

# Explanatory Report

Five-yearly Review of the Statement of Environmental Objectives for Drilling, Completion and Well Production Testing in the Otway Basin, South Australia



**March 2026**

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## 1. Introduction

The Beach Energy (Beach) Statement of Environmental Objectives: Drilling, Completion and Initial Production Testing in the Otway Basin, South Australia (SEO) was prepared and approved in 2013 to meet the requirements of the *Petroleum and Geothermal Energy Act 2000* to cover Beach's petroleum drilling, completion and production testing activities in the onshore Otway Basin. The SEO was reviewed in 2019 in accordance with Regulation 14 of the Petroleum and Geothermal Energy Regulations 2013.

In 2024 the *Petroleum and Geothermal Energy Act 2000* and the Petroleum and Geothermal Energy Regulations 2013 were superseded by the *Energy Resources Act 2000* (the Act) and the Energy Resources Regulations 2013 (the Regulations). Regulation 13 of the Energy Resources Regulations 2013 requires that an approved SEO must be reviewed at least once in every five years. Consequently, Beach has undertaken a review of the SEO in accordance with Regulation 13.

The SEO and the supporting Environmental Impact Report (EIR) have been updated to align with the Act and the Department for Energy and Mining (DEM) Environmental Impact Assessment Criteria (2024) and Guideline (2024). The updated SEO introduces leading performance criteria and refined assessment criteria to improve clarity, measurability and auditability.

This Explanatory Report summarises the revisions made to the EIR and SEO.

## 2. Revisions to the Environmental Impact Report (EIR)

This section summarises the key changes made to the Environmental Impact Report (EIR) as part of the five-year review, based on a comparison between the 2019 Drilling EIR and the 2026 Drilling EIR.

### 2.1 Legislative Framework

The legislative framework has been updated to reflect changes to South Australian petroleum legislation since the previous EIR was approved.

Key changes include:

- Replacement of references to the *Petroleum and Geothermal Energy Act 2000* and associated regulations with the *Energy Resources Act 2000* and Energy Resources Regulations 2013, which commenced in April 2024.
- Preparation in accordance with DEM's Environmental Impact Assessment Criteria (2024) and the Environmental Impact Assessment Criteria Guideline (2024).
- Updates to terminology and regulatory processes to align with the Energy Resources Act, including revised requirements for environmental impact assessment, Statements of Environmental Objectives and activity notification.
- Inclusion of additional relevant legislation introduced or amended since 2019, including:
  - *Landscape South Australia Act 2019*
  - *Planning, Development and Infrastructure Act 2016*
- Where relevant, Australian and New Zealand Guidelines for Fresh and Marine Water Quality (ANZG 2018/2020) are referenced in the assessment of groundwater and surface water quality.
- Updated descriptions of consultation, approval and notification processes reflecting current DEM guidance and regulatory practice.

- The Activity Notification process for low level official surveillance operators has been clarified: a notification to the Minister is provided at least 21 days prior to activity commencement and demonstrates that the activity is covered by an applicable SEO (ER Regulations, Regulation 20; Guideline 17)

These changes are primarily administrative and regulatory in nature and do not alter the scope or nature of the regulated activities assessed.

## 2.2 Description of Activities

The overall scope of activities covered by the EIR remains unchanged and continues to apply to drilling, completion, well production testing and decommissioning activities in the onshore Otway Basin. However, several updates and clarifications have been made to improve alignment with current operations and standards.

Key updates include:

- Consistent use of the term “well production testing” in place of “initial production testing”.
- Replacement of the term “abandonment” with “decommissioning”, consistent with contemporary terminology and the *Energy Resources Act 2000*.
- Updated descriptions of well site layout, access tracks, camps and associated infrastructure to reflect current typical dimensions, equipment and practices.
- Clarification of drilling methodologies, including:
  - Continued use of water-based drilling muds for upper hole sections.
  - Explicit inclusion of synthetic based muds (SBM) for deeper sections where required, with additional detail on containment, handling and disposal.
- Updated descriptions of fuel and chemical storage, waste management and wastewater handling to reflect current standards, EPA guidance and internal Beach Energy systems.
- Clarification of well production testing arrangements, including use of flare systems, separator equipment and management of produced fluids.
- Minor updates to traffic, logistics and personnel accommodation descriptions to reflect current operational practice.

## 2.3 Description of the Environment

The description of environment has been updated to reflect:

- Current licence holdings and the defined impact assessment area.
- Updated regional datasets for groundwater, surface water, land use, biodiversity and cultural heritage.
- Inclusion of additional detail on groundwater monitoring, including baseline data and ongoing monitoring requirements.
- Removal of references to marine or coastal environments, as the EIR applies solely to onshore activities.

Specifically, Section 4 tables have been updated, including details of threatened or migratory species, weeds and pests, climate and population data. This information has been obtained from new data searches of the *Environmental Protection and Biodiversity Conservation Act 1999* (EPBC) Protected Matters Search Tool

(PMST), the SA Nature Maps search tool, the Limestone Coast Landscape Board Pest plant and animal strategy, the Bureau of Meteorology and the Australian Bureau of Statistics. Species information updates have also been carried across into Appendix A.

These updates improve accuracy and consistency with current regional information but do not materially change the environmental context assessed.

## 2.4 Environmental Impact Assessment

The environmental impact assessment methodology has been, included in the EIR (Section 5) and revised to align with the *Energy Resources Act 2000*, Energy Resources Regulations 2013 and DEM's Environmental Impact Assessment Criteria guidelines (015) (the Guideline) requirements.

Key changes include:

- Adoption of a more structured impact assessment framework, including explicit identification of the six criteria, against which environmental impacts of a regulated activity must be assessed, including:
  - Criteria 1: Elements of the Environment.
  - Criteria 2: Potential Impact Events.
  - Criteria 3: Confirmation of Impact Events.
  - Criteria 4: Control and Management Strategies and Uncertainty Assessment.
  - Criteria 5: Environmental Significance Assessment.
  - Criteria 6: Statement of Environmental Objectives.
- For unplanned events, the assessment of significance is supplemented by a risk assessment which considers the worst-case consequence of the impact that could occur, in the scenario where controls are ineffective, and also the likelihood of that consequence occurring. This risk assessment has been conducted using The Beach Risk Matrix.
- Expanded assessment of groundwater risks, including:
  - Well integrity and barrier management
  - Groundwater monitoring and baseline comparison
  - Management of spills, leaks and loss of well control
- Enhanced assessment of soil and surface water impacts, including erosion, contamination and rehabilitation outcomes.
- Expanded consideration of air quality and greenhouse gas emissions, including flaring during well production testing.
- Updated fire risk assessment and controls, reflecting current operational experience and regulatory expectations.
- Strengthened linkage between the EIR impact assessment and the objectives, leading performance criteria and assessment criteria contained in the SEO.

### 3. Revisions to the Statement of Environmental Objectives (SEO)

This section summarises the key changes made to the Statement of Environmental Objectives as part of the five-year review, based on a comparison between the 2019 Drilling SEO and the 2026 Drilling SEO.

#### 3.1 Editorial and Structural Changes

Editorial and structural changes have been made to improve clarity, consistency and alignment with current regulatory expectations.

Key changes include:

- Updates to legislative references and terminology to reflect the *Energy Resources Act 2000*.
- Revised document structure, including clearer separation between objectives, assessment criteria and leading performance criteria.
- Relocation of detailed objectives and criteria into an appendix to support a clearer main document narrative, consistent with recent DEM-approved SEOs.

#### 3.2 Scope

The scope of the SEO remains broadly unchanged and continues to apply to drilling, completion, well production testing activities in the onshore Otway Basin permits and defined impact assessment area.

Notable updates include:

- Explicit clarification of activities excluded from the SEO, including production operations beyond well production testing, seismic activities and pipeline operations, which are covered by separate approved SEOs.
- Alignment of scope wording with the updated EIR and current Beach Energy licence holdings.

#### 3.3 Environmental Objectives, Assessment Criteria and Leading Performance Criteria

The environmental objectives remain fundamentally consistent with those in the 2019 SEO; however, the way objectives are expressed and assessed has been updated.

Key changes include:

- Leading performance criteria have been introduced for objectives where control-based management is critical, providing early indicators of performance.
- Assessment criteria are updated and expanded to improve clarity, measurability and auditability.
- Enhanced objectives and criteria relating to:
  - Groundwater protection, well integrity and barrier management
  - Soil disturbance, contamination and rehabilitation
  - Surface water management and drainage
  - Biosecurity and weed/pathogen management
  - Waste management and wastewater disposal
  - Fire prevention and emergency response
  - Air quality and atmospheric emissions, including flaring

- Alignment of objectives and criteria with contemporary industry standards, Beach Energy management systems and regulatory guidance.
- A 'Guide to How Objectives can be Achieved' column has been added to the SEO table in Appendix A, as recommended in DEM Guidance. This provides transparency and accuracy in mapping SEO's, leading performance criteria and assessment criteria across both documents.

No new categories of environmental impact have been introduced; rather, existing objectives have been refined and strengthened.

### **3.4 Incident Definitions and Reporting**

Incident definitions and reporting requirements have been updated to align with the *Energy Resources Act 2000*.

Key changes include:

- Replacement of "serious" and "reportable" incident terminology with "immediately reportable" and "reportable" incidents, consistent with Section 85 of the *Energy Resources Act 2000*.
- Updated incident definitions reflecting current DEM guidance.
- Inclusion of additional reporting requirements for cultural heritage discoveries.
- Clarification of reporting obligations to DEM and the EPA under relevant legislation.

**Document status**

Version	Date reviewed	Prepared by	Reviewed by	Endorsed by
A	25/2/2026	C King		
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**Amendment record**

Version	Clause	Description of amendment
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