

# Intergovernmental Memorandum

May 30, 2014

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## Draft Play-Based Regulation Application Guide

Please find attached a revised version of the Draft Alberta Energy Regulator's Play Based Regulation Pilot Application Guide. The AER has incorporated the Government of Alberta's key messages within this draft and at this time, the AER would welcome further feedback from the Government of Alberta. Please note that on June 3, 2014, the AER will send the draft guide to industry. This will enable industry to fully prepare for meaningful discussion at the upcoming session on June 17, 2014. A final version of the guide is scheduled to be released June 27, 2014.

The AER will reach out to the Government of Alberta departments of Energy and Environment and Sustainable Resource Development to prepare for and conduct the June 17, 2014 industry session.

Sincerely,

  
Jennifer Steber,  
Executive Vice President  
Stakeholder and Government Relations

JS/jf

Attachments: 1

# Play-Based Regulation Pilot Draft Application Guide

May 2014

The information contained in this document is only applicable to the play-based regulation pilot.

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## 1 Introduction

To ensure that its regulatory process remains relevant, the Alberta Energy Regulator (AER) is conducting a play-based regulation pilot (PBR) for unconventional oil and gas development. PBR is based on two principles:

- risk-based regulation—regulatory responses are proportional to the level of risk posed by energy development, with a focus on those areas that present the greatest risk to achieving regulatory objectives.
- play-focused regulation—regulatory solutions are tailored to a resource “play”<sup>1</sup> to achieve environmental, economic, and social outcomes set by the Government of Alberta (GoA).

Under the PBR pilot, the AER will trial a risk-based regulatory approach across an entire play. This approach involves identifying risks and managing them to achieve objectives, driving the accountability to those that carry out the activities.<sup>2</sup> The PBR approach also focuses on approval holder performance and stakeholder engagement throughout the life cycle of an energy development project.

The PBR pilot is a test of a new AER regulatory process for implementing GoA policy. It also represents the start of a change in the way that the AER regulates the energy sector: from activity-by-activity regulation to the regulation of multiple activities across large areas. Under this new approach, applicants will submit a single application<sup>3</sup> for a project as opposed to an application for each project activity. This will result in regulatory efficiencies, with one pass through the regulatory process for the single application.

Overall, the intent of a play-based approach is orderly and responsible development. Responsible development includes understanding full-scale development and its potential risks in order to minimize cumulative impacts on the land, water, and air. Not only are there more opportunities to reduce cumulative impacts when looking at development in a more comprehensive way (i.e., at a play level) rather than on an activity-by-activity basis, there are also considerable benefits from a collaborative approach among operators in an area or play.

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<sup>1</sup> A play represents a three-dimensional space that is the target of oil or gas development. Characteristics that can be used to describe a play include the specific geological formation, areal extent, geographic location, and types of fluids in the rock, as well as other geological and reservoir characteristics. For the PBR pilot, a play also refers to the surface above the geological formation, including the air, land, and water, all layers of the atmosphere, all flora, fauna and inorganic matter and living organisms, and the interacting natural systems that include those components.

<sup>2</sup> This is aligned with the GoA’s *Common Risk Management Framework*, which is currently being developed.

<sup>3</sup> A single application is an integrated submission to the AER that describes an energy project and its related activities over one or multiple years of development. The single application provides all the information that the AER requires to make decisions pursuant to multiple enactments under its jurisdiction, eliminating the need for individual applications under each enactment.

While it is recognized that single-operator project planning is an initial step towards more responsible development, the key objective is play-based collaboration among operators in developing risk management plans, planning and implementing stakeholder engagement, and monitoring and reporting on performance.

## **1.1 Purpose**

This draft guide sets out the information that must be included in a single application to the AER and the application process. However, this guide is not comprehensive and some sections require additional detail. The AER will release a more developed guide later in June 2014, providing PBR pilot area operators with additional guidance in preparing a single application. The guide, however, will continue to evolve over the course of the PBR pilot and will be adjusted to reflect changes in GoA outcomes and policies.

## **1.2 Government of Alberta Policy**

The AER is part of the GoA's Integrated Resource Management System, a system used to ensure responsible resource development.<sup>4</sup> The PBR regulatory process supports the Integrated Resource Management System and is a part of a larger planning approach to implement GoA policy (e.g., *Water for Life, Land-use Framework, and Caribou Range Planning*). The GoA sets the outcomes for air, land, and water that resource activities are to achieve. These outcomes will play an important role in ensuring that PRB results in responsible energy development. The GoA also has numerous parallel initiatives that support the AER's move towards PBR. For example, the GoA is investigating the role of mineral tenure in encouraging responsible development and planning. Access to petroleum and natural gas tenure and the ability to retain that tenure will be linked to another pilot run by the GoA requiring industry to produce plans that ensure collaboration with other stakeholders and responsible resource development.

Responsible development of Alberta's energy resources is only one part of ensuring responsible management of all natural resources in Alberta. There is only one landscape where these activities come together and it needs to be managed with a plan for the longer term. Play-based (or area-based) planning is just one of many approaches to manage the cumulative effects of development on air, land and water.

PBR is intended to manage risks in order to achieve play-based objectives and GoA policy outcomes. The AER will evaluate PBR as a means to achieving these objectives and outcomes and use the findings from

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<sup>4</sup> See <http://www.oilsands.alberta.ca/2827.html> for more information.

the pilot to finalize PBR processes. These findings may also be used to identify where policy direction from the GoA is required in order to implement regulatory change.

## **2 PBR Pilot – Overview**

The PBR pilot builds on the AER's *Discussion Paper on Regulating Unconventional Oil and Gas in Alberta*, released December 2012. PBR is an objectives-based regulatory framework, where approval holders are accountable for developing and implementing risk management plans to meet objectives defined for a play. This should result in each approval holder contributing towards meeting the play-based objectives and transfer more accountability for and management of risks to the approval holders.

The PBR approach emphasizes reporting of performance in achieving play-based objectives and places reporting requirements on approval holders. As a result, approval holders are responsible for demonstrating to the public, the AER, and the GoA that risks are being managed. PBR reduces the regulatory burden placed on industry through the use of a less-prescriptive, risk-based approach. The risk-based approach focuses performance on the achievement of objectives, and provides flexibility to industry; stakeholders, including First Nations and Métis; the GoA; and the AER to adapt to changing social, economic and environmental conditions.

Stakeholder engagement and collaboration throughout the life cycle of an energy development project further supports the risk-based, play-based, and performance-based focus of PBR. Collaboration with stakeholders is fundamental to the PBR approach.

The purpose of the PBR pilot is to

- test the efficacy of a new regulatory approach that is less prescriptive, risk based, and performance based and considers cumulative effects through management plans;
- implement a single application and decision-making process for energy development projects (see figure 1);
- establish play-based requirements for the PBR pilot area that are based on risk and differ from existing legislated requirements, regulations, and rules;
- test the effectiveness of the single application and play-based requirements in achieving PBR pilot-specific objectives (see appendix 1) for the play; and
- obtain feedback from stakeholders on the PBR approach.

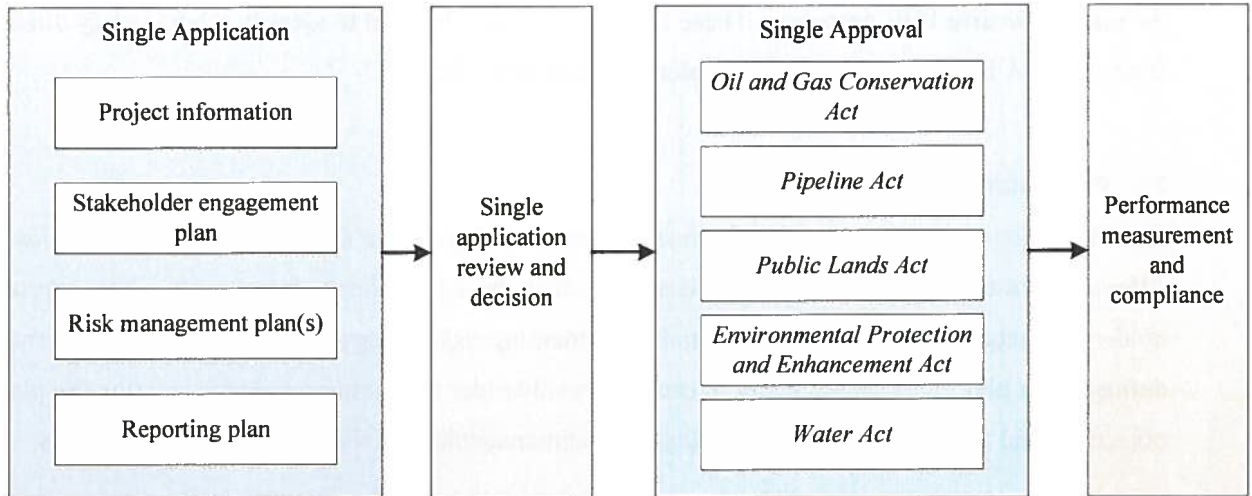


Figure 1: Stages of the application process under the PBR pilot. (The enactments listed under the single approval<sup>5</sup> are an example of the segments a single approval may contain.)

## 2.1 Expectations of the PBR Pilot

The PBR pilot is the first step towards a new regulatory process. The AER does not expect all of the benefits of PBR to be realized immediately; processes are still being refined. The intent is to test PBR and improve it for broader implementation. Incremental progress is expected, e.g., single applications from individual operators for portions of their land holdings are anticipated to be tested in the PBR pilot and multioperator development plans may be tested in the future.

PBR pilot-specific objectives are listed in appendix 1. The AER recognizes that some stakeholders will find these significantly less prescriptive than current AER requirements for single-activity authorizations. This is intentional. Managing energy development on a landscape level rather than an activity-by-activity level requires that operators adjust their approach to development. Alberta's regulatory framework must evolve to mitigate cumulative effects and to achieve policy outcomes established by the GoA.

In some cases, GoA policy outcomes are still being developed. The AER is confident that the PBR pilot-specific objectives listed in appendix 1 will satisfy yet-to-be developed policy and are sufficient to guide operators in the PBR pilot. As GoA policy is developed and refined, the AER will revise and adjust PBR pilot-specific objectives accordingly.

<sup>5</sup> See section 5.

## 2.2 How PBR Is Different

Operators in the PBR pilot area will be asked to

- identify hazards and develop risk mitigation plans to manage risks in order to achieve pilot-specific objectives;
- plan for the life cycle of an energy development project;
- engage and collaborate with stakeholders, including First Nations and Métis, throughout the life cycle of an energy development project; and
- report performance in achieving pilot-specific objectives.

As a part of the PBR pilot, operators will have

- a single application process for all of the activities for an energy development project;
- a new approval form—the single approval;
- flexibility in the development and operation of energy projects;
- long-term certainty for development;
- regulatory requirements adjusted, as appropriate, to reflect the hazards and risks of activities carried out in the play; and
- regulatory oversight proportional to the identified risks and dependent on the operator’s performance record.

Through stakeholder engagement, stakeholders will have opportunities to provide input on development planning directly to the operators that are responsible for development. Operators will describe engagement opportunities in their stakeholder engagement plans (see section 3.4). Engagement will continue throughout the life cycle of an energy development project to ensure that stakeholder input is incorporated as development proceeds and area conditions change.

## 2.3 PBR Pilot Timelines

April 1, 2014, to August 31, 2014	Pilot design: AER develops requirements and processes.
September 1, 2014, to January 31, 2015	Pilot implementation: Operators submit single applications to the AER. Applications will not be accepted after January 31, 2015.
March 31, 2015	Pilot conclusion.
Post–March 31, 2015	The AER makes process adjustments and takes any other



essential steps towards broader implementation of PBR.

## **2.4 Participation in the PBR Pilot**

The PBR pilot will include stakeholders and operators in the pilot area.

The AER will provide information about the PBR pilot to interested area stakeholders. Area stakeholders will also be involved in the PBR pilot through stakeholder engagement carried out by operators. The engagement requirements for operators are outlined in section 3.4.

For operators, participation in the PBR pilot is voluntary and may begin at any time during the PBR pilot.

## **3 The Single Application**

The single application for an energy development project is founded on the premise of managing risks to achieve play-based objectives and GoA outcomes.

Current requirements, regulations, rules, and GoA policies are applicable to activities in the PBR pilot, unless they have been waived or varied by the AER. The AER may waive or vary requirements if

- it has the authority to do so, and
- the applicant has proposed appropriate mitigation measures to manage the risks to achieve AER pilot-specific objectives and GoA outcomes.

Any play-based requirements in place to support GoA policy and outcomes will apply to PBR pilot applications (see Appendix 1 for play based requirements for the PBR pilot).

### **3.1 What the Single Application Does**

The single application

- describes the energy development project and its related activities over one or multiple years of development, including timelines;
- integrates into one application all of the information needed for the AER to make decisions pursuant to multiple enactments under its jurisdiction;
- contains
  - a stakeholder engagement plan for the life cycle of the project,
  - a risk management plan<sup>6</sup> that identifies risks and proposes mitigation measures to achieve pilot-specific objectives, and
  - a performance monitoring and reporting plan for the life cycle of the energy development project;

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<sup>6</sup> Typically a risk management plan would address risks to water, land, subsurface resource optimization, air, life-cycle wellbore integrity, biodiversity, etc. See appendix 1 for specific requirements for the PBR pilot.

- meets the legislated requirements for an application under each applicable enactment; and
- if approved, results in the issuance of a single approval.

The requirements in the *Responsible Energy Development Act (REDA)* and the *AER Rules of Practice* regarding public notice of application, opportunity to file statements of concern, alternative dispute resolution, hearing on an application (if held), and regulatory appeal apply to a single application and single approval.

Applicants are to carry out First Nations consultation in accordance with processes described by the GoA's Aboriginal Consultation Office. The GoA will determine the adequacy of consultation with First Nations.

### **3.2 Level of Detail in a Single Application**

The intent of a single application/single approval process is to:

- decide upon and authorize activities to be carried out over one or multiple years of development,
- provide stakeholders including First Nations and Métis with enough information to understand the impacts of a proposed project and meaningfully engage in the *REDA* public participation process, if they so choose,
- reduce or eliminate information requests from the AER to the applicant after the submission of an application, and
- provide the approval holder with sufficient operational flexibility within single approval conditions to minimize the need to request amendments to the single approval over its term.

To meet this intent stakeholder engagement and hazard identification and risk analysis must be conducted to identify operational parameters, constraints, ranges and conditions that manage risks to meet pilot-specific objectives. This information is essential to the single application/single approval process. Using this approach the applicant may address both broad and site specific issues (e.g., noise, traffic, setbacks, etc.) while providing for operational flexibility in the single approval; that is, the conditions of the single approval will accommodate some variations in the design and operation of the energy development project, and as long as the operator complies with the conditions of the single approval, no amendments to the single approval are required.

### **3.3 Project Information**

In the project information section of a single application, the applicant describes the proposed energy development project and all of the related activities.

**For the single application, the applicant must**

- describe the proposed energy development project and related activities, including timelines and a proposed term for the single approval;
- identify the location of the project and related activities;
- describe activities and operations and their expected durations and impacts throughout the life cycle of each site within the project, including
  - expected emissions, noise levels, odours, visual impacts, and waste products;
  - expected water needs, use, location of uses and sources;
- describe expected activity levels (e.g., traffic levels);
- describe any facilities, works, or undertakings to be constructed and, where possible, identify their locations;
- describe waste management and disposal plans;
- describe how closure and reclamation will be considered in the project design and development,
- provide a description of the area (local and regional) where the project will be located;
- describe the existing and proposed<sup>7</sup> development of all sectors (e.g., energy, forestry, municipal) in the area (local and regional) where the project will be located;
- indicate where the applicant has collaborated with other operators to develop infrastructure or share existing infrastructure;
- describe site selection constraints and site design parameters for surface sites;
- describe route selection, construction constraints, and design parameters for linear infrastructure;
- identify any major river basins, air sheds and land-use regions affected by the project;
- disclose the anticipated impacts on local communities;
- indicate how it will meet any other applicable information requirements, regulations, and rules; and
- state the project information in clear, concise and numbered statements.

The AER expects the project information to be detailed, quantitative (to the extent practical), and publicly available and easily accessible. The scale and scope of the information should be representative of the scale and scope of the energy development project.

If the applicant's project information does not address the above items, the single application will be returned to the applicant.

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<sup>7</sup> Acquired through engagement and collaboration with stakeholders.

### 3.4 Stakeholder Engagement Plan

In the stakeholder engagement section of a single application, the applicant describes its completed, current, and planned stakeholder engagement activities over the life cycle of the energy development project and related activities.

**For the stakeholder engagement plan, the applicant must**

- list stakeholders (individuals and groups<sup>8</sup>) who have been identified for engagement and indicate the process used to identify the stakeholders;<sup>9</sup>
- justify the extent of the stakeholder engagement for the proposed energy development project;
- provide details (i.e., the items in this list) for the proposed term of the single approval and a more general description of proposed stakeholder engagement over the entire life cycle of the energy development project;
- describe how identified stakeholders have been engaged and will continue to be engaged throughout planning, construction, operation, and closure/reclamation;
- provide a schedule for stakeholder engagement over the life cycle of the project;
- indicate how stakeholders have and will provide input into the planning, development, operation and closure/reclamation of the project;<sup>10</sup>
- show how clear, relevant, and timely information was provided to stakeholders during project planning;
- describe how the status of the project and performance towards achieving pilot-specific objectives will be reported;
- describe what efforts were made to ensure collaboration with stakeholders, including sharing infrastructure, adjusting timing of activities, etc.;
- indicate how feedback from stakeholders has been incorporated into
  - the project planning (e.g., in the risk management plan), and
  - the development, operations, and closure/reclamation of the project;
- indicate how stakeholders have been informed of the nature and scope of the project, including
  - the context of the project within the pilot area,
  - the risks of the project,
  - how risks of the project will be managed to achieve pilot-specific objectives, and
  - how the applicant will demonstrate that it is successfully managing those risks throughout the life of the project;

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<sup>8</sup> Acquisition and use of personal information must follow applicable legislation.

<sup>9</sup> The coordination of development among operators requires that other operators in the area be considered stakeholders.

<sup>10</sup> This will inform both the content of the single application and ongoing administration of the single approval.

- be adjustable to respond to the stakeholder feedback, changes to the project or project area, and new stakeholder groups; and
- set out the stakeholder engagement schedule and reporting commitments in clear, concise and numbered statements.

The AER expects the stakeholder engagement plan to be publicly available and easily accessible.

If the applicant's stakeholder engagement plan does not address the above criteria, the single application will be returned to the applicant.

Note: When stakeholder engagement includes aboriginal groups, the applicant should align with processes established by the GoA's Aboriginal Consultation Office.

### **3.5 Risk Management Plan**

In the risk management plan section of a single application, the applicant identifies and analyzes hazards, evaluates risks, and describes prevention and mitigation measures in order to achieve defined objectives.

**For the risk management plan, the applicant must**

- at minimum, assess the risk areas identified for the PBR pilot area (see appendix 1),
- describe how risk will be managed to achieve objectives over the life cycle of the proposed energy development project,
- use a standard or broadly accepted method to identify hazards and evaluate risks,
- set out the identified hazards, their anticipated consequences, and the likelihood that they will occur,
- classify and maintain an inventory of the risks,
- discuss the limitations or uncertainty in the risk assessment used,
- incorporate best management practices as mitigation measures,
- justify proposed risk mitigation measures,
- identify and evaluate risk mitigation measures,
- indicate the measures that the applicant has adopted as a result of stakeholder engagement, and
- set mitigation measures for all risks in clear, concise and numbered statements.

**The AER expects the risk management plan to**

- provide quantitative risk assessment (to the extent practical),
- be flexible to accommodate changing risks and newly identified risks during the term of the single approval and the life cycle of the project, and
- be publicly available and accessible.

If the applicant's risk management plan does not address the above criteria, the single application will be returned to the applicant.

### **3.6 Reporting Plan**

In the reporting section of a single application, the applicant proposes a reporting plan that demonstrates how the operator is achieving pilot-specific objectives and that the project is being developed in accordance with the single application, if approved. The reporting plan should address performance measures and indicators identified by the AER (to be provided in the next version of this guide).

#### **For a reporting plan, the applicant must**

- provide details on reporting (i.e., the items in this list) for the proposed term of the single approval and a more general description of proposed reporting over the entire life cycle of the energy development project;
- set out the reporting schedule over the proposed term of the single approval in clear, concise and numbered statements;
- set out the proposed reporting schedule for the life cycle of the proposed energy development project;
- indicate how progress of the project will be reported;
- list data to be reported that will demonstrate the approval holder's performance in achieving objectives;
- where a baseline has not been established, establish a baseline for comparison when evaluating approval holder performance;
- describe the collection of data through monitoring, including monitoring methods, equipment, and locations;
- describe the methods for analyzing or interpreting the data provided in the report;
- outline when and how stakeholders will receive reported information and be able respond to that information if they so choose.

#### **The AER expects a reporting plan to**

- use quantitative data in reports (to the extent practical),
- be publicly available and easily accessible,
- include analysis, interpretation of data, and conclusions of the operator.

If the applicant's reporting plan does not address the above items, the single application will be returned to the applicant.

#### **4 Application Review**

The AER will review the single application for the proposed project to determine whether the applicant has

- met the legislated requirements and is in alignment with pilot-specific objectives and GoA policy and outcomes,
- received an Aboriginal Consultation Office letter of adequacy, if applicable,
- engaged with stakeholders in accordance with the applicant's stakeholder engagement plan and, if applicable, incorporated stakeholder feedback into the single application,
- adequately identified the hazards and developed a risk management plan, and
- provided a reporting plan for the term of the single approval and the life cycle of the energy development project.

Issues raised by statement of concern filers are to be dealt with by the applicant.

#### **5 The Single approval**

A single approval may contain multiple segments, one for each act under the AER's jurisdiction. Each segment will authorize all of the activities required under the referenced enactment. For example, all well licences and other related facilities in an energy development project are captured in one approval under the *Oil and Gas Conservation Act*. This one approval forms the *Oil and Gas Conservation Act* segment of the single approval. The AER will make a decision for each of the segments of the single approval at the same time.

The AER may require the approval holder to comply with all or part of the single application in the single approval. This would require the operator to comply with the project information, stakeholder engagement plan, risk management plan, or reporting plan as a condition of the single approval.

#### **6 Performance Measurement and Compliance**

Performance reporting will ensure that development occurs in a manner that protects public safety, meets pilot-specific objectives, and maintains stakeholder confidence in the regulatory process.

The AER will use performance reporting from approval holders to provide stakeholder assurance that pilot-specific objectives and GoA outcomes are being achieved and to determine the achievement of regulatory process efficiency. This will involve the AER establishing performance measures and

indicators.<sup>11</sup> Performance information will be reported by the approval holders and be publicly available, making the approval holders accountable for achieving the pilot-specific objectives. An operator's performance record may be considered when the AER reviews a single application for a decision or responds to operator noncompliance.

Operators' compliance with their single approvals, as well as any applicable legislation, regulations, rules, and requirements, is a top priority for the AER during the PBR pilot. Clear, scheduled reporting from approvals holders will enable the AER to respond appropriately when approval holders are not achieving pilot-specific objectives or are not compliant with their single approval or AER requirements. The AER can, if required, use its existing suite of compliance tools.

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<sup>11</sup> *Performance measures* are used to evaluate and improve the efficiency and effectiveness of actions contributing to the objectives. A performance measure should be associated with a specific target, and results should be evaluated against the target. *Indicators* are metrics that provide contextual information to support performance reporting, but are not associated with a specific target. An indicator is supporting information that provides context for performance measures. – Alberta Treasury Board.



## Appendix 1: Duvernay PBR Pilot

### Description

The PBR pilot will apply to energy development projects in the Duvernay Formation in the Fox Creek area (see figure 1). This appendix contains specific information for the PBR pilot area shown in Figure 1.

### PBR Pilot-Specific Objectives

Stakeholder engagement	Stakeholders, including First Nations and Métis, are involved over the life cycle of the development. This means stakeholder engagement is transparent, understood by stakeholders, and enables stakeholder participation.
Water management	<ul style="list-style-type: none"> <li>• Reduce use of surface water and nonsaline groundwater.</li> <li>• Increase water reuse.</li> <li>• Protect surface water and nonsaline groundwater.</li> <li>• Protect the aquatic environment.</li> </ul>
Surface impacts / infrastructure	<p>Reduce site-specific and cumulative effects by</p> <ul style="list-style-type: none"> <li>• minimizing surface disturbance,</li> <li>• minimizing impacts to air quality,</li> <li>• minimizing impacts to biodiversity, and</li> <li>• minimizing community impacts (noise, dust, odours, traffic).</li> </ul>
Reservoir management	<ul style="list-style-type: none"> <li>• Optimize recovery of reservoir fluid.</li> <li>• Minimize hydrocarbon waste.</li> <li>• Ensure sufficient data is available to characterize the play and delineate formations.</li> <li>• Ensure each resource owner has an opportunity to receive an equitable share of production.</li> </ul>
Life-cycle wellbore integrity	<ul style="list-style-type: none"> <li>• Ensure no unplanned fluid movement inside or outside of the wellbore over the life cycle of the well.</li> <li>• Ensure wellbore gas and fluids are controlled over the life cycle of the well.</li> </ul>

### Performance Measures and Indicators

To be developed for the next version of the PBR Pilot Application Guide.

## Requirements

- Unless waived or varied by the AER, requirements under
  - the *Oil and Gas Conservation Act*,
  - the *Pipeline Act*,
  - the *Public Lands Act*,
  - the *Water Act*,
  - the *Environmental Protection and Enhancement Act*, and
  - any applicable Regulations, Rules, Directives and the *AER Rules of Practice*
- Play-based requirements – to be developed for the next version of the PBR Pilot Application Guide.
- For the risk management plan(s), at minimum, assess the following risk areas:
  - water management,
  - surface impacts / infrastructure,
  - reservoir management, and
  - life-cycle wellbore integrity.

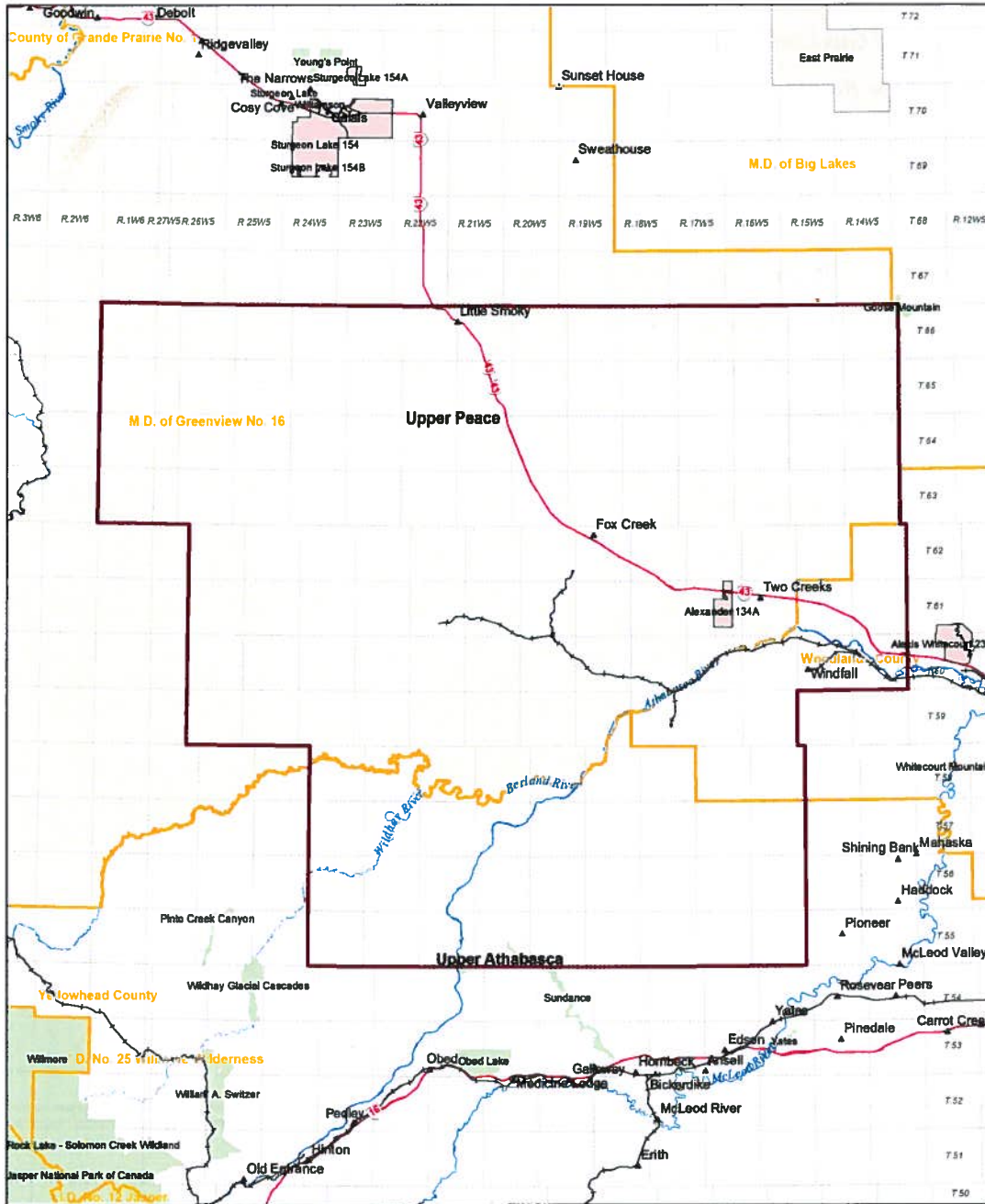
## Preferred Applications

In order to test the single application concept, applications for the Duvernay PBR pilot may be

- for one to five years of development,
- for multiple pads over contiguous lands and related water use, roads, pipelines, facilities, etc., and
- for activities that are proposed to begin during the 2014–15 or 2015–16 drilling seasons.

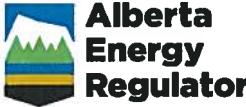
All applications that are not a part of the PBR pilot will follow the current regulatory process.

Figure 1: PBR Pilot Area Map



**Play-Based Regulation  
Duverney Pilot**

Pilot Area	<b>Railways</b>	Land-Use Framework Boundaries
Municipalities	Multiple Track Rail Line	Upper Athabasca
Metis Settlement	Double Track Rail Line	Upper Peace
Indian Reserve	Single Track Rail Line	
Parks	Rail Line Spur	
Major Roads	Abandoned Rail Line	
<b>Major Lakes and Rivers</b>	Former Rail Line	
Lake		
River		



DISCLAIMER: The Alberta Energy Regulator does not warrant the accuracy or completeness of the information contained in this map and is not responsible for any errors or omissions in its content and accepts no liability for the use of this information.

Base Data Provided by Spatial Data Warehouse Ltd

Energy Statistics Office  
Map date: May 2014