Appendix

A: Government Boards and Departments
B: Contacts
C: Legislation
D: Documenting Costs
E: Glossary
F: Index
Appendix A. Government Boards and Departments

Although oil and gas is primarily regulated by the Alberta Energy Regulator, many government organizations may play a role. This section provides an overview of the regulatory and government structures relevant to regulation of the oil and gas industry, which have changed significantly since the previous edition of this guide. It also explains the role of other Alberta government departments that have some responsibility regulating the oil and gas industry, as well as the relevant federal bodies. Some legislation that relates to the boards and departments is briefly described in Appendix C.

What’s in this chapter

A.1 Regulatory board and government changes .................................................. A-2
   A.1.1 Regulatory board changes ...................................................................... A-2
   A.1.2 Government department changes ............................................................. A-3
A.2 Alberta Energy Regulator ................................................................................ A-4
   A.2.1 What the Alberta Energy Regulator does ................................................ A-4
   A.2.2 Reclamation and remediation certificates, and environmental assessments. A-7
   A.2.3 Acts and regulations that govern the AER’s work ...................................... A-8
   A.2.4 Alberta Energy Regulator offices ............................................................. A-8
   A.2.5 Geophysical Inspector Program ............................................................... A-9
   A.2.6 Information published by the Alberta Energy Regulator ........................... A-9
A.3 Alberta Environment and Parks ................................................................. A-15
   A.3.1 Surface Rights Board and Land Compensation Board ............................. A-17
A.4 Farmers’ Advocate Office ............................................................................. A-18
A.5 Alberta Energy ............................................................................................... A-19
A.6 Alberta Health and Alberta Health Services .................................................. A-19
A.7 Alberta Labour ............................................................................................... A-20
A.8 Freedom of Information ................................................................................ A-21
A.9 The Office of the Ombudsman ...................................................................... A-23
A.10 Local municipalities ....................................................................................... A-24
A.11 Property Rights Advocate Office .................................................................. A-25
A.12 Alberta Geological Survey ........................................................................... A-25
A.13 National Energy Board ............................................................................... A-26
A.14 Canadian Environmental Assessment Agency ............................................ A-27
A.1 Regulatory board and government changes

A.1.1 Regulatory board changes

The regulation of the oil and gas industry has changed significantly in the last decade. Previously, several ministries and bodies were involved in approving energy resource projects. The Responsible Energy Development Act (REDA) governs the new Alberta Energy Regulator (AER). The new Regulator was set up to create a more streamlined process for upstream oil, gas and coal development and to remove overlapping jurisdictions. The AER is now the single regulator for energy development in the province, often referred to as a ‘one-stop shop’ approval body. Its responsibilities include applications for exploration and development; inspections, compliance, and environmental protection; and reclamation, remediation and abandonment.

The Alberta Utilities Commission and the Environmental Appeals Board continue to exist, but their scope is limited to activities outside of oil and gas, and therefore have little relevance to the issues explored in this guide. The Surface Rights Board and the National Energy Board continue to operate with similar mandates as previously, and have been described below.

Figure 9 depicts the changes in regulatory responsibility in the province.
A.1.2 Government department changes

In addition to the changes to regulatory bodies, there were many changes across government departments and ministries that impact energy development. In 2012 the ministries of Alberta Environment and Water (AEW) and Alberta Sustainable Resource Development (ASRD) were amalgamated into the Ministry of Alberta Environment and Sustainable Resource Development (AESRD). In May 2015, the ministry was changed to Alberta and Environment and Parks (AEP), representing the recent merging of AESRD and Ministry of Parks. However, all environmental approvals (such as an environmental impact assessment) on projects related to non-renewable energy are now under the jurisdiction of the AER, and the Ministry of Environment and Parks now has a limited role in the process. The Government of Alberta is still responsible for setting the policy.
direction of energy resource development through the creation of the legislation, regulations and rules that the AER must regulate by.

The Ministry of Energy remains unchanged.

A.2 Alberta Energy Regulator

A.2.1 What the Alberta Energy Regulator does

The Alberta Energy Regulator is the official regulatory body for upstream oil, gas, and coal development in Alberta. Although the AER reports to the Minister of Energy, in its day-to-day operations it works at “arm’s length” from government, as did its predecessor, the ERCB. In addition to the government-appointed chair, board directors and hearing commissioners, and the CEO, there are 1200 staff involved in day-to-day operations. These are located at the Calgary head office, two Edmonton offices, two regional offices and eight field centres across Alberta.¹

The AER is a quasi-judicial, independent body responsible for the day-to-day management of the energy industry in Alberta, and ensures development occurs in accordance with government legislation, regulations and rules. With the exception of energy tenure, which is managed by Alberta Energy (see Section A.5) the AER acts as a ‘one-stop shop’ approval body for the full life cycle of oil, gas, and coal development, including decisions on applications for energy development, monitoring for compliance, decommissioning of developments, and all other aspects of energy resource activities. The Regulator’s extensive powers are defined in several pieces of legislation (Appendix C). The AER must approve each oil or gas project before the project can proceed, and has authority to approve projects on both private and public lands.

Objections to proposed developments are submitted to the AER. Concerned residents or affected parties can inform the AER of their concerns before a project application is submitted; the AER will usually encourage the company to address your concerns at this stage. See Sections 2.1 and 2.2 for more information about submitting your concerns to the Regulator, and engaging with a company before a project begins.

After an operator submits a project application to the AER, concerned parties can raise their objections in the form of a statement of concern\(^2\) within the time outlined in the application notice.\(^3\) However, the AER will evaluate these objections to determine whether the claimant is both directly and adversely affected.\(^4\) If the AER determines that the claimant is directly and adversely affected then the AER may evaluate those objections to determine whether a project is in the ‘public interest’. If the AER does not determine a claimant is directly and adversely affected, then they may allow the application to continue without triggering a hearing.

The AER does not hear objections and disputes related to the surface rights, compensation, or expropriation, as these are under the purview of the Surface Rights Board or the Land Compensation Board (Section A.3.1). Much of the AER’s work concentrates on addressing issues associated with public safety and risks to the environment. Although the AER can refuse permission for a company to extract oil or gas, it rarely does so. This is not surprising, given the fact that the AER’s mandate attempts to capture two somewhat competing goals; its first mandate is to promote energy development in the province, while the other to act as a responsible steward and watchdog of the industry. The AER has a regulatory enhancement program, which is an attempt to make progress on implementing the right mechanisms and processes to successfully balance these two goals.

The AER’s requirements to which a company must construct and operate a well, pipeline or other energy project are set out in Manual 013: Compliance and Enforcement Program.\(^5\) The program relies on education, prevention and enforcement as pillars to ensure compliance. It also reports results to the public on the AER website.

\(^2\) Statements of concern (previously known as objections) have changed under the new Regulator. Previously, all approvals managed by the AESRD (such as approvals under the Environmental and Protection Enhancement Act and the Water Act) required a person to be “directly affected” in order to submit a statement of concern. Under the current regulator, that threshold was narrowed so that a person who believes they are “directly and adversely affected” by an energy resource application can submit a statement of concern to the Regulator.

\(^3\) For more information about what to include in a statement of concern, see AER, “Statement of Concern.” https://www.aer.ca/applications-and-notices/statement-of-concern

\(^4\) For more information on how “directly and adversely affected” is interpreted, see AER, “Participatory/Procedural Decisions.” https://aer.ca/applications-and-notices/decision-reports/participatory-procedural-decisions

encourages industry self-reporting to determine if companies are complying with the standards, and supplements with risk-based surveillance, audit, and inspection activities. Proactive inspections are prioritized based on the company’s compliance history, the sensitivity or particular circumstances of the site, and the inherent risk of the operation itself. The AER may also conduct unscheduled and unannounced inspections when the public has identified issues and deficiencies with a company’s practices.6

The AER’s enforcement toolbox includes remedial, deterrent or punitive measures, which can be applied individually or in any combination as a response to non-compliance. Incidents are categorized as either high or low risk and the associated actions are applied. If companies fail to comply with a notice, have a history of being issued with non-compliance notices, or have demonstrated disregard to a non-compliance notice, the AER will escalate its enforcement tactics. Actions that the AER can take can include issuing a notice of noncompliance and a noncompliance fee, suspending a licence or a permit, or issuing a compliance order.7 Additionally, they can issue a declaration naming a company or an individual, which then allows the Regulator to suspend any operations from that company, refuse applications, or require additional abandonment and reclamation deposits.8

A list of incidents, investigations, and compliance and enforcement actions is available on the AER website.9 More information about AER inspections and enforcement can be found in the Assurance, Compliance and Enforcement Fact Sheet or found on the AER website.

6 AER, Assurance, Compliance and Enforcement Fact Sheet (2014). EnerFAQs and Fact Sheets are available at AER, “EnerFAQs (Q&As).” http://www.aer.ca/about-aer/enerfaqs

7 Assurance, Compliance and Enforcement Fact Sheet.

8 Alberta, Oil and Gas Conservation Act, RSA 2000, c O-6. s 106.

A.2.2  Reclamation and remediation certificates, and environmental assessments

Since 2014, the AER has authority and responsibility (previously held by AESRD) for reclamation and remediation certificates, and conducting associated environmental assessments for oil, gas, and coal related projects.

The AER is responsible for the Alberta Environmental Protection and Enhancement Act (EPEA) requirement that all operators of projects on specified land\(^\text{10}\) must obtain a certificate of reclamation. Additionally, the AER has launched the Upstream Oil and Gas Reclamation and Remediation Program, which requires that land must be reclaimed when project sites are no longer needed for energy resource development. Upstream oil and gas reclamation certificates must be signed off by a government-approved reclamation professional, and all landowners and occupants should be given copies of all reclamation and remediation information. Industry is liable for all surface reclamation issues for the first 25 years. After the 25-year period, the Alberta government is liable for any surface reclamation issues.\(^\text{11}\)

The AER also issues environmental impact assessments (EIAs) for energy resource projects. Environmental assessments are required for some energy resource projects by the Environmental Protection and Enhancement Act and the Water Act to determine the potential environmental, social, economic or health impacts, and what ways these impacts can be reduced. Projects designated as mandatory under the Environmental Assessment (Mandatory and Exempted Activities) Regulation must be assessed, while the AER has discretion to require an assessment for any project not classified as mandatory or exempted. All information on environmental impact assessments is pooled with environmental assessments conducted by Alberta Environment and Parks (AEP). These can all be found on the AEP website.\(^\text{12}\)

\(^{10}\) Specified land is land that is subject to an approval under a specified enactment, such as the Environmental Protection and Enhancement Act (EPEA), the Water Act, the Public Lands Act, and part 8 of the Mines and Minerals Act.

\(^{11}\) AER, “Upstream Oil and Gas Reclamation and Remediation Program.” http://www.aer.ca/abandonment-and-reclamation/upstream-oil-gas-recrem-program

A.2.3 Acts and regulations that govern the AER’s work

Some of the acts, rules and and regulations enacted by the Alberta government that relate to the AER’s regulation of oil, gas and coal industry are listed here. See Appendix C for more details.

Establishing act

• Responsible Energy and Development Act (REDA), and related regulations

Energy laws (known as energy resource enactments)

• Coal Conservation Act
• Oil Sands Conservation Act
• Oil and Gas Conservation Act
• Pipeline Act

Environmental laws (known as specified enactments)

• Environmental and Protection Enhancement Act (EPEA)
• Mines and Minerals Act (Part 8)
• Public Lands Act
• Water Act

Regulations governing the AER

• AER Rules of Practice
• Specified Enactment (Jurisdiction) Regulation
• AER Administration Fees Rules
• Enforcement of Private Surface Agreement Rules

A.2.4 Alberta Energy Regulator offices

The AER head office is in Calgary, with four regional offices and eight field offices. Each field office is on 24-hour call in case of emergency, but emergency related incidents and complaints about the operations of an existing project (such as odour or noise complaints) should be directed to the Energy and Environmental Emergency 24-Hour Response Line.

15 AER, “Acts, Regulation and Rules.” http://www.aer.ca/rules-and-regulations/acts-and-rules. There are many regulations that we have omitted, but may still be relevant to you as they are complementary to the Acts that enable them. See the AER website for more details.
Alberta Energy Regulator (Head Office)
Suite 1000, 250 5 Street SW
Calgary, Alberta T2P 0R4
General Inquiries: 403-297-8311 (RITE: 310-0000) or toll-free 1-855-297-8311
Communications: 403-297-4601
AER’s Customer Contact Centre: 1-855-297-8311
Operational Complaint and Emergency Number: 1-800-222-6514
www.aer.ca

Many of the phone numbers listed in this guide are part of the provincial government’s toll-free, long-distance RITE telephone service. In Alberta, dial 310-0000 and then enter the area code and seven-digit local number to connect or press “0” and hold for a RITE operator.

A.2.5 Geophysical Inspector Program

The Geophysical Inspector Program is administered by the AER. If a landowner or occupant has concerns about any damage, water wells, flowing shot holes, livestock damages, permit disputes, trespass and related damage, or other issues relating to seismic exploration, they can contact the program to investigate. The complaint is triaged to the appropriate field centre and a geophysical inspector will contact the complainant to meet or to investigate by phone.

Geophysical Inspector Program
(AER Inquiries): 403-297-8311 (RITE: 310-0000) or toll-free 1-855-297-8311
inquiries@aer.ca
exploration@aer.ca
Operational Complaint and Emergency Number: 1-800-222-6514

A.2.6 Information published by the Alberta Energy Regulator

The AER’s website, www.aer.ca, contains information about the stages of development, rules and directives, publications, notices of application and notices of decisions, and also links to many data systems or statistical reports. If you are having trouble navigating the website or accessing the information, you can contact inquiries@aer.ca or 1-855-297-8311. If you would like to be provided with specific information from the Products and Services Catalogue which is available on the AER website, you can request it from InformationRequest@aer.ca.
On its website, the AER has published a number of directives that set out the process and requirements that companies must meet with respect to wells, pipelines and facilities. The directive numbers correspond to the guides that were previously in place. All new directives replaced informational letters (ILs) and interim directives, although these are still available for reference. Directives, along with bulletins that announce regulatory changes by the AER, can all be found online.\(^{14}\)

The AER also issues annual reports and the AER Focus Newsletter, a quarterly newsletter updating the public and industry on AER initiatives. More technical documents, such as manuals, reports, and investigation reports, are also published online.\(^{15}\)

An overview of how the AER deals with concerns about an oil and gas project is provided in the AER brochure (carried over from the ERCB), Understanding Oil and Gas Development in Alberta, which can be found as Appendix 10 in AER Directive 056: Energy Development Applications and Schedules.\(^{16}\) This brochure gives a brief overview of the role of the AER in the application process, such as the difference between surface and subsurface mineral rights; how a company will space projects; how the company must consult with those outlined in their participant involvement program; and the process you may use to voice your concerns. If you are considered a directly and adversely affected party to development and are included in the participant involvement program of the proposed project, companies submitting an application to develop must give you a copy of this brochure, along with a letter from the CEO of the AER, a company information package outlining the project details, and relevant EnerFAQs. You will have 14 days after receiving the documents to consider and respond to the application before it is submitted (Section 2.1).

In some cases, applications that have outstanding concerns will trigger a public hearing. Hearings are described in Section 11.1. You can find more information on the hearing process on the AER’s website,\(^{17}\) or refer to Manual 003: The Hearing Process for the Alberta Energy Regulator.\(^{18}\)

---


You may also find it instructive to read Directive 056, Appendix 11: Understanding the Participant Involvement Process, even though this is not written specifically for the public.

**Decisions and public notices of application**

The AER publishes various notices and decisions on its website, and there are several places where you may find information about an application.

For all applications submitted to the Regulator, you can search the Public Notice of Application database. You can find details and supporting documentation about the project such as the nature of the activity applied for, the legal land location, contact details for the company, and the deadline for filing a statement of concern. Applications will be available for 30 days after the application was filed, even if a decision was made on the application before 30 days. An application is also expected to send the public notice of application to anyone who has raised concerns about the project. You may also find additional information about a project before or after it is approved on the Integrated Application Registry.

**Hearings and participation**

The AER publishes notices for hearings, notice of participation in a hearing, or other hearing related notices on its “Notices” web page. You may also find amendments to notice of applications, and this acts as a secondary location to find notice of applications for some project applications. You can find decisions on hearings, regulatory appeals, or reconsiderations on the AER’s “Decisions” web page. Decisions on applications are posted on the AER’s “Publication of Decision Tool”. You can find decisions on participation for statements of concern, request for regulatory appeal, or request for consideration on the “Participatory and Procedural Decisions” web page.

---

19 Expedited, also known as routine applications, do not have a deadline for a statement of concern, but the Regulator may make a decision as soon as they have been processed by the AER.


Compliance and enforcement

The AER also publishes a compliance dashboard, where you may find information about incidents (such as an oil spill), investigations, and compliance and enforcement orders. This contains information only as far back as June 2014.

General publications

These and other AER publications are available on the AER website.

EnerFAQs (Frequently Asked Questions) cover a variety of subjects:25

- What is the Alberta Energy Regulator?
- Having Your Say at an AER Hearing
- Inspections and Enforcement of Energy Developments in Alberta
- All About Critical Sour Wells
- Explaining AER Setbacks
- Flaring and Incineration
- Proposed Oil and Gas Wells, Pipelines, and Facilities: A Landowner’s Guide
- The AER and You: Agreements, Commitments, and Conditions
- All About Alternative Dispute Resolution (ADR)
- Oil Sands
- Expressing Your Concerns – How to File a Statement of Concern About an Energy Resource Project
- How to Register a Private Surface Agreement

The AER publishes several fact sheets:

- Preapplication Concern Fact Sheet
- Reclamation and Remediation
- Assurance, Compliance, and Enforcement
- Emergency Planning, Preparedness, and Response
- Responding to an Energy Incident

Bulletins26

Bulletins are updated fairly regularly, and are available on the AER website. They serve to inform industry and the public on consultations, new regulatory requirements,

programs, or other activity by the AER. Older material not included in the bulletin portal are archived and can be found in the AER library.

**Directives**

The AER’s directives are largely based on the previous guides used under the EUB and ERCB, with many guides carrying over the same titles and numbers. These directives set out requirements for any approval holder that falls under the jurisdiction of the AER, so many of them are technical in nature. All of the AER’s Directives are available on the AER website, but some guides that may be relevant to you are:

- Directive 020: Well Abandonment (June 2010)
- Directive 036: Drilling Blowout Prevention Requirements and Procedures (February 2006)
- Directive 038: Noise Control (February 2007)
- Directive 039: Revised Program to Reduce Benzene Emissions from Glycol Dehydrators (January 2013)
- Directive 050: Drilling Waste Management (May 2015)
- Directive 055: Storage Requirements for the Upstream Petroleum Industry (December 2001)
- Directive 056: Energy Development Applications and Schedules (May 2014)
- Directive 079: Surface Development in Proximity to Abandoned Wells (November 2014)
- Directive 083: Hydraulic Fracturing – Subsurface Integrity (May 2013)

**Interim Directives**

Interim directives act as the designated directives until they have been updated or replaced by AER directives. Some relevant directives are below:

---


28 AER, “Directives.”
Interim Directive ID 81-3: Minimum Distance Requirements Separating New Sour Gas Facilities from Residential and Other Developments (amended by ID-96-02 and ID 97-06)


Manuals

Manuals are primarily reference guides for stakeholders and AER staff, and do not act as regulatory documents. While the Manuals are listed on the website, a few relevant manuals are listed below.


Manual 007: Principles for Minimizing Surface Disturbance in Native Prairie and Parkland Areas (previously Informational Letter 2002-01)

Manual 013: Compliance and Enforcement Program

Informational Letters

Informational Letter IL 91-11: Coalbed Methane Regulation.

Statistical Reports (ST)

ST1: Well Licences Issued
   Lists licences with well ID, surface location, and Licensee. Updated daily.

ST49: Drilling Activity
   Lists well ID, licensee, contractor, and activity date. Updated daily.

ST60B: Upstream Petroleum Industry Flaring and Venting Report

---


Provides a summary of the flared and vented volumes for the various oil and gas industry sectors. It also breaks down flaring and venting by region and company. Updated annually.

ST96: Pipeline Approval and Disposition Daily List
Lists pipeline permits, licences and amendments.

ST97: Facilities Approvals Daily List
Lists approvals for oil and gas facilities (such as oil batteries), with land location, application purpose, and licensee name. Updated daily.

ST108: AER Monthly Enforcement Action Summary
Lists the summary of non-compliance, as well as licensee, type of non-compliance, enforcement date, land location, and AER actions.

**Products and Services Catalogue**

The AER also publishes its Products and Services Catalogue, where you can find much of the annual or monthly reporting the AER publishes. Some of it is available for free, however you can place an order for additional information from the Regulator.

**Map viewers**

The AER has a series of map viewers that may be useful to you, including an Abandoned Well Map viewer and a well spacing viewer. Some of these have been carried over from the former EUB. With slow internet connections, these may be hard to load. If you have issues loading this material, contact the AER’s Customer Care Contact Centre.

The Abandoned Well Map viewer may be useful for those who plan to develop their lands in the future, as landowners are required to know the location of any abandoned well when applying for development or subdivision.

### A.3 Alberta Environment and Parks

The Ministry of Environment and Parks (AEP) was formerly known as Alberta Environment and Sustainable Resource Development (AESRD) until Spring 2015. It has

---


jurisdiction of environmental protection and monitoring, alongside other programs and initiatives under its umbrella. Alberta Environment and Parks will continue to play a role in environmental monitoring, and oversees monitoring programs that were administered by the recently disbanded Alberta Monitoring, Evaluation, and Reporting Agency (AEMERA).

However, since the creation of the AER, Alberta Environment and Parks is no longer involved in the oversight or management of nonrenewable energy development in Alberta. Similarly, the role of the Environmental Appeals Board (EAB) in appeals on decisions made by the AER has been rescinded, although the EAB still operates and hears appeals on issues not related to energy development that remain under the jurisdiction of Alberta Environment and Parks.

In other ways, AEP still plays an indirect role in the non-renewable energy industry. AEP is responsible for policy implementation, as well as the creation and management of regional plans. Alberta has implemented two of seven regional plans (for the Lower Athabasca and the South Saskatchewan regions), which are meant to establish land use planning and manage cumulative effects across entire regions, and to identify the economic, environmental and social objectives of each region. Each application for an approval within the boundary of a regional plan must assess whether the activity is consistent with the land use and objectives of the plan. It must also assess whether the activity complies with any regional trigger or limit established by the plan.

Additionally, the Chair of the Surface Rights Board, established to settle disputes on right-of-entry orders and compensation issues (see Section A.3.1 below) and the Chair of the Land Compensation Board, established to deal on matters of expropriation of land, report to the Minister of AEP.

General inquiries about the Ministry should be directed to

**Alberta Environment and Parks**
Information Centre
Main Floor, Great West Life Building
9920 108 Street
Edmonton AB T5K 2M4
Phone: 310-3773 or toll-free 1-877-944-0313
Fax: 780-427-4407
ESRD.Info-Centre@gov.ab.ca
aep.alberta.ca
A.3.1 Surface Rights Board and Land Compensation Board

The Surface Rights Board (SRB) is a quasi-judicial board that deals with compensation and access issues arising as a result of right-of-entry orders for mineral exploitation, pipelines, telephone lines and power lines. Its authority is created under the Surface Rights Act, and is meant to be impartial and arm’s-length from government, although the Chair reports directly to the Minister of Environment and Parks.

In addition to dealing with compensation hearings, as required by the legislation, SRB staff provide information and try to resolve problems so that a hearing is not required. The Surface Rights Board shares staff with the Land Compensation Board, which deals with compensation claims when land is expropriated.

In 2015 the Surface Rights Board received a total of 1472 applications, 283 of which were right-of-entry applications that were resolved in some form by the board. The SRB resolved 175 by issuing a right-of-entry order, and 37 issues were resolved by the board without granting a right-of-entry order. Other issues that the board handled were compensation reviews, damage disputes, and recovery of rental claims. Recovery of rental claims are made when operators have not payed rental payments owed to landowners for right of entry; in many cases these operators may have gone bankrupt or have orphaned the site without receiving a reclamation certificate. In 2015, 765 applications, or more than half of all applications to the SRB, were related to recovery of rentals. Of the 475 recovery of rental applications that were resolved, 423 were paid by the AEP from Alberta’s general revenue fund.

The powers of the Surface Rights Board are set out in the Surface Rights Act and in these regulations:

AR 195/2007: Surface Rights Act General Regulation
AR 227/2003: Exploration Dispute Resolution Regulation, Part 2 (Public Lands Act)

These are described in Section C.4.1.

Surface Rights Board
1229 91 St. SW
Edmonton AB T6X 1E9
Phone: 780-427-2444 or RITE: 310-0000

---

http://surfacerights.alberta.ca/AboutUs/AnnualReports.aspx

36 Surface Rights Board, “Mandate and Roles Documents”.
http://surfacerights.alberta.ca/AboutUs/MandateRolesDocument.aspx
Fax: 780-427-5798  
srb.lcb@gov.ab.ca  
surferights.alberta.ca  

The Canadian Legal Information Institute database includes all Surface Rights Board decisions since 2001.\(^{37}\)

### A.4 Farmers’ Advocate Office

Reporting to the Minister of Agriculture and Forestry, the Farmers’ Advocate is appointed by the Alberta Government to deal with a range of problems and concerns of farmers. The Office of the Farmers’ Advocate focuses on the interests and rights of the landowner, and can provide advice on all issues relating to lease agreements and negotiations. They are able to help a landowner understand the terms of an agreement and what their rights are. If desired, they can also find out whether there is a local synergy group/surface rights group to provide support. If you think the Farmers’ Advocate can help you, contact them and describe the problem in as much detail as possible, enclosing copies of any relevant documents.

**Office of the Farmers’ Advocate**

305, 7000–115 Street  
Edmonton, AB T6H 5T6  
Phone: 310-3276 (toll free) or RITE: 310-0000  
Fax: 780-427-3913  
www.farmersadvocate.gov.ab.ca

The Farmers’ Advocate office has published a number of pamphlets related to the energy industry, which are also posted on the Alberta Agriculture website.\(^{38}\)

- *Negotiating Surface Rights*, Agdex 878-1 (revised 2009)
- *Pipelines in Alberta — What Farmers Need to Know*, Agdex 878-4 (revised 2009)
- *What is Adverse Effect Within a Surface Lease?* (revised 2015)

---


The Farmers’ Advocate Office administers the Water Well Restoration or Replacement Program, which can help when a landowner believes that a water well has been damaged by seismic or oil and gas activity. This is a reimbursement program, so well owners will need to correct the loss of water first and then apply for costs. Application forms for that program are available at the Farmers’ Advocate Office website, and must be submitted within two years of the alleged damage occurring. Useful information on water wells can be found in Water Wells That Last, at the same website.

A.5 Alberta Energy

The Ministry of Energy houses the Department of Energy, and is also the Ministry to which the head of the AER reports. The Department of Energy is responsible for managing Alberta’s non-renewable resources prior to development, and granting tenure rights to companies, while the AER is responsible for overseeing the development itself. The legislation that authorizes their activity includes the Mines and Minerals Act, described in Section C.3.2.

Alberta Energy (Edmonton)
North Petroleum Plaza
9945–108 Street
Edmonton, AB T5K 2G6
Phone: 780-427-8050 or RITE: 310-0000
www.energy.alberta.ca/index.asp

Alberta Energy (Calgary)
300, 801–6 Avenue SW
Calgary, AB T2P 3W2
Phone: 403-297-8955 or RITE: 310-0000

A.6 Alberta Health and Alberta Health Services

The Ministry of Health (also known as Alberta Health) does not usually get directly involved in the regulatory side of energy issues. However, the ministry is responsible for issues that relate to the health of Albertans, and collaborates with other regulatory bodies to develop health policies on environmental contaminants and health. You can find relevant publications on environmental health on the Alberta Health website.

39 Alberta Agriculture and Forestry, “Well Water Replacement or Restoration Program.”
http://www1.agric.gov.ab.ca/$Department/deptdocs.nsf/all/ofa11059

40 “Energy Development in or Near Urban Areas.”

41 Alberta Health, “Environmental Health Publications.”
such as *Health Effects Associated with Short-term Exposure to Low Levels of Hydrogen Sulphide* ($H_2S$).\(^{42}\)

**Ministry of Health (Alberta Health)**

10800–97 Ave  
Edmonton, AB T5K 2B6  
Phone: 780-427-7164 or RITE: 310-0000  
www.health.alberta.ca

Alberta Health Services (AHS) is separate from the Ministry of Health, and is not involved in setting policy regarding health and the environment. If you have concerns about the direct effects of an oil or gas well on your health, it may be best to contact AHS, which may get other health authorities involved if there are larger health issues at play.

**Alberta Health Services**

14th Floor, North Tower  
10030–107 Street NW  
Edmonton, AB T5J 3E4  
Phone: 780-342-2000 or toll-free 1-888-342-2471  
Health Link (for questions or advice from a registered nurse): 811

Sometimes AHS may become involved in a hearing to speak to questions of environmental health. This happened in the case of the Canadian 88 application for a well in the Lochend Field, where the Calgary Regional Health Authority (the authority at the time) was concerned that an emergency situation could put citizens of Calgary at risk.

### A.7 Alberta Labour

Alberta Labour is responsible for the licensing of land agents. Only a licensed agent is allowed to negotiate surface rights or right-of-way agreements. Anyone who charges a landowner for advice on negotiating surface rights must also be a licensed land agent. This is set out in the Land Agents Licensing Act and the associated regulation, briefly described in Section C.4.3. Information about land agents can be obtained from the department.

---

The Registrar of Land Agents investigates concerns regarding a land agent or any complaints dealing with matters pertaining to the Land Agents Licensing Act or the Land Agents Licensing Regulations.

**The Registrar of Land Agents**

9th Floor, 108 Street Building  
9942–108 Street  
Edmonton AB T5K 2J5  
Phone: 780-415-4600  
Fax: 780-422-7173  
Land.Agents@gov.ab.ca

The publication *Surface Rights and the Land Agent: A Guide for Landowners and Occupants Concerning Land Agents and Surface Rights Agencies* is available online.43

### A.8 Freedom of Information

Sometimes you may want information about what a provincial government body is doing, or to obtain records a government has about a company, such as a company’s monitoring results or its compliance with government regulations. If you are unable to get the information by asking the company or the appropriate government office (such as the AER or Alberta Environment and Parks), you can make a Freedom of Information request.

The legislation that requires the government to make information available to the public is called the Freedom of Information and Protection of Privacy Act, so such a request is often called a “FOIP” request. While the law requires some information to be released, it does not allow the disclosure of information that could cause financial harm to another person or organization or interfere with public health, safety or law enforcement. A FOIP request does not apply to private businesses, so you cannot file a FOIP request about an energy company directly.

Information on making a FOIP request is available on the FOIP website.44 The request must be made in writing. You can download a Request to Access Information form at

http://work.alberta.ca/labour/publications.html

the website, or you can put your request in a letter. When writing a letter, remember to provide your name, address and a telephone number where you can be reached if there are any questions about the request.

It may be best to request the information directly from the company, government office, or other publicly available means before making a request under FOIP, as the FOIP process may actually slow down the delivery of information. If you are unsure which public body has the information you seek, contact the FOIP Coordinator of the agency that seems most probable.\(^{45}\) If that public body is not the right one, the coordinator should be able to refer you to the correct location.

You should be as specific as possible when describing the records to which you want access, as this could save you money. It may be helpful to discuss how to make your request with a FOIP coordinator before submitting your form or letter. The FOIP Coordinator will give advice on completing the form, ensuring that your request provides the detail the office needs to find the right information. The coordinator may even be able to suggest how you can get the information without applying to FOIP. It costs $25 to make a request for general information and the fee must be sent with the application.\(^{46}\) There is no additional upfront charge unless the total cost of processing your request exceeds $150. The coordinator will give you the estimated total cost before the information is processed and will discuss ways to narrow your request, if required. Fees may be waived if you cannot afford to pay or if you can show that the record deals with an important matter of public interest (such as the environment, public health or safety).\(^{47}\)

If your request for information is refused, or if you have any issue with the way your access request was processed you can ask for a review by contacting the Information and Privacy Commissioner.


\(^{46}\) The only request for which there is no application fee is for records about yourself.

A.9 The Office of the Ombudsman

If you think that the AER, the Surface Rights Board or a government department has not treated you fairly, you can ask the Office of the Ombudsman to investigate. The Ombudsman is an officer of the legislature who undertakes impartial investigations. The Ombudsman does not report to any minister, but rather to the Legislative Assembly. Before approaching the Ombudsman, you must first try to resolve the problems yourself with the appropriate board or department, or the office may refuse to investigate your case. You must also make use of all the normal processes provided by the board, including a request for a hearing. Even after a hearing, you can still bring an issue to the Office of the Ombudsman.

If you want the Ombudsman’s help, you should contact the office explaining why you feel you have been treated unfairly and asking for an investigation. If the Ombudsman decides to investigate your complaint, the office will assign an investigator to look into the complaint and prepare a report. If the Ombudsman thinks the report contains enough evidence to support your complaint, the office will suggest a solution they think is fair. This could include asking the government body in question to review its decision and provide adequate reasons, or change its processes. In 2014–2015, the Ombudsman offered recommendations on two different AER cases.\(^{48}\)

Office of the Ombudsman (Edmonton)
Suite 2800
10303 Jasper Avenue NW
Edmonton, AB T5J 5C3
Phone: 780-427-2756
Fax: 780-427-2759
info@ombudsman.ab.ca
www.ombudsman.ab.ca
Complaints: www.ombudsman.ab.ca/complaints/make-an-online-complaint/

Office of the Ombudsman (Calgary)
Suite 2560
801 6 Avenue SW
Calgary, AB T2P 3W2
Phone: 403-297-6185
Fax: 403-297-5121

A.10 Local municipalities

Although municipalities don’t have jurisdiction over many elements of oil and gas development in Alberta, they do have jurisdiction over roads, safety, and future development. They issue development permits for municipal development or subdivisions, which may be impacted by oil gas and coal development. They may be involved in approving access roads for oil and gas operators, or ensuring municipal development does not occur within the setback to an energy resource project.

Municipalities may be involved in approving setback reductions, and ensuring that these reduced setback reductions are reflected on the title and registration to the land. They will also require crossing agreements to be negotiated between landowners and companies for pipeline right-of-ways. Because of these various responsibilities, municipalities may get involved in hearings.

If a company approaches you with a project proposal, it would be useful for you to discuss any future development or subdivision plans you have with the municipality. They may advise you how a proposed project may affect certain development due to setback and safety requirements. They also will be able to advise you about the construction of lease roads that a company may build on your land, and the potential for you to use these lease roads after a project is reclaimed. In many instances, lease roads are considered temporary and are not owned or maintained by municipalities, so they will need to be removed when the company ceases its operations. If you expect to use the lease road past the life of the project, you should discuss this with your municipality.
A.11  Property Rights Advocate Office

The Property Rights Advocate Office was established in 2012 as a conduit to government for concerns raised by Albertans about private property rights. It is a non-partisan, impartial office, although it is housed within the Ministry of Justice and Solicitor General. It listens to concerns about property rights and documents those concerns and/or refers people to existing resources. In its annual report it also makes recommendations for changes around commonly heard property rights concerns. The office does not get involved in solving specific property rights cases.

The Property Rights Advocate Office has several resources that you may find useful:

\[ A \text{ Guide to Property Rights in Alberta}^{49} \]
\[ Observation and Notes: Update on REDA^{50} \]
\[ Report of the Property Rights Task Force: Engagement with Albertans^{51} \]

A.12  Alberta Geological Survey

Alberta Geological Survey (AGS) is the official provincial geological survey of Alberta. AGS is responsible for describing the geology and resources in the province and providing information that may be relevant to land use, environmental, public health, and safety issues related to geosciences.

AGS works in several key areas, including bedrock mapping, geological modelling, resource evaluation (such as for oil and gas), and groundwater. Much of this analysis is provided to the AER, and informs the Regulator’s resource management. In the 2014 Peace River inquiry around widespread issues of odour and emissions, AGS investigated and provided geological and geochemical contributions to the panel.

Their website also includes resources such as reports and maps.

\[ \text{Alberta Geological Survey} \]
\[ \text{www.ags.aer.ca} \]

\[ ^{49} \text{Alberta Land Institute, } A \text{ Guide to Property Rights in Alberta (2014).}
\[ \text{http://propertyrightsguide.ca/assets/a-guide-to-property-rights-in-alberta.pdf} \]
\[ ^{50} \text{Office of the Property Rights Advocate, } Observation and Notes, December 20, 2013.
\[ \text{https://justice.alberta.ca/programs_services/about_us/prao/assets/PRAO-Notes-Dec-20-2013.pdf} \]
\[ \text{https://justice.alberta.ca/programs_services/about_us/prao/assets/PropertyRightsTaskForce-Report.pdf} \]
A.13 National Energy Board

If pipelines cross provincial or international boundaries, their approval and management is handled at the federal level by the National Energy Board (NEB) (See Section 5.5). The National Energy Board Act sets out the procedures for approvals, appeals and compensation (see Section C.4.4).

The NEB has produced a guide for landowners on its website, describing the hearing process, land agreements and compensation, and right of entry. To be heard at a hearing, you must be considered directly affected by the project application in question. They will also consider whether the decision to approve or to not approve has a direct impact on your interest. The NEB doesn’t have the jurisdiction to decide compensation, but has set up an Appropriate Dispute Resolution (ADR) process, which is described in on their website and in the Appropriate Dispute Resolution guide. Even though the ADR process has no specific mandate to deal with compensation uses, compensation can be discussed if both parties agree to do so.

Anyone involved in a process before the NEB should consult the board’s publications. These clearly explain how landowners, occupants and the public can get involved. These publications are:

- *Pipeline Regulation in Canada: A Guide for Landowners and the Public (2010)*
- *Living and Working near Pipelines: Landowner Guide*
- *Responding to Emergencies*

---

52 Other legislation that involves the NEB includes the Canada Oil and Gas Operations Act and certain provisions of the Canada Petroleum Resources Act that relate to the Yukon, Northwest Territories, Nunavut and submarine areas, but are not within provincial jurisdiction.

53 NEB, “Participating in NEB Hearings”. https://www.neb-one.gc.ca/prtcptn/hrng/pplngprtcpt-eng.html#q1


If you have questions or concerns about a pipeline authorized by the NEB, you should contact one of the board inspectors in the main Calgary office, by calling one of the phone numbers below.

**National Energy Board**
517 10 Avenue SW  
Calgary, AB T2R 0A8  
Phone: 403-292-4800 or toll-free 1-800-899-1265  
Fax: 403-292-5503  
www.neb-one.gc.ca

For a pipeline emergency, place a collect call to the Transportation Safety Board’s 24-hour hot-line at 819-997-7887.

For other emergencies on NEB related issues, call the NEB at 403-807-9473.

If you are unsure if it is a NEB regulated pipeline, call the Energy and Environmental Emergency 24-hour response line at 1-800-222-6514. They will respond to NEB related emergencies.

### A.14 Canadian Environmental Assessment Agency

The Canadian Environmental Assessment Agency is an independent agency that reports directly to the federal Minister of the Environment. The Canadian Environmental

Assessment Act, 2012 (CEAA 2012) was a significant change from its predecessor, the Canadian Environmental Assessment Act of 1992. CEAA 2012 limits the scope of the projects it designates for environmental assessment, and provides exceptions for other departments (such as the National Energy Board) to proceed with approvals without the completion of an environmental assessment. It also limits the scope of public participation to those who are directly affected by the project, or have relevant information and expertise.

To find out if a proposed construction, decommissioning or abandonment of a project requires an environmental assessment by the agency, refer to the Comprehensive Study List.\textsuperscript{62} For example, the construction of an oil or gas pipeline longer than 75 km, and on a new right-of-way, is subject to an assessment.\textsuperscript{63}

**Canadian Environmental Assessment Agency**

22nd Floor, Place Bell  
160 Elgin Street  
Ottawa ON K1A 0H3  
Phone: 613-957-0700 or toll-free 1-866-582-1884  
Fax: 613-957-0862  
info@ceaa-acee.gc.ca  
www.ceaa.gc.ca

\textsuperscript{63} Comprehensive Study List Regulations, Part IV, section 14.
Appendix B. Contacts

This chapter provides contact information for lawyers, laboratories, industrial associations and community groups. Within each main section, the individual organizations are listed in alphabetical order. While engaging effectively with industry and the regulators can appear to be a daunting challenge, accessing the experience and expertise of others who have professional training or who have dealt with similar issues can be an invaluable source of advice and support.

What’s in this chapter

B.1 Lawyers, expert witnesses and technical assistance .............................................. B-3
   B.1.1 Lawyers or landowner representatives ......................................................... B-3
   B.1.2 Mediation and arbitration .......................................................................... B-3
   B.1.3 Laboratories ................................................................................................ B-4
   B.1.4 Technical consultants ................................................................................ B-5

B.2 Professional organizations representing the energy sector ........................................ B-5
   B.2.1 Alberta Association of Surface Land Agents .............................................. B-5
   B.2.2 Alberta Land Surveyors’ Association ........................................................ B-6
   B.2.3 Canadian Association of Geophysical Contractors ...................................... B-6
   B.2.4 Canadian Association of Oilwell Drilling Contractors .................................. B-6
   B.2.5 Canadian Association of Petroleum Landmen ............................................. B-6
   B.2.6 Canadian Association of Petroleum Producers ............................................ B-7
   B.2.7 Canadian Energy Pipeline Association ....................................................... B-7
   B.2.8 Canadian Society for Unconventional Resources ......................................... B-8
   B.2.9 Orphan Well Association ............................................................................ B-8
   B.2.10 Explorers and Producers Association of Canada ........................................ B-9
   B.2.11 Strathcona Industrial Association ................................................................ B-9
   B.2.12 Petroleum Services Association of Canada ................................................ B-10

B.3 Province-wide non-profit organizations ................................................................ B-10
   B.3.1 Alberta Environmental Network ................................................................... B-10
   B.3.2 Environmental Law Centre ......................................................................... B-10
   B.3.3 Alberta Native Plant Council ....................................................................... B-12
   B.3.4 Action Surface Rights Association ............................................................... B-12
   B.3.5 Clean Air Strategic Alliance ........................................................................ B-12
   B.3.6 Alberta Airsheds Council and airshed groups ............................................. B-13
   B.3.7 Freehold Owners Association ...................................................................... B-14
   B.3.8 Prairie Acid Rain Coalition .......................................................................... B-14
| B.3.9  | Alberta Trappers’ Compensation Program ............................................................ B-15 |
| B.3.10 | Alberta Land Institute .................................................................................................... B-15 |
| B.3.11 | Grassroots Alberta Landowners Association .................................................................... B-15 |
| B.4    | Synergy, mutual aid and surface rights groups .......................................................... B-16 |
| B.4.1  | Synergy Alberta ............................................................................................................. B-16 |
| B.4.2  | Mutual Aid Alberta ......................................................................................................... B-17 |
| B.4.3  | Alberta Surface Rights Federation ............................................................................... B-18 |
| B.4.4  | Alberta Water Council .................................................................................................. B-19 |
| B.4.5  | Watershed planning and advisory councils .................................................................. B-19 |
| B.5    | Other relevant local groups and committees .............................................................. B-20 |
| B.5.1  | Strathcona County Energy Exploration Committee ...................................................... B-20 |
| B.5.2  | Lochend Industry Producers Group .............................................................................. B-21 |
| B.5.3  | Turner Valley Oil and Gas Group ................................................................................ B-21 |
| B.5.4  | Lakeland Industry Community Association .................................................................. B-21 |
| B.5.5  | Sundre Petroleum Operators Group ............................................................................ B-22 |
| B.5.6  | Southwest Alberta Sustainable Community Initiative ................................................ B-22 |
| B.5.7  | Life in the Heartland .................................................................................................... B-22 |
B.1 Lawyers, expert witnesses and technical assistance

B.1.1 Lawyers or landowner representatives

In many cases a landowner negotiates directly with a company, but sometimes it can be helpful to engage a lawyer or landowner representative who is familiar with surface rights issues. Landowner representatives may be certified land agents, or other professionals with experience negotiating on these issues. Several years ago the provincial government changed land agent legislation to allow farmers and ranchers to hire professionals who were not land agents.

If a situation is complex or if negotiations break down and you plan to present at a hearing, you may wish to engage a lawyer and/or expert witnesses. This is especially common for cases brought before the AER, and some interveners also like to have a lawyer represent them at a Surface Rights Board hearing.

It is best to find a lawyer and/or expert witnesses who are experienced in energy issues and in the hearing process. Unfortunately, there is no central resource to find experts and lawyers, so you may have to ask around your networks, contact a local surface rights group or synergy group and search online. There are several law firms in Alberta that practice environmental or surface rights law.

You could also read some of the AER hearing decision documents and see which lawyers and expert witnesses were involved. These are listed at the beginning of each decision. The local residents are identified as “principals” and listed in the left-hand column. Where they are represented by someone, that name is given underneath. All recent decisions are published on the AER’s website.¹

While the highest priority in selecting professional assistance is to choose someone with experience in energy hearings, hiring professionals who are located near you can help to reduce costs and facilitate communication.

B.1.2 Mediation and arbitration

In many energy-related cases, the AER will provide assistance if companies or individuals would like a third party mediator instead of the AER staff mediator (Section

2.4.1). The AER keeps a list of companies that provide appropriate dispute resolution services and also lists on their website individuals who undertake mediation. These individuals are most likely to have an understanding of energy issues.

Alternatively, you may wish to contact the ADR Institute of Alberta (formerly associated with the Alberta Arbitration and Mediation Society), which maintains a searchable directory of ADR specialists in Alberta. Their website also provides more information on the basics of mediation.

**ADR Institute of Alberta**
Toll Free: 1-800-232-7214
Edmonton: 780-433-4881
Fax: 780-433-9024
info@adralberta.com
www.adralberta.com

**B.1.3 Laboratories**

If you want to have your air or water tested, be sure to engage an accredited laboratory. The Canadian Association for Laboratory Accreditation (CALA) delivers laboratory accreditation for environmental, and petroleum testing, along with other testing services. Each laboratory is separately evaluated and accredited for specific tests. Thus, the tests that a laboratory is accredited to perform will vary from one lab to another, even within the same company. The website includes a list of accredited laboratories.

**The Canadian Association for Laboratory Accreditation**
Phone: 613-233-5300
Fax: 613-233-5501
www.cala.ca

Accredited laboratories are also listed at:

**The Standards Council of Canada**
www.scc.ca/en/search/palcan

---

B.1.4  Technical consultants

You may also need other environmental consulting services or technical expertise. The Environmental Services Association of Alberta is an industrial association of the major companies that provide environmental services in Alberta. The list and profiles of association members on the website may help identify companies that can provide consultants or expert advice.

Environmental Services Association of Alberta

#102, 2528 Ellwood Drive SW
Edmonton, AB - T6X 0A9
Phone: 780-429-6363
info@esaa.org
www.esaa.org

B.2  Professional organizations representing the energy sector

B.2.1  Alberta Association of Surface Land Agents

Land agents in Alberta are licensed under the Land Agents Licensing Act (Section C.4.3). It is important to distinguish between licensed land agents and other professionals, such as permit agents, emergency response planning personnel and pipeline inspectors, who are trained to perform other tasks, but are not in fact licensed land agents.

The Alberta Association of Surface Land Agents is a professional association of people involved in all aspects of surface land acquisition in various industries, including the oil and gas sector.

Alberta Association of Surface Land Agents

aasla@aasla.com
www.aasla.com
B.2.2  Alberta Land Surveyors’ Association

This professional association regulates the practice of land surveying. A section on their website explains their work to the public. They also publish free helpful brochures, such as *Understanding Easements and Rights-of-Way*.

```
Alberta Land Surveyors’ Association
Phone: 780-429-8805, 800-665-2572
info@alsa.ab.ca
www.alsa.ab.ca
```

B.2.3  Canadian Association of Geophysical Contractors

One of the functions of the CAGC is to act as the communication link to promote understanding between government, industry, other groups and the geophysical industry.

```
Canadian Association of Geophysical Contractors
Phone: 403-265-0045
info@cagc.ca
www.cagc.ca
```

B.2.4  Canadian Association of Oilwell Drilling Contractors

This is a trade association that develops standard procedures for its member companies and represents this branch of the industry in dealing with different levels of government and others.

```
Canadian Association of Oilwell Drilling Contractors
Phone: 403-264-4311
info@caodc.ca
www.caodc.ca
```

B.2.5  Canadian Association of Petroleum Landmen

Oil and gas companies hire professional land agents, or landmen, to deal with surface landowners and land administration. Landmen are involved in negotiations with landowners from the initial request to explore land to the time when a well or pipeline is abandoned and reclaimed. The Canadian Association of Petroleum Landman (CAPL)

```
http://www.alsa.ab.ca/PublicInformation/EasementsandRightsofWay.aspx
```
is a non-profit voluntary professional association for landmen in Canada, providing education and training in petroleum land management and engagement and input from public and government relations. They also encourage professional and ethical standards among their members.

**Canadian Association of Petroleum Landmen**

403-237-6635  
reception@landman.ca  
www.landman.ca

**B.2.6 Canadian Association of Petroleum Producers**

The Canadian Association of Petroleum Producers (CAPP) is an industry group representing companies involved in the exploration, development and production of crude oil and natural gas in Canada. CAPP member companies account for 85% of the nation’s total production of petroleum.

CAPP often represents the industry in discussions with government, the AER and environmental groups. Over the years, CAPP has worked with members and stakeholders to develop industry best practices and comprehensive operating guidelines, on topics such as emergency response planning and flaring. The AER has used these evolving guidelines as minimum standards.

CAPP’s website contains many resources primarily written for their members but covering a variety of topics such as health and safety, emergency response, sour gas, flaring and venting. Additionally, CAPP produces their *Crude Oil Forecast, Markets and Transportation* report annually.

**Canadian Association of Petroleum Producers**  
Phone: 403-267-1100  
Fax: 403-261-4622  
communication@capp.ca  
www.capp.ca

**B.2.7 Canadian Energy Pipeline Association**

The Canadian Energy Pipeline Association represents Canada’s transmission pipeline companies. Pipelines transport oil and gas from producing regions to markets throughout Canada and the United States. According to the association, every CEPA
member will have signed on to CEPA’s *Integrity First Policy Statement and Principles*,\(^4\) which includes a commitment to collaborate and challenge industry best practices to reach the goal of zero pipeline incidents.

**Canadian Energy Pipeline Association**
Phone: 403-221-8777
aboutpipelines@cepa.com
www.cepa.com

### B.2.8 Canadian Society for Unconventional Resources

Companies that belong to the Canadian Society for Unconventional Resources are involved in the exploration and development of all types of unconventional gas, including shale gas, light tight oil, gas hydrates, coalbed methane, tight gas sands and carbonates. The society has produced a comprehensive summary entitled *Canadian Water Regulations Applicable to Hydraulic Fracturing Operations*, summarizing regulations in Alberta as well as other oil and gas jurisdictions.\(^5\)

**Canadian Society for Unconventional Resources**
Phone: 403-233-9298
info@csur.com
www.csug.ca

### B.2.9 Orphan Well Association

The Orphan Well Association is a not-for-profit organization tasked with managing the abandonment of upstream oil and gas orphan wells, pipelines and facilities, and the remediation and reclamation of their associated sites. The organization works under the delegated authority of the AER. Funds for the program are collected by the AER through the Orphan Fund levy on the upstream oil and gas industry (Section 9.4). This levy is based on the abandonment and reclamation liabilities held by each company and it is collected annually by the AER and remitted to the OWA. The association’s activities are described in their annual report, available on their website.

---


The organization also publishes a list of wells, sites, and pipelines that are to be abandoned or undergo reclamation.

**Orphan Well Association**  
Phone: 403-297-6416, or toll-free 310-0000, ask for AER switchboard 403-297-8311, then ask for OWA  
www.orphanwell.ca

**B.2.10 Explorers and Producers Association of Canada**

The Explorers and Producers Association of Canada (EPAC) represents independent oil and gas companies including start-ups, junior, and mid-sized producers operating in Canada and abroad. EPAC has close to 200 member companies, and represents their interests to government and regulatory bodies and to other sectors of the oil and gas industry.

**Explorers and Producers Association of Canada**  
Phone: 403-269-3454  
Fax: 403-269-3636  
info@explorersandproducers.ca  
explorersandproducers.ca

**B.2.11 Strathcona Industrial Association**

Several oil and gas companies operating in the eastern part of Edmonton and the adjacent portion of the County of Strathcona are members of the Strathcona Industrial Association (SIA). Other companies involved are mostly in the petrochemical industry. SIA has seven continuous air quality monitoring stations and 21 static monitoring stations in the region.

The association also supports health promotion and safety initiatives in the community. It operates the Strathcona District Mutual Assistance Program program, to plan and test emergency response readiness.

**Strathcona Industrial Association**  
Phone: 780-990-4742  
info@sia.ab.ca  
www.sia.ab.ca
B.2.12 Petroleum Services Association of Canada

The Petroleum Services Association of Canada is the national trade association representing the service, supply and manufacturing sectors within the upstream petroleum industry. As the voice of Canada’s petroleum service, supply and manufacturing sector, PSAC advocates for its members to enable the continued innovation, technological advancement and in-the-field experience they supply to Canada’s energy explorers and producers, helping to increase efficiency, improve safety and protect the environment. PSAC member companies represent a significant portion of the business volume generated in the petroleum services industry.

B.3 Province-wide non-profit organizations

B.3.1 Alberta Environmental Network

The Alberta Environmental Network (AEN) is an affiliation of environmental non-profit, non-governmental organizations and individuals working toward a healthier environment in Alberta. The AEN aims to build the capacity of its members by providing resources, information and networking opportunities, and maintains a directory of members on its website.

One of the main activities of the AEN is to facilitate the participation of environmental non-governmental organizations in environmental engagements, such as on committees or in discussions with the AER or the Clean Air Strategic Alliance (Section B.3.5).

Alberta Environmental Network
Phone: 780-439-1916
admin@aenweb.ca
www.aenweb.ca

B.3.2 Environmental Law Centre

The Environmental Law Centre (ELC) is a leading environmental public policy and law reform charity that provides objective information and advice on environmental legislation and regulations. The centre carries out its work through public programs, contract services, and search services. The search services, described below, are useful if you are working on a project that involves a purchase, sale, financing or development of land or a sale or financing of a business with potential environmental concerns; or if
you are seeking information on reclamation certificates or environmental site assessments on private lands.

**The Environmental Law Centre**

Phone: 780-424-5099, 800-661-4238  
Fax: 780-424-5133  
www.elc.ab.ca

Search services

The Centre’s Environmental Enforcement Historical Search Service will provide a search of Alberta Environment and Parks data base for the history of enforcement actions, including fines, warnings, orders or prosecutions under the Environmental Protection and Enhancement Act and other legislation. There is a fee of $75 for a search and the request can be done securely with a credit card payment online or by mail with a cheque. Full details are provided on the ELC website.

The Environmental Site Assessment Repository Search does searches for information relating to reclamation certificates applied for or issued on private land. This information will show whether reclamation certificates have been applied for, issued or cancelled for well sites, oil production sites, pipelines or compressor sites, but does not include exploration sites or oilsands mines. The search will also show if any environmental protection orders, enforcement orders or reclamation orders have been issued. The information is available for private land, but not for public lands, except for Special Areas Board land and Métis Settlements. A search can be done on a company name or on the legal land description (quarter section). The fee is $100 plus GST per search and requests must be made in writing.

Publications

The ELC has published many useful books and reports relating to environmental issues in Alberta which are available on the website under Reports and Publications. Some examples are:

*Buyer Beware: Where and how to find environmental information about a property in Alberta* (2015). This short helpful resource outlines where you can look for environmental information when you are buying property in Alberta.

*What Lies Beneath? Access to Environmental Information in Alberta* (2014). This comprehensive guidebook is intended to help anyone obtain environmental information about a specific property or location. This location-based approach is focused on the
real estate buyer but can also be helpful for community groups, environmental organizations and the general public.

*Get the Real Dirt: Contaminated Real Estate and the Law in Alberta* (2000). Anyone buying, selling or leasing property in Alberta, along with their advisors, may face the possibility of liability for contaminated property. This book assists these parties in becoming more familiar with environmental concerns related to real estate transactions. It also suggests steps that can be taken to reduce the risk of environmental liability.

**B.3.3 Alberta Native Plant Council**

The Alberta Native Plant Council promotes knowledge and conservation of the native plants and vegetation in Alberta. The council can provide information to those wanting land to be reclaimed using native plants.

Alberta Native Plant Council  
info@anpc.ab.ca  
www.anpc.ab.ca/

**B.3.4 Action Surface Rights Association**

Action Surface Rights is an Alberta-based group that is dedicated to helping fellow landowners understand and navigate the maze of government and industry processes when dealing with the energy sectors, whether it be oil/gas, transmission lines, or wind power. They provide resources, support and information for landowners to help them make an informed decision when dealing with the energy development.

Action Surface Rights  
contact@actionsurfacerights.ca  
actionsurfacerights.ca/

**B.3.5 Clean Air Strategic Alliance**

The Clean Air Strategic Alliance (CASA) is a multi-stakeholder partnership of industry, government and non-government organizations that assists the Government of Alberta in developing strategic policy on many air quality issues. CASA deals with environmental, economic and health issues. While there are representatives from various government departments on the CASA board and in various CASA teams (including individuals from the departments of energy, environment, health and
wellness and sustainable resource development), CASA reaches decisions through a consensus process.

One of its key roles is to prioritize air quality problems and, through its project teamwork, develop effective action plans to resolve these concerns.

Recognizing that air quality issues are often best dealt with on a regional basis, several regional airshed monitoring bodies have been endorsed under the CASA umbrella, using approved airshed zone guidelines. As with CASA, these multi-stakeholder bodies make decisions by consensus and consist of representatives from government, industry and non-governmental organizations. The CASA website has a map showing the location of the airsheds and has links to each one, although they operate as independent bodies (see below). These airshed groups do not provide comprehensive coverage of the province, but are active in many areas with more intensive oil and gas activity.

**Clean Air Strategic Alliance**
Phone: 780-427-9793
casa@casahome.org
www.casahome.org

### B.3.6 Alberta Airsheds Council and airshed groups

In 2006, the Alberta Airsheds Council (AAC) was formed to coordinate the efforts and operations of Alberta’s airsheds. It is a council of the nine airsheds currently in Alberta, and is a place where airshed zones could discuss common issues.

**Alberta Airsheds Council**
info@albertaairshedscouncil.ca

You can visit the Alberta Environment and Parks website for more information about Alberta’s airsheds, or you can find the contact information for them individually below.

**Fort Air Partnership**
*Fort Saskatchewan and region*
Phone: 1-800-718-0471
info@fortairmail.org
www.fortair.org

**Parkland Airshed Management Zone**
*Red Deer, Rocky Mountain House, Sundre, Banff and surrounding region*
Phone: 403-862-7046
info@pamz.org

---

6 Alberta Environment and Parks, “Alberta’s Airshed Zones.”
### Palliser Airshed Society
*Medicine Hat and Redcliffe*
Phone: 403-892-7745
ken@palliserairshed.com
www.palliserairshed.ca

### Peace Airshed Zone Association
*Grande Prairie and region*
Phone: 1-866-764-2681
elizabeth@paza.ca
www.pasza.ca/

### West Central Airshed Society
*Jasper, Hinton, Edson, Lake Wabamun, Drayton Valley, Pigeon Lake and surrounding regions*
Phone: 780-514-3533
monitoring@wcas.ca
www.wcas.ca

### Wood Buffalo Environmental Association
*Fort McMurray and the Wood Buffalo region*
Phone: 780-799-4420
info@wbea.org
www.wbea.org/

### Alberta Capital Airshed (ACA)
*Edmonton region*
Phone: 587-520-7935
info@capitalairshed.ca
capitalairshed.ca

### Calgary Region Airshed Zone (CRAZ)
*Calgary region*
Phone: 403-268-5737
info@craz.ca
craz.ca/

### B.3.7  Freehold Owners Association

The Freehold Owners Association is an organization for those who own subsurface rights. It was set up in an attempt to level the playing field between freeholders and the oil and gas companies that lease their oil and gas interests.

**Freehold Owners Association**
Phone: 403-245-4438
fhoa@shaw.ca
www.fhoa.ca

### B.3.8  Prairie Acid Rain Coalition

The coalition reviews regulatory processes relating to air emissions and makes recommendations for improvement. It also promotes alternative energy sources and the use of the best available technology.

**Prairie Acid Rain Coalition**
Phone: 780-458-3362
dspink@shaw.ca
B.3.9  Alberta Trappers’ Compensation Program

The Alberta Trappers’ Compensation Program is administered by the Alberta Trappers’ Association to help trappers when they are negatively affected by the activities of other resource users on Crown lands. The Trapper Compensation Board has been appointed to review claims that cannot be resolved through direct negotiations. This may be useful for those who have trapping leases near oil and gas development in the area.

   Alberta Trappers’ Association
   Phone: 780-349-6626
   info@albertatrappers.com
   www.albertatrappers.com

B.3.10  Alberta Land Institute

Alberta Land Institute (ALI) is an independent, non-partisan research institute based at the University of Alberta that connects research and policy for better land management. ALI conducts and funds interdisciplinary academic research on land use challenges in Alberta and Canada to develop and evaluate alternative policy options that consider social, economic and environmental perspectives.

ALI has also published a guide and accompanying website to property rights in Alberta, outlining the basics of property and subsurface rights, which may be useful to read.7

   Alberta Land Institute
   albertalandinstitute@ualberta.ca
   www.albertalandinstitute.ca

B.3.11  Grassroots Alberta Landowners Association

Grassroots Alberta Landowners Association was established to advance the interests of landowners by working to ensure that legislators, members of the media, and the general public come to a better understanding of the impact that industrial development has upon the lives and operations of farmers and ranchers. Grassroots Alberta is available to work with groups of landowners when their property is affected by pipeline and powerline projects.

http://propertyrightsguide.ca/
B.4 Synergy, mutual aid and surface rights groups

There are a number of groups dealing with oil and gas issues at the local level. Some are multi-stakeholder groups; others may be formed by one particular group, such as members of the public, who work together to bring their common interests to the attention of industry. Sometimes they are “one-issue” groups set up to deal with a particular application or problem. Such groups may later become inactive once the issue has been addressed. Other groups act on a more regional basis to deal with a variety of issues.

Some multi-stakeholder groups include industry, community and government representatives working together to try to resolve issues. Such groups may be referred to as “synergy” groups, since the groups aim to achieve greater effectiveness through cooperation or combined action. They may focus on a variety of issues including health, safety and emergency response; environmental issues; and community relations and communications. Such synergy groups are encouraged by the AER, and the AER is often an active participant in these groups.

B.4.1 Synergy Alberta

After many local and individually organized synergy meetings, Synergy Alberta was formed to actively promote collaboration between industry and other stakeholders. As long as public participation in a synergy group is meaningful and active — that is, not just for public relations purposes — and adequately resourced, these groups can play a valuable role in proactively addressing landowner and industry issues in a collaborative rather than a confrontational manner.

Synergy groups range from small, grassroots organizations to larger organization with several staff members. Some synergy groups fulfill other roles, such as that of an airshed group or mutual aid group. You can contact Synergy Alberta to inquire if there is a synergy group in your area. Additionally, Synergy Alberta hosts an annual conference for rural landowners, oil and gas companies, regulators, municipalities, stewardship groups and a host of others to come together to share information and find ways to collaborate.
Synergy Alberta
Phone: 780-461-1323 / 877-461-1323
info@synergyalberta.ca
www.synergyalberta.ca

Synergy Alberta maintains a directory of synergy groups on their website with up-to-date contact information. Some examples of synergy groups listed in 2016:

- Battle Lake Synergy Group
- Butte Action Committee
- Calumet Synergy Association
- Central Mountainview Advisory Group
- Clearwater Trail Initiative
- Cochrane Pipeline Operators Committee
- Panther Advisory Group
- Pembina Area Synergy
- Rimbey Regional Synergy Group
- Vulcan Area Public & Petroleum Association
- Wapiti Area Synergy Partnership
- Waterton Advisory Group
- West Central Stakeholders Group
- Wetaskiwin Synergy Initiative
- Yellowhead Synergy Group

B.4.2 Mutual Aid Alberta

Mutual aid groups build a network of support and coordination for emergency management in Alberta. These groups actively work towards building relationships among industry partners and response partners, and provide assistance across jurisdictional boundaries in the case of an emergency. Mutual Aid Alberta is a provincial network that aims to provide a forum for mutual aid groups

**Mutual Aid Alberta**
info@mutualaidalberta.ca
mutualaidalberta.ca

Some examples of the many local mutual aid groups that you can find through the Mutual Aid website:

- C-REPP
- Chinchaga Mutual Aid
Clearwater Mutual Aid Coop
County of Mountainview Mutual Aid Group
Edmonton Area Pipeline & Utility Operator’s Committee
Edson Mutual Aid Coop
Foothills Mutual Aid Coop
Hardisty Mutual Aid Plan
Lacombe County Mutual Aid Organization
Northeast Region Community Awareness Emergency Response
Pembina Area Operator’s Group Mutual Aid Team
RM of Wood Buffalo Mutual Aid
Strathcona District Mutual Assistance Program
Western Canadian Spill Services

B.4.3  Alberta Surface Rights Federation

The Alberta Surface Rights Federation works to improve the operation of all aspects of the energy industry as it affects landowners. The federation can provide names of local surface rights organizations and of experienced individuals who may be able to provide advice, with a list of surface rights groups on their website. They lobby government and the AER, and engage in multi-stakeholder processes.

The organization has a list of example addendums that you can consider adding when negotiating your surface lease agreement, for topics such as club root, trespass, garbage or waste, access to lease road, and other items of relevance.

Alberta Surface Rights Federation
webmaster@albertasurfacerrights.ca
www.albertasurfacerrights.ca

The federation maintains a list of contact information for local surface rights groups. Some examples of the many local surface rights groups that you can find through the Alberta Surface Rights Federation Aid website:

Battleford Trail Surface Rights
Big Valley Landowner’s Association
Border Surface Rights Association
Crestomere Surface Rights Association
E.I.D. Landholders Association
Eckville Surface Rights Association
Elk Point Surface Rights
Fairview Surface Rights Group
Hussar Agricultural Surface Rights Association
Livingstone Landowners Group
North Central Surface Rights Association
Paintearth Protection Association
Pekisko Group
Pembina & Area Natural Resources Advisory Group
Pine Lake Surface Rights Group
Red Water Surface Rights Group
Round Hill-Dodds Agricultural Protection Association
South Porcupine Hills Steward Association
Starland #47 Surface Rights Group
Surface Rights Society #52
Three Hills Surface Rights Group
Warburg-Pembina Surface Rights Group
Wheatland Surface Rights Action Group

B.4.4 Alberta Water Council

Established in 2004, the Alberta Water Council is a multi-stakeholder partnership from governments, industry, and non-government organizations. Its primary task is to monitor and steward implementation of the Alberta’s Water for Life strategy and to champion achievement of the strategy’s three goals.8

Alberta Water Council
info@awchome.ca
www.albertawatercouncil.ca

B.4.5 Watershed planning and advisory councils

Under Alberta’s Water for Life Strategy, watershed planning and advisory councils (WPACs) are multi-stakeholder, non-profit organizations that assess the conditions of specific watersheds and develop plans and activities to address watershed issues.

Alberta WPACs
albertawpacs.ca

Individual councils that are members as of 2016:

**Athabasca Watershed Council**
Phone: 780-865-8223
www.awc-wpac.ca

**Battle River Watershed Alliance**
Phone: 780-672-0276
www.battleriverwatershed.ca

**Beaver River Watershed Alliance**
Phone: 780-812-2182 / 1-877-737-2182
www.beaverriverwatershed.ca

**Bow River Basin Council**
Phone: 403-268-4596
www.brbc.ab.ca

**Lesser Slave Watershed Council**
Phone: 780-523-9800
www.lswc.ca

**Mighty Peace Watershed Alliance**
www.mightypeacewatershedalliance.org

**Milk River Watershed Council Canada**
Phone: 403-647-3808
www.milkriverwatershedcouncil.ca

**North Saskatchewan Watershed Alliance**
Phone: 780-442-6363
www.nswa.ab.ca

**Oldman Watershed Council**
Phone: 403-382-4239
www.oldmanbasin.org

**Red Deer River Watershed Alliance**
Phone: 403-340-RDRW (340-7379)
www.rdrwa.ca

**South East Alberta Watershed Alliance**
Phone: 403-488-8110
www.seawa.ca

### B.5 Other relevant local groups and committees

The following is a non-exhaustive list of other multi-stakeholder groups in Alberta. Some of these groups also are connected or collaborate with Synergy Alberta and Mutual Aid Alberta.

#### B.5.1 Strathcona County Energy Exploration Committee

This committee was set up by the Strathcona County Council in 2003 to identify issues and develop recommendations for policies and guidelines related to oil and gas activity within the municipality. The committee has a non-voting member of the county council in addition to voting members of the public.
**Strathcona County Energy Exploration Committee**
Contact: Lori Mills, Planning and Development Services
Phone: 780-416-6739
www.strathcona.ca (search for “Energy Exploration Committee”)

**B.5.2 Lochend Industry Producers Group**

The LIPG is a group of Calgary-based oil and gas companies that formed an alliance in 2011 after residents in the region raised concerns about the impacts of new hydraulic fracturing activity in the Lochend area north to Cochrane, Alberta. The group was formed to collaborate on oil and gas infrastructure for the purpose of reducing the cumulative impact.

**Lochend Industry Producers Group**
info@lipg.ca
lipg.ca

**B.5.3 Turner Valley Oil and Gas Group**

The Turner Valley Oil and Gas Group (TVOGG) is a committee of representatives from the oil and gas industries, municipal and provincial governments, regulatory agencies, and emergency/disaster services that have interests within the towns of Turner Valley, Black Diamond and Longview and the MD of Foothills.

TVOGG aims to promote cooperation and communication between industry, government, regulatory agencies and developers with respect to development near oil and gas facilities; coordinated responses to public concerns about energy and oil and gas activities; and education and awareness of oil and gas industry safety concerns such as underground facilities.

**B.5.4 Lakeland Industry Community Association**

Lakeland Industry Community Association (LICA) was formed in 2000 to focus on issues in the Bonnyville, Cold Lake and St. Paul region. The association focuses on air, soil, and water monitoring, and operates the LICA airshed zone and the Beaver River Watershed Alliance as independent standing committees.

It has members from industry and the community, including the Aboriginal community. Representatives from the AER also attend meetings. Although it functions as a synergy group, it also serves other functions.
Contacts

**Lakeland Industry Community Association**
Phone: 780-812-2182
lica2@lica.ca
lica.ca

B.5.5  **Sundre Petroleum Operators Group**

Sundre Petroleum Operators Group (SPOG) was set up in 1992 to facilitate understanding between the community and the oil and gas companies in the Sundre/Caroline area. Its mission is to facilitate communication and co-operation amongst primarily petroleum industry partners, regulatory agencies and the community. While it is an industry-funded group, it includes representatives from 25 community groups in the Sundre/Caroline area and from the AER in addition to 20 oil and gas and service companies. SPOG has working groups and committees that deal with a variety of issues, outlined on their website. Although it functions as a synergy group, it also serves other roles in the community.

SPOG publishes a summary of all new developments with SPOG boundaries in its new development log, on the website.

**Sundre Petroleum Operators Group**
Phone: 888-878-2306
admin@spong.ab.ca
www.spong.ab.ca

B.5.6  **Southwest Alberta Sustainable Community Initiative**

SASCI aims to provide information and education and to facilitate public cooperation through a multi-stakeholder group for a sustainable economic, environmental and social future of southwestern Alberta. The group’s goal is to facilitate mutual understanding rather than to advocate for or against development.

**Southwest Alberta Sustainable Community Initiative**
sasci@telus.net
www.sasci.ca

B.5.7  **Life in the Heartland**

Life in the Heartland is a collaborative initiative that began in 2009 by five different groups operating in Alberta’s industrial heartland, including Lamont County, Sturgeon County, Strathcona County, City of Fort Saskatchewan and City of Edmonton
The Pembina Institute
Landowners' Guide to Oil and Gas Development | B-23

Contacts

(specifically Horsehill Industrial area). It primarily provides information, contacts and resources to residents in and around the heartland. Based on resident feedback, it focuses on cumulative effects, risk management, air quality, traffic, noise, water quality and education.

The website lists the contact information for each of the partners of the organization, and phone numbers for specific inquiries.

**Life in the Heartland**
info@lifeintheheartland.com
lifeintheheartland.com
Appendix C. Legislation

It may be useful for you to understand the legal requirements of oil and gas development in Alberta that this guide has referenced throughout previous sections. This appendix provides a summary of some of the main pieces of legislation that relate to the management of the oil and gas industry in Alberta. This section only provides an introduction and explanation of how these may relate to oil and gas development, and should not be used as a replacement for the acts and regulations themselves. Additionally, this section does not summarize the directives that the Alberta Energy Regulator administers and maintains.

What’s in this chapter

<table>
<thead>
<tr>
<th>Section</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>C.1</td>
<td>Responsible Energy Development Act</td>
</tr>
<tr>
<td>C.2</td>
<td>Legislation administered by the Alberta Energy Regulator</td>
</tr>
<tr>
<td>C.2.1</td>
<td>Oil and Gas Conservation Act</td>
</tr>
<tr>
<td>C.2.2</td>
<td>Oil Sands Conservation Act</td>
</tr>
<tr>
<td>C.2.3</td>
<td>Pipeline Act</td>
</tr>
<tr>
<td>C.3</td>
<td>Energy resource laws administered by the AER</td>
</tr>
<tr>
<td>C.3.1</td>
<td>Environmental Protection and Enhancement Act (EPEA)</td>
</tr>
<tr>
<td>C.3.2</td>
<td>Mines and Minerals Act Part 8 (Exploration)</td>
</tr>
<tr>
<td>C.3.3</td>
<td>Public Lands Act</td>
</tr>
<tr>
<td>C.3.4</td>
<td>Water Act</td>
</tr>
<tr>
<td>C.4</td>
<td>Other relevant legislation and regulation</td>
</tr>
<tr>
<td>C.4.1</td>
<td>Surface Rights Act</td>
</tr>
<tr>
<td>C.4.2</td>
<td>Mines and Minerals Act Part 4 (Petroleum and Natural Gas)</td>
</tr>
<tr>
<td>C.4.3</td>
<td>Land Agents Licensing Act</td>
</tr>
<tr>
<td>C.4.4</td>
<td>National Energy Board Act</td>
</tr>
<tr>
<td>C.4.5</td>
<td>Alberta Land Stewardship Act</td>
</tr>
</tbody>
</table>
This appendix provides a summary of some of the main pieces of legislation that relate to the management of the oil and gas industry in Alberta. The legislation is listed under the name of the main board or department responsible for implementing that piece of legislation. The summaries are intended to help you identify which legislation deals with a specific subject. However, before citing any act or regulation, please refer to the full text.

Alberta acts and regulations are available at the Queen's Printer Laws Online/Catalogue: http://www.qp.alberta.ca/Laws_Online.cfm

If you are researching a government act or regulation and are uncertain about who the legislation applies to, refer to the definitions, which usually appear at the beginning of the document.

It is worth noting the significant changes to the framework in place to regulate Alberta’s oil and gas industry. Specifically, the introduction of the Responsible Energy Development Act (REDA) in 2013 set in motion the creation of a “single regulator” of all energy resource development in Alberta, known as the Alberta Energy Regulator (AER). The AER has assumed responsibilities from the Government of Alberta’s Ministry of Environment and Parks (AEP) and the former Energy Resource Conservation Board (ERCB), and is now solely responsible for regulating the full life cycle of energy sector activities. However, it is not responsible for policy development, which still remains within the purview of the Government of Alberta.

These energy resource activities include the development of oil, bitumen, natural gas, coal, and provincial pipelines. For these activities, the Regulator oversees each stage: project application, exploration, construction, development, abandonment, reclamation and remediation. The Regulator does not have jurisdiction over renewable energy development; auctioning tenure for petroleum and natural gas rights; electricity generation, distribution or pricing; or gasoline or refined petroleum products.1 Pipelines that cross provincial or national borders are under the jurisdiction of the National Energy Board (see Section A.12).

1 Alberta Energy is responsible for renewable energy resources and tenure for mineral rights; the Alberta Utilities Commission is responsible for electricity generation and distribution, other distribution infrastructure such as natural gas utility pipelines, and natural gas pricing.
This represents a significant shift from the regulatory environment prior to the creation of the AER. In the previous regime, the former ERCB was solely responsible for administrating the acts, regulations and rules that governed all energy resource development in Alberta. Simultaneously, Alberta Environment and Sustainable Resource Development was the sole body responsible for administering the acts, regulations and rules that governed environmental and development concerns, including non-energy resource development.² For a single energy resource project, Alberta Environment and Sustainable Resource Development would administer relevant legislation such as the Water Act and the Environmental Protection and Enhancement Act, while the ERCB would administer legislation such as the Oil and Gas Conservation Act.

This new structure has created a need for caution while reading relevant specified enactment legislation. When referring to the Environmental Protection and Enhancement Act for example, this act is to be read in conjunction with the Responsible Energy Development Act and the rules and regulations associated with it, as all decision-making processes described in the specified enactments are modified by the rules set out in REDA, but only in respect to energy resource development.³

In simpler terms, the responsibility for the Environmental Protection and Enhancement Act, the Water Act, the Public Lands Act, and Part 8 of the Mines and Minerals Act, along with all associated regulations, is split between the AER when it is a decision regarding an energy resource activity, and Alberta Environment and Parks when the decision is not related to energy resource activity. When it is under the AER’s jurisdiction, the AER will substitute its own process of application and decision-making, which in certain circumstances will be different than the application and decision-making process laid out in each specified enactment. The AER’s Rules of Practice, and Specified Enactment (Jurisdiction) Regulation lay out much of how REDA affects these decision-making processes (see Section C.1).

Therefore, the following summaries include all specified enactments that fall under the jurisdiction of the AER when in consideration of an energy resource activity. For other

² Alberta Environment and Sustainable Resource Development became known as Alberta Environment and Parks (AEP) in 2015.
non-energy resource cases, these specified enactments are under the jurisdiction of other regulatory bodies and are not covered in this guide.

Energy resource enactments and specified enactments relevant to the AER under REDA are listed below with the responsible regulatory body. Other relevant legislation not under the AER’s mandate is also included.

Table 7. Energy resource legislation and responsible bodies

<table>
<thead>
<tr>
<th>Act</th>
<th>Responsible Body</th>
</tr>
</thead>
<tbody>
<tr>
<td>Responsible Energy Development Act</td>
<td>Alberta Energy Regulator (this legislation establishes the Regulator)</td>
</tr>
<tr>
<td>Oil and Gas Conservation Act</td>
<td>Alberta Energy Regulator (formerly Alberta Environment and Sustainable Resource Development (ESRD))</td>
</tr>
<tr>
<td>Oil Sands Conservation Act</td>
<td></td>
</tr>
<tr>
<td>Pipeline Act</td>
<td></td>
</tr>
<tr>
<td>Environmental Protection and Enhancement Act</td>
<td>Alberta Energy Regulator (energy resource activities only)</td>
</tr>
<tr>
<td>Mines and Minerals Act Part 8</td>
<td>Alberta Environment and Parks (for regulating non-energy resource activities)7</td>
</tr>
<tr>
<td>Public Lands Act</td>
<td></td>
</tr>
<tr>
<td>Water Act</td>
<td></td>
</tr>
<tr>
<td>Surface Rights Act</td>
<td>Surface Rights Board</td>
</tr>
<tr>
<td>Mines and Minerals Act Part 4</td>
<td>Alberta Energy</td>
</tr>
<tr>
<td>Alberta Land Stewardship Act</td>
<td>Alberta Environment and Parks</td>
</tr>
</tbody>
</table>

**C.1 Responsible Energy Development Act**

The Responsible Energy and Development Act (SA 2012, c R-17.3) (REDA) establishes the AER, and sets out its mandate to regulate the energy sector. The AER’s mandate is to “provide for the efficient, safe, orderly and environmentally responsible development of energy resources in Alberta”, and to regulate “the disposition and management of public lands, the protection of the environment, and the conservation and management of water, including the wise allocation and use of water” (section 2 (1)).

4 Alberta Environment and Parks has a significantly reduced role in regulating the oil and gas industry in Alberta, and is responsible for administering these Acts for activities that aren’t regulated by the Alberta Energy Regulator. For more information, see Section A.3.
Under REDA, the AER is tasked with regulating:

- Pipelines, wells, processing plants, mines and other facilities and operations for the recovery and processing of energy resources (section 2 (2)).
- Project approval decisions, environmental assessments and monitoring, abandonment and closure, and reclamation and remediation of energy resource activities (section 2 (2)).

To this end, REDA enables the Regulator to interpret “energy resource enactments” such as the Pipelines Act and the Oil Sands Conservation Act, which deal solely with regulating the energy industry. Additionally, the AER is responsible for relevant non-energy resource legislation known as “specified enactments”, such as the Public Lands Act and the Water Act (section 2 (2)). These specified enactments as they pertain to non-energy industries are under the mandate of other regulatory bodies such as Alberta Energy and Alberta Environment and Parks.

**Relevant sections of the Responsible Energy Development Act**

**Part 1 The Alberta Energy Regulator (sections 3–29)**

This section establishes the Alberta Energy Regulator, and the governance structure of its board and CEO (Division 1), and hearing commissioners (Division 2). Part 1 clarifies the position that the Regulator is not a crown agent, but instead an arm’s-length corporation empowered by the Alberta Government (section 3(1), and 4).

Division 3 outlines the general powers, duties and functions of the Regulator, including the ability to [conduct] inquiries (section 17) and hearings (section 12); [prepare] studies and reports (section 17); “[apply] to the Court of Queen’s Bench for an order prohibiting an activity until the required approval, order or direction has been obtained” (section 19(2)); and “[enforce] compliance with a term or condition of an AER decision” (section 19 (3)). This part also specifies that REDA must act in accordance of applicable Alberta Land Stewardship Act regional plans (section 20 (1))(refer to Section C.1), and that the Regulator “has no jurisdiction with respect to assessing the adequacy of Crown consultation associated with the rights of aboriginal peoples as recognized and affirmed under Part II of the Constitution Act, 1982” (section 21).

Division 4 gives power to the Regulator to assume “all powers, duties and functions of officials set out in a specified enactment” in the case of all energy resource activities (section 24 (a) and (b)), and clarifies that any references to Ministers or Directors in all specified enactments are to be read as references to the Regulator (section 24 (e)).
Part 2 Applications, Hearings, Regulatory Appeals and Other Proceedings (sections 30–61)

Part 2 outlines the process where all energy resource development project applications must be made to the Regulator, including any statement of concern by a directly and adversely affected person (section 32) (see Section 2.5 of this guide for more information on filing a statement of concern). Division 2 outlines when the Regulator must conduct a hearing, and who is entitled to be heard at this hearing (section 35). The Regulator must make a written decision after the completion of a hearing, and give notice of its decision to the person who made the application, and anyone who participated in the hearing (section 35 (1) and (2)).

Division 3 outlines that the only appealable decisions are those to which a person would otherwise be entitled to submit a notice of appeal under EPEA, the Water Act, or the Public Lands Act if the decisions was made without a hearing; a decision made without a hearing under an energy resource enactment; or other decisions described in the regulations (section 36 (a)). Section 39 and 40 outline how a regulatory appeal must be conducted, and who can be heard at a regulatory appeal hearing. Division 4 outlines when decisions will be reconsidered by the Regulator. Division 5 describes the process to appeal to the Court of Appeal.

REDA does not require the Regulator to explain in writing on a decision what parts of the Act give it jurisdiction to make that decision, if or when proceedings took place, or what notice was given in the process of deciding (section 54).

See Section 11.1 of this guide for more information on and explanation of regulatory hearings and the Alberta Court of Appeal, and Section 2.4 for Alternative Dispute Resolutions.

Part 3 Enforcement of Private Surface Agreements (Sections 62–66)

REDA Section 63 permits owners or occupants of land to register with the Regulator a private surface agreement between landowners and operators made after November 30, 2013 (section 62(2)). The Regulator can enforce terms or conditions of a registered private surface agreement upon request of the owner or occupant of the land in question (section 64(1)), but ultimately the Regulator determines what activities are in compliance with a private surface agreement. Making this request does not limit your ability to pursue other remedies in respect of the agreement. Terms and conditions in a private surface agreement that conflict with Part 3, such as a requirement to keep the agreement confidential, are not enforceable (section 64(2)).
Part 5 Enforcement (Sections 69–77)

Part 5 outlines the Regulator’s power of inspections and investigates, power to impose an administrative penalty, and the power to impose daily penalties.

Alberta Energy Regulator Rules of Practice

The Alberta Energy Regulator Rules of Practice outline the specific rules regarding the AER’s decision-making process, filling in many of the details not laid out by REDA. These are explained in more detail in Sections 2 and 11, while detailing a statement of concern, the Alternative Dispute Resolution process, and the hearing process.

Part 1 Applications

Part 1 of the Rules outlines how an application to the Regulator will be submitted, including the information that must be included by an operator in an application for a proposed project (section 3). The Regulator must ensure that at minimum, a public notice of application contains contact information for the applicant; a description of the project and approval sought; the legal GPS coordinates of the proposed project location; the time period for filing a statement of concern (if different than in the rules); and where interested parties can find more information about the project (section 5(1)). The Regulator cannot make a decision on an application until the time period for filing a statement of concern has elapsed (section 5.2 (1)); however, there are exceptions laid out in section 5.2 (2), and smaller or less controversial projects may be processed as a routine application before the standard 30 days.\(^5\)

The process for submitting a statement of concern is laid out in sections 5.3 through 6.2, including when the Regulator can disregard a statement of concern (it would be helpful to review these if you plan to submit a statement of concern). Section 7 outlines the considerations the Regulator may consider in order to hold a hearing on an application, including whether or not the application “will have minimal or adverse effect on the environment” and whether the applicant and the persons who have filed a statement of concern has “made efforts to resolve the issues in dispute directly with

\(^5\) If the project is processed as a routine application, such as a project that does not require regulatory leniency and did not receive any complaints in the pre-application stage, it will likely be assessed as a routine application under Directive 056, and the Regulator could make a decision on an application before the filing period deadline for a statement of concern. Note that if the Regulator has already made a decision on a project, it can choose to disregard a statement of concern (section 6.2 (c)).
each other through a dispute resolution meeting or otherwise.” Sections 7.2 through 7.5 outline the minimum of who the Regulator must notify on a decision, and how the Regulator must do it.

For information on submitting a statement of concern, refer to Section 11.1.3.

Part 1.1 Alternative Dispute Resolution Meeting

The AER may encourage parties to go through an Alternative Dispute Resolution (ADR) process before a project application is submitted, following the submission of an application, at the instigation of a hearing, or before the AER will consider an appeal process.6 The ADR process is typically voluntary but the Regulator may direct a person to attend a dispute resolution meeting. Section 7.6 outlines how the Regulator will decide who will participate, the scope of the meeting, and how and by whom the meeting will be conducted. The Regulator has the discretion to choose what form the ADR process can take: it may be a facilitated process by the Regulator, a mediation by the Regulator or a hearing commissioner, or a binding alternative dispute resolution by a hearing commissioner (section 7.6(5)). The ADR process is confidential, and all related discussions are not admissible in a hearing or other proceedings without consent from all parties (section 7.7(3)). If the process takes form of a binding alternative dispute resolution, a party of the ADR cannot request a regulatory appeal on the final decision (section 7.9(1)).

Part 2 Hearings on Applications

Part 2 includes rules outlining the hearing process of the Regulator, once there is a decision to hold a hearing. Section 9 outlines who might participate, or “intervene,” in a hearing, and the criteria that they need to meet in order to do so (section 9(2)). This section also specifies when the Regulator can refuse to allow a person to participate in a hearing (section 9(3)). First, the person must include their statement of concern, or an explanation of why they did not file a statement of concern (section 9(2)(a)). They must also include how they are directly and adversely affected by the decision (the standard that typically must be met to trigger a hearing), or if they may not be directly and adversely affected, the nature of their interest in the matter, and a reason why they should be permitted to participate. The request to participate should explain how their “participation will materially assist the Regulator in deciding the matter”; how the person has “a tangible interest in the subject-matter”; how the “person’s participation

6 AER, Interim Regulatory Guide.
will not unnecessarily delay the hearing”; and an explanation of how the “person will not repeat or duplicate evidence presented by other parties” (section 9 (2c)). The Regulator requires all of these pieces to be explained in the request to participate. Section 18 gives the Regulator has the broad discretion to hold a hearing in writing, electronically, or orally, or any combination thereof, and Section 9.1 gives the AER discretion to determine how a person will participate in the hearing. The Regulator must make a written decision, which must be published within 90 days of the conclusion of the hearing (section 28). For more information on participating in a hearing, refer to Section 11.1 of this guide.

Part 3 Regulatory Appeal

If you are not satisfied with a decision by the AER, you may be able to file a regulatory appeal. To be eligible, you must prove that you are directly and adversely affected. Generally, regulatory appeals will only be heard on decisions that were made without a hearing (in the case of a decision under an energy enactment), or when the AER makes a decision on an appealable decision under a specified enactment (defined in REDA, section 36). Regulatory appeals cannot be made over decisions made through an alternative dispute resolution. Section 30 outlines what must be included in the form of the request for a regulatory appeal and the timeframe for submitting a request (it differs between each energy or specified enactment, refer to section 30 (3)). In order to be considered for a regulatory appeal, you must include proof that you have filed a statement of concern or an explanation why you did not file one (Section 30 (2)). For more information, see Section 11.2.

Part 4 Reconsideration

The AER may review a previous decision or order, either on its own initiative or as a result of an application for a review (section 42 of REDA). Likewise, the AER may grant a rehearing, if they consider one is required. The AER is required to publish a notice of their decision within 90 days (section 35).

The Crown can request reconsideration of an AER decision to address “potential impacts, and the means to mitigate the impacts, to Aboriginal peoples” (section 34.1). However, the Regulator has discretion whether or not it will reconsider its decision under section 42.

Part 5 General Matters and Costs

Part 5 outlines general matters of the AER, such as criteria for hearing commissioners, notice of hearings, and filing a motion in a hearing (Division 1). Division 2 sets out the
AER’s powers to award costs, the criterion that must be met to grant an advance of funds for the hearing (section 58.1), and how a participant can claim costs (section 62(1)).

AR 90/2013 Responsible Energy Development Act General Regulation

This regulation outlines general and administrative matters about the AER’s decisions under energy resource enactments (not specified enactments). It specifies that when making a decision under an energy resource enactment (such as an application, regulatory appeal, reconsideration or inquiry), the Regulator must consider the “social and economic effects of the energy resource activity”; “the effects of the energy resource activity on the environment”; and “the impact on a landowner as a result of the use of the land on which the energy resource activity is or will be located” (section 3).

AR 201/2013 Specified Enactments (Jurisdiction) Regulation

This regulation outlines the AER’s authority to govern and apply all specified enactments. It begins to clearly define when the AER’s rules and decision-making authority are to be used, and when the AER either has no responsibility (such as instances where there is federal jurisdiction) or when the AER has shared responsibility (such as in instances of emergency response). Section 19 outlines instances where the specified enactments are modified by REDA.

C.2 Legislation administered by the Alberta Energy Regulator

C.2.1 Oil and Gas Conservation Act

The Oil and Gas Conservation Act (RSA 2000, c O-6) sets out the required operating practices for locating, drilling, testing, operating, and abandoning oil and gas wells, and for the storage and disposal of substances. It deals with pollution prevention at and below the surface, the general conservation of the resource and prevention of waste. Parts 3–5 define the AER’s powers. Parts 6–9 deal with practical matters such as issuing well licences and pipeline permits, and the production of oil and gas. Section 41, for example, gives the Regulator any powers it needs to prevent an escape of oil, gas, water or substance. The Regulator also has power to clean up any escaped oil and to recover costs later (section 104), or to issue an enforcement order requiring others to take
action (section 105). Part 11 describes the Orphan Fund, set up to pay for the abandonment and reclamation costs of orphan wells, facilities and pipelines. It makes provision for a delegated authority to operate this fund, which currently is the Orphan Well Association.\(^7\) For other pollution related legislation, refer to the Environmental Protection and Enhancement Act in Section C.3.1.

**Relevant regulations under the Oil and Gas Conservation Act**

**AR 151/71 Oil and Gas Conservation Rules**

This lengthy regulation specifies how the industry should operate oil and gas wells and undertake oilsands operations. While most of the technical information in the regulation will not be needed by a landowner, a summary of the main sections is given here for reference.

Part 1 defines the terms used throughout the regulation.

Part 2: Licensing of Wells specifies what information a company must submit when applying for a licence. It includes a plan of the site, information on the topography and the location of water wells within 200 metres of an oil or gas well. Section 2.120: Water Pollution Control prohibits the drilling of a well or a pit for disposal of oilfield fluids closer than 100 metres to a permanent stream without special permission.

Part 3: Approval of Drilling and Completion Operations includes the approval required for drilling operations and information on how a company must deal with suspended wells and abandoned wells. Section 3.012 outlines the requirements that a company must follow to carry out well abandonment.

Part 4 covers drilling spacing units and target areas and Part 5 covers blocks, projects and holdings.

Part 6: Drilling, Completing and Servicing deals with the removal of the rig and with casing the well, and gives requirements for posting of the well licence and signs.

Part 7: Production Operations sets out requirements for testing wells, air emissions management and the flaring of gas that contains above a certain level of H\(_2\)S.

In addition to setting out requirements for emergency response plans, Part 8: Emergency Preparedness and Response, also deals with storage tanks, water disposal, storage ponds, etc.

---

\(^7\) The Orphan Well Association, “About Us”. http://www.orphanwell.ca/pg_about_us.html
control of oil and water spills, burning vented gases, blowout prevention requirements, drilling and servicing inspections, care of well and battery sites (including waste disposal) and fencing requirements.

Part 9: Processing Plants includes requirements with respect to emissions of sulphur to the air and the disposal of wastewater.

Parts 10 to 16 deal with production rates and accounting, well data, records and reports, well and battery names, measurement, and certain applications (including enhanced recovery of oil, gas processing and underground storage and water disposal).

AR 45/2001 Orphan Fund Delegated Administration Regulation

This regulation sets up the Alberta Oil and Gas Orphan Abandonment and Reclamation Association (known as the Orphan Well Association), which manages the orphan well fund. See Section 9.4 for more information.

C.2.2 Oil Sands Conservation Act

The Oil Sands Conservation Act (RSA 2000, c O-7) is the equivalent of the Oil and Gas Conservation Act, but it applies to oil sands instead of conventional oil and gas. The Oil Sands Conservation Act sets out the approval process for the extraction and processing of oil sands in the province. It specifies the requirements for in-situ operations (production from wells), for the mining of surface or underground oil sands, and for processing plants.

Relevant regulations under the Oil Sands Conservation Act

AR 76/88 Oil Sands Conservation Regulation

After definitions (Part 1), Part 2 of the regulation provides general requirements for pollution control, precautions with respect to hydrogen sulphide (H2S), emergency response plans, prevention of loss and injury, burning gas or waste, waste, and the flaring, incinerating, and venting of gas. Subsequent sections deal with mining operations (Part 3), in situ operations (Part 4) and processing plants (Part 5).

C.2.3 Pipeline Act

The Pipeline Act (RSA 2000, c P-15) deals with all aspects of pipeline construction and operation, from the initial licences (Part 4), and the use and acquisition of the land (Part 7), to the suspension and shutting down of a pipeline (Part 5). As with wells, it is the
Regulator’s responsibility to ensure the safe and efficient construction and operation of pipelines in the province and to control pollution.

**Relevant regulations under the Pipeline Act**

AR 91/2005 Pipeline Rules

The details about how the Pipeline Act is to be implemented are set out in this regulation. Issues covered include routine matters such as standards for the materials and construction of a pipeline (section 9), ground disturbance (sections 58–67), warning signs (section 68–71), inspections for corrosion (section 53, 54), emergency procedures (section 8), and leaks and breaks (sections 27, 76–78). Noise levels at compressors and pump stations are not to exceed specified limits (section 17). The regulation also deals with discontinued pipelines and their abandonment (sections 82–84).

**C.3 Energy resource laws administered by the AER**

The Responsible Energy Development Act (see Section C.1 above) tasks the Alberta Energy Regulator with the duties set out in all environmental laws (known as specified enactments) and all associated regulations, when the statute is relevant to the energy activities. These laws and regulations aren’t limited to just the oil and gas industry; they apply to many other industries and individuals and their activities. Other government bodies such as Alberta Environment and Parks have jurisdiction under these acts for activities that fall outside the scope of energy resource development. As such, REDA defines specified enactments as:

- the Environmental Protection and Enhancement Act (EPEA)
- the Water Act
- the Public Lands Act (PLA)
- Part 8 of the Mines and Minerals Act

These environmental laws should be read in conjunction with REDA, as REDA specifies the AER’s decision-making process and application process that will be used in place of the decision-making processes described in each specified enactment (the AER’s Rules of Practice describes the specifics of the decision-making process). Additionally, the Specified Enactment (Jurisdiction) Regulation (above) outlines how the AER should interpret these environmental laws when they are relevant to the energy resource activities under the Regulator’s authority. Therefore, we will refer to these two regulations often in the outline of the specified amendments below.
In all cases where an environmental law refers to a “inspector”, “investigator”, “officer”, or “director”, if it is under the AER’s authority set out in the Specified Enactment (Jurisdiction) Regulation, it is to be read to be referring to an individual authorized by the Regulator (section 11). For simplicity sake, we substitute the language in each case to simply read as ‘the Regulator’ or the AER.

C.3.1 Environmental Protection and Enhancement Act (EPEA)

Relevant sections of the Environmental Protection and Enhancement Act

Several sections of the Environmental Protection and Enhancement Act (RSA 2000, c E-12) are relevant to the regulation of the energy industry. Part 2 of EPEA outlines the environmental assessment and approval process. In addition to licensing by the AER, some large oil and gas facilities, pipelines and oilsands operations also require environmental approvals (see AR 276-2003 Activities Designation Regulation, below). Some projects only need an approval but others require an environmental impact assessment before they can obtain an approval. As this section will only briefly review the Act, for a more thorough overview of issuing a statement of concern, the hearing process, or applying for an appeal, see Section 2.5 and Section 11.1 of this guide.

Part 2 Division 1: The Environmental Assessment Process

The Environmental Assessment Process is set out in EPEA sections 40–59. An environmental assessment is mandatory for some activities (see AR 111/93 Environmental Assessment (Mandatory and Exempted Activities) Regulation, in conjunction with section 11 of Schedule 2 of the AR 201/2013 Specified Enactments (Jurisdiction) Regulation, above).

Even where an environmental impact assessment is not mandatory, the Regulator may decide that such an assessment is required (EPEA sections 41–43). Section 44(3) of EPEA sets out the factors that the Regulator must consider when deciding whether an environmental assessment is needed.

The Regulator must provide public notice of its decision on whether an environmental assessment is needed to all those who submitted a statement of concern (EPEA section 45(5) and AR 112/93 Environmental Assessment Regulation, section 5).

If an environmental assessment is mandatory, or if the Regulator has decided to require an environmental assessment on a non-mandatory project, the company has to draw up the terms of reference for the preparation of the assessment report. These terms of
reference are submitted to the Regulator for review (EPEA section 48(1)) and are also available for public review and comment (EPEA section 48(2) and AR 112/93, section 6). The company is also required to make a copy of the proposed terms of reference available to anyone who requests them.

When an environmental assessment is being done — whether it’s mandatory or at the discretion of the Regulator — there is an opportunity for public input. The company is required to issue a public notice that an environmental assessment is to be conducted (EPEA section 44(5); AR 112/93 Environmental Assessment Regulation, section 3, see below; and the AER’s Rules of Practice, section 8). Any member of the public who is “directly and adversely affected by the proposed activity” can submit a statement of concern (see EPEA section 44(6), subject to the AER’s standard of “directly and adversely affected”, in the AER Rules of Practice), which the Regulator is required to consider before issuing a decision (EPEA section 46; AER’s Rules of Practice, section 5.2). Although you are required to show that you are “directly and adversely affected” you can still submit a statement of concern even if you are not and hope that, taken with submissions of others who are eligible persons, it may help persuade the Regulator of the need to exercise its discretion to conduct an environmental assessment.

Following any public input, the Regulator issues the final terms of reference and publishes a notice in at least one newspaper in the project area indicating where they can be viewed (AR 112/93 Environmental Assessment Regulation, section 6). Section 49 of EPEA states that an environmental impact assessment must be prepared in accordance with the terms of reference and also lists information that the report must include.

When an environmental impact assessment report is complete, the company sends it to the Regulator, who can request supplementary information if there are gaps in the report (EPEA, sections 50–51). The company is also required within ten days to publish a notice stating that the report, or a summary of it, can be obtained free of charge from the company and can be viewed at an address given in the notice (EPEA, section 52 and AR 112/93, section 8).


Part 2 Division 2: The Approval and Registration Processes

The approval and registration processes are set out in EPEA sections 60–86 and in regulation AR 113/93 Approvals and Registrations Procedure Regulation. Even if no
environmental assessment has been required, there is an opportunity for public input in the approval process (AER Rules of Practice, section 6 (1)).

The approval process applies to all projects that require an approval under AR 276/2003 Activities Designation Regulation (see below). This includes sweet and sour gas processing plants, pipelines over a certain size, syngas plants and oil production sites. While some projects require approvals, other, mostly smaller, projects only require registration (registrations are defined in EPEA Activities Designation Regulation, Schedule 2). No opportunity for public input is provided in the registration process (AER Rules of Practice, section 5.2 (2)(j)).

EPEA states that an application for an approval or registration must be made according to the regulations (section 66), described below. The Regulator can issue an approval or reject an application (section 68) and, in making a decision, they may consider any evidence that was submitted to the AER. The Regulator can also amend or cancel an approval (section 70).

When a company applies for an approval (or an amendment to an existing approval), the Regulator or the company has to provide public notice of the application (EPEA section 72). Any person who is “directly and adversely” by an energy resource project can submit a statement of concern to the AER (REDA section 32, and described in more detail in Section 11.1.3).\(^8\) If you send a written statement of concern objecting to an approval, you should explain in detail all the concerns you have with the application. Provide as much relevant information as possible to support your arguments and indicate in what way you consider yourself to be directly affected, and specifically how it adversely affects you. The Regulator must receive this statement of concern within the time specified in the notice, usually 30 days from the last date that the notice is published. The Regulator then decides whether to grant an approval or amend an existing one, and what conditions the approval should include to protect the environment. The Regulator then sends a copy of the decision to anyone who submitted a statement of concern (EPEA section 74(4)).

\(^8\) This is another instance where the AER’s enacting legislation is to be considered. For all non-energy resource projects, EPEA section 73 has provisions for who can submit a statement of concern, but this is not directly related to energy resource applications and approvals and is outside the scope of this guide.
See Section 11.1.9 of this guide for more information on Regulatory Appeals, and the criteria for an eligible person. For more information on the Regulator’s approvals process, see the AER website at https://www.aer.ca/applications-and-notices/appeals.

Part 4 The Environmental Appeals Board

Part 4 of EPEA describes how the Environmental Appeals Board is to handle appeals relating to decisions made under EPEA by a delegated authority. The Environmental Appeals Board still operates and performs its existing role, except on decisions related to energy resource development.

All appeals to AER decisions are heard by the AER and subject to its rules and regulations. Persons who are otherwise permitted to submit a notice of appeal under EPEA (Section 91) are eligible to submit an appeal to the AER if the decision is made without a hearing.\(^9\) There are several instances where appeals are subject to the rules under REDA, so Part 4 should be read in conjunction with section 19 (4) of the Specified Enactment (Jurisdiction) Regulation.

Part 5 Division 1: Release of Substances Generally

Division 1 is of general application. Sections 108 and 109 make it illegal to release substances in concentrations or amounts that could significantly damage the environment. Anyone who discovers that a release of this type is occurring or has occurred is required to report it immediately to the Regulator and, where known, to the owner, the person responsible for the substance, and anyone else who may be directly affected (section 110).

The person responsible for the substance must take any action necessary to stop the release and repair any damage (section 112) but the AER can also issue an Environmental Protection Order (or an Emergency Environmental Protection Order in the case of an immediate and significant adverse effect, regardless if an approval or

---

\(^9\) If the decision has been made without a hearing, an ‘eligible person’ (REDA sections 36 (b)) may appeal an ‘appealable decision’ (REDA section 36 (a)) to the AER. If the decision has been made with a hearing, then the only route of action is for a request for a statutory appeal to the Alberta Court of Appeal. However, the court of appeal will only rule on “matters of law and jurisdiction”. For example, the appeal won’t address the substance of the decision itself, but whether the AER has the legal jurisdiction to make a decision, outlined in the relevant environment laws.
registration was ever granted) to require that the necessary work be done (sections 113–115) should the responsible party fail to address the release in a timely way.

Section 116 allows the Regulator to issue an Environmental Protection Order to deal with offensive odours.

Part 5 Division 2: Contaminated Sites

This section is directly relevant to the Regulator’s powers with respect to the cleanup of designated contaminated sites. Where “a substance may cause, is causing or has caused a significant adverse effect” on the environment, the AER can designate the area as a contaminated site (section 125(1)). A site can be designated even when a reclamation certificate has been issued (section 125(2)(a)), the substance was released even in accordance with the EPEA or any other law (section 125(2)(c)), or if the substance came from another source or site (section 125(2)(e)). Any person who is directly and adversely affected by the designation can submit a statement of concern to the Regulator within 30 days of receipt of the notice of designation (section 127; AER Rules of Practice, section 6.21 (1)(b)). This enables landowners and occupants to present their views on what remedial measures should be taken to deal with the situation. The person responsible for the site may prepare a remedial action plan that the AER must approve (section 128). If necessary, the Regulator can issue an Environmental Protection Order to require the person to whom it is addressed to clean up or secure the contaminated site (section 129). The Regulator must consider a number of things when issuing an Order, including whether the former owner of the site was responsible in any way. In the Order, the Regulator may apportion costs for the work to be done and may regulate or prohibit the use of the site or of any product from the site.

The Regulator has power to pay compensation to any person who suffers loss or damage as a direct result of any actions taken under Division 2 (section 131).

Part 6 Conservation and Reclamation

EPEA Part 6 deals with the conservation and reclamation of specified land. This includes land that is being or has been used for the construction, operation or reclamation of a well, oil production site, battery or pipeline. A company may be required to provide financial security for its operations (section 135). A company is required to conserve and reclaim the land (section 137). Once land is satisfactorily reclaimed, an inspector authorized by the Regulator can issue a reclamation certificate (section 138). Once a reclamation certificate is issued, the Regulator will provide notice to anyone who filed a statement of concern, the registered owner of the land, and anyone who is considered
directly and adversely affected by the activity related to the reclamation certificate (AER Rules of Practice, section 2 (i)). If the Regulator makes an amendment, deletion or an addition to the condition of the reclamation certificate on its own initiative, it is an appealable decision (EPEA, section 91(1)(i)(j)(k)). The Regulator will provide notice in this case to anyone who is considered directly and adversely affected, who submitted a statement of concern, or who is the registered owner of the land (AER Rules of Practice, section 7.2(6)(a)(iii)). Where operations are damaging the environment, the company may be issued an environmental protection order (sections 140 and 141); this can happen up to 25 years after a reclamation certificate has been issued if it becomes evident that further work is needed on the site (section 142 and AR 115/93 Conservation and Reclamation Regulation, section 15).

Part 10 Enforcement

Penalties can be imposed for the more serious contravention of an Enforcement Order or an Environmental Protection Order (sections 227 and 228).

Relevant regulations under the Environmental Protection and Enhancement Act

AR 276/2003 Activities Designation Regulation

Section 5 of this regulation indicates which activities require an approval (in addition to a licence or permit from the Regulator) to ensure that their emissions do not pollute the environment. These include:

• Construction, operation or reclamation of sour or sweet gas processing plants (Schedule 1, Division 2, Part 8)
• Construction, operation or reclamation of oilsands processing plants (Schedule 1, Division 2, Part 8)
• Enhanced recovery in situ oilsands or heavy oil processing plants (Schedule 1, Division 2, Part 8)
• Construction, operation or reclamation of syngas plants (Schedule 1, Division 2, Part 8)
• Construction or reclamation of pipelines over a certain size (Schedule 1, Division 3)
• Construction, operation or reclamation of oil production sites (Schedule 1, Division 3).
AR 111/93 Environmental Assessment (Mandatory and Exempted Activities) Regulation

This regulation lists all activities for which an environmental assessment is mandatory. Oil and gas projects that require an assessment include commercial oilsands, heavy oil extraction, upgrading and processing plants that produce more than 2,000 cubic metres of crude bitumen or its derivatives per day, and sour gas processing plants that emit more than 2.8 tonnes of sulphur per day.

AR 112/93 Environmental Assessment Regulation

AR 112/93 sets out the process for environmental assessments. It relates to mandatory activities as set out in AR 111/93, and to all other projects for which the Regulator decides that an environmental assessment is necessary, as set out in the Environmental Protection and Enhancement Act, sections 41–43. This regulation is referred to in detail in the above section on the Environmental Protection and Enhancement Act, so it is not described further here.

AR 113/93 Approvals and Registrations Procedure Regulation

This regulation amplifies the requirements for approvals and registrations set out in the Environmental Protection and Enhancement Act, sections 60–86. It specifies the information a company must submit when applying for an approval or registration. It must include, for example, a description of the public consultation that a company has undertaken or intends to carry out (section 3(1)(q)). The regulation also states that the Regulator may request oral or written information from a person directly and adversely affected by the application. It includes a list of issues that should be considered in the review of an application (section 6), which can provide a useful checklist when submitting an objection. Section 10 requires the Regulator to publish a notice when an approval or registration is cancelled or suspended.

AR 115/93 Conservation and Reclamation Regulation

This regulation describes the procedure for the reclamation of oil and gas well sites, batteries, pipelines, oil production sites and many other types of specified land. It lists the responsibilities of inspectors who may be employed by the local authority (section 4), including when and how a reclamation inquiry must be conducted (sections 6, 8). The requirements for a reclamation certificate are listed (section 12) but the operator remains liable for any negative impacts for up to 25 years after a reclamation certificate is issued (section 15). A reclamation certificate is not required for pipelines of less than 15 cm diameter that are ploughed in (section 15.1). Division 2 deals with financial
security to ensure the costs of reclamation and conservation are completed. Security
must be paid where an approval is required pursuant to Schedule 1, Division 3 of the
Activities Designation Regulation, and for other activities designated by the Minister of
Environment. Section 17.1 lays out the exemptions for security payments, such as the
approval for the construction of a pipeline, or an approval regarding the construction,
operation or reclamation of an oil production site.

AR 23/2003 Administrative Penalty Regulation

An administrative penalty can be imposed if a company fails to reclaim land. This
regulation describes the penalty assessment process, such as determining the base
amount of the administrative penalty according to the contravention’s potential for
adverse effect, and whether the contravention was major or minor. It also describes the
Acts and regulations that have provisions for an administrative penalty.

AR 154/2009 Remediation Certificate Regulation

This regulation establishes the guidelines that must be followed for soil and
groundwater remediation, such as in the event of soil contamination from an oil spill. It
outlines all the information that an operator will include to the Regulator before it
receives a remediation certificate, including a plan to “effectively monitor, mitigate or
prevent any adverse effect of substance” (section 3(2r)). The registered owner of the
land will receive a notice if the Regulator issues or refuses to issue a remediation
certificate (section 6).

C.3.2 Mines and Minerals Act Part 8 (Exploration)

The Mines and Minerals Act (RSA 2000, c M-17) outlines the major rules for exploring
and developing mineral resources in Alberta, including oil, gas, coal, precious metals
and oilsands. Part 4—Petroleum and Natural Gas Leases and Part 8—Exploration are
most likely of interest to landowners and occupants. Part 4 is further discussed under
Section C.4.2 as it is under Alberta Energy’s jurisdiction. Part 8 requires a company or
person to have an exploration permit before conducting exploration (section 107). The
Act lists the powers of the Minister to grant and cancel licences (section 109–110) and
the things to be covered in the regulations, such as fees, deposits and mineral sampling.

10 See also EPEA, section 237.
The Exploration Regulation, which is in part related to the Mines and Minerals Act, is described in Section C.3.3. It is enabled by Public Lands Act, Mines and Minerals Act, the Forests Act, and the Public Highways Development Act.

**C.3.3 Public Lands Act**

The Public Lands Act (RSA 2000, c P-40) governs all land that is not privately owned, held by the federal government or First Nations, or used for public parks or infrastructure. Over 60% of Alberta’s land mass is subject to the Public Lands Act, and this is where much of the province’s resource extraction occurs.

Agricultural leaseholders do not have the right to deny seismic exploration on land that they hold under an agricultural disposition. Sections 8 and 9 of the Public Lands Act permit regulations to be made with respect to public land (see Appendix E Glossary for definition of public land and Crown land). The Public Lands Administration Regulation deals with mineral leases and pipelines on public land. The Exploration Dispute Resolution Regulation deals with disputes about land use issues and compensation with respect to seismic exploration on agricultural leases on public land.

Persons who are otherwise permitted to submit a notice of appeal under the Public Lands Act (Section 121) are eligible to submit an appeal to the AER if the decision is made without a hearing.

**Relevant regulations under the Public Lands Act**

AR 187/2011 Public Lands Administration Regulation

The Public Lands Administration Regulation (PLAR) was created to address new concerns around public land. It effectively replaces the previous Disposition and Fees Regulation, and consolidates other relevant public land regulations. Part 3 of the PLAR summarizes the different dispositions available on public land, including Mineral Surface Leases (Division 5) and Pipeline Dispositions (Division 7). Under the PLAR,

---


12 This is another instance where the legislation governing the AER under the Responsible Energy Development Act is used for the appeal process, as per REDA section 36.

15 *Frequently Asked Questions about Public Lands Administration Regulation.*
Alberta Environment and Parks issues grazing licences (which do not give exclusive occupation rights to the holder), grazing permits (which are short term, and do not grant exclusive occupation rights to the holder) and grazing leases (which give exclusive occupation rights to the holder). The holder of the grazing licence is not entitled to compensation for loss of grazing capacity or for the entry of a separate leaseholder, such as a company extracting subsurface minerals (Division 1, Section 67). However, if there is damage to improvements or personal property on the licensed area, the holder of a grazing licence is entitled to compensation (Division 1, Section 67 (2)).

AR 227/2003 Exploration Dispute Resolution Regulation

Part 1 of the regulation deals with disputes regarding operational and land use concerns. On public land that is held under a grazing lease or a farm development lease, a company is required to notify the leaseholder, giving them a copy of the government’s exploration approval at least five days before exploration is planned (section 4). The company is not allowed on the land until the leaseholder gives consent in writing, or the company has obtained a right-of-entry order from the Surface Rights Board (see Part 2 of this regulation, below).

If the leaseholder has any concerns that relate to the planned seismic operations or land use, they can request a review by the local settlement officer. They must send a written request, explaining why they want a review and the desired outcome, within seven days of receiving a copy of the company’s exploration approval (section 5). The local settlement officer can make decisions with respect to any issues except compensation. If either the leaseholder or company do not agree with the local settlement officer’s decision, they can request a review by the Provincial Exploration Review Committee (section 8) within seven days of receiving the local settlement officer’s decision. However, the decision of the local settlement officer remains in effect until the Review Committee has made their decision (section 10). A decision by the Review Committee is binding. The Review Committee may determine who pays the costs of proceedings.

Part 2 of the regulation sets out the powers of the Surface Rights Board with respect to right-of-entry orders and compensation. If the leaseholder refuses to allow a company on their land to conduct seismic operations, the company can apply to the Surface Rights Board for a right-of-entry order (section 19). Either the leaseholder or the

company can apply to the Board to resolve compensation issues with respect to access to a lease on public land (section 20–26) (see Section A.3.1 of this guide for more information on the Surface Rights Board).

Part 3 of this regulation includes amendments to the Exploration Regulation, section 4, and indicates exactly which public lands are affected by the new regulations on access.

AR 284/2006 Exploration Regulation

This regulation deals with everything relating to geophysical exploration — implementing not only requirements under the Public Lands Act but also provisions under the Forests Act, the Mines and Minerals Act, the Public Highways Development Act and the Public Lands Act. The Alberta Energy Regulator is responsible for the implementation of this regulation, under Part 8 of the Mines and Minerals Act. It sets out who has the right to conduct exploration and what permission is required. Exploration is not permitted on private land unless the owner/occupant gives consent (section 8(1)). In the case of public land that is subject to a grazing lease or a farm development lease, the person leasing the land is required to give consent, or access can be granted under a right-of-entry order, issued under the Exploration Dispute Resolution Regulation (section 8(1)(e) of the Exploration Regulation, and section 4 of the Exploration Dispute Resolution Regulation). Exploration may also be conducted on a leased or closed roadway (section 10).

Part 5, dealing with exploration field operations, will be of interest to landowners and occupants. It sets out the distance requirements for seismic activity (section 44 and Schedule 2) and what the company must do if water or gas is released during drilling (section 46 and 47), or if subsidence occurs (section 48). The rules for the temporary and permanent abandonment of shot holes and test holes are dealt with in sections 50, 51, and 52. Other issues covered include contamination of water (section 45), clearing land and salvage of timber (sections 56), damage to roads (section 60). The company is required to clearly display its permit number on all exploration equipment (section 41) and on all shot holes drilled (section 55).

C.3.4 Water Act

The Water Act (RSA 2000, c W -3) allows the province to manage and protect its water and to administer water-related processes.
Relevant sections of the Water Act

Part 4 Approvals, Licences, Preliminary Certificates, Registrations

Division 1 covers approvals, which are required to commence or continue any activity unless it is authorized elsewhere in the Water Act (section 36), such as licences or registrations. “Activity” is defined in section 1(b) and includes anything that alters the flow or level of water. Division 2 covers licences, which are required in order to divert water for any reason, except where there is an exemption in the Act or regulations (section 49). Requirements for a temporary diversion licence are set out in sections 62–65. Further requirements are given in the Water (Ministerial) Regulation, Part 1 and Part 2.

Part 9 Appeals

All persons who are otherwise permitted to submit a notice of appeal under the Water Act (Section 115) are eligible to submit an appeal to the AER if the decision is made without a hearing.15

Relevant regulations under the Water Act

AR 205/98 Water (Ministerial) Regulation

Part 1 Activities

The word “activity” is for the purposes of this regulation defined to include anything that is “conducted in or on the works that is subject of a licence and that is owned or operated by the licensee” and that “impairs or may impair the exercise of rights of any household user, traditional agriculture user or other licensee, or causes or may cause a significant adverse effect on the aquatic environment, human health, property or public safety” (section 1 (4)(b)). Activities under the Water Act (not the Water (Ministerial Regulation) are defined more broadly for the purposes of that act.

Under section 2 an approval is required for activities, except for those listed in Schedules 1 and 2 at the end of the regulation. Activities such as the construction of river crossings can be completed without an approval if they are conducted according to a Code of Practice, and provided the activity does not harm the aquatic environment.

15 This is another instance where the legislation governing the AER under the Responsible Energy Development Act is used for the appeal process, as per REDA section 56.
Part 2 Diversions and Transfers

Under section 5 a licence is required for the diversion of water, except for the exemptions listed in Schedules 3 and 4. The exemptions are for small-scale diversions of water, such as for filling a dugout or watering stock. A licence is not usually required in the forested area of the province for temporary diversions for oil rig and camp water or if the volume diverted is less than 5,000 cubic metres and water diversion is made in accordance with the conditions and time specified in the applicable surface disposition issued by the Alberta government. Another exemption often applicable to oil and gas operations is an exemption for diversion of saline groundwater (defined in the regulation as water that contains more than 4,000 mg/L TDS).

Part 7 Water Wells

This part (sections 35–71) sets out the requirements for the construction and abandonment of water wells. It includes requirements for the reporting of saline groundwater or gas in the drilling of a water well (section 43). A water well must be constructed in such a way that it does not lead to multiple aquifer completions (section 47(g)(i)).

C.4 Other relevant legislation and regulation

C.4.1 Surface Rights Act

The Surface Rights Act (RSA 2000, c S-24) outlines the powers of the Surface Rights Board, which deals with right-of-entry orders and compensation. If a company is unable to negotiate an agreement with the landowner or occupant, company representatives are not allowed to enter the land until a right-of-entry order has been obtained (section 12). This applies whether the company wants to remove minerals, drill a well or construct, operate or remove a pipeline, power transmission line or telephone line. Additionally, if a reclamation certificate has been revoked, the Surface Rights Board will grant a right-of-entry order (section 13.1(1)). The only exception is for surveying, where a landowner cannot refuse access (section 14(1)). The Surface Rights Board cannot refuse entry once the AER or the AUC has issued a licence, permit or other approval (section 15(6)). However, it can set conditions for compensation for the right of entry. It can also attach conditions to the right of entry for such things as insurance, fencing or treatment of topsoil. Before the company can actually set foot on the land, it must pay
the landowner or occupant a right-of-entry fee (section 19) and some compensation (section 20).

After issuing a right-of-entry order, the Surface Rights Board holds proceedings to determine the exact amount of compensation that a company must pay (section 23). The Board may conduct its hearings by written submission, or by oral hearings (section 8 (3.1)). Additionally, The Board may inspect the property before making a decision (section 24). The Act sets out all the factors that the Board must consider when deciding the amount of compensation (section 25). Section 10 in this guide outlines these key factors. If a company or landowner/occupant does not agree with the Board’s decision on compensation, the decision can be appealed to the Court of Queen’s Bench (section 26). An operator’s rights-of-access under a right-of-entry order or lease may be suspended or terminated by the Board for non-payment of the annual rental fee (section 36). The Board can review the rates of compensation every five years (section 27) and can rehear applications and review, rescind, amend or replace any decision or order that it makes (section 29).

The Board can also hold a hearing to settle other disputes between a company and landowner/occupant concerning such matters as damages to land outside the leased area, damage to livestock or property, or time that the owner or occupant spends in recovering stray livestock (section 30). The maximum amount that can be awarded under this section is $25,000, so larger claims must be taken to the courts.

**Relevant regulations under the Surface Rights Act**

**AR 195/2007 Surface Rights Act General Regulation**

This regulation sets out the information that must be provided in an application for a right-of-entry order and is intended for the company making the application.

**AR 196/2007 Surface Rights Act Rules of Procedure and Practice**

The Rules of Procedure and Practice outline how the Board is to issue and terminate right-of-entry orders and hold hearings. It allows the Board to review, rescind or amend any decision it has made and also to hold an inquiry.

**C.4.2 Mines and Minerals Act Part 4 (Petroleum and Natural Gas)**

Alberta Energy is responsible for parts of the Mines and Minerals Act (RSA 2000, c M-17), which outlines the major rules for exploring and developing mineral resources in
Alberta, including oil, gas, coal, precious metals and oilsands. Part 4—Petroleum and Natural Gas Leases and Part 8—Exploration are most likely of interest to landowners and occupants. Part 8 is further discussed under Section C.3.2 of this guide as it is under the AER’s jurisdiction. Part 4 specifies that a petroleum or natural gas lease usually lasts for five years (section 81). It also sets out what can be dealt with in regulations (sections 83 and 85).

**Relevant regulations under the Mines and Minerals Act Part 4**

The Exploration Regulation, which is in part related to the Mines and Minerals Act, is described in Section C.3.3, since Alberta Energy Regulator is responsible for those parts of the regulation that relate to landowners.

AR 317/2003 Mineral Rights Compensation Regulation

This regulation under the Mines and Minerals Act deals with the compensation that the government must pay if it cancels a company’s mineral lease, because it is not in the public interest, or for some other reason. It does not pertain to the issue of compensation for landowners or occupants.

**C.4.3 Land Agents Licensing Act**

Alberta Human Resources and Employment is responsible for the Land Agents Licensing Act (RSA 2000, c L-2), which governs the licensing of land agents. The Registrar of Land Agents handles licensing (section 4) and is empowered to investigate complaints (section 13). A land agent is required to leave a copy of any proposed agreement with respect to an interest in land with the landowner for at least 48 hours, excluding any holiday, before continuing negotiations or obtaining a signature (section 17). The Land Agent Advisory Committee can make recommendations to the Minister on such things as the qualifications required for land agents and standards of conduct (sections 23–24).

**Relevant regulations under the Land Agents Licensing Act**

AR 227/2001 Land Agents Licensing Regulation

This regulation sets out conditions relating to the Act. For example, it specifies the information that a land agent must provide to the landowner when negotiating an agreement and that a land agent must offer to explain to the owner or the owner’s agent the proposed terms of the agreement (section 7).
C.4.4 National Energy Board Act

The National Energy Board manages various federal responsibilities relating to energy development, as set out in the National Energy Board Act (RSC 1985, c N-7). Part III of the Act deals with the construction and operation of pipelines under federal jurisdiction (such as interprovincial and international pipelines).

There are two stages to the pipeline approval process. A company must first obtain a certificate from the NEB that shows the Board approves the general project (section 32). The second step requires the company to submit to the NEB its detailed plans for the precise location of the route, including the names of affected owners and occupiers, as far as they can be determined (section 33). The company must contact landowners along the proposed route and publish a notice in at least one issue of a publication that circulates in the affected area (section 34). Any person who has received a notice from the company and any other person who expects to be adversely affected by the pipeline, other than the landowner, can make an objection to the Board. The Act distinguishes between landowners (the owner, in section 34(3)) and “[A] person who anticipates that his lands may be adversely affected by the proposed detailed route of a pipeline, other than the owner of lands referred to in subsection (3)” (section 34(4)). The latter could be an occupier or someone living nearby. Occupiers should clearly state their “interest” in the land.

Anyone objecting to a pipeline must write to the NEB, outlining their interest in the land — for example, as owner, occupier or adjacent resident — and why they are objecting to the detailed route of the pipeline. The NEB must receive this written statement within 30 days of the person receiving the notice from the company or the last date of publication of the notice. If the NEB receives valid written objections it will hold a public hearing in the area of the affected land (section 35). The Board may disregard a written statement if it appears to be “frivolous or vexatious or is not made in good faith” (section 35(5)). Notice of the hearing will be sent to all those who submitted a written objection and will also be announced in a local paper. Any person who submitted a written statement will be allowed to make a submission at the hearing and the NEB may allow other people who are interested to take part (Section 11.4 of this guide).

The NEB can issue an approval for a company to proceed with any part of the pipeline if it has not received valid written objections until after the hearing. The Board may make that approval subject to any conditions it thinks appropriate (sections 36 and 37).
Interveners may be awarded costs by the NEB for participating in a detailed route hearing. The company will be required to pay these costs (section 39).

NEB inspectors ensure compliance with the conditions, regulations and commitments; these inspectors are entitled to access the pipeline and any excavation activity within 30 metres of the pipeline and any facility being constructed across the line or nearby (section 49). The Act sets out an inspector’s powers and the penalties for failure to comply (sections 50 through 51.4).

The powers of pipeline companies are set out in Part V of the National Energy Board Act, which deals with compensation for lands acquired for a pipeline. Compensation is paid to all those with an interest in land. Thus, in sections 86–107 of the Act, the word “owner” has a wider meaning than the actual landowner and applies to those who have an interest in the matter and have suffered damage (sections 75 and 85). If the owner and company cannot agree on compensation using the NEB process, either of them can ask the Minister of Natural Resources to appoint a negotiator (sections 88 and 89) or an arbitration committee (section 90). Arbitration may also be requested if there is a disagreement about a claim for damages, even though there was an agreement in place.

An Arbitration Committee can hold hearings and inspect the land before making a decision (section 94). They can decide if compensation is paid as a lump sum, or as annual or periodic payments (section 98). The Committee’s decision is final and can only be appealed to the Federal Court on a matter of law or jurisdiction. An Arbitration Committee also has power to award costs.

The Governor in Council can refer a decision of the NEB back for reconsideration (section 53(1)). The Governor in Council may also order the Board to issue a certificate, or dismiss the application (54(1)). You can apply for a judicial review by the Federal Court of Appeal on any order by the Governor in Council to approve or reject a certificate, within 15 days of the order being published (section 55(1)).

C.4.5 Alberta Land Stewardship Act

The Alberta Land Stewardship Act (SA 2009, c A-26) (ALSA) was established to create long-term regional plans that balance the economic, environmental and social objectives of the Province of Alberta. It is meant to provide direction through legislation

16 The Prime Minister and Cabinet represent the “Governor in Council”.

and policy for coordination of decision-making across regulatory bodies such as the AER, Alberta Environment and Parks, and other government authorities.

ALSA sets out the purpose and process of making regional plans, which regulatory bodies such as the AER are responsible for adhering to (either through binding regulatory measures or through statements of government policy). Section 5 describes the consultation process for designing a regional plan. Each plan may identify regional thresholds for environmental impacts and actions to mitigate adverse impacts on the region (section 8(2b)). These thresholds may in part be used to manage cumulative effects of energy development, such as creating an absolute air quality limit.

Section 19 and 19.1 outline the criteria for compensation, if a regional plan results in a “compensable taking” of private land or freehold mineral rights. A registered owner has to apply for compensation within 12 months from the date the regional plan, or an amendment to a regional plan, comes into force. If the dispute continues for longer than 60 days, the matter may be heard by the Land Compensation Board (section 19.1(3)).

Additionally, within 12 months of the plan coming into force, a person who feels they are directly and adversely affected by the implementation or amendment of a regional plan may apply to the Stewardship Minister to establish a panel to conduct a review of the regional plan or amendments and make a series of recommendations to the Stewardship Minister (section 19.2). For example, you may do this if you feel that the regional thresholds that are set by a regional plan directly and adversely affect you because you feel they do not adequately protect you.

As of 2016, both the Lower Athabasca Regional Plan (LARP),17 which primarily integrates the oilsands regions, and the South Saskatchewan Regional Plan (SSRP)18 are in place and legally binding.

17 Alberta Environment and Parks, “Lower Athabasca Region”.
https://landuse.alberta.ca/REGIONALPLANS/LOWERATHABASCAREGION/Pages/default.aspx
18 Alberta Environment and Parks, “South Saskatchewan Region”.
https://landuse.alberta.ca/REGIONALPLANS/SOUTHSASKATCHEWANREGION/Pages/default.aspx
Appendix D. Documenting Costs

D.1 Determining compensation

As a landowner who may sign or has signed a surface lease agreement, you should track any time or expense that occurs as a result of having a well, pipeline or facility on your land. You should start logging this as soon as the seismic equipment shows up, and finish when you have a reclamation certificate in hand that you are happy with.

A landowner’s compensation offer for a surface lease considers five main criteria:

- the entry fee (fixed to $500 per acre)
- land value
- general disturbance such as initial nuisance, inconvenience, and noise (for the first year of the lease)
- loss of use of the land
- adverse effect

Although there may be other considerations specific to your situation, these are the criteria outlined in the Surface Rights Act. For more information about compensation, refer to Section 10.

D.1.1 Negotiation expenses

Compensation should be negotiated early in your discussions in order to ensure that you and the company can agree on the reasonable reimbursement for your time. Keep track of all your time and expenses while negotiating with the company including activities like phone calls, researching, dealing with the company’s representatives and surveyors, negotiations, preparing documentation, and reaching out to third parties, lawyers, and government representatives.

If you begin as early as the project conception, you can include your records as evidence toward the reimbursement of your costs. If you provide a reasonable and detailed outline of time and expenses, the company may be persuaded to reimburse you; if they do not, the Surface Rights Board might award your costs. The Surface Rights Board has determined in the past that even if compensation was negotiated outside the Surface Rights Act,  RSA 2000, c S-24, s 25.
Rights Board process, lessors should be granted reasonable costs incurred while negotiating.²

Table 8 provides an example of cost tracking for activities during negotiations that you can adapt for your own use. You should number for each item for ease of reference.

Table 8. Example cost tracker for negotiations

<table>
<thead>
<tr>
<th>Ref #</th>
<th>Date</th>
<th>Description</th>
<th>Expense</th>
<th>Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>05-02-2015</td>
<td><em>Meeting with land agent to seismic testing.</em></td>
<td></td>
<td>1 hr</td>
</tr>
<tr>
<td>2</td>
<td>06-27-2015</td>
<td><em>Land agent kitchen table talks, discuss surface lease access</em></td>
<td></td>
<td>1.5 hr</td>
</tr>
<tr>
<td>3</td>
<td>06-28-2015</td>
<td><em>Research on company, phone call with AER</em></td>
<td></td>
<td>1 hr</td>
</tr>
<tr>
<td>4</td>
<td>06-29-2015</td>
<td><em>Research on company history, reclamation, enforcement orders</em></td>
<td><em>Environmental Enforcement Search history through Environmental Law Centre</em></td>
<td>$75</td>
</tr>
<tr>
<td>5</td>
<td>06-30-2015</td>
<td><em>Cost of landowner consultant (preliminary investigation)</em> ($250/hr)</td>
<td>$250 (1 hr)</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>07-05-2015</td>
<td><em>Land agent kitchen table talks, cont. discuss concerns on well placement</em></td>
<td></td>
<td>1 hr</td>
</tr>
<tr>
<td>7</td>
<td>07-05-2015</td>
<td><em>Cost of landowner consultant (additional investigation)</em> ($250/hr)</td>
<td>$500 (2 hr)</td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>07-02-2015</td>
<td><em>Printing costs of application and relevant documentation</em></td>
<td>$25</td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>07-15-2015</td>
<td><em>Land agent kitchen table talks, cont. discuss concerns on flaring</em></td>
<td></td>
<td>1 hr</td>
</tr>
<tr>
<td>10</td>
<td>07-15-2015</td>
<td><em>Cost of landowner consultant (kitchen table talks, preparation)</em> ($250/hr)</td>
<td>$500 (2 hr)</td>
<td></td>
</tr>
<tr>
<td>11</td>
<td>07-17-2015</td>
<td><em>Cost of landowner consultant (follow up to discussions)</em> ($250/hr)</td>
<td>$375 (1.5 hr)</td>
<td></td>
</tr>
<tr>
<td>12</td>
<td>08-07-2015</td>
<td><em>Travel to and from SRB ADR process</em> ($0.505/km)</td>
<td>$25.25 (50 km)</td>
<td>1 hr</td>
</tr>
<tr>
<td>13</td>
<td>08-08-2015</td>
<td><em>SRB ADR process negotiations</em></td>
<td></td>
<td>2.5 hr</td>
</tr>
<tr>
<td>14</td>
<td>08-09-2015</td>
<td><em>Surface Lease Agreement signed</em></td>
<td></td>
<td>1 hr</td>
</tr>
</tbody>
</table>

² See *Apache Canada Ltd. v Collier Enterprises Ltd., 2016 ABSRB*
D.1.2 Adverse effect costs

Adverse effect is calculated at the time of signing for a surface agreement, and should consider probable effects in a future five-year period.

The Farmers’ Advocate Office has a good resource explaining the items that you may typically include in your adverse effect calculation. It captures tangible and intangible impacts as a result of the well, pipeline, or facility. Additionally, you should consider past Surface Rights Board decisions, such as the decision to grant annual compensation for a pipeline agreement for several residents.

Adverse effect could include:
- Extra time to farm around the operation
- Production losses (outside the lease) due to compaction, or extra turning of the combine to navigate around the lease site
- Impact and change for on-farm management decisions
  - Impact to GPS operations
- Adding strain on machinery
- Effort and cost for effective weed control
- Inconvenience to normal field operations
  - Extra care when in the vicinity of the obstruction, extra time
  - Time to supervise and inspect lands
  - Added stress on operator to not hit any structures
- Impact of exposure to non-lethal H₂S for landowner, livestock
- General payment for a forced business relationship
- Other items unique to this lease

As these are probable future effects, anticipated costs and expenses may be hard to justify if they are speculative. However, every surface lease can be renegotiated every five years. In order to prove additional adverse effects that were not captured in your first lease agreement, being diligent about documentation can help make you whole in the next surface lease agreement for all costs and time caused by dealing with the lease.

---


on your land. The Surface Rights Board may consider a reasonable hourly rate for your time.

Table 9 provides an example of cost tracking for adverse effects that you can adapt for your own use. You should number for each item for ease of reference.

Table 9. Example cost tracker for adverse effects

<table>
<thead>
<tr>
<th>Ref #</th>
<th>Date</th>
<th>Description</th>
<th>Expense</th>
<th>Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>36</td>
<td>09-04-2015</td>
<td>Fence damaged by truck crews; repaired fence (include photos)</td>
<td>$50 (barbed wire)</td>
<td>0.5 hr</td>
</tr>
<tr>
<td>37</td>
<td>09-10-2015</td>
<td>Cattle gate left open; rounded up escaped cattle (include photos)</td>
<td></td>
<td>1 hr</td>
</tr>
<tr>
<td>38</td>
<td>09-17-2015</td>
<td>Weekly rounds to check fencing, gate closing</td>
<td>.25 hr</td>
<td></td>
</tr>
<tr>
<td>39</td>
<td>09-24-2015</td>
<td>Weekly rounds to check fencing, gate closing</td>
<td>.25 hr</td>
<td></td>
</tr>
<tr>
<td>40</td>
<td>09-30-2015</td>
<td>Weekly rounds to check fencing, gate closing</td>
<td>.25 hr</td>
<td></td>
</tr>
<tr>
<td>41</td>
<td>10-07-2015</td>
<td>Weekly rounds to check fencing, gate closing</td>
<td>.25 hr</td>
<td></td>
</tr>
<tr>
<td>42</td>
<td>10-14-2015</td>
<td>Weekly rounds to check fencing, gate closing</td>
<td>.25 hr</td>
<td></td>
</tr>
<tr>
<td>43</td>
<td>10-20-2015</td>
<td>Pump-valve failure – uncontrolled release; moved cattle upwind, closed gates, contacted company and AER</td>
<td>2.5 hrs</td>
<td></td>
</tr>
<tr>
<td>44</td>
<td>10-21-2015</td>
<td>Company trucks responding to release caused ruts in field; repaired ruts</td>
<td>4 hrs</td>
<td></td>
</tr>
<tr>
<td>45</td>
<td>10-28-2015</td>
<td>Weekly rounds to check fencing, gate closing</td>
<td>.25 hr</td>
<td></td>
</tr>
<tr>
<td>65</td>
<td>06-01-2016</td>
<td>Controlled weeds on lands adjacent to lease road – scentless chamomile removal and disposal (include photos)</td>
<td>1.5</td>
<td></td>
</tr>
<tr>
<td>66</td>
<td>06-10-2016</td>
<td>Cattle gate left open; rounded up escaped cattle (include photos)</td>
<td>1 hr</td>
<td></td>
</tr>
<tr>
<td>67</td>
<td>06-11-2016</td>
<td>Phone call with AER and Company staff re: fencing</td>
<td>.5 hr</td>
<td></td>
</tr>
</tbody>
</table>
Appendix E. Glossary

abandonment (abandoned well or facility)

The permanent deactivation of a well, pipeline or seismic hole. In an abandoned well (cased or uncased), porous and permeable hydrocarbon and/or water bearing formations are effectively isolated through the placement of cement caps. Well abandonment also includes removing the wellhead, cutting the casing off at a depth of one metre below ground surface and welding a steel plate across the opening. Abandonment should ensure there is no potential for damage to the oil and gas remaining in the ground or for the oil or gas to contaminate groundwater. See also orphan well and suspended well.

In the case of a pipeline, abandonment means the permanent deactivation of a pipeline or part of a pipeline, whether or not it has been removed. For seismic holes, abandonment involves ensuring the hole is capped in such a way that there is no chance of damage to groundwater.

acid gas

A gas that results from treating or "sweetening" sour gas; it contains predominantly hydrogen sulphide ($H_2S$) and carbon dioxide.

adverse effect

One condition considered by the Surface Rights Board to determine compensation for a surface lease. The definition typically includes probable future impacts within the next five years and includes extra inconvenience, nuisance and extra costs on the rest of the quarter section where the well site is located. In addition to the fixed entry fee, compensation is also determined by land value, general disturbance in the first year of the lease, loss of use of that land, and other relevant factors.

adversely affected

One of the conditions (besides being directly affected) that you must prove is probable in a statement of concern in order to have your concerns about an energy resource activity application considered by the AER when it reviews the application. (In a regulatory appeal, you must prove this as a fact, not a probability.) Adverse effects are generally understood to be more than moderate adverse consequences. Not to be confused with adverse effect, which is one condition used by the Surface Rights Board to determine compensation for a surface lease.
Alberta Ambient Air Quality Objectives and Guidelines

A set of objectives and guidelines for air quality in Alberta; they are intended to provide protection of the environment and human health to an extent scientifically, technically, economically, and socially feasible. Air quality objectives are generally averaged over one-hour, 24-hour, and annual periods. They are used to assess compliance of major industrial emission sources, determine the adequacy of facility designs, and track and present information on air quality throughout the province. Guidelines and objectives are reviewed as needed; currently the province has air quality objectives for over 50 substances that could be released to the atmosphere.

Alternative Dispute Resolution (ADR)

The AER offers an Alternative Dispute Resolution process for disputes related to energy development in Alberta, as an alternative to the hearing process. The ADR process may involve facilitation, mediation, negotiation, arbitration or a combination of these strategies. The ADR process isn’t limited to issues within the jurisdiction of the AER, so in some cases this process may enable a broader range of issues and resolution than what the AER can typically regulate, such as compensation. The process can be used at any point in the project life cycle, from the project planning phase until after the project is complete. Typically, the ADR program is voluntary, unless required by hearing commissioners after an application has been recommended for a hearing. Projects under the jurisdiction of the National Energy Board use a similar process known as Appropriate Dispute Resolution.

Arbitration

In arbitration, a neutral third party assesses evidence in a dispute around an agreement; the decision they make is legally binding on both sides. The process is governed by the Alberta Arbitration Act.

Backfill

To refill a hole, often with material that was originally excavated.

Base of Groundwater Protection

As used by the AER, the approximate depth where non-saline groundwater changes to saline groundwater.

Battery

A system or arrangement of tanks or other surface equipment receiving the production from one or more wells prior to delivery to market or other disposition,
and may include equipment or devices for separating the product into oil, gas or water.

**blowout**

The uncontrolled release of crude oil or natural gas from a well during *drilling* or operations.

**BTEX**

A group of volatile aromatic hydrocarbons — benzene, toluene, ethylbenzene, and xylenes — often found together.

**carbon capture and storage**

The process of collecting CO$_2$ from an industrial application and storing it underground, in order to reduce releases of this greenhouse gas to the atmosphere.

**cased-hole abandonment**

The *abandonment* of a completed well when it is no longer required for production. A bridge plug is put into the well, inside the *casing*, to prevent upward movement of hydrocarbons.

**casing**

The lining put into a well. Usually several casings are installed as a well is drilled and put into production. The production casing is a tubular steel pipe threaded on each end and connected with couplings. It extends the total length of the wellbore to ensure safe control of production, prevent water from entering the wellbore and keep rock formations from slumping into the well bore.

**Class I pipeline**

A pipeline’s class, for regulatory purposes, is defined by an index that is based on a product of its size and length. A Class I pipeline has an index of 2690 or greater, and must be approved by the AER.

**Class II pipeline**

A pipeline’s class, for regulatory purposes, is defined by an index that is based on a product of its size and length. Class II pipelines have an index less than 2690, and are generally small and/or short pipelines; they are not approved by the AER but they follow the same environmental protection guidelines as *Class I* pipelines. Class II pipelines also include any pipeline regulated by the National Energy Board.
coalbed methane (CBM)

Methane that is trapped in a coalbed. The methane gas comes to the surface at lower pressure and may need to be compressed before it is transported. If coalbed methane contains water, the gas must be dewatered and the waste water disposed of.

completion

A well is completed when drilling is finished and the resources can begin to be extracted: the casing is complete, the well site is finished and the production infrastructure has been installed.

compressor

A device, driven by large gas or electric engines, used to create and maintain pressure in a gas pipeline so that the gas will flow through process units and pipelines. Compressors may be located at a wellhead, battery, gas plant or along a pipeline. Long pipelines may require a series of compressor stations along the pipeline to boost pressure.

conservation

In the context of energy resources, the planning, management and implementation of a activity to prevent the waste of energy resources. An example includes the conservation of natural gas as a byproduct of oil production.

critical sour well

A well that could release sour gas, which could affect nearby residents. The designation reflects the well’s proximity to an urban centre and its maximum potential hydrogen sulphide (H₂S) release rate during the drilling stage. The operator must prepare a detailed drilling plan that addresses all aspects of a proposed operation. A critical well is classified according to the Alberta Energy Regulator’s Directive 056: Energy Development Applications and Schedules.

Crown land

Lands owned by either provincial or federal governments. The provincial government uses the term public land to refer to land administered under the Public Lands Act, to avoid confusion with other provincial and federal land.

dewatering

The separation of water from hydrocarbons, especially in coalbed methane operations.
directly affected

One of the conditions (besides being adversely affected) that you must prove is probable in a statement of concern in order to have your concerns about an energy resource activity application considered by the AER when it reviews the application. (In a regulatory appeal, you must prove this as a fact, not a probability.) In general, to be directly affected a person must prove that the effects upon them are greater than the average Albertan. Whether or not a person is directly affected will vary from case to case.

down-hole abandonment

A stage in well abandonment that includes the installation of cement caps in the bore and cutting off the casing. It does not include the surface abandonment or the reclamation of the lease site.

drilling

The first stage in well construction, when the initial well is bored into the surface of the earth. Seismic holes may also be drilled for seismic testing in the exploratory stages of development.

drilling mud

Fluid circulated down the drill pipe during drilling to remove cuttings, cool and lubricate the drill bit and maintain the desired pressure in the well.

dehydrator

A facility that removes the water that occurs in some natural gas, to prevent the corrosion and freezing of gas pipelines.

easement

The right to use a specific portion of another’s land for a specific purpose. Easements are very similar to rights-of-way and are usually registered on the title of the property. An example of an easement is a right-of-way for a pipeline.

effluent

Liquid waste from an oil operation, usually containing oil products, chemicals used in production, and waste water.

emergency planning zone (EPZ)

An area surrounding a well where residents or other members of the public may be at risk in the event of an uncontrolled release of hydrogen sulphide ($H_2S$). The company
must be prepared to respond immediately to any event in the EPZ, and to inform the public and assist them to evacuate in case of emergency in the zone.

**energy resource enactments**
Laws governing the extraction and management of energy resources including oil, natural gas and coal. This includes the Coal Conservation Act, Gas Resources Preservation Act, Oil and Gas Conservation Act, Oil Sands Conservation Act, Pipeline Act, the Turner Valley Unit Operations Act, and all associated rules and regulations.

**enhanced oil recovery (EOR)**
Using water or carbon dioxide to maintain the pressure in an almost-depleted oil reservoir, the enable the extraction of more oil.

**equivalent land capability**
The ability of land that has been conserved or reclaimed to support various land uses similar to those that existed prior to an activity being conducted on the land, but not necessarily identical.

**expedited application**
A project application may be expedited (a *routine application*) when an application is submitted to the AER with no outstanding concerns or objections, a landowner agrees to a surface lease or to proceed to the Surface Rights Board, the company is compliant with all technical and participant involvement requirements, and the company is not requesting exceptions. An expedited application allows the Regulator to make a decision immediately without waiting for a statement of concern filing deadline to pass.

**facilitation**
An informal process for resolving problems that involves a third party who helps to guide discussions between other parties in dispute about an issue. Such a facilitator encourages all those involved to participate actively in the discussion and work together to find an effective solution to problems. The primary responsibility for resolving the problems rests with the two parties in dispute.

**flaring**
The burning of unwanted gases from a well or processing facility. It may be routine or occur due to an upset. The two common types of flaring are well test flaring and *solution gas* flaring. Well test flaring is carried out when a new well is drilled, to burn off gases while the chemical content of the gases is being tested. Solution gas flaring
occurs at *batteries* or wells where oil from one or more wells is processed and stored. Flaring is sometimes necessary at temporary stacks, as part of pipeline maintenance operations. *Gas processing plants* also use flares, to burn off by-products for which there is no market and to burn off gas during emergency conditions.

**flowback fluids**

A mixture of injection fluids, *reservoir fluids* and gases that flows back up the wellbore and to the surface after each pressurization cycle in *hydraulic fracturing*. Flowback fluids must be captured, contained, and disposed of to avoid surface contamination. *Pits* can be used to store the flowback fluid; however, above-ground storage tanks should be used to minimize risk of contamination from leaks and spills.

**fracturing, fracking**

*See hydraulic fracturing.*

**freehold mineral rights**

The ownership of, and legal right to recover, specific minerals from a specified piece of land is known as mineral rights ownership. The Alberta government holds mineral rights for the majority (81%) of land in Alberta, the federal government approximately 9%, while companies and a few individuals have freehold mineral rights over the remaining 10% of the land. A *owner* of surface land does not typically own the mineral rights beneath the land.

**gas processing plant**

Gas processing plants remove unwanted substances from the gas before it is transported and sold as marketable natural gas. Some substances are separated out for sale, such as methane, ethane, propane, butane and pentanes. There are also contaminants in the raw gas that much be removed to meet quality specifications, such as water, *hydrogen sulphide* (*H*₂*S*), carbon dioxide, nitrogen and other trace gases. There are almost 800 gas processing plants in Alberta.

Sulphur may be recovered for sale, but any excess H₂S is *flared or incinerated*, with combustion converting most of the H₂S to sulphur dioxide (SO₂). The sulphur dioxide is released to the atmosphere.

**groundwater**

Water that collects or flows under the surface of the ground. Groundwater can either be *saline* (total dissolved solids in excess of 4,000 mg/L) or *non-saline*. Non-saline
groundwater is not necessarily potable, but may be used for other uses. See also *surface water*.

**hearing**

A process used by the Alberta Energy Regulator, the Surface Rights Board and other similar regulatory bodies to listen to arguments and evidence before deciding an issue. The AER can decide to hold a hearing on an energy resource application if concerns about the application have not been dealt with and *landowners* and companies have not come to an agreement. The AER will consider all accepted statements of concern before making a decision whether to hold a hearing, and it may decide not to do so.

**horizontal drilling (directional drilling)**

Traditionally, most wells were *drilled* vertically, but with new technology wells are more commonly drilled horizontally along underground formations to access resources that would otherwise be unreachable or unprofitable to develop. Typically horizontal drilling can reduce costs by using one well pad for multiple horizontal wells, which may result in less surface disturbance. Horizontal drilling is often also combined with *hydraulic fracturing*.

**hydraulic fracturing (fracturing, fracking, multi-stage hydraulic fracturing)**

Hydraulic fracturing or fracking involves pumping special fluids (fracturing fluids) into a well at high pressure to crack or fracture the formation, accessing oil or gas contained in small pores in the rock, and enabling the oil or gas to more easily flow into the well bore. Hydraulic fracturing is typically combined with *horizontal drilling*.

**hydrogen sulphide (H2S)**

A poisonous gas that occurs naturally and comes to the surface in "sour" gas wells. It also occurs in sewer gas. The “rotten egg” smell associated with H2S can be detected when concentrations are as low as 0.001 to 0.13 ppm. Concentrations as low as 1–5 ppm may lead to nausea or headaches with prolonged exposure. Concentrations of 20–50 ppm may cause irritation of the nose, throat, and lung, digestive upset and a loss of appetite; as well, one’s sense of smell may become fatigued so odour can’t be relied on as a warning of exposure. Sense of smell temporarily disappears at concentrations of 100–200 ppm, and is accompanied by severe nose, throat and lung irritation. At 250–500 ppm, exposure can lead to pulmonary edema, a potentially fatal buildup of fluid in the lungs. Concentrations above 500 ppm could lead to respiratory paralysis, irregular heartbeat, collapse, and death. While these acute effects of H2S are of greatest concern, there are indications that cumulative low-level
exposure can also affect health, even though it is not known what levels constitute a health risk to the general public or sensitive individuals. Pure H₂S is slightly heavier than air, so it does not disperse rapidly in enclosed spaces and may collect in low-lying areas such as valleys. The average H₂S content of sour gas produced in Alberta is 10%, although the concentration can range from trace amounts to more than 80%.

incineration
Combustion of waste gases at a well site. Unlike flaring, where gas is simply ignited at the stack, in incineration gases are combusted under controlled conditions in a closed chamber. When properly done, incineration provides a more complete combustion of the produced gases and generally minimizes the air pollutants released.

land agent (landman)
A person whom the energy company employs to negotiate with landowners and occupants, and secure and administer oil and gas leases and other agreements. Land agents are also referred to as landmen. In Alberta, landmen are licensed and regulated under the Land Agents Licensing Act.

landowner
The person whose name is on the Certificate of Title to the land issued under the Land Titles Act. This term is used generally to describe the person who owns the land.

lessee
The person or company that leases land from the lessor. (A person who has agricultural rights on public lands is referred to as an agricultural disposition holder or an agricultural leaseholder.)

lessor
The person who leases lands to the lessee.

mediation
A situation that is too difficult or controversial to be resolved by facilitation may move to mediation. A neutral and impartial third party, the mediator, works with those involved in a dispute to minimize conflict and help the parties make their own, mutually acceptable decisions. A mediator may clarify the issues, identify the specific concerns and needs of each party and suggest different ways the issues could be
resolved. For mediation to be successful, the parties must agree to seek a common solution.

**negociation**

Negotiation is the process of reaching an agreement in a dispute as each party works for their preferred outcome. It can occur directly by principals or indirectly through agents such as lawyers.

**non-expedited application**

*See non-routine application.*

**non-objection**

If *landowners, occupants or residents* have no outstanding concerns about an application for a project, they may confirm this in a statement of non-objection to the company. Depending on the type of application, this is necessary for a company to confirm from landowner, occupants, and/or residents in order to submit an expedited or routine application.

**non-routine application**

If there are any outstanding objections to an application or the company was not able to secure a confirmation of non-objection (or due to other technical or administrative circumstances), a company must file a non-routine application and include a summary of outstanding concerns or issues. Concerned parties have until the statement of concern filing deadline (listed in a notice of application) to submit a statement of concern about the application with the Regulator. The AER will only make a decision on this application after the filing deadline has passed; these applications are thus also called non-expedited.

**non-saline groundwater, non-saline aquifer**

*Groundwater* with low levels of salts, usually defined as less than 4,000 mg per litre total dissolved solids. Extractive wells may be drilled into shallow, non-saline aquifers, can potentially contaminate nearby shallow potable water aquifers. Non-saline water may be extracted along with natural gas or coalbed methane. It is removed from these resources and managed differently than saline groundwater.

**occupant**

The person, other than the owner, who has certain rights to the land and is in actual possession of the land. The occupant may also be referred to as the tenant. In the case of government-owned land, such as a grazing lease on public land, the occupant
is the person shown in the records to have an interest in the land. In the Surface Rights Act, section 1(g), an occupant may also be a company that has been granted a right-of-entry to land under a right-of-entry order.

Note that the definition of an occupant used in this guide is more general than the definition used by the AER. In Directive 056, Appendix 3, the AER distinguishes between landowners, occupants, residents and Crown land disposition holders.

**oilsands**

A deposit of sand saturated with bitumen. The bitumen may be extracted by surface mining or by injecting steam through a well.

**operator**

Usually the company that is carrying out some activity. It includes the holder of a licence, approval or permit issued by the AER. In the Environmental Protection and Enhancement Act it means an approval or registration holder who carries on or has carried on an activity on or in respect to specified land pursuant to an approval or registration. In the Surface Rights Act it means the company that has the right to conduct surveys or extract the oil, gas or other mineral.

**orphan well**

If the company holding the licence to operate a well becomes defunct or insolvent before it can abandon or reclaim the operation, the well is an orphan and no owner or party can be held responsible for the cleanup. The proper abandonment and reclamation of orphan wells (and pipelines) is paid for through the Orphan Fund, which is financed by a levy on suspended wells and managed by the Orphan Well Association.

**owner**

The person in whose name a Certificate of Title has been issued under to the Land Titles Act.

**permit agent**

A person whom the energy company employs to negotiate with landowners and occupants, and secure permission and access to undertake geophysical exploration. The permit agent may be certified. This is different than a land agent, who negotiates for leases.
ppm (parts per million)

The ratio by mass of a pollutant and its solution. A typical measurement is milligrams of pollutant per kilogram of water.

pit

A temporary storage area for liquid or semi-liquid waste produced during drilling or operations; also known as a sump.

pre-application concern

A notification filed with the AER before an application is submitted to the Regulator. This notifies the AER and the company that you have concerns, and can be submitted by anyone. A pre-application concern does not act as a statement of concern and you cannot request a hearing through a pre-application concern, so unless your concerns have been satisfactorily dealt with, it should be followed by an official statement of concern once the application has been submitted.

private surface agreement

A written agreement between a landowner and an energy company that contains terms and conditions of operations, and can be registered with the AER on the Private Surface Agreements Registry. The landowner can use the registry to ask the AER to intervene if the company is not complying with the terms of the agreement.

public land

Lands administered under the Public Lands Act, such as grazing lease dispositions, are referred to as public lands, to avoid confusion with other Crown lands.

reclamation

As defined in the Environmental Protection and Enhancement Act, reclamation means any or all of the following:

- the removal of equipment or buildings or other structures
- the decontamination of buildings or other structures or land or water
- the stabilization, contouring, maintenance, conditioning or reconstruction of the surface of the land to a state of equivalent land capability.
- any other procedure, operation or requirement specified in the regulations under the Environmental Protection and Enhancement Act.

reclamation certificate

The certificate issued by the AER to indicate that any land disturbed by an energy activity has been reclaimed and all AER requirements have been met. When applying
to the AER, the operator must include an analysis of contamination and a report
detailing how contaminants were cleaned and how surface issues such as soil
replacement and revegetation were addressed. The AER conducts both random and
targeted audits on certified sites. Certificates can be cancelled if the company fails an
audit, or a landowner complains and the site is found to be noncompliant with
reclamation criteria. A company remains liable if conservation and reclamation
problems arise within 25 years after issuance of the certificate.

remediation

The removal or neutralization of chemical substances from a site to mitigate or
prevent any adverse effects. Also known as decommissioning or decontamination.

remediation certificate

The certificate issued by the AER to indicate that remediation has been conducted
according to the AER’s requirements.

request to participate

Once the AER decides to hold a hearing it will issue a notice that includes details on
how to request to participate in the hearing. Those who think they are directly and
adversely affected can request to participate, as can anyone who thinks they have a
tangible interest in the matter and can materially assist the AER in their decision,
even if they are not considered directly and adversely affected.

resident

A resident is defined by the AER as a person occupying a residence on a temporary or
permanent basis. See also occupant.

reservoir fluids

A mixture of fluids found in a petroleum reservoir, which usually includes oil and
water. These can flow to the surface during drilling and well testing, and during
hydraulic fracturing.

right-of-entry order

An order of the Surface Rights Board granting an operator access to and use of a
certain area of the land surface for operations such as drilling and roadway
construction.
right-of-way

A legal right to pass through land owned by another. Also, a term used for land set aside for a road, pipeline, or other infrastructure; see also easement.

routine application

A company may submit a routine application for a project if there are no outstanding concerns, objections, or other technical reasons designated by the AER. The AER may proceed to make a decision on the application immediately, without waiting for a filing deadline to pass (an expedited application).

saline groundwater, saline water

*Groundwater* with high levels of salts, usually defined as more than 4,000 mg per litre total dissolved solids. It is usually found at a lower depth than non-saline groundwater (see also *base of groundwater protection*) and often is extracted along with natural gas or *coalbed methane*. It is removed from these resources and usually reinjected deep underground. Saline water must be carefully managed during production to avoid contaminating non-saline aquifers.

shot hole

In a *seismic survey*, dynamite charges are detonated in shallow shot holes. Shot holes should be plugged and sealed when testing is complete.

seismic hole

*See shot hole.*

seismic survey

A survey of the geological layers under the ground, conducted by sending out vibrations and measuring the way in which these are reflected back from the different layers. The vibrations may be created by dynamite charges in holes (usually 12 to 18 metres deep) or by mechanical vibrations at the surface (vibroseis). Data is recorded on receiving devices — either in two dimensions using one line of receiver “geo-phones” along a shot line, or more often now with a three-dimensional technique using simultaneous recording along multiple receiver lines. This enables geophysicists and geologists to identify the geological structure and formations where oil or gas may be found.

setback

The distance required to separate a project, such as a well or pipeline, from another activity, such as human settlement, water well or water course.
shale gas

Methane gas found in shale formations; it is extracted using hydraulic fracturing rather than standard gas extraction wells.

shut-in well

See suspended well.

solution gas

Natural gas that comes to the surface with crude oil. The gas may be sweet or sour (containing hydrogen sulphide ($H_2S$)). The gas is dissolved in oil at high pressures under the ground, but released at surface pressure. If the quantities are too small to pipe or conserve economically, the gas may be flared; see also flaring.

sour gas

Natural gas, including solution gas, containing hydrogen sulphide ($H_2S$).

specified land

Land that is being or has been used for, or is being held for or in connection with, the construction, operation, or reclamation of a well, oil production site, battery or pipeline. This term is used in the Conservation and Reclamation Regulation, authorized by the Environmental Protection and Enhancement Act.

specified enactments

Regulatory documents and laws that govern the protection of the environment around energy activities. These include the Environmental Protection and Enhancement Act, Part 8 of the Mines and Minerals Act, Public Lands Act, and the Water Act.

stakeholder

A person with an interest in an issue. In the case of oil and gas resource development, this may include nearby residents, recreational users of land, local business, environmental groups and various government agencies as well as the company, its staff and contractors.

statement of concern

A written submission to the AER that outlines specific concerns about an energy resource activity application. A statement of concern may be filed by anyone who believes they may be directly and adversely affected by an application.
straddle plant
A gas processing plant that is close to a gas transmission pipeline, which extracts natural gas liquids from the gas and then returns the gas to the pipeline.

subsoil
The layer of soil directly below the topsoil that generally has much less organic matter than topsoil. It can also be defined as the zone below the ploughed soil in which roots normally grow.

surface abandonment
A stage in well abandonment that includes removal of all the wellhead equipment, but not the down-hole abandonment or the reclamation of the lease site.

surface water
Water in a watercourse such as a lake, river, stream or wetland. In some cases surface water is considered to include groundwater at a depth of not more than 15 metres beneath the surface of the ground.

suspended well
A well site where operations have been temporarily halted for economic, environmental or other reasons. The well may or may not have produced in the past. Wellhead equipment will still be present, but the operator must ensure that the well or facility is left in a safe and secure condition. A well must be suspended within 12 months after the last production or injection, unless it is an observation well or intended to produce for seasonal markets.

sweet gas
Gas that does not contain hydrogen sulphide (H₂S). If even a trace of H₂S is present a well is classed as a sour gas well.

synergy group
A group comprising local landowners and residents, representatives of the government and companies working together to exchange information and resolve issues related to oil and gas development. Other members may include municipal governments, Chambers of Commerce, and industry people from other sectors.

tight reserves
Oil and gas found in shale rock and other types of non-porous geological formations. This includes shale gas. Tight reserves are produced using hydraulic fracturing.
topsoil

The surface layer of mineral soil, often containing organic matter. It provides structure and nutrients needed for germination and growth of plants and usually an adequate medium for the germination and growth of plants. It normally contains the majority of the plant roots.

unrestricted country development

Any collection of permanent dwellings situated outside an urban centre having a density of more than eight dwellings per quarter section.

urban centre

A city, town village or hamlet with not fewer than 50 separate occupied dwellings.

venting

Venting occurs when solution gases from oil wells, batteries or tanks are released unburned to the air. Some venting may also occur from compressor vents, instrument gas stations, pneumatic devices, dehydrators and storage tanks. This release of unburned hydrocarbons to the atmosphere creates odours and exposure to potentially harmful substances. Vented gas also contributes to global climate change and wastes a non-renewable resource. Current AER regulations set standards for venting and allow venting of small volumes of gas where it is not considered practical to conserve or flare it.
Appendix F. Index

Note: **Bolded** numbers indicate main entries. *Italicized* numbers refer to diagrams.

If you cannot find the information you seek in the Index, please consult the Table of Contents.

<table>
<thead>
<tr>
<th>Keyword</th>
<th>Pages</th>
</tr>
</thead>
<tbody>
<tr>
<td>abandonment</td>
<td>3-7, 5-6, 5-12, 8-4, 8-29, 9-2–9-5, 9-13–9-14, 10-6, A-15, B-8, C-10</td>
</tr>
<tr>
<td>well</td>
<td>9-11–9-14, 11-28, B-8, C-13</td>
</tr>
<tr>
<td>access</td>
<td>2-2, 2-6–2-7, 3-3–3-4, 3-9–3-10, 3-14–3-15, 4-16, 5-4, 10-4–10-5, 10-9, A-17, C-24</td>
</tr>
<tr>
<td>air emissions</td>
<td>6-9, 8-6, 8-21</td>
</tr>
<tr>
<td>BTEX</td>
<td>4-34, 6-6, 6-8, 8-6, 8-7, 8-13</td>
</tr>
<tr>
<td>hydrocarbons</td>
<td>2-6–2-9, 4-18, 4-20–4-21, 4-23, 5-7, 6-7–6-9, 7-4–7-5, 8-7, 8-12–8-13, 11-15</td>
</tr>
<tr>
<td>hydrogen sulphide</td>
<td>4-21, 4-23, 6-8, 7-5, 8-7, 8-13</td>
</tr>
<tr>
<td>sulphur dioxide</td>
<td>4-17, 4-31, 4-34, 6-9, 6-10, 8-7, 8-10, 11-8, 11-15, B-12</td>
</tr>
<tr>
<td>air quality</td>
<td>9-9, 11-2, 11-21, A-11, C-6, C-9</td>
</tr>
<tr>
<td>appeal</td>
<td>11-20, 11-27</td>
</tr>
<tr>
<td>regulatory</td>
<td>11-30</td>
</tr>
<tr>
<td>Alberta Court of Queen’s Bench</td>
<td></td>
</tr>
<tr>
<td>Federal Court of Appeal</td>
<td>2-3, 2-10, 2-29, 4-9, 6-2, 6-4, 8-16, 11-6, 11-21, A-3, C-11, C-14, C-15–C-16, C-20</td>
</tr>
<tr>
<td>approval</td>
<td>2-17, 6-5, 8-5, 8-20, 8-23–8-25</td>
</tr>
<tr>
<td>compensation</td>
<td>3-15–3-16, 7-2, 8-2, 8-7, 8-10, 8-12–8-13, 8-21, 8-26–8-27, 8-29, 9-8, A-8, A-9, A-21, A-23</td>
</tr>
<tr>
<td>complaints</td>
<td>2-3–2-9, 4-6–4-8, 5-3, 6-4, 6-5, 6-6, 7-4</td>
</tr>
</tbody>
</table>
costs 2-14, 2-20–2-21, 2-26, 4-18, 4-23, 7-3, 8-20, 10-4, 11-7, 11-17–11-19, 11-26–11-27, Appendix D

Crown land 3-4, 3-10

dispute resolution 2-15, 2-19–2-23, 4-5, 5-4, 6-4, 11-3, 11-4, 11-22, B-3, C-8, C-23

drilling 2-17, 2-18, 3-6–3-8, 3-13, 4-3, 4-4, 4-14–4-15, 4-19, 4-24, 4-25, 8-19, 8-24, C-11 (see also waste: drilling)

emergency planning 2-12, 4-20–4-22, 5-17

fencing 3-12, 4-15, 5-14, 8-29

flaring and venting 2-11, 2-13, 2-24, 4-17–4-18, 4-27, 4-31, 4-34, 6-8–6-10, 8-5–8-12, B-7

hearing

compensation (SRB) 10-10, 11-24–11-27

public 2-15, 2-19, 2-22, 2-24, 2-26, 5-5, 11-2–11-20, A-11

NEB 5-19, 11-28–11-29, A-26

hydraulic fracturing 4-24–4-35, 6-5, 8-5, 8-14, 8-19, 8-29, B-8

inspection

by AER 3-16, 3-17, 4-24, 7-2, 8-2–8-3, 8-7, 8-17, 8-29, 9-9, 9-13, A-6, A-9

by company 4-34, 5-10

by landowner 3-15, 9-8

by NEB 11-30, C-30

land agent 2-15–2-17, 4-6–4-7, 4-12, 5-4, 5-9, 10-2, A-20, B-5, B-6, C-28

leaks and spills 4-16, 4-20, 4-28, 4-30, 4-34, 5-10, 5-11, 5-15–5-18, 6-4, 6-6, 6-8, 6-11, 8-4, 8-13, 8-17, 8-21, 8-22, 8-29, 9-8

lease agreement 2-13, 2-14, 2-15–2-19, 4-12–4-19, 4-34–4-35, 5-12, 8-16, 8-19–8-20, 8-28, 9-14, 10-3–10-5, 10-8–10-11, A-18, B-18

livestock 3-10–3-13, 4-6, 4-13, 5-9, 5-14, 7-5, 8-2, 8-11, 8-25, 8-29–8-31, 9-12, 10-4, 10-10, 11-14, A-9, C-27

noise 3-11, 4-18, 4-25, 4-28, 6-5, 6-11, 8-26–8-27, 10-4, 11-8, A-8, C-13

odours 4-34, 6-4, 6-6, 6-8, 7-7, 8-3, 8-5, 8-7, 8-9, 8-12–8-13, 10-4, A-8, A-25, C-18

oil and gas facilities

battery 2-7–2-8, 6-3, 6-4–6-5, 6-10–6-11, 8-3, 8-6, 8-7, 8-12, 8-26,
9-11, C-18, C-20

compressor 2-7–2-9, 4-18, 5-6, 6-3, 6-5–6-6, 6-9, 6-10–6-11, 8-7, 8-26, C-13

gas plant 2-7–2-8, 4-7, 6-3, 6-5–6-9, 8-5, 8-6, 8-8, 8-26, C-16, C-19

glycol dehydrator 6-9–6-10, 8-7

proliferation 2-12, 5-13, 6-7

permit agent 3-3–3-4, 3-16, B-5

pipelines 2-9, 2-12, 2-22, 3-5, 4-18–4-19, 4-20, 4-24, Section 5, 6-3, 6-5, 6-8–6-9, 7-2, 8-2, 8-3–8-4, 8-8, 8-11, 8-17, 9-11–9-14, 10-6–10-7, 11-14, 11-26, 11-28–11-30, A-26–A-27, B-7, B-9, C-12–C-13, C-20, C-29–C-30

public lands 3-4, 10-2, A-4, B-11, C-22–C-24

reclamation 2-17, 4-16, 4-19, 5-6, 5-9–5-10, 5-12, 5-15, 5-17, 8-28–8-29, 9-4–9-13, 10-5, 11-8, B-8, C-18–C-19, C-20

reclamation certificate 2-17, 5-6, 8-18, 8-28, 8-29, 9-4–9-11, 10-5, 11-14, 11-21, A-7, B-11, C-18–C-19, C-20

reconsideration 11-20, 11-21, A-11, C-9

right of entry, right-of-entry order 2-16, 3-10, 4-7, 4-12, 4-13, 5-4, 5-5, 8-16, 10-3, 10-4, 10-7–10-9, 11-22–11-24, 11-29, A-17, A-26, C-23, C-26–C-27

roads and traffic 2-13, 4-8, 4-14, 4-18, 4-25, 4-28, 4-33, 9-6, 10-4, 11-14, 11-16, A-24, B-18

seismic operations Section 3, A-9, A-19, C-23, C-24

setbacks 3-5–3-6, 3-11, 4-9, 4-10–4-11, 5-7–5-8, 6-7, 9-3, 10-4, A-24

soil contamination 4-30, 5-9–5-10, 8-13, 8-15–8-18, 8-22, 8-25, 9-9, C-21

protection and conservation 3-7, 3-11, 4-15, 5-6, 5-9–5-10, 5-14, 5-15, 5-16, 8-3, 8-28, 9-7, 9-10

sour gas 2-12, 4-10–4-11, 4-19–4-24, 5-7–5-8, 5-13, 5-17, 6-6–6-8, 7-4–7-6, 11-14, 11-15

synergy group 2-27, B-16–B17

waste drilling waste 3-13, 4-16, 8-13–8-17, 9-5, 9-7, B-18

wastewater 4-29–4-30, 4-32

water
Index

contamination 2-11, 3-7n3-8, 5-13, 4-15, 4-16, 4-29, 4-30–4-31, 6-4, 6-11, 8-5, 8-14, 8-15, 8-17, 8-19–8-21, 8-22, 8-23, 9-3, 9-7, 11-8, B-19

use 4-19, 4-25–4-26, 4-28, 4-29–4-30, 8-18, 8-23, C-25

wells 2-11, 3-5, 3-16, 3-17, 4-10, 4-14, 4-18, 4-31, 4-34–4-35, 5-13, 5-14, 7-2, 8-19–8-21, 8-24, 8-25, 11-16, A-9, A-19, C-11, C-26

weeds 4-15, 5-14, 9-7, 10-4

wells oil and gas 2-6–2-9, Section 4, 6-3, 6-5, 7-3, 7-6, 8-4–8-6, 8-9–8-11, 8-17, 8-22, 8-23–8-25, 9-2–9-5, 9-10–9-11, 10-4–10-5, 11-14, A-15, C-10–C-12

orphan 9-13–9-14, 10-6, B-8