aboriginal rights and traditional uses and its advice on the proposed mitigation measures, the panel's views on the potential impacts of the project and the adequacy of the proposed mitigation measures are presented in some detail in this decision report.

Hearing

- [23] The AER held a public hearing in Calgary, Alberta, which started on September 13, 2016, and ended on November 9, 2016, before the panel, comprising hearing commissioners R. C. McManus (presiding), B. T. McManus, and B. McNeil. Those who appeared at the hearing are listed in appendix 3.
- [24] On April 29, 2016, the panel met with representatives of Shell and the O'Chiese to discuss the hearing process, including the scheduling and the scope of the hearing.
- [25] On May 17, 2016, the AER issued a notice of scheduling of hearing advising parties that it would hold a public hearing in Calgary, starting September 13, 2016.
- [26] On June 6, 2016, counsel for both parties and the AER had a conference phone call to further discuss the scope of the hearing. In a letter dated June 10, 2016, the panel stated that it would consider and hear evidence and submissions on the following issues during the hearing:
 - the technical merits and necessity of the applications;
 - the potential impacts of the applications, including impacts on the O'Chiese and environmental and social impacts;
 - proposed mitigation measures;
 - pipeline routing; and
 - other issues that are relevant and material to the panel's determination in respect of the applications.
- [27] The June 10, 2016, letter also advised that the panel would not hear evidence and submissions on the following issues at the hearing:
 - the adequacy of Crown consultation associated with the rights of aboriginal peoples;

- the ACO consultation process and requirements, including ACO consultation adequacy and the operation on the ministerial order;
- regional cumulative effects without evidence demonstrating a link to the applications;
- combining Shell's applications within the Rocky Exploration project for consideration by the AER (the panel is only deciding applications 1823846 and PLA 150215); and
- compensation for impacts of the project on the O'Chiese.
- [28] On September 9, 2016, the panel members, AER staff, and representatives from both Shell and the O'Chiese travelled to the area of the proposed pipelines and the panel conducted a site visit. The site visit was conducted in accordance with the process set out in the letters to parties dated September 2 and 8, 2016.
- [29] The hearing took place over the course of three and a half days. Many individuals from the O'Chiese attended the hearing to observe and/or give evidence. As noted, representatives from the ACO also observed the hearing.
- [30] On September 15, 2016, the hearing was adjourned pending the receipt of the ACO hearing report. The ACO advised the panel that it would submit its report on October 27, 2016, and the hearing was scheduled to resume November 9, 2016. This gave the panel and the parties time to review it before final argument.
- [31] The ACO hearing report confirmed that consultation was adequate and provided advice on a recommendation for mitigation measures or avoidance on an area identified by the ACO as "Area 5 prayer flag."
- [32] The hearing resumed for final argument on November 9, 2016, and closed the same day.

Issues

- [33] The issues and focus of evidence in the hearing were primarily related to the O'Chiese's concerns that the project would impact its members' ability to exercise its aboriginal and treaty rights in the project area. In addressing these issues, the panel will consider both its AER legislative mandate and issues raised by the O'Chiese. In so doing, the panel will determine whether the pipelines are needed, whether they could be constructed and operated safely, and whether the proposed route would be suitable considering routing criteria and the environmental effects. It will then consider the effects of the proposed pipelines on the O'Chiese's ability to exercise its aboriginal and treaty rights. To help it make its decision and address the issues, the panel has framed the following questions:
 - 1) Is the project needed and does it provide for the efficient and orderly development of Alberta's energy resources?

- 2) Is the applied-for pipeline route suitable?
- 3) Can the proposed project be constructed and operated safely?
- 4) What are the potential environmental effects of the proposed pipelines and are the proposed mitigation measures sufficient?
- 5) What are the effects on the O'Chiese members' ability to exercise their aboriginal and treaty rights and have these effects been adequately mitigated?
- 6) What are the social and economic effects?
- 7) Has the applicant met AER requirements for stakeholder engagement for the project?
- [34] In reaching its decision, the panel has considered all relevant materials constituting the record of this proceeding, including the evidence and argument provided by each party and the ACO report. 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.

Is the Project Needed and Does it Provide for the Efficient and Orderly Development of Alberta's **Energy Resources?**

Is the Main Pipeline Needed?

- [35] Shell stated that the main pipeline is needed to transport production from the Rocky 7 well, which is expected to produce from the Duvernay Formation. Producing from the Rocky 7 well would assist Shell in assessing long-term production from and the commercial viability and reservoir performance of the Duvernay Formation in this area. The gas would be transported from the 13-1 compressor to the Centrica Canada Limited Ferrier gas plant, which Shell stated is the main gas plant in the area with available capacity. Shell said it has gas handling and production agreements with Centrica Canada Limited to be able to produce the Rocky 7 well.
- [36] Shell's evidence that a pipeline from the Rocky 7 well to production facilities in the area is needed to produce from the Rocky 7 well was uncontested.
- [37] The panel accepts Shell's evidence and finds that a pipeline is needed in order for Shell to produce from the Rocky 7 well.

Is the Spare Pipeline Needed?

[38] Shell noted that the pipeline application includes the installation of a spare pipeline under Prentice Creek and a nearby unnamed creek. It would be installed in the same single borehole as the main pipeline. The spare pipeline would be the same specification (type, material, and grade) as the main

- pipeline. Shell stated that the purpose of the spare pipeline would be to provide for an existing crossing option to limit the impact of any subsequent pipeline crossing, whether that would be an additional pipeline or whether it would be required in the unlikely event of a pipeline integrity issue on the proposed main pipeline within the crossing.
- [39] The O'Chiese submitted that the spare pipeline demonstrated that Shell has future plans for pipeline construction in its traditional territory as part of a larger exploration project and that particulars of these plans have not been given to the O'Chiese.
- [40] Shell confirmed that it proposes capping the spare pipeline on both ends and using it in the event of potential future pipeline development or in case operational problems arise with the original main pipeline. It maintained that this is both a Shell and industry standard practice and that installing a spare pipeline at the crossing is prudent. Shell maintained that there would not be any additional environmental impact from installing the spare pipeline at the crossing since it would install the spare pipeline and main pipeline in the same borehole at the same time.
- [41] The panel finds that installing the spare pipeline crossing in a single borehole will not result in an incremental environmental impact and that it is a prudent and sound practice in that it may avoid future disturbance. The panel finds that the spare pipeline is consistent with the efficient and orderly development of Alberta's energy resource development and is therefore needed. Further, whether or not Shell may have plans in the future for this area is not a subject of this proceeding and the panel is not approving, endorsing, or even considering future plans.

Are Other Options Available to Transport Gas from the Rocky 7 Well and Were They Assessed by Shell?

- [42] The O'Chiese stated that the pipeline application was deficient as Shell had failed to give the particulars of other facilities or routing options evaluated by Shell in the vicinity of the project area.
- [43] In its reply submission of August 30, 2016, Shell stated that it had assessed other potentially relevant infrastructure in the area. Shell gave additional detail on other options that it had evaluated for producing the Rocky 7 well and why it had determined those options to be either infeasible or inferior to the proposed pipeline application.
- [44] Shell described three options that would have used existing pipeline infrastructure and processing facilities in the area of the Rocky 7 well. It determined that these options did not have sufficient capacity to take production from the Rocky 7 well.
- [45] Shell also described an option to tie in the Rocky 7 well to a Centrica Canada Limited riser located at LSD 14-18-40-7W5M riser. This option would have involved a pipeline route about 10 km in length. Shell determined that the length of this route, when compared with the length of the route in the applied-for project, would result in a greater environmental impact and rejected it on that basis.

- [46] Shell stated that the proposed project was the best of the options as it ensured adequate and secure capacity on downstream pipelines and gas processing facilities. It was also the option that was shorter and would impact the environment less than the other options it considered.
- [47] In considering the options that Shell described and the factors it considered, the panel finds that Shell satisfactorily evaluated other potential options to tie in the Rocky 7 well.

Conclusion on the Project Need and the Efficient and Orderly Development of Alberta's Energy Resources

[48] Given that the main pipeline is needed and that the spare pipeline is prudent and will not create an incremental impact, the panel is satisfied with Shell's review of other options and finds that the project provides for efficient and orderly development.

Is the Applied-for Pipeline Route Suitable?

- [49] Shell argued that the proposed route is a textbook example of the application of sound routing principles and that it minimizes the overall impact to the fullest extent practicable while meeting Shell's technical and commercial objectives.
- [50] In describing its planning process, Shell identified a number of general criteria that it uses in pipeline routing. It stated that these routing principles are "well established, accepted, and sound" and include
 - minimizing water body and watercourse crossings;
 - minimizing fragmentation;
 - paralleling other linear features or disturbances;
 - minimizing the amount of borrowed materials required;
 - planning access such that future pipeline needs are considered and integrated;
 - using horizontal directional drilling (HDD), doglegs, and boring to minimize disturbance and environmental impact;
 - clearing disturbances to a variable width within approved disposition to minimize footprint;
 - avoiding environmentally sensitive areas and planning around wildlife timing restrictions; and
 - crossing roads and other pipelines at or close to ninety degrees.
- [51] Shell's view was that by using these criteria, the applied-for route (see figure 2) was determined to be the best option. The applied-for route is the shortest option that parallels various existing linear features for 6.57 km (94%) of its 6.99 km length, including pipelines, a powerline, and a road. It stated that routing along existing linear disturbances allows it to use temporary working space on

- adjacent ROWs, thereby minimizing the need for new clearing and potential fragmentation of wildlife habitat. The proposed route would use a 5-metre temporary workspace on adjacent existing linear ROWs for 94% of its length. Shell stated it has agreements with the existing adjacent disposition holders to use portions of their ROWs for temporary workspace. This would allow the proposed main pipeline to have a permanent ROW of 10 m along most of its length when adjacent to existing pipeline agreements, where 15 m would normally be required.
- [52] Shell described one alternative pipeline route it considered in connecting the Rocky 7 well to the 13-1 compressor, which was about 200 m shorter than the applied-for route. However, this route was rejected as it required a significant amount of grading and it did not parallel existing linear features (an important routing consideration for Shell) for approximately 1.6 km, as opposed to about 0.4 km for the applied-for route.
- [53] The O'Chiese submitted that the project would impact sites used for harvesting, including hunting, trapping, fishing, and gathering. It submitted that the pipelines would also impact cultural activities, including sacred sites and camping sites. Shell's evidence was that by implementing a number of proposed mitigation measures during construction (anticipated to last about 9 weeks), impacts to the exercise of the O'Chiese's aboriginal and treaty rights and traditional uses would be minimized. It further submitted that during operations, potential impacts from access control, traffic, or sensory disturbance on traditional users would be unlikely.
- [54] The O'Chiese and Shell submitted studies in support of their assertions. These studies were considered by the panel in determining the suitability of the proposed pipeline route.

[55] The O'Chiese's studies included

- *Identification of Impacts Shell Canada Limited Rocky 7 Pipelines*, prepared by the Calliou Group, August 2016;
- O'Chiese First Nation Project-Specific Site Observation Report: Shell Canada Limited Proposed Natural Gas Projects, prepared by the Calliou Group, January 13, 2015; and
- Shell Canada Limited—Rocky Exploration Project Lands Taken Up Inventory, prepared by the Calliou Group, March 24, 2015.

[56] Shell's studies included

- Cultural Resources Survey for the Shell Canada Limited Rocky 7 Pipeline Project, prepared by CH2M Hill, July 2016; and
- Site Visit To Review Reported Traditional Land Use Locations Shell Rocky 7 Pipeline Rocky Mountain House, Alberta, prepared by Lifeways, November 2, 2015.

- [57] The O'Chiese's and Shell's studies identified that the applied-for route would be in close proximity to a number of historical and ceremonial sites and in an area used for camping and traditional resource harvesting.
- [58] The Calliou study included a summary of a site visit conducted in the Rocky 7 area by the Calliou Group study team and six O'Chiese harvesters (gatherers of plants, berries, and medicines; hunters; trappers; and fishers). During this site visit, they visited culturally significant sites, including camping sites, cabin sites, hunting and gathering areas, and sacred sites and areas along the project ROW. The O'Chiese harvesters gave information on the exercise of the O'Chiese's rights in the Rocky 7 area. It concluded that the project would affect harvesting and cultural sites and increase avoidance behaviours due to dust, noise, fencing, odours, and traffic during construction and operations.
- [59] The CH2M Hill study surveyed 16 O'Chiese use areas in proximity to the proposed ROW. It determined that the proposed pipeline ROW and 5-metre wide proposed temporary workspace would cross cleared portions of two camping areas (Areas 3 and 9 as identified in the CH2M Hill report) but would not directly impact campsite features (historical cabin foundations, a collapsed log frame structure, polyethylene rope hanger, prayer flags, or hearths). However, CH2M Hill acknowledged that there would be direct interaction with campsites and potential for impact on camping activities during construction, although the likelihood of interaction during winter construction would be low. The proposed ROW would also cross several existing ATV trails that may be affected during construction. The remaining use areas surveyed by CH2M Hill are not directly within the proposed ROW and would be impacted only by noise and sensory disturbance during construction activities.
- [60] CH2M Hill identified a number of mitigations to reduce the risk of impacting specific sites identified as culturally important, such as giving information to the O'Chiese regarding timing of proposed work activities, monitoring for the O'Chiese's cultural activities during construction and reclamation stages, eliminating rollback from trail crossings where possible, and installing temporary fencing around important cultural sites near the proposed pipelines. A detailed summary of proposed mitigations are in Shell's table of concordance (see appendix 4). CH2M Hill concluded that the project as planned would have limited interaction with O'Chiese activities and would not impede the exercise of its aboriginal and treaty rights.
- [61] The panel reviewed the mitigation for the prayer flag identified at Area 5 as proposed by Shell and recommended by the ACO and the mitigations proposed by Shell for the prayer flags identified at Areas 9 and 12 and finds them appropriate. While continued avoidance of the Area 5 prayer flag and the prayer flags identified at Areas 9 and 12 and temporary fencing to reinforce the edge of the ROW relative to the prayer flags at Areas 9 and 12 during construction will not eliminate all

- potential impacts to the O'Chiese, the risk of ongoing impacts will be minimal and the continued avoidance and temporary fencing will protect these areas from physical harm during construction.
- [62] Shell submitted that the proposed mitigation measures would minimize the risk of potential interactions with traditional activities during construction and that there would likely be no potential impacts to the O'Chiese's traditional users from noise, traffic, and dust during operations.
- [63] The panel notes that Shell's general routing criteria are consistent with industry best practices and the Enhanced Approval Process Integrated Standards & Guidelines (IS&G). In this instance, the panel considers that maximizing opportunities to parallel existing linear facilities is an important routing consideration. Paralleling existing linear facilities for 94% of the proposed route reduces the need for additional new disturbance (by using workspace on adjacent linear facilities) and reduces the required permanent pipeline ROW to 10 m in width. It also minimizes potential wildlife habitat fragmentation. This should also minimize impacts to O'Chiese members' exercise of their aboriginal and treaty rights.
- [64] The panel further notes that survey plans and air photo evidence in Shell's application materials demonstrated that the proposed pipeline is consistent with current land-use activities in the area, which include existing oil and gas development.
- [65] The O'Chiese suggested some alternatives, such as directional drilling the entire pipeline. The panel notes that the O'Chiese did not submit any evidence showing that these options would be feasible.
- [66] The panel understands that the pipelines are being proposed in an area of traditional resource harvesting and that there is a potential for an impact to harvesting activities and resources. Having reviewed the mitigation measures proposed by Shell to address potential effects on important cultural and historical sites near the pipelines, the panel is satisfied that the risk of impacting some of these sites will be minimal. As addressed later in this report, there will be impacts on harvesting activities on the ROW during construction activities. If there are any impacts during long-term operations, they are expected to be minimal.

Conclusion on the Suitability of the Applied-for Route

- [67] On July 27, 2016, Shell committed to applying to the AER for a pipeline licence amendment if its pipeline application were to be approved and a pipeline licence issued, to amend the main pipeline to change the applied-for tie-in point from the 13-1 compressor to an existing Shell riser located at LSD 12-1-40-8W5M. Changing the tie-in point would reduce the total length of the pipeline from 6.99 km to 6.77 km.
- [68] The panel has considered the proposed route amendment and notes that it contemplates a route almost identical to that of the applied-for pipelines except for a new tie-in point. The panel notes

- that while it is not approving the proposed route amendment, it finds that the amendment would result in a pipeline 200 m shorter than the applied-for pipeline and reduce the overall footprint of the project.
- [69] In Shell's August 2, 2016, written submission, it noted that the survey plan submitted for the spare pipeline indicates an incorrect endpoint of LSD 12-2-40-8W5M in the title. The incorrect endpoint was used to populate Schedule 3.1 of the pipeline application. To correct this error, Shell requested that if the pipeline application were to be approved, such approval should be subject to the condition that Shell apply to the AER for a pipeline licence amendment to change the spare pipeline endpoint to a location of LSD 11-2-40-8W5M (the proposed endpoint amendment).
- [70] While it is not approving the proposed endpoint amendment, the panel agrees that it is necessary to correct this error through a licence amendment application following this proceeding.
- [71] In balancing what the panel believes to be minimal effects to campsites, ATV trails, and prayer flags and impacts to camping and harvesting activities during construction against the benefits of paralleling existing linear features for 94% of the route, the panel finds that the proposed pipeline route is a suitable option to connect the Rocky 7 well to the applied-for tie-in location.

Can the Proposed Project be Constructed and Operated Safely

- [72] The panel reviewed a number of factors in evidence associated with pipeline safety and risk reduction, including pipeline design and construction and operation safety.
- [73] Under the *Pipeline Act* and associated *Pipeline Rules*, oil and gas pipelines must be designed, constructed, and operated in compliance with relevant Canadian Standards Association (CSA) standards. Pipelines must also comply with the administrative and technical requirements contained in the *Pipeline Act* and *Pipeline Rules* to ensure that they can be operated safely in a manner that protects the public and employees. During the application process, the applicant must confirm that its pipeline meets those requirements.
- [74] The O'Chiese expressed concerns that O'Chiese harvesters practicing their rights in the vicinity of the pipelines may be exposed to H_2S contaminated air in the event of a pipeline break. Shell submitted that it does not plan to transport sour gas for the project and the application does not allow for it.

Conclusion on Whether the Project can be Constructed and Operated Safely

[75] The panel finds that the design of the pipelines meets all AER requirements and notes that Shell demonstrated in its evidence that it plans to exceed regulatory requirements in a number of construction methods and design features of the pipelines, including the following ones:

- The pipelines would be buried to a depth of at least 1.5 m from the top of the pipe for the length of the entire ROW, whereas the depth of cover requirement for the pipelines under the *Pipeline* Rules and CSA Z662-15 is 0.9 m.
- The pipelines would be constructed to the higher standards applicable for sour gas pipelines. Shell would perform x-rays on 100% of all welds and conduct hardness testing on the pipe.
- The risk of external pipeline corrosion would be reduced with the application of a yellow jacket coating, which is extremely resistant to external coating damage that may happen during construction.
- Operations for the project would be covered under Shell's Central Alberta Business Rocky Area Emergency Response Plan and in accordance with AER Directive 071: Emergency Preparedness and Response Requirements for the Petroleum Industry. The plan, while not required for this project, is on file with the AER and has been given to the O'Chiese.
- [76] Regarding the O'Chiese's concern about exposure to H₂S, the panel notes that the pipeline application does not contemplate H₂S being transported and that the pipeline licence itself would not permit H₂S transportation. Other than the concern about H₂S, which is not relevant to these pipelines, the O'Chiese did not raise specific issues regarding the engineering design of the pipelines or present evidence regarding the safety of the design or operations of the pipelines.
- [77] The panel finds that for the pipeline application, Shell has met all applicable AER regulatory requirements, including all applicable standards, which have been established to ensure the safe operations of pipelines. The panel is satisfied that the project can be constructed and operated safely.

What are the Potential Environmental Effects of the Proposed Pipelines and are the Proposed Mitigation Measures Sufficient?

- [78] Shell stated that it planned the project to minimize environmental impacts in accordance with the AER's IS&G. Shell commissioned the following reports as part of its assessment of the environmental effects of the project:
 - Pre-Construction Enhanced Approval Process Wildlife Feature Sweep and Water Body Assessment, prepared by Rangeland Conservation Service Ltd., January 14, 2016;
 - Wildlife and Vegetation Surveys and Sweep, prepared by Rangeland Conservation Service Ltd., July 31, 2016;
 - Aquatic Assessment Report for the Proposed Shell Canada Limited Rocky 7 (9-8 to 13-1-40-8 W5M) Pipeline Project, prepared by Rangeland Conservation Service Ltd., July 2016; and

Environmental Protection Plan for the Proposed Shell Canada Limited Rocky 7 (9-8 to 13-1-40-8 W5M) Pipeline Project, prepared by Rangeland Conservation Service Ltd., July 2016.

These reports considered technical information and AER requirements and concluded that there would be minimal, if any, impact on the environment in the project area.

- [79] The O'Chiese noted that the findings of these reports did not consider the effects of the project on its aboriginal and treaty rights within the project area and that the findings were of little relevance to the issues in the proceeding.
- [80] The panel is of the view that the environmental effects of the project are related to the O'Chiese's principal concern that the project would affect resources that are important to its ability to exercise aboriginal and treaty rights in the project area. Furthermore, as set out above in the "Framework for Addressing the Issues" section, the panel is required to consider the effects of the proposed pipeline on the environment. Accordingly, the panel considered evidence about environmental effects of the project, including the information from the reports in the following areas:
 - non-permanent seasonal wetland crossing,
 - creek crossings,
 - wildlife effects,
 - vegetation effects,
 - reclamation,
 - environmental protection plan, and
 - proposed environmental mitigations.

Non-Permanent Seasonal Wetland Crossing

- [81] The main pipeline would cross a non-permanent seasonal wetland. Shell proposed installing the pipeline using an open-cut method. Shell stated a preference for a winter construction on the seasonal wetland as a means of minimizing the environmental disturbance and in keeping with industry practices. Regardless of when the wetland crossing would be constructed, it would be conducted in accordance with the Alberta Code of Practice for Pipelines and Telecommunication *Lines Crossing a Water Body (Code of Practice).*
- [82] Shell maintained that compliance with the AER requirements would minimize the environmental effects to the seasonal wetland. Shell's evidence about potential effects on the seasonal wetland crossing was uncontested.

[83] The panel finds that compliance with the requirements in the Code of Practice will minimize the short- and long-term environmental effects to the seasonal wetland.

Creek Crossings

- [84] Shell proposed boring under Prentice Creek and a nearby unnamed creek and installing the pipelines in a manner that would not directly impact the creeks. It would use HDD to install or bore the pipelines beneath the creek to prevent any effects on the creek. Shell submitted that adhering to the recommendations of a qualified aquatic environment specialist, the *Code of Practice*, and the Department of Fisheries and Oceans' Measures to Avoid Causing Harm to Fish and Fish Habitat should ensure that construction would not interrupt or impact the watercourse crossings. Shell submitted that impact to the aquatic environment would be negligible to low during construction.
- [85] Shell stated that it has prepared detailed contingency plans in the event of a release of drilling fluid at creek crossings during the HDD. The spare pipeline would also be installed using HDD. If HDD were to fail or be deemed infeasible, a trenched crossing method would be investigated. Any changes to Shell's plans to use HDD would require notification and regulatory review by the AER.
- [86] Shell submitted evidence that the effects to the aquatic environment would be negligible to low during construction and that there would not be any long-term effects was uncontested.
- [87] The panel is satisfied with Shell's plan to use HDD for the creek crossings and finds that the effects to the aquatic environment will be negligible.

Wildlife Effects

- [88] The O'Chiese expressed concern that the pipelines would create habitat fragmentation, which would have adverse impacts on wildlife species important to it. It stated that the project would remove habitat, increase edge habitat, decrease interior habitat, and increase wildlife predation due to increased access.
- [89] On behalf of Shell, Rangeland Conservation Service Ltd. (Rangeland) conducted desktop research and field work to assess potential wildlife features in or within 100 m of the proposed ROW. No important wildlife features were identified and Rangeland concluded that the proposed winter construction schedule for the project would reduce the potential impact of the project on wildlife.
- [90] In considering the O'Chiese's concerns regarding habitat, the panel notes that 94% of the pipelines parallels existing linear facilities. This significantly reduces the risk of habitat fragmentation, increased edge habitat, or increased predation from new access.

- [91] The panel accepts Shell's evidence that no important wildlife features are present on the proposed pipeline ROW and that paralleling existing linear facilities for 94% of the route will minimize any habitat fragmentation or edge effects to wildlife.
- [92] The O'Chiese submitted that there would be potential wildlife disturbance from noise and traffic during the construction of the pipelines.
- [93] Shell noted that traffic levels would be temporarily higher during the construction of the pipelines and again during final cleanup and reclamation (estimated to last about 9 weeks in total) and minimal during the operating lifetime of the project. Shell noted that the context of the project area must also be considered regarding traffic levels as the project is proposed in an area with existing industrial development and would run adjacent to pre-existing linear disturbances, including an access road. Shell stated that it anticipates noise and dust levels to be minimal during construction.
- [94] Shell stated it did not expect the project construction or operation to result in any emissions or odour issues and said that it does not have any lighting plans for the project.
- [95] The panel finds that there will be short-term additional traffic, noise, and activity in the project area during construction and final cleanup activities. These activities may result in some temporary displacement or disturbance to wildlife in the area. During the operational phase of the pipelines, there will be a limited increase in traffic, noise, dust, or other disturbance. Given the existing activities surrounding the project area, the panel expects these limited incremental impacts to be minimal.

Vegetation Effects

- [96] Shell acknowledged that during construction, timber and vegetation on the ROW would be affected. The proposed pipeline project would require 6.211 hectares (ha) of new cut (vegetation and timber cover). It estimated that 17 truckloads of timber would be removed.
- [97] The O'Chiese's representatives expressed concerns about vegetation effects on the pipeline ROW. They noted that trees and vegetation would be removed by the pipeline, which would affect their hunting and harvesting activities. In their view, even after reclamation occurs, the value of vegetation in areas disturbed by a development such as a pipeline is not the same as in unaffected areas. Vegetation on the ROW would no longer have the healing power that similar plants from undisturbed areas would have.
- [98] Shell's evidence was that the removal of vegetation during construction would have minimal impact to the overall suitability of the project area for wildlife habitat and that the project would have a negligible impact on plant communities and their species.

- [99] Shell conducted environmental field sweeps, surveys, and assessments to assess the effects of vegetation removal. The surveys did not identify any rare plant species along the ROW and Shell determined that the potential for rare plant habitat was low. Shell noted that the plant communities and habitat types noted for harvesting and cultural activities by the O'Chiese are abundant and common to the region.
- [100] The panel finds that the construction of the project will not affect rare vegetation and that the vegetation and habitat communities on the ROW are common in the region. Therefore, removing vegetation on the ROW would have a negligible effect on regional plant communities and the O'Chiese's current harvesting activities.

Reclamation

- [101] Shell submitted a reclamation plan for natural re-vegetation on the ROW that is consistent with the AER's IS&G.
- [102] Although Shell notes that it prefers winter construction, it would complete final cleanup and reclamation activities in the summer following construction after giving ditch materials excavated for the pipeline trench sufficient time to settle. Shell estimated that final reclamation and cleanup would take about three weeks to complete.
- [103] The panel finds that Shell's reclamation plan is consistent with AER regulatory standards and requirements as set out in the AER's IS&G.

Environmental Protection Plan

- [104] Shell's evidence included an environmental protection plan. The environmental protection plan gave an overview of the project and the applicable environmental standards and contingency plans. It set out mitigations to be implemented during construction and reclamation under both frozen and non-frozen ground conditions. Its purpose is to ensure that Shell undertakes activities in compliance with all regulatory requirements and to ensure that commitments and mitigation measures are captured and incorporated into the construction plan.
- [105] The panel notes that Shell's environmental protection plan gives a detailed description of the measures to be used by construction personnel during construction and reclamation. It includes mitigation measures to be implemented for pipeline construction and reclamation during both frozen and non-frozen conditions. It is consistent with the AER's IS&G and will guide Shell personnel and contractors on the construction of the project on public lands.
- [106] The panel notes that to implement the plan, Shell has offered to fund community environmental monitors for clearing, construction, and reclamation activities associated with the project. The O'Chiese stated that it would not be beneficial because it felt the offer was not meaningful.

However, the panel is of a view that this could be an opportunity for the community to confirm the extent to which the measures outlined in the environmental protection plan are adhered to and the related environmental risks are mitigated.

[107] The panel expects that if Shell follows its environmental protection plan, it will comply with regulatory requirements. This will minimize the extent of environmental impacts associated with construction of the proposed pipelines.

Proposed Environmental Mitigations

- [108] Shell submitted that it has addressed and minimized the project's potential impacts on the environment through planning and routing, proposed construction and mitigation measures as outlined in the environmental protection plan, and commitments and mitigations as summarized in the table of concordance (see appendix 4). Shell's mitigations and commitments include
 - weed control and use of herbicides;
 - environmental impacts, including habitat fragmentation, wildlife predation, decreased interior habitat, and increased edge habitat; and
 - increased accidents and malfunctions due to pipeline operations.
- [109] The panel has reviewed the proposed environmental mitigations for the project and finds that they meet or exceed the applicable regulatory requirements and are consistent with environmentally responsible development.

Conclusion on Whether the Potential Environmental Effects of the Proposed Pipelines and the Proposed Mitigation Measures are Sufficient?

- [110] The panel finds that the effects of the project on the environment will be minimal. By planning the project in compliance with the AER's IS&G and paralleling existing facilities for 94% of the length of the proposed pipelines, the potential for habitat fragmentation, increased risk of predation, and increased edge habitat and decreased interior habitat are minimized. Using HDD methods to construct creek crossings will minimize any construction or operational risks to surface water. By preparing and adhering to construction plans and mitigation measures in the environmental protection plan and adhering to requirements and guidance in the AER's IS&G, the risk of environmental issues arising during construction or operations are minimized.
- [111] The panel concludes that the overall environmental plans and mitigation measures for the project reflect the requirements of environmentally responsible development, will minimize environmental risks, and are acceptable to the panel. The panel finds that the risks to the environment from the project are minimal and that these risks are acceptable when considering the project benefits.

[112] The panel also finds that the proposed amendments requested by Shell will reduce the footprint of the project and, therefore, further mitigate potential environmental impacts.

What are the Effects on the O'Chiese Members' Ability to Exercise their Aboriginal and Treaty Rights and Have These Effects Been Adequately Mitigated?

- [113] Counsel for the O'Chiese asserted and Shell agreed that the question before the panel was to determine the magnitude of the impact on the ability of O'Chiese members to exercise their aboriginal and treaty rights in the project area and the extent to which any effects could be mitigated. Counsel for the O'Chiese stated that impacts would be significant and adverse and that they could not be satisfactorily mitigated by the measures Shell proposed. Counsel for Shell argued that while Shell has never denied that the O'Chiese's use of the area would be affected, the effects would be minimal and limited in time. It stated further that the O'Chiese's use of the area is already affected by existing development.
- [114] In considering this question, the panel chose to examine how O'Chiese members have used and are currently using the project area. It then identified and discussed the potential barriers to O'Chiese members' future use of these lands if the proposed pipeline project were constructed as applied for. The panel then assessed the mitigations proposed by Shell and has provided its findings.
- [115] For the purpose of this examination and discussion, the panel considered the project area as including the ROW as well as lands in proximity on either side of the ROW.

Background of the O'Chiese

- [116] The O'Chiese is of a Saulteaux Ojibway culture located within Treaty 6 territory. The O'Chiese has about 1300 people living in its community. The project area would be about 27 km southeast of I.R. 203.
- [117] The O'Chiese signed an adhesion to Treaty 6 on May 13, 1950. Treaty 6 sets out the rights of the O'Chiese to hunt and fish on unoccupied Crown lands within the Province of Alberta; these rights are constitutionally protected under Section 35 of the Constitution Act. During the hearing, the O'Chiese presented evidence that its members have practiced and continue to practice these rights in their traditional territory, which overlaps the proposed project area.
- [118] The O'Chiese stated that the land in the area of the project is an area of historic and cultural significance to it and has been used for generations. It stated that there is abundant physical and oral evidence of historic and current use of these lands for resource harvesting, travel, occupation, and ceremonial purposes.
- [119] At the hearing, fourteen O'Chiese elders, harvesters, and truth-keepers, as representatives of the O'Chiese community, testified as to the significance of the general project area (also referred to as

the Jackpine area by the O'Chiese). The representatives described their strong memories of the Jackpine area. It was used historically as a summer camping area and sun dance area. Remaining wagon trails and cabins show that the Jackpine area was used as a transition point for travel between the two worlds of the O'Chiese's reserve and the supply and trading center of Rocky Mountain House. Cabins symbolize the connection to the past with the elders and signify that this was a sacred place. One member of the witness panel recounted clear memories of staying in one of the cabins; others told the stories of learning to hunt and harvest in the Jackpine area.

- [120] The Jackpine area remains an important area to O'Chiese members for the exercise of their aboriginal and treaty rights.
- [121] An O'Chiese representative testified that the O'Chiese's value system is different than that of western society and that it needs to be acknowledged and respected. Further, the O'Chiese asked to be heard, to be recognized, and to be respected as a nation and to continue to practice who it is and what it is to the land.
- [122] The O'Chiese members informed the panel about their worldview as it relates to its connection to the land and the natural laws that guide the O'Chiese's practices and beliefs. W. Hildebrandt, on behalf of the O'Chiese, gave a historical perspective on the O'Chiese relating to treaty, livelihoods, values, and worldviews. Some of these principles include
 - Witakewining (living together on the land)—a principle that applies philosophical and spiritual laws to living on the land. In treaty making, it is a concept applied to nations or strangers new to the land and entails sharing land or territory with each other as the Creator would wish. It implies that both sides should benefit from each other to prosper on the land;
 - Bemacheehowen—a principle or doctrine referring to the land and the need, even requirement, to make a living from the land and to provide for those in need. Bemacheehowen, as it relates to treaties, guarantees the continuing right of First Nations to make a living and to allow the Saulteaux to continue their relationship to the land; and
 - Quayanthatoog—sharing land and resources in ways that allow for making a living as times change and new technologies become available.
- [123]O'Chiese elders, harvesters, and truth-keepers elaborated on cultural protocols relating to harvesting, ceremonies, and prayer flag sites. Dr. Hildebrandt's evidence was that print and cloth offerings are placed or hung in sacred places and also that these areas are considered "clean" and that offerings are not to be tampered with.
- [124] The panel heard that having lands "clean" or "pure" is important to the O'Chiese. This is reflected in the O'Chiese term Ganadaan. Ganadaan can be roughly translated to mean a place that is clean and sacred and undisturbed. The O'Chiese witnesses stated that in its daily life it strives to balance

two realities: the O'Chiese's values and practices and those of western society. The panel heard about the conditions harvesters prefer when exercising their aboriginal rights, including a sense of solitude, the opportunity to teach their traditions, and concerns about how access restrictions and other regulations have affected harvesting behaviors.

Current use of the project area lands by the O'Chiese

- [125] O'Chiese representatives described current uses of the project area for hunting, trapping, and fishing. They also described the harvesting of berries and medicinal plants and ceremonial activities in the project area. O'Chiese representatives confirmed that the project area has historically been used and is currently being used for ceremonial purposes.
- [126] The evidence of these representatives was that the project area is important to the O'Chiese and is currently used for practicing treaty and aboriginal rights, despite the existing industrial infrastructure and development activity in the area.
- [127] Current use of the project area by O'Chiese members was also identified in studies submitted by the O'Chiese and Shell.

[128] The O'Chiese's studies included

- Identification of Impacts Shell Canada Limited Rocky 7 Pipelines, prepared by the Calliou Group, August 2016;
- O'Chiese First Nation Project-Specific Site Observation Report: Shell Canada Limited Proposed Natural Gas Projects, prepared by the Calliou Group, January 13, 2015; and
- Shell Canada Limited—Rocky Exploration Project Lands Taken Up Inventory, prepared by the Calliou Group, March 24, 2015.

[129] Shell's studies included

- Cultural Resources Survey for the Shell Canada Limited Rocky 7 Pipeline Project, prepared by CH2M Hill, July 2016; and
- Site Visit To Review Reported Traditional Land Use Locations Shell Rocky 7 Pipeline Rocky Mountain House, Alberta, prepared by Lifeways, November 2, 2015.
- [130] The 2016 Calliou Group report states that the project area is known for ceremonial sites, including three Sundance sites, with uncertain time frames associated with their use. This same report confirmed that existing conditions in the project area before construction support the requirements necessary for the O'Chiese to exercise their right to ceremonies and sacred sites. Shell's Lifeways and CH2M reports similarly identified evidence of historical and current use of the project area.

Studies by both the O'Chiese and Shell confirmed the presence of ceremonial prayer flags in the project area.

Would the Project Affect the O'Chiese's Use of the Project Area for Practicing its Aboriginal and Treaty Rights?

- [131] The O'Chiese expressed concerns that the proposed project would have negative environmental impacts and affect the ability of its members to practice their aboriginal and treaty rights in the project area. These concerns included
 - increased traffic, light, dust, and noise due to construction activities in the vicinity that may result in wildlife disturbance and fatalities;
 - destruction of wildlife habitat and vegetation;
 - decreased sense of solitude for O'Chiese harvesters during construction and operation activities:
 - the inability of O'Chiese harvesters to hunt or gather in the area around Shell's pipeline projects during construction and operation due to safety concerns; and
 - restricted aboriginal and treaty rights because unoccupied Crown land would be lost and O'Chiese hunters and gatherers' access to the pipeline ROW would be restricted.
- [132] In considering the potential effects of the project on current use of the area by the O'Chiese, the panel has categorized the O'Chiese's concerns into the following three types of potential barriers:
 - legal restrictions to use or access,
 - physical restrictions to use or access, and
 - future use of or avoidance of the project area.

After considering these potential barriers the panel will address Shell's related mitigation commitments.

Legal Restrictions to Use or Access

[133] The O'Chiese presented evidence that the Shell pipeline project would establish restrictions that would prevent or limit O'Chiese members exercising their aboriginal and treaty rights within the proposed pipeline ROW and would also establish an exclusion zone of about 200 m around the proposed pipeline ROW. In the subsections below, the panel considers this evidence within the context of both the pipeline ROW itself and the exclusion zone as described by O'Chiese.

Pipeline ROW

- [134] The O'Chiese's expert, the Calliou Group, presented evidence, some of which relied on legal interpretation, in support of the conclusion that the effect of issuing a disposition under the *Public* Lands Act to Shell was to limit the O'Chiese's access to the lands or make it so that O'Chiese members would require permission to access the lands. In support of this conclusion, the Calliou Group relied upon documents such as the Government of Alberta's Standard Operating Procedure (SOP L01): Applying the Public Lands Administration Regulation (PLAR) to Aboriginal Issues (SOP L01) and the standard terms of a pipeline agreement and a pipeline installation lease. The Calliou Group also relied on the *Petty Trespass Act*. The panel notes that the Calliou Group's witnesses, S. McGarvey and T. Campbell, who spoke extensively on these and other legally related issues, do not have formal legal training or backgrounds.
- [135] In its testimony, the Calliou Group repeatedly referred to the standard terms of a pipeline installation lease as forming the basis for the conclusion that once a disposition is issued, O'Chiese members would either have limited access to the land under disposition or be required to have permission to access such lands. However, at other times, it referred to a pipeline agreement as forming the basis of Calliou's conclusion. The panel notes that while some terms in these two dispositions are the same, these dispositions are distinct and Shell is not applying for a pipeline installation lease as part of this proceeding. The panel found that to the extent Calliou's evidence on this issue referred to the effect of a pipeline installation lease, it was not helpful.
- [136] Shell argued that a pipeline agreement is akin to an ROW agreement and does not give the holder exclusive surface possession or the ability to restrict the access of third parties unless that access interferes with the ability of the holder to use the lands for the purpose in which they were granted. In particular, Shell's position was that it does not intend to, nor does it believe that it has the ability to, restrict access to the subject ROW outside of limited periods where access may be restricted for safety reasons during construction or where pipeline maintenance or repairs may be required. In reaching this conclusion, Shell relied on the PLAR Handbook of Instruments, the SOP L01, and the standard terms of a pipeline agreement.
- [137] The panel accepts Shell's position and finds that, in the circumstances, issuing a pipeline agreement to Shell will not give Shell the ability to restrict the access of O'Chiese members unless such access conflicts with Shell's ability to use the lands for the purpose for which they were granted (i.e., the construction and operation of a pipeline). This finding is consistent with the *Public Lands Act*, the Public Lands Administration Regulation, and the terms of a pipeline agreement. It is also consistent with Government of Alberta policy, such as the PLAR Formal Dispositions Directive No. 1. This policy states that a pipeline agreement is an ROW agreement issued for the installation and maintenance of a pipeline and "conveys an interest in public land, but not exclusive right of access." Furthermore, the panel notes that Shell has confirmed, given its interpretation, that it will only (and

- can only) restrict access to the lands during construction for safety reasons and for required maintenance or pipeline integrity purposes.
- [138] The Calliou Group also gave evidence that no right of access exists for the exercise of aboriginal and treaty rights for public lands under most formal dispositions, including the pipeline agreement that is the subject of this proceeding. It relied on the *Petty Trespass Act* to support this conclusion. However, during the hearing Ms. Campbell testified that this should not be taken as an absolute statement and acknowledged that there is ambiguity in the application of the Petty Trespass Act. She asserted that the Petty Trespass Act would act as a disincentive for some O'Chiese members accessing the pipeline ROW to practice aboriginal and treaty rights. Shell submitted evidence that while it would restrict access to the pipeline ROW during construction, it does not intend to restrict access during the operational phase of the pipeline with a fence or other kind of boundary. Shell stated that with a few limited exceptions, permission from Shell would not be required to access the pipeline ROW and that the *Petty Trespass Act* does not apply.
- [139] The panel accepts the O'Chiese's evidence that perceived ambiguity in the application of the *Petty* Trespass Act could deter some members from accessing the ROW. However, as the panel concluded above, the pipeline agreement allows O'Chiese members access to exercise aboriginal and treaty rights outside of times when construction or maintenance is occurring or in the event of a pipeline integrity issue. Outside of these limited periods of restricted access, O'Chiese members will be able to access the pipeline ROW to exercise aboriginal and treaty rights in the same manner as they currently do on existing pipeline ROWs in the area, including the pipeline ROW's adjoining this pipeline. The panel also notes Shell's testimony that it will not require O'Chiese members to obtain Shell's permission to access the ROW. The panel finds that the pipeline agreement sought by Shell will not restrict the O'Chiese's ability to exercise aboriginal and treaty rights on the proposed pipeline ROW other than during limited periods of time related to construction, maintenance, or repairs and on portions of the ROW affected by Shell's activities during these periods. Outside of these limited periods of restricted access, the panel concludes that O'Chiese members will be able to exercise their aboriginal and treaty rights in the same way they currently do on existing pipeline ROWs in the area, including the pipeline ROW's adjoining the proposed pipeline. The panel reaches this conclusion because of the nature of this pipeline agreement and also because of Shell's evidence that it will not restrict O'Chiese members' access outside of limited periods of time. Impacts to access from such restriction will be minimal given current use of proximate development in the area by O'Chiese members and given the small area (10 m ROW width) of additional development/clearing from the proposed project.
- [140] Further, the panel finds that even if restrictions as described by Calliou were to occur, the impact of these restrictions on O'Chiese are minimal given the evidence that some O'Chiese members already currently exercise aboriginal and treaty rights on existing pipeline ROWs in the area, including the

- ones adjoining the proposed project that would presumably be subject to the same restrictions. In addition, the proposed pipeline ROW is also relatively small (10 m) when compared with existing ROWs adjacent to it in the area. As a result, there would be little incremental change to the size of the area of suggested restricted access.
- [141] In considering the evidence and arguments raised by the parties in relation to access to the proposed pipeline ROW, it appears to the panel that it will be helpful if Shell notifies the O'Chiese, not only before construction activities as Shell has already committed to do, but before conducting any other construction or maintenance along the pipeline ROW and as soon as reasonably possible in the event of a pipeline integrity issue. This will ensure that the O'Chiese is aware of when Shell personnel will be on the pipeline ROW during the operational phase of the pipeline.
- [142] The panel also heard evidence and argument about whether the lands become occupied Crown lands if dispositions are issued to Shell. The O'Chiese took the position that if a pipeline agreement were to be issued to Shell, the lands would no longer be unoccupied Crown lands, and they would no longer be as the O'Chiese requires—clean. Shell took the position that the lands would not be occupied as a result of this project as the O'Chiese would be able to continue to use the ROW uninhibited and that Shell would not and cannot restrict such use and access. It is not necessary for this panel to decide if the lands should be described as occupied or unoccupied once a disposition is issued to Shell. Instead, this panel needs to determine impacts to the exercise of O'Chiese's rights from the project. The panel concludes that there will be temporary limitations on O'Chiese members' access to the lands resulting in some minimal impacts to the exercise of their rights.

Exclusion zone

- [143] The O'Chiese also presented evidence that the pipeline project would establish limits that either would or might prevent O'Chiese members from exercising their aboriginal and treaty rights within an exclusion zone of approximately 200 m around the proposed pipeline ROW. In reaching this conclusion, the Calliou Group relied, in part, on the indirect application of provincial hunting regulations that make it unlawful to discharge a firearm where concerns regarding safety or property exist. The Calliou Group maintained that Shell could have personnel on the pipeline ROW at any time and that the presence of personnel would prevent O'Chiese members from exercising their hunting rights due to concerns regarding safety and property.
- [144] Shell presented evidence that it anticipated project personnel to be on site during the construction phase (estimated to last about 9 weeks) and intermittently and infrequently on site during the operational phase of the project.
- [145] The panel accepts that while the provincial hunting regulations do not directly apply to a pipeline agreement, some O'Chiese members may choose not to hunt within 200 m of the pipeline ROW due to concerns about safety or property. The panel accepts Shell's evidence that workers will only be

on the ROW intermittently and infrequently during the operational phase of the project. However, the panel also notes that some O'Chiese members are currently exercising their rights on existing pipeline ROWs, including those adjacent to the proposed pipeline ROW. The proposed ROW is within 200 m of other existing pipeline ROWs and a road where presumably these same restrictions exist. Accordingly, the panel finds the impacts of the project on O'Chiese members hunting practices to be minimal.

[146] The panel recognizes that there were other factors used by the Calliou Group to develop the exclusion zone, such as alleged negative effects from project operations and O'Chiese members' preferred means of exercising their rights. The panel concludes that the presented zone reflects an area of avoidance at most and not actual exclusion from the mapped areas. However, for reasons stated earlier, the panel finds the impact of the project on the O'Chiese's ability to exercise its aboriginal and treaty rights to be minimal and that current O'Chiese activities in nearby developed areas suggest some members will continue to exercise their rights in the exclusion zone as described by the O'Chiese.

Physical Restrictions to Use or Access

- [147] Shell described two periods of activity in constructing the pipelines and reclaiming the ROW. It anticipated that it would construct the pipelines during the first quarter of 2017 and expected this to take about six weeks. It would then initiate final cleanup and reclamation activities in the summer of 2017, which are expected to take about three weeks. Between these two periods of activity, a berm of topsoil would be left on the ROW to be spread as part of final cleanup and reclamation activities.
- [148] Shell described that during construction, two 800 m "spreads" of equipment and workers would be active on the pipeline ROW. Each spread would move progressively down the ROW until pipeline construction is complete. While construction is ongoing, access to these areas of the ROW would be restricted for public safety purposes. Shell also noted that it expects about 120 m of the ditch on each spread to be left open each night when construction activities end for the day. These areas of open ditch would be fenced to prevent animals or humans from accidentally falling into the trench.
- [149] Shell acknowledged that there would be some restrictions on access to the ROW during construction and final cleanup and reclamation. These temporary restrictions would affect portions of the ROW area during this time. However, Shell stated that once pipeline construction and final cleanup and reclamation have been completed, there would be no physical barriers to restrict access to the pipeline ROW, except in the unusual instances where pipeline repairs may be necessary. Shell indicated that it intends to install windrow breaks and keep rollback off game trails and ATV trails during and after construction.

- [150] The panel finds that there will be some temporary physical restrictions on the project ROW. However, the panel accepts Shell's evidence that once it completes construction and reclamation activities, no long-term physical restrictions preventing the O'Chiese from exercising its aboriginal and treaty rights on the project ROW would occur during normal operations. Only in instances where there may be an emergency or required maintenance will there be any physical restrictions on O'Chiese members exercising their rights on the ROW. The panel expects these instances to be rare and any restriction to be temporary and notes that this same situation exists for the existing pipelines that the project is to parallel.
- [151] Given that the extent of physical restriction is short-term (during construction, reclamation, and potentially the intervening period) and that the risk that maintenance or emergency situations may restrict access to some portion of the ROW at unspecified future points is limited, the panel is satisfied that in balancing these effects, the benefits of the project outweigh the potential restrictions that may apply to the practice of aboriginal and treaty rights on this 7.47 ha portion of the O'Chiese's traditional use area.

Future Use of or Avoidance of the Project Area

- [152] O'Chiese community representatives, elders, harvesters, and truth-keepers presented evidence of past and current use and occupancy of the area for traditional purposes. They described hunting and harvesting moose in the area, fishing, ceremonial use of the area, and berry gathering. They also described the concept of Ganadaan and were concerned that medicinal plants would no longer have healing powers when harvested from an area that has been disturbed or is "unclean."
- [153] The Calliou Group presented evidence that beyond the temporary construction period, the presence of the project would be a barrier to using the lands on the ROW for the purpose of exercising aboriginal and treaty rights. It presented survey evidence indicating that while some O'Chiese members hunt or gather on a pipeline ROW, others prefer to not hunt in proximity to disturbed areas and avoid hunting or gathering activities up to 1.5 km from areas of industrial disturbance such as a pipeline ROW.
- [154] The Calliou Group also reported that O'Chiese members who participated in the Calliou Group's research prefer not to harvest plants and medicines in areas that are disturbed or are not clean. Its survey found that the presence of workers, equipment, infrastructure, signs, fencing, odour, noise, traffic, and dust influence avoidance behaviours and affect the O'Chiese's preferred cultural activity conditions. The Calliou Group's evidence was that the presence of Shell's pipelines would increase avoidance of the project area and, therefore, present a barrier to exercising rights.

- [155] Shell challenged the validity of these avoidance behaviors. It noted that traditional land use and cultural activities are currently being conducted in proximity to existing industrial development and pipeline ROWs in the project area.
- [156] Shell stated that the project would be substantially in proximity to existing development. Shell's evidence was that, based on the Calliou Group's analysis of avoidance zones, the proposed pipeline ROW would be within existing avoidance zones related to existing private lands, grazing leases, primary roads or highways, secondary roads, lease roads, existing pipeline ROWs, powerlines, well pads, oil and gas facilities, gates, fences, and signs.
- [157] The panel notes that both the O'Chiese and Shell presented evidence that the proposed project area is historically important and is currently used for the practice of traditional aboriginal and treaty rights. The panel finds that the project area, based on its proximity to existing pipelines, roads, grazing leases, powerlines, and other industrial development, lies within an area that the O'Chiese would already define as an avoidance zone.
- [158] The Calliou Group's evidence was that some O'Chiese members would avoid practicing aboriginal and treaty rights on disturbed lands and yet others prefer those same areas. The panel notes that although the O'Chiese prefer harvesting in clean and undisturbed areas, free of features such as signs, odours, and workers that would encourage avoidance, their actual choices and activities differ. This evidence of current use of the project area does not support the conclusion that the area would not be used by any O'Chiese members following construction of the project. The evidence presented did not explain why this project, with minimal incremental physical impacts, would change all past practices of members using similar areas.
- [159] Given the evidence of O'Chiese members' current use and the current level of existing industrial use of the project area, the panel concludes that the addition of the project will have minimal incremental effect on avoidance behaviours of the O'Chiese to continue to practice aboriginal and treaty rights in the project area. The panel finds that Shell has designed the project and has proposed reasonable mitigations to reduce the impacts on the O'Chiese's continued practice of its aboriginal and treaty rights.
- [160] The O'Chiese submitted that its rights are infringed if it cannot practice its rights using its preferred means and that in this matter, because it cannot have its preferred clean conditions to exercise its rights, those rights are infringed. The panel notes that it may be correct that an aboriginal right is infringed if it cannot be exercised using the preferred means; however, the concept has no application in this matter as the panel is not conducting, and is not required to conduct, an infringement analysis as contemplated in R v. Sparrow. The panel also questions whether preferred means, as referred to when discussing infringement of rights, describes preferred conditions as

suggested by the O'Chiese or whether that term refers to preferred methods. However, this panel does not have to decide that question.

Shell's Proposed Commitments to Mitigate Effects on O'Chiese

- [161] Shell acknowledged that there would be some temporary impacts to the O'Chiese during construction. It noted that any potential impact from the project could be effectively minimized or mitigated by routing, design, and construction practices. It maintained that it has made substantial efforts to mitigate effects, including
 - offering to fund the participation of an O'Chiese community or environmental monitor during construction activities to assist in identifying any areas of previously unidentified community, cultural, or environmental importance within the ROW and assist with mitigation where practicable (not accepted by the O'Chiese);
 - offering to incorporate the O'Chiese's input into reclamation activities for the ROW, including potentially targeting plant species of interest to the O'Chiese (not accepted by the O'Chiese);
 - funding a traditional land-use study;
 - using specific mitigation measures from the CH2M report, which identifies 16 areas of concern to the O'Chiese and commits specific mitigation measures to address them in the environmental protection plan;
 - providing 14 days notice in advance of initiating construction activities;
 - constructing in winter to minimize conflicts with the effects on berry and plant harvesting; and
 - implementing all mitigation measures recommended in the CH2M Hill report and ensuring that all measures are incorporated into the environmental protection plan.
- [162] A comprehensive detailed summary of Shell's mitigation commitments to address the O'Chiese's concerns are summarized in a concordance table submitted by Shell (see appendix 4).
- [163] The O'Chiese stated at the hearing that it would not request specific mitigations. On several occasions it clearly stated its view that the effects of the proposed project could not be mitigated. The only mitigation or outcome that would have met its objections would be that the project not be allowed to proceed.
- [164] However, Shell stated in its final argument that it has been and remains willing to incorporate the O'Chiese's feedback into its various mitigation measures.
- [165] In making its decision, the panel has considered Shell's proposed mitigations and commitments (see appendix 4). While Shell's proposed mitigations will not eliminate all effects, the panel finds that these proposed mitigations reflect a responsible approach to this proposed energy resource

development and will adequately minimize or mitigate impacts that have been identified by the O'Chiese. For example, the panel accepts Shell's evidence that its pipeline routing, design, and construction practices will adequately minimize impacts of the proposed project on the O'Chiese. If Shell gives the O'Chiese 14 days' notice in advance of initiating construction, it may, to some extent, minimize interruption to the O'Chiese's activities in the area as it would bring awareness to the O'Chiese of Shell's upcoming activities on the ROW. Continued avoidance by Shell of the prayer flag areas would reduce impacts to the O'Chiese's use of those areas because there would be less intervention by Shell on those sites.

[166] While the panel acknowledges that some of these measures are not requirements of its approval, the panel expects Shell to comply with these commitments.

Conclusion on the Effects on the O'Chiese's Ability to Exercise its Aboriginal and Treaty Rights

- [167] As previously stated, the panel finds that the effects of the project on the environment will be minimal and temporary. The panel notes from the evidence that the project area is currently used for a variety of land uses, including a powerline, a road, and existing pipelines in the area immediately adjacent to the proposed project route, which parallels these linear facilities for about 94% of its length.
- [168] As noted above, the panel finds that following construction, clean-up, and reclamation periods, the pipeline agreement issued to Shell will not restrict O'Chiese members' ability to exercise their rights on the pipeline ROW except for when maintenance or repairs are required. Furthermore, the panel finds that following the periods mentioned above, there will not be any physical barrier to using the pipeline ROW for the practice of aboriginal or treaty rights except for when maintenance or repairs are required. The panel is convinced, based on the studies from Shell and the O'Chiese and confirmed by the O'Chiese's community panel of harvesters, that some O'Chiese hunters and harvesters currently use the project area despite the existing industrial disturbance, although some make it clear that they would not. The panel does not expect that Shell's proposed project, if constructed, would significantly alter or change the current conditions in the project area or incrementally change current avoidance behaviours among O'Chiese harvesters in a significant way. The panel, therefore, finds that there will be limited effects on O'Chiese members' ability to exercise their aboriginal and treaty rights during construction and minimal during the long-term operational phase of the project.
- [169] The panel finds that the proposed amendments will reduce the footprint of the project, which further mitigates the concerns of the O'Chiese.

What are the Social and Economic Effects?

[170] As an industrial development activity, Shell's proposed project would have both social and economic effects. As outlined earlier in the "Framework for Addressing the Issues" section, the panel considers the social and economic effects of the project. The panel notes that none of the parties specifically identified social or economic concerns or filed submissions addressing topics normally associated with socioeconomic analysis. However, the O'Chiese identified concerns about traffic, dust, and noise in the context of potential effects on its ability to continue to practice treaty and aboriginal rights. These concerns have already been addressed in this decision in that context. However, in considering these issues, the panel determines that these concerns may also have effects on the broader regional community and, as such, addresses them below.

Traffic. Dust. and Noise

- [171] Shell estimated that the traffic impact of this project would mainly occur over a 9-week construction window broken up into two segments: one with the 6 or 7 weeks of primary construction, and one with a couple of weeks during final cleanup in the summertime. It estimated that traffic impacts would be limited to a brief section of highway 11 west of Rocky Mountain House and rural route 82 (RR 82) during the 9-week construction schedule. During construction, estimated traffic would consist of about 20 units of light-duty traffic a day, 5 loads of pipe trucks, and 12 loads of heavy equipment. Seventeen loads of timber would also be removed.
- [172] Shell noted that it anticipates project personnel to be on site during construction, which is temporary in nature. While personnel may be on site during the operations lifecycle of the project, such attendance would be intermittent and infrequent. Shell stated that it anticipates traffic associated with the operation of the pipelines to be minimal.
- [173] Shell has committed to minimizing traffic associated with the project where feasible. Shell has committed to following West Central Stakeholders Group's regional best practices for traffic and noise management. This group is a multi-stakeholder synergy group that includes industry, community, and the County of Clearwater. It gave these best management practices to the O'Chiese on September 5, 2014.
- [174] Shell noted that it uses a dust control management provider as part of its ongoing operations in the project area, and that it would use these services during the construction of the project as reasonably necessary. Shell anticipated that any dust from its operation of the project would be minimal.
- [175] To address noise impacts, Shell would ensure that the project complies with AER *Directive 038*: Noise Control during both the construction and operational phases. Shell stated that it would limit construction activity to the hours permitted by the local municipality. No continuous noise sources would be associated with operation of the project.

[176] The panel finds that there would likely be limited increase in traffic, noise, and disturbance in the immediate area of the pipeline construction for a limited period of time that may create some negative social disturbance. The panel recognizes that Shell has committed to mitigation plans to assist in minimizing these effects. They may be further minimized if the project is constructed during the winter.

Employment

- [177] Shell stated that its project would provide direct and indirect benefits to the neighbouring community through employment and municipal taxes. At peak construction, Shell would expect to employ up to 45 people.
- [178] Shell stated that it strives to provide benefits to the local First Nations in the areas in which it works. General contractors for Shell are requested to make a best effort to try to obtain First Nations employees; however, hiring efforts and numbers hired are not audited.
- [179] Shell proposed funding an O'Chiese monitoring role. The primary purpose of this role would be to ensure that Shell follows its environmental protection plan during construction and to identify previously unidentified sites of community, cultural, or environmental importance. Selection of the monitor would be at the O'Chiese's discretion. The O'Chiese viewed Shell's offer to hire monitors as tokenism; monitors would have no perceived role or control and would not benefit the community. The O'Chiese stated that in its experience, such roles are not taken seriously by Shell and the O'Chiese does not trust that process.
- [180] The O'Chiese stated that while some O'Chiese companies are on Shell's approved vendor list, achieving that status is difficult due to the constraints of red tape, competition, and high regulatory and company standards. The O'Chiese believed that although Shell has an aboriginal content plan, little effort has been made to involve the O'Chiese from that standpoint.

Economic Effects

- [181] The project would tie Shell's existing Rocky 7 well into the Centrica Canada Limited Ferrier gas plant and enable production from the well to begin. Based on its current economic model, Shell estimated the net present value of royalties generated from the project and production of the associated well to be \$2 850 000.
- [182] Shell estimated the net present value of fiscal benefits to be \$2 250 000 in federal corporate taxes, \$1 750 000 in provincial corporate taxes, and \$207 000 in municipal corporate taxes.

Conclusion on the Social and Economic Effects

- [183] Having considered the evidence, the panel has determined that the overall socio-economic effects of the project are modest but likely to be positive regionally or provincially. The effects can be enhanced locally for the O'Chiese if the O'Chiese and Shell can take advantage of opportunities for O'Chiese members or companies to participate in the project.
- [184] The panel notes that Shell said it is still open to funding an O'Chiese community monitor role. The panel encourages Shell and the O'Chiese to continue to make efforts to create local opportunities for O'Chiese community members where this serves their mutual interests.

Has the Applicant Met Requirements for Stakeholder Engagement for the Project?

- [185] Directive 056 requires companies to develop an effective participant involvement program that includes parties whose rights may be directly and adversely affected by the nature and extent of the company's proposed project. This program must be developed and carried out before the company files an application with the AER. The requirements for the AER's participant involvement program are separate from and additional to the ACO's assessment of the adequacy of consultation that may arise as a result of potential effects on indigenous groups.
- [186] No parties submitted concerns or evidence contradicting Shell's evidence that it met *Directive 056* requirements.

Conclusion on Whether the Applicant Met Requirements for Stakeholder Engagement for the Project?

[187] The panel finds that Shell has met the notification and participant involvement requirements of the AER's Directive 056.

Conclusion

- [188] As previously noted, the O'Chiese said that in their members' daily lives they strive to balance two realities: the O'Chiese's values and practices and those of western society. The role of the panel in this proceeding is also about balancing—striving to balance the impacts on the O'Chiese and its sociocultural values with the economic effects of the project and the interests that Shell obtains through applicable legislation.
- [189] The panel has considered all of the evidence submitted in this proceeding and balanced its various findings. It has addressed a number of aspects related to the mandate and requirements of the AER and finds that Shell's application is in compliance with all pertinent engineering design and application requirements. It finds that the proposed project is needed. It finds that the environmental effects of the project will be minimal and that the pipelines can be constructed and operated safely. It concludes that the proposed route is a suitable option to connect the well to the applied-for tie-in

point. The panel also addressed what it believes to be the most contentious issue in this hearing that of the potential effects of the project on the ability of O'Chiese members to practice their constitutionally guaranteed aboriginal and treaty rights. In relying on the evidence from both parties on the current use of the project area with the presence of existing pipelines, a powerline, and a road in the immediate project area, the panel has concluded that the approval of the project will have minimal incremental effects on the ability of the O'Chiese to continue to practice aboriginal and treaty rights in the future as it is practicing them today.

[190] The panel has also considered Shell's amendment requests and conditions the approval to reflect those future amendments.

[191] Therefore, the panel approves Shell's application 1823846 and PLA 150215 subject to the conditions set out in appendix 1.

Dated in Calgary, Alberta, on February 1, 2017.

Alberta Energy Regulator

<original signed by>

R. C. McManus

Presiding Hearing Commissioner

<original signed by>

B. T. McManus

Hearing Commissioner

<original signed by>

B. McNeil

Hearing Commissioner

Summary of Conditions and Commitments Appendix 1

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 on the licence/approval [verify with the Authorization group if licence or approval is the correct term] are summarized below.

The AER notes that Shell has made certain undertakings, promises, and commitments (collectively referred to as commitments) to parties involving activities or operations that are not strictly 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. The commitments that have been given some weight by the AER are summarized below.

Conditions

- Shell must apply to the AER for a pipeline licence amendment to correct the location of the spare pipeline endpoint to LSD 11-2-40-8W5M.
- Shell must apply to the AER for a pipeline licence amendment to change the main pipeline from the 13-1 compressor to the Shell riser located at LSD 12-1-40-8W5M.

Commitments by Shell

As summarized in the concordance table (see appendix 4).

Appendix 2 **ACO Hearing Report**



Indigenous Relations Aboriginal Consultation Office 8th Floor, 108 Street Building 9942-108 Street Edmonton, Alberta T5K 2J5 www.alberta.ca

ACO Hearing Report

October 27, 2016

Greg McLean, Hearing Coordinator Alberta Energy Regulator Suite 1000, 250 – 5th Street SW Calgary, AB T2P 0R4 Sent via Email: <u>Greg.McLean@aer.ca</u>

No original to follow

Andrew Scott, Consultation Coordinator O'Chiese Consultation Office Box 2117 Rocky Mountain House, AB T4T 1B6 Sent via Email: andrew.scott@ochiesebc.ca No original to follow

File Number for Consultation: FNC201407950

Dear Greg and Andrew:

Shell Canada Limited Rocky 7 Pipeline Project Application Nos. 1823846 and PLA 150215 **AER Proceeding ID 341**

The Aboriginal Consultation Office (ACO) appreciated the opportunity to observe the hearing, regarding the above referenced matter, in accordance with the Joint Operating Procedures for First Nations Consultation on Energy Resource Activities (June 10, 2015) (Joint Operating Procedures).

Procedural background

The Shell Canada Limited (Shell) Rocky 7 Pipeline Project (Project), FNC201407950, was initially assessed by the ACO on August 28, 2014 as requiring Standard Consultation (Level 2), which occurred. The ACO concluded the consultation process with O'Chiese First Nation (OCFN) with an adequacy assessment, finding consultation adequate on December 9, 2014.

The ACO observed the September 13 to 15, 2016 Alberta Energy Regulator (AER) hearing, regarding the applications associated with FNC201407950. The ACO considered all relevant evidence submitted during the hearing. The ACO reviewed the hearing transcripts and pre-hearing written submissions, including the following documents:

- The "EVIDENCE OF SHELL CANADA LIMITED", submitted for AER Proceeding ID 341, August 2,
- The "SUBMISSIONS OF THE INTERVENER O'CHIESE FIRST NATION", submitted for AER Proceeding ID 341, August 16, 2016.

Page 2

The "REPLY EVIDENCE OF SHELL CANADA LIMITED", submitted for AER Proceeding ID 341, August 30, 2016.

As stated on page 3 of the Joint Operating Procedures (section 2.6 - AER Hearings): "If the AER calls a hearing on an application, the ACO may observe the hearing and may provide an ACO hearing report containing advice on any impacts on Treaty rights and traditional uses that were raised during the hearing and not previously addressed by the consultation process."

Potential adverse impacts raised during the hearing

The ACO advises that the hearing process revealed information suggestive of a potential adverse impact, on the continued exercise of OCFN's Treaty rights or traditional uses, which was not previously addressed by the consultation process, as set out in the table below:

| Potential Adverse Impacts | Shell's proposed Avoidance or Mitigation Measures | ACO Recommendation |
|--|--|--|
| Area 5: prayer flag • Interference with prayer flag | Continued avoidance of Area 5 | Area 5 prayer flag proposed avoidance or mitigation measure appears reasonable |

In general, OCFN stated that they hunt and gather throughout the region and raised concerns about the overall cumulative effects of resource development. Potential adverse impacts of the Project, raised by OCFN during the hearing, fall into one or more of the following categories:

- Concerns about potential impacts at sites outside the Project footprint.
- General concerns about the continued exercise of Treaty rights or traditional uses, without specifying a site where such exercise is occurring.
- Concerns about potential environmental impacts not associated with the continued exercise of Treaty rights or traditional uses.

Concerns in the latter two categories are either better addressed outside a project-specific consultation or are outside the scope of the Government of Alberta's First Nations consultation policy and guidelines.

Consultation is adequate

The ACO finds that OCFN's concerns regarding potential adverse impacts of the proposed Project on the continued exercise of OCFN's Treaty rights and traditional uses have reasonably been heard, considered and addressed by Shell. The ACO finds that the avoidance or mitigation measures proposed by Shell are reasonably responsive to the concerns provided by OCFN. It would be up to the AER to consider causation and the effectiveness of proposed Project-specific avoidance or mitigation measures. Based on the above, the ACO confirms that consultation is adequate.

Page 3

The ACO anticipates that the AER will be considering Shell's avoidance or mitigation measures when writing the conditions for the regulatory approval of this Project. The ACO advises the AER that actions are recommended to address the potential adverse impacts to the prayer flag in Area 5. The ACO recommends the avoidance or mitigation measures as proposed by Shell.

The present ACO hearing report concludes the ACO's involvement with FNC201407950.

Sincerely,

Donna Hovsepian Region Lead

Peter S. Jull, Q.C., DLA Piper (Canada) LLP Sharilyn Nagina, DLA Piper (Canada) LLP Blake Williams, Bennett Jones LLP Tim Myers, Bennett Jones LLP Alison Koper, AER Meighan LaCasse, AER

Appendix 3 Hearing Participants

| Principals and Representatives (Abbreviations used in report) | Witnesses | |
|---|-----------------------|--|
| Shell Canada Limited (Shell) | | |
| S. Assie | J. Didow | |
| D. McGillvray | M. Hrudey | |
| T. Myers | S. Kasstan | |
| B. Williams | J. Redburn | |
| | D. Vancuren | |
| | R. Wiltse | |
| O'Chiese First Nation | O'Chiese First Nation | |
| P. Jull | J. Gladeau | |
| S. Nagina | W. Hildebrandt | |
| C. Tuharsky | A. Strawberry | |
| | C. Whitford | |
| | Chief D. Whitford | |
| | P. Whitford | |
| | S. Daychief | |
| | R. Bremner | |
| | E. Ironbow | |
| | L. Yellowface | |
| | S. Strawberry | |
| | G. Strawberry | |
| | T. Strawberry | |
| | S. Beaverbones | |
| | Calliou Group | |
| | T. Campbell | |
| | K. De Carteret | |
| | S. McGarvey | |

- M. LaCasse, AER Counsel
- D. Campbell

Principals and Representatives (Abbreviations used in report) Witnesses S. Cook J. MacPhee G. McLean N. Sharma A. Shukalkina D. Slavik G. Thompson T. Wheaton

Appendix 4 **Table of Concordance**

| Table of Concordance | | |
|---|--|--|
| OCFN Concerns and Mitigations | | |
| Noise | | |
| Mitigation | Reference | |
| No significant noise sources during operations. | Application Binder, PDF p. 59; 86; 345; 832. | |
| Shell does not anticipate that the operation of the Project will materially contribute to the sound levels in the area and the Project will be in full compliance with AER Directive 38: Noise Control (2007). While noise levels will be higher during construction, such activity will be limited to the hours permitted by the local municipality and construction of the pipeline will be temporary in duration. There will be no continuous noise sources associated with operation of the pipeline. Shell will ensure the project complies with AER Directive 38: Noise Control. While noise levels will be higher during construction, such activity will be limited to the hours permitted by the local municipality. There will be no continuous noise sources associated with operation of the pipeline. | Application Binder, PDF p. 1158. Shell Submission, Shell Response to OCFN-Shell-03(9), PDF p. 34. | |
| While there will be noise associated with the temporary Pipeline construction activities, Shell does not anticipate there to be any continuous noise sources associated with operation of the Pipeline. The Project will comply with AER <i>Directive 038: Noise Control.</i> In addition, both the BOPs address noise issues. | Shell Submission, PDF p. 11, para. 40. | |
| Emissions/Odours | | |
| Mitigation | Reference | |
| No flaring or venting. | Application Binder, PDF p. 59; 87; 345; 373; 832. | |
| There will be no emissions. | Application Binder, PDF p. 989; 1025. | |
| There are no anticipated emissions or odours associated with the Project after construction is complete | Shell Submission, PDF p. | |
| and only minimal and periodic emissions or odours during construction. | 11, para. 40. | |
| Traffic/Dust | | |
| Mitigation | Reference | |
| Dust control during construction. | Application Binder, PDF p. | |
| Zero tolerance for reckless driving. | 64; 350; 372; 837; 1044. | |
| Shell waters the roads (using magnesium chloride) as needed and spaces truckloads 20-30 minutes apart where possible. In addition, Shell adheres to County road use agreements that are in place | | |

| regarding the method of application and the product used in dust suppression where applicable. Shell adheres to the WCS Best Operating Practices regarding use and will use appropriate means of dust control on roads near residence and be aware of additional requirements and expectations of Clearwater County. Dust control is requested when ten or more loads are being hauled in one day or four trucks are passing a given point in one hour or less. The general rule of thumb is that dust in front of residences be controlled 90-100% and on all affected areas 50-60%. | |
|--|--|
| Shell will minimize traffic associated with the Rocky 7 pipeline where feasible. Shell has worked closely with the WCS members to develop and follow regional best practices for traffic management. While traffic levels will be higher during constructionthe increase in traffic associated with construction will be temporary. | Application Binder, PDF p. 1159. |
| Shell contracts with dust control management services as part of its ongoing operations in the Rocky area and these will be applied to the Rocky 7 pipeline. These services are put in place during heavy equipment moves as well as during peak dry seasons when dust is more likely to occur. | Application Binder, PDF p. 1159. |
| Shell contracts dust control management services as part of its ongoing operations in the Rocky area, and these services will be applied to the Rocky 7 pipeline, as reasonably necessary during construction. Shell anticipates that any dust arising from its operation of the pipeline will be minimal. | Shell Submission, Shell Response to OCFN-Shell- 03(9), PDF p. 34-35. |
| Shell will minimize traffic associated with the Rocky 7 pipeline where feasible. Shell has worked closely with the West Central Stakeholders Group to develop and follow regional best practices for traffic management. These Best Management Practices were provided to the OCFN on September 5, 2014. While traffic levels will be higher during construction, as outlined in the Directive 56 project information package provided to OCFN on September 5, 2014, the increase in traffic associated with construction will be temporary. Shell anticipates that traffic associated with the operation of the pipeline will be minimal. | Shell Submission, Shell Response to OCFN-Shell- 03(9), PDF p. 35. |
| While traffic levels will be temporarily higher during construction of the Pipeline, Shell anticipates that traffic associated with the operation of the Pipeline will be minimal. Shell will adhere to the West Central Stakeholders' Group Best Operating Practices ("BOPs"), which address traffic issues. | Shell Submission, PDF p. 11, para. 40. |
| Shell contracts dust control management services as part of its ongoing operations in the Rocky area, and these services will be applied, as reasonably necessary during Pipeline construction. Shell anticipates that any dust arising from its operation of the Pipeline will be minimal. The BOPs also address dust issues. | Shell Submission, PDF p. 11, para. 40. |

| Presence of Workers | | |
|--|--|--|
| Mitigation | Reference | |
| Shell notes that project personnel are only anticipated on site during construction, which is temporary in nature. While personnel may be on site during the lifecycle of the project, such attendance will be intermittent and infrequent. | Shell Submission, Shell Response to OCFN-Shell- 03(9), PDF p. 35. | |
| Shell will have workers on site temporarily during construction activities for approximately 9 weeks. Specific work schedules and manpower needs have yet to be determined. Shell anticipates that construction will occur during the day and that approximately 45 workers will be required for construction. Shell prefers winter construction; however, this is dependent upon timing of a decision from the AER. | OCFN Submission, Shell Response to OCFN-Shell- 04(3)(a), PDF p. 240. | |
| During operations, a minimal number of workers may be present, at certain times, throughout the life of the project to perform maintenance and inspection activities. | OCFN Submission, Shell Response to OCFN-Shell- 04(3)(a), PDF p. 240. | |
| Shell notes that Project personnel are only anticipated to be on site temporarily during construction of the Project. While personnel may attend the Project area over the life of the Project, such attendance will be intermittent and infrequent. | Shell Submission, PDF p. 12, para. 40. | |
| Light | | |
| Mitigation | Reference | |
| There is no specific lighting associated with the Rocky 7 pipeline. Although lighting may be needed in the context of an emergency or during construction, in such cases Shell staff aim to minimize light disturbance to adjacent land users and residents by directing light on to the project areas only where reasonably practicable. | Application Binder, PDF p. 1159. | |
| There is no specific lighting associated with the Rocky 7 pipeline. Although lighting may be needed in the context of an emergency or during construction, in such cases Shell staff aim to minimize light disturbance to adjacent land users and residents by directing light on to project areas only where reasonably necessary. | Shell Submission, Shell Response to OCFN-Shell- 03(9), PDF p. 34. | |
| There is no specific lighting associated with the Project. Although lighting may be needed in the context of an emergency or during construction, in such cases Shell aims to minimize light disturbance to adjacent land users and residents by directing light onto project areas only where reasonably necessary. | Shell Submission, PDF p. 11, para. 40. | |

| Access (during construction and during operations; occupied crown lands) | | |
|--|---|--|
| Mitigation | Reference | |
| Access to the project area will only be restricted for a short time, and OCFN members will be able to | Application Binder, PDF p. | |
| use the project area once construction and clean-up of the ROW is complete, except when Shell needs | 984; 987; 989; 1020; 1023; | |
| to access the area to perform specific maintenance, clean up or reclamation work. Construction and | 1025; 1157. | |
| clean-up is expected to last nine weeks. | | |
| The Petty Trespass Act prohibits entry onto certain lands without notice (lawn/garden/cultivated lands; | Application Binder, PDF p. | |
| lands surrounded by a fence or natural boundary; or lands enclosed in a manner that indicates an | 1044; 1049. | |
| intention to keep people off the land) or where notice that entry is prohibited has been given (orally; in | | |
| writing; or by posters or signs). Shell may need to control access to the Rocky 7 pipeline right-of-way | | |
| during construction; however, during operations, Shell does not intend to prohibit entry to the Rock y 7 | | |
| pipeline ROW, nor does Shell intend to enclose the ROW with a fence or other boundary. As a result, | | |
| with a few limited exceptions, permission from Shell will not be required to access the Rocky 7 | | |
| pipeline ROW and the Petty Trespass Act will not apply. | | |
| Access to the project area will only be restricted for a limited time during construction. OCFN elders, | Shell Submission, Shell | |
| harvesters and other members will be free to access the project area once construction and clean-up of | Response to OCFN-Shell- | |
| the right-of way is complete. Shell does not anticipate any restrictions on OCFN access to the project | 03(6), PDF p. 34. | |
| area during operations, maintenance, inspections, and abandonment. | | |
| Shell will need to temporarily (approximately 9 weeks) control access (e.g. fencing) to the Rocky 7 | Shell Submission, Shell | |
| pipeline right-of-way during construction. Temporary fencing will be located at areas along the right- | Response to OCFN-Shell- | |
| of-way where open excavation or other risks to humans or wildlife, such as a horizontal directional | 03(7), PDF p. 34. | |
| drilling bore site, are present. | 0.0771 0.1 1 1 1 1 1 | |
| No permanent fencing will be erected along or within the project area. | OCFN Submission, Shell | |
| | Response to OCFN-Shell- | |
| The state of the s | 04(3)(g), PDF p. 241. | |
| Limited exceptions include the approximately 9 week construction period. OCFN elders, harvesters | OCFN Submission, Shell | |
| and other members will be free to access the project area once construction and clean-up of the right- | Response to OCFN-Shell- | |
| of-way is complete. No impacts to OCFN's use of the project area are anticipated during operations, | 04(4)(a), PDF p. 241. | |
| maintenance, inspections, and abandonment of the pipeline. | OCFN Submission, Shell | |
| Shell may be required to restrict access in the event that unplanned maintenance or repair is required and necessitates such restriction. | OCFN Submission, Shell Response to OCFN-Shell- | |
| and necessitates such restriction. | 04(4)(c), PDF p. 241. | |
| | 04(4)(0), FDF p. 241. | |

| Shell will not restrict access to the pipeline right-of-way except in situations where the safety of its | OCFN Submission, Shell |
|--|----------------------------|
| workers, the public, and wildlife may be jeopardized. Shell does not believe it is necessary or | Response to OCFN-Shell- |
| appropriate to modify the disposition documents to allow for access at such times. | 04(5), PDF p. 241. |
| While Shell will control access to the Pipeline right-of-way during construction for safety reasons, | Shell Submission, PDF p. |
| Shell does not intend to prohibit or restrict entry or access to the Pipeline right-of-way, nor does Shell | 11, para. 40. |
| intend to enclose the right-of-way with a fence or other boundary during operation of the Pipeline. | |
| Permission from Shell will not be required to access the Pipeline right-of-way once construction is | |
| complete and the Petty Trespass Act will not apply. | |
| Impacts to Sites of Cultural Importance | |
| Mitigation | Reference |
| Funding the participation of an OCFN community or environmental monitor on site during | Application Binder, PDF p. |
| construction. | 15; 316; 975; 981; 999; |
| | 1017; 1033; 1048; 1148; |
| | 1174. |
| Funded a TLU study. | Application Binder, PDF p. |
| | 29; 315; 1050. |
| Shell adheres to a Chance Find Procedure that outlines the protocol to be followed if an unanticipated | OCFN Submission, Shell |
| archaeological, cultural, or paleontological resource is encountered in any phase of a project. | Response to OCFN-Shell- |
| | 06(1), PDF p. 245. |
| Entered into a funding agreement dated October 16, 2015 with OCFN for the preparation of a | Shell Submission, PDF p. |
| traditional land use ("TLU") study to assist Shell in further understanding OCFN's traditional uses in | 13, para. 45. |
| the Rocky area generally, including the proposed Project area. | |
| Fund the participation of an OCFN community/cultural/environmental monitors on site during | Shell Submission, PDF p. |
| construction of the Project to identify any areas of previously unidentified cultural importance within | 15, para. 51. |
| the Pipeline right-of-way and to assist with mitigation where practicable. | |
| Shell has provided OCFN with general capacity funding for this Application, as well as significant | Shell Submission, PDF p. |
| funding stemming from the previously discussed TLU Agreement. | 18, para. 67. |
| Weed Control (use of herbicides) | |
| Mitigation | Reference |
| Incorporating OCFN's input into reclamation measures developed for the pipeline ROW, including | Application Binder, PDF p. |
| potentially targeting plant species of interest to OCFN. | 15; 316; 981; 999; 1017; |
| | 1048; 1174. |

| Vegetation maintenance would typically occur during non-frozen conditions and for short durations | Shell Submission, Shell |
|--|-----------------------------|
| during daylight hours. If required, it is anticipated that weed control maintenance will occur during a | Response to OCFN-Shell- |
| single day each year in June/July until vegetation has re-established. | 03(10), PDF p. 35. |
| To minimize the potential for weed introduction or spread along the right-of-way, all vehicles and | Shell Submission, PDF p. |
| equipment should arrive to site clean. | 16, para. 59. |
| | |
| | Shell Submission, EPP, PDF |
| | p. 156. |
| Environmental Impacts (including habitat fragmentation, wildlife predation, decreased interio | r habitat, increased edge |
| habitat) | |
| Mitigation | Reference |
| Majority of the pipeline parallels existing linear disturbances. | Application Binder, PDF p. |
| | 984; 985; 1020; 1021; 1174. |
| The project does not trigger an environmental assessment; however protecting biodiversity and | Application Binder, PDF p. |
| biophysical components are very important factors to Shell. Shell's priority is to plan as much as | 1157. |
| possible to avoid development within key habitats and key seasons as set out in applicable regulations | |
| and standards. | |
| Removal of vegetation is associated with the Rocky 7 pipelines is unlikely to impact the overall | Application Binder, PDF p. |
| suitability of the local area for wildlife habitat. | 1173. |
| There are no plant communities or features along the pipeline route which are not found elsewhere in | Application Binder, PDF p. |
| the region. The loss of noted plant species, such as tamarack and willow, during construction is | 1173; 1210. |
| negligible compared to the abundance of these species in the region. | |
| Values and features (including plant and animal habitat values) are not unique to the ROW, are found | Application Binder, PDF p. |
| in relative abundance in the region, and the impact associated with construction of the project, | 1174. |
| including vegetation removal, on such values and uses is negligible in the regional context. | |
| Berry-bearing plants are common to the region. | Application Binder, PDF p. |
| | 1210. |
| Mitigation strategies to minimize or eliminate potential impacts in accordance with the Enhanced | Shell Submission, Shell |
| Approval Process Integrated Standards and Guidelines were also developed through the environmental | Response to OCFN-Shell- |
| and construction evaluation of the pipeline. Every effort was made to utilize existing clearings, parallel | 03(1), PDF p. 32. |
| existing linear disturbances and minimize the overall environmental footprint. | |
| • | |

| and identify environmental features (i.e. waterbodies and wildlife features) and potential construction considerations with respect to minimizing environmental impacts. The preliminary planning assessments also included a search of archaeologically significant sites with Alberta Culture and Tourism, of which no sites were listed within the project area. Shell adheres to a Chance Find Procedure that outlines the protocol to be followed if an unanticipated OCFN Submission, | Shell Shell |
|--|----------------|
| considerations with respect to minimizing environmental impacts. The preliminary planning assessments also included a search of archaeologically significant sites with Alberta Culture and Tourism, of which no sites were listed within the project area. Shell adheres to a Chance Find Procedure that outlines the protocol to be followed if an unanticipated OCFN Submission, | Shell |
| assessments also included a search of archaeologically significant sites with Alberta Culture and Tourism, of which no sites were listed within the project area. Shell adheres to a Chance Find Procedure that outlines the protocol to be followed if an unanticipated OCFN Submission, | |
| Tourism, of which no sites were listed within the project area. Shell adheres to a Chance Find Procedure that outlines the protocol to be followed if an unanticipated OCFN Submission, | |
| Shell adheres to a Chance Find Procedure that outlines the protocol to be followed if an unanticipated OCFN Submission, | |
| | |
| | Shel |
| archaeological, cultural, or paleontological resource is encountered in any phase of a project. Response to OCFN-S | Shell |
| 06(1), PDF p. 245. | |
| It is the least invasive route as 6.57 km (94%) of the total 6.99 km overall length of the Shell Submission, PDF | n 9 |
| Pipeline is adjacent to existing linear disturbances (i.e. existing road, pipelines, and para 32. | P |
| transmission lines) | |
| While the hunting and trapping activities described by OCFN are feasible for the area based on wildlife Shell Submission, PD |)F p |
| habitat types observed during the field assessment, these habitat types can be found elsewhere in the 13, para. 43. | - r |
| region and the removal of vegetation associated with the construction of the Pipeline is unlikely to | |
| impact the overall suitability of the local area for wildlife habitat. | |
| Tree bark, tree sap, and shrub/trees used for various activities described by OCFN are available Shell Submission, PD |)F n |
| throughout the region and local area. The loss of noted plant species such as tamarack or willow during 13, para. 43. | , p |
| construction of the Pipeline will be negligible compared to the abundance of these species in the | |
| region. | |
| The plant communities and habitat types along with the tree/shrub and berry-bearing plants observed Shell Submission, PD | NE n |
| during the field assessment are common in the region and, based on their abundance, the proposed 13, para. 43. | n p |
| | |
| Pipeline will have a negligible impact on these biological features in the region. participation of OCFN community/cultural/environmental monitors during construction of the Shell Submission, PD | NE |
| | r p |
| Project to assist in ensuring that impacts to any sensitive cultural sites not previously identified are 13, para. 44. | |
| avoided or mitigated to the extent practicable. | |
| as well as an opportunity for OCFN to provide input into reclamation measures developed for the Shell Submission, PD | r p |
| Pipeline, including potentially targeting plant species of interest to OCFN. 13, para. 44. | - |
| incorporate OCFN's input into reclamation measures developed for the Pipeline right-of way, Shell Submission, PD |)F p |
| including potentially targeting plant species of interest to OCFN. 15, para. 51. | |
| |)Fp |
| Shell used preliminary planning reviews, including desktop analyses and field assessments, to confirm Shell Submission, PD | |
| Shell used preliminary planning reviews, including desktop analyses and field assessments, to confirm and identify environmental features (e.g. waterbodies and wildlife features) and develop a route and construction plan to minimize environmental impacts associated with the Project. Shell Submission, PD and develop a route and construction plan to minimize environmental impacts associated with the Project. | • |

| The Rangeland Wildlife and Vegetation Report did not identify any important wildlife habitat features within the right-of-way or 100 m buffer and no rare plant species were found along the proposed | Shell Submission, PDF p. 16, para. 58. |
|---|--|
| Pipeline right-of-way. If construction occurs during frozen conditions (<i>i.e.</i> Q1 2017), no site-specific mitigation measures are | Shell Submission, PDF p. |
| warranted given that construction would occur outside of the breeding bird period. If construction occurs during non-frozen conditions and will commence during Environment Canada's key breeding | 16, para. 59. |
| period for migratory birds (<i>i.e.</i> May 1 to August 10), a pre-construction breeding bird nest survey will | Shell Submission, |
| be required within 7 days of the commencement of construction activities. | Rangeland Wildlife and |
| | Vegetation Report, PDF p. 156. |
| Rangeland's assessment of the potential impact to all three watercourse crossings from the Pipeline is | Shell Submission, PDF p. |
| that HDD and construction related activities should not interrupt or impact the watercourse crossings. | 17, para. 60. |
| No important wildlife habitat features were identified within the right-of-way or 100 m buffer during | Shell Submission, |
| the updated wildlife sweep in July 2016. | Rangeland Wildlife and |
| | Vegetation Report, PDF p. 149. |
| No rare species were found along the pipeline. | Shell Submission, |
| | Rangeland Wildlife and |
| | Vegetation Report, PDF p. 151. |
| Recommendations for HDD watercourse crossing and vehicle access: | Shell Submission, |
| 4.1 Pipeline Installation | Rangeland Aquatic |
| HDD | Assessment Report, PDF p. |
| • Ensure a proper drilling fluid release response plan and contingency plan is prepared and understood by all onsite personnel. | 179-180. |
| • Ensure all materials and equipment to contain and clean-up a drilling fluid release (e.g. silt fence, sand bags, vac-truck) are onsite and readily available. | |
| • Ensure the construction areas maintain a 45 m buffer from the top of the bank. | |
| • Minimize clearing of vegetation. If possible, prune rather than clear vegetation. | |
| • Excavate a sump at the exit hole to receive the drill head and to contain the drilling mud. | |
| • Ensure water quality monitors are on site and monitoring for the duration of the drill and pipe | |
| installation if flowing water is present. | |
| • Ensure the drill path maintains, at minimum, the engineered depth below the thalweg of the channel | |

| to reduce the risk of a drilling fluid release and to reduce the risk of later pipe exposures. | |
|---|--|
| Dispose of drilling mud away from the watercourse and as per the Alberta Energy Regulator's | |
| Directive 50 (2016). | |
| Isolation | |
| • In the event the HDD fails or is deemed not feasible, a trenched crossing method should be investigated. Full regulatory review by AER and DFO may be required and a site specific trenched crossing strategy should be prepared by a QAES and Construction Specialist. 4.2 Vehicle and Equipment Crossing | |
| • Use existing access for vehicle and equipment crossing for Prentice Creek and the unnamed | |
| intermittent creek. | |
| • Use a temporary bridge for vehicle and equipment crossing for the unnamed small permanent creek in 1-40-8 W5M. | |
| 4.3 Reclamation | |
| HDD | |
| Begin reclamation as soon as practical. | |
| • Prevent erosion with the use of erosion control measures (i.e., silt fences, biologs), if necessary. | |
| • Install silt fence along the edge of the restored HDD pad sites to prevent erosion and migration of | |
| sediment into the watercourse. | |
| Impacts to Traditional Land Use (cultural, hunting, gathering) | 0.00 |
| Mitigation | Reference |
| Impacts to the modern campsite areas associated with the Rocky 7 pipeline will be primarily associated | Application Binder, PDF p. |
| with construction and will be temporary in nature. On completion of construction, the modern campsites may be used as before. | 1173. |
| One of the trees with a prayer cloth on it is located relatively close to the ROW. To ensure the tree is not impacted, a temporary fence will be installed around the tree during construction of the Rocky 7 pipeline. | Application Binder, PDF p. 1174; 1177; 1187; 1188. |
| The Rocky 7 pipeline will be installed underground and the lands within the ROW can be accessed by anyone for a variety of uses after construction is complete, including the use of the modern campsite area for camping. | Application Binder, PDF p. 1174. |
| If the OCFN would like to be notified in advance of the new cut, Shell can incorporate such | |
| notification into Shell's Aboriginal engagement plan. | Response to OCFN-Shell-13(2-3), PDF p. 254. |

| CH2M anticipates that the Project, as planned, will have limited interactions with OCFN activities, and | Shell Submission, Pl | DF p. |
|---|-----------------------|-------|
| will not impede the exercise of OCFN Aboriginal and Treaty Rights and traditional uses of the Project | 14, para. 48. | |
| footprint, study area, or region post-construction. | | |
| any potential impacts from the Project will be minimal and temporary in nature during the | Shell Submission, Pl | DF p. |
| approximately 9 week Pipeline construction and clean-up period, and can be effectively and | 14, para. 50. | |
| appropriately mitigated. | | |
| CH2M anticipates that the Project, as planned, will have limited interactions with O'Chiese First | Shell Submission, Pl | DF p. |
| Nation activities, and will not impede the exercise of O'Chiese First Nation Aboriginal and Treaty | 43, para. 3. | - |
| Rights, and traditional uses of the Project Footprint, Study Area, or region post-construction. | | |
| To minimize Project interactions with Area 1: | Shell Submission, (| CH2M |
| • Notify O'Chiese First Nation of the proposed timing of construction activities, including clearing, at | Report, PDF p. 56. | |
| Area 1 at least 14 days prior to construction. | | |
| • Reduce the amount of clearing wherever possible. Only clear the area required to construct within the | | |
| right-of-way or for temporary workspace. | | |
| To minimize Project interactions with Area 2: | Shell Submission, C | CH2M |
| Adhere to species-specific timing constraints as outlined in the Enhanced Approval Process (EAP) | Report, PDF p. 60. | |
| Integrated Standards and Guidelines. | | |
| • Reduce the amount of clearing wherever possible. Only clear the area required to construct within the | | |
| right-of-way or for temporary workspace. | | |
| Install breaks in topsoil windrows at obvious game trails. | | |
| To minimize Project interactions with Area 3: | Shell Submission, (| CH2M |
| • Notify O'Chiese First Nation of the proposed timing of construction at Area 3 at least 14 days prior to | Report, PDF p. 63-64. | |
| construction. | | |
| • Place signage in Area 3 notifying potential users of construction at Area 3. | | |
| Monitor Area 3 during clearing, trenching, and reclamation stages for cultural activities. | | |
| • In frozen conditions, conduct minimum disturbance topsoil salvage approximately 2-4 m centered | | |
| over the trench. | | |
| Keep rollback off of the cleared area, unless directed otherwise by the Regulator. | | |
| Continued avoidance of Area 4 is preferred because the cabin foundation is of historic importance and | Shell Submission, (| CH2M |
| the ATV trail is actively used. | Report, PDF p. 68. | |
| Continued avoidance of Area 5 is preferred because the site is actively used. | Shell Submission, (| CH2M |
| | Report, PDF p. 75. | |

| To minimize Project interactions with Area 6: | Shell Submission, | CH2M |
|---|----------------------|------|
| • Notify O'Chiese First Nation of the proposed timing of construction at Area 6 at least 14 days prior to | Report, PDF p. 76. | |
| construction. | | |
| • Adhere to species-specific timing constraints as outlined in the EAP Integrated Standards and | | |
| Guidelines. | | |
| • Reduce the amount of clearing wherever possible. Only clear the area required to construct within the | | |
| right-of-way or for temporary workspace. | | |
| Install breaks in topsoil windrows at obvious game trails. | | |
| • Limit the use of chemical applications (i.e., spot spray). | | |
| Place signage in Area 6 notifying potential users of construction at Area 6. | | |
| Monitor Area 6 during clearing, trenching, and reclamation stages for cultural activities. | | |
| Bore the crossing of the existing pipeline right-of-way and access road. | | |
| Keep rollback off of the snowmobile trail. | | |
| To minimize Project interactions with Area 7: | Shell Submission, | CH2M |
| • Notify O'Chiese First Nation of the proposed timing of construction activities, including clearing at | Report, PDF p. 81. | |
| Area 7 at least 14 days prior to construction. | | |
| · Adhere to species-specific timing constraints as outlined in the EAP Integrated Standards and | | |
| Guidelines. | | |
| • Reduce the amount of clearing wherever possible. Only clear the area required to construct within the | | |
| right-of-way or for temporary workspace. | | |
| Install breaks in topsoil windrows at obvious game trails. | | |
| • Limit the use of chemical applications (i.e., spot spray). | | |
| Continued avoidance of Area 8 is preferred because the campsite site and trail are actively used. | Shell Submission, | CH2M |
| | Report, PDF p. 87. | |
| To minimize project interactions with Area 9: | Shell Submission, | CH2M |
| • Notify O'Chiese First Nation of the proposed timing of construction at Area 9 at least 14 days prior to | Report, PDF p. 95-96 | 6. |
| construction. | | |
| Place signage in Area 9 notifying potential users of construction at Area 9. | | |
| • Place temporary fencing along the southern edge of the Project right-of-way at Area 9 during | | |
| construction. | | |
| Monitor Area 9 during clearing, trenching, and reclamation stages for cultural activities. | | |
| • Reduce the amount of clearing wherever possible. Only clear the area required to construct within the | | |
| right-of-way or for temporary workspace. | | |

| • In frozen conditions, conduct minimum disturbance topsoil salvage approximately 2-4 m centered | | |
|---|---------------------|------|
| over the trench. | | |
| · Adhere to species-specific timing constraints as outlined in the EAP Integrated Standards and | | |
| Guidelines. | | |
| · Limit the use of chemical applications (i.e., spot spray). Allow natural regeneration of native plant | | |
| species. | | |
| Keep rollback off of the cleared area, unless directed otherwise by the Regulator. | | |
| Continued avoidance of the prayer flag. | | |
| Continued avoidance of Area 10 is preferred because the site is of historical importance. | Shell Submission, | CH2M |
| | Report, PDF p. 105. | |
| To minimize Project interactions with Area 11: | Shell Submission, | CH2M |
| · Notify O'Chiese First Nation of the proposed timing of construction at Area 11 at least 14 days prior | Report, PDF p. 113. | |
| to construction. | | |
| · Adhere to species-specific timing constraints as outlined in the EAP Integrated Standards and | | |
| Guidelines. | | |
| • Reduce the amount of clearing wherever possible. Only clear the area required to construct within the | | |
| right-of-way or for temporary workspace. | | |
| • Limit the use of chemical applications (i.e., spot spray). | | |
| Monitor Area 11 during clearing, trenching, and reclamation stages for cultural activities. | | |
| Keep rollback off the trail, unless directed otherwise by the regulator. | | |
| To minimize Project interactions with Area 12: | Shell Submission, | CH2M |
| · Notify O'Chiese First Nation of the proposed timing of construction at Area 12 at least 14 days prior | Report, PDF p. 119. | |
| to construction. | | |
| Place signage in Area 12 notifying potential users of construction at Area 12. | | |
| · Place temporary fencing along the northern edge of the Project right-of-way at Area 12 during | | |
| construction. | | |
| Monitor Area 12 during clearing, trenching, and reclamation stages for cultural activities. | | |
| · Adhere to species-specific timing constraints as outlined in the EAP Integrated Standards and | | |
| Guidelines. | | |
| • Reduce the amount of clearing wherever possible. Only clear the area required to construct within the | | |
| right-of-way or for temporary workspace. | | |
| Install breaks in topsoil windrows at obvious game trails. | | |
| Limit the use of chemical applications (i.e., spot spray). | | |

| Allow natural regeneration of native plant species. | | |
|--|----------------------|----------|
| Keep rollback off the ATV trail, unless directed otherwise by the regulator. | | |
| Continued avoidance of the prayer flag. | | |
| Continued avoidance of the Area 13 is preferred: | Shell Submission, | CH2M |
| | Report, PDF p. 123. | |
| To minimize Project interactions with Area 14: | Shell Submission, | CH2M |
| • Notify O'Chiese First Nation of the proposed timing of construction at Area 14 at least 14 days prior | Report, PDF p. 127. | |
| to construction. | | |
| Place signage in Area 14 notifying potential users of construction at Area 14. | | |
| Monitor Area 14 during clearing, trenching, and reclamation stages for cultural activities. | | |
| Keep rollback off the trail, unless directed otherwise by the regulator. | | |
| To minimize Project interactions with Area 15: | Shell Submission, | CH2M |
| Notify O'Chiese First Nation of the proposed timing of construction at Area 15 at least 14 days prior | Report, PDF p. 132. | |
| to construction. | (4) | |
| Place signage in Area 15 notifying potential users of construction at Area 15. | | |
| Monitor Area 15 during clearing, trenching, and reclamation stages for cultural activities. | | |
| Keep rollback off the trail, unless directed otherwise by the regulator | | |
| Continued avoidance of Area 16 is preferred. | Shell Submission, | CH2M |
| | Report, PDF p. 137. | |
| Increased Accidents and Malfunctions Due to Pipeline Operations | | |
| Mitigation | Reference | |
| The Pipeline will be buried to a depth of at least 1.5 m from top of pipe for the length of the entire | Shell Submission, Pl | DF p. 7, |
| right-of-way whereas the applicable depth of cover requirement for the Pipeline under the Pipeline | para. 26. | |
| Rules and CSA Z662-15 is 0.8 m. In addition, Shell will maintain a minimum depth of 2 m from bar | | |
| ditch at all road crossings, where the required depth under the <i>Pipeline Rules</i> and CSA Z662-15 is 1.1 | | |
| m. | | |
| The Pipeline will have a double coating to protect against external corrosion. Shell currently uses the | Shell Submission, Pl | DF p. 7, |
| Shaw YJ2K corrosion protection system on its pipelines, which consists of an epoxy inner coating on | para. 26. | |
| the exterior of the pipe and a yellow jacket coating over that inner coating. This product is extremely | | |
| resistant to coating damage and discontinuities, meaning it does not scratch easily to ensure continued | | |
| protection of the pipe. | | |
| | | |
| | | |

| Larger Development Plans Not Being Communicated | |
|--|--|
| Mitigation | Reference |
| " the pipeline applications should be considered on their own merits as the Rocky 7 pipelines may be constructed and operated independently from the other pipelines" | Application Binder, PDF p. 980; 986; 1016; 1022. |
| Shell has provided a number of maps that have shown both existing sites, and proposed sites | Application Binder, PDF p. 988; 1024. |
| Safety | |
| Mitigation | Reference |
| An AER approved site-specific ERP is not required for the construction and operations however, operations will be covered under Shell's Central Alberta Business – Rocky Area ERP, which will be implemented as required during operations along the ROW. | Application Binder, PDF p. 990; 1026. |
| Shell will work to ensure the safety of the public throughout the life of the project including, but not | Shell Submission, Shell |
| limited to, emergency response planning. | Response to OCFN-Shell-03(9), PDF p. 35. |
| Shell notes that OCFN's reserve lands are outside of the emergency planning zone, and therefore | Shell Submission, Shell |
| OCFN would not be contacted in the unlikely event of an unplanned release or emergency. However, should OCFN members be within the emergency planning zone in the event the ERP is activated, they would be evacuated in accordance with the ERP. | Response to OCFN-Shell-11(2), PDF p.303. |
| In the unlikely event the ERP is activated, access to the project area would be limited until any safety concerns have been resolved. | Shell Submission, Shell Response to OCFN-Shell- 11(3), PDF p. 303. |
| Shell will work to ensure the health and safety of its employees and contractors, the public, and wildlife throughout the life of the Project, including through emergency response planning, as discussed further in the Social/Safety section herein. Moreover, Shell has designed and will construct the Pipeline in accordance with or in exceedance of all relevant regulatory requirements and industry practices. | Shell Submission, PDF p. 11, para. 40. |
| A site specific Emergency Response Plan ("ERP") is not required for the Pipeline as it will flow natural gas with no H2S (0% H2S content); however, a corporate level regional ERP will apply to the Project. The ERP is updated annually by Shell and is subject to AER audit at any time. | Shell Submission, PDF p. 17, para. 63. |

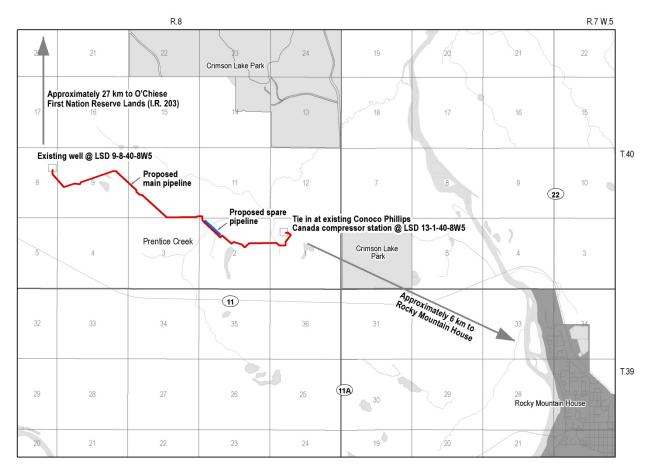


Figure 1. Map of the project area

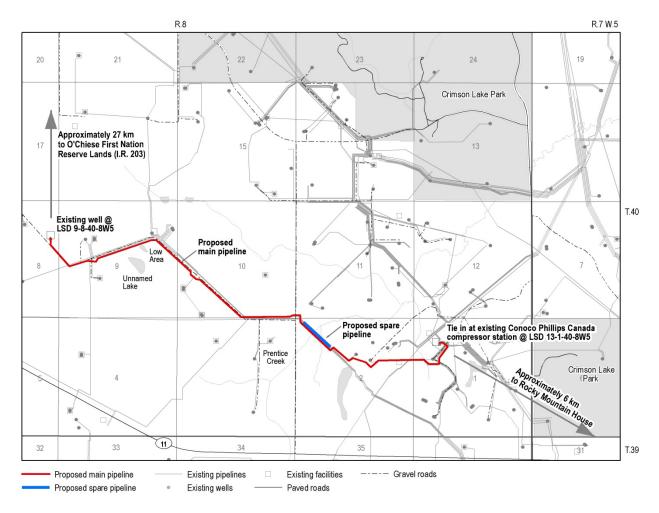


Figure 2. Detailed map of the project area