# 13 Environmental Protection



## The States'/territories' Roles in Environmental Protection.

In Australia, the State and Territory Governments own and administer mineral and petroleum rights over land, and seaward to three nautical miles from the sea baseline. In these areas, although the Australian Government has some responsibilities regarding environmental protection (see below), the State and Territories are the main authorities for environmental management of most mines within their respective jurisdictions.

Environmental management of mining and petroleum exploration and operation in Australia is based on the integration of all phases of resource planning and development, from assessment, through construction, operation and closure, to rehabilitation. Processes vary among the States and Territories, but there are some common features.

#### The Environmental Management Process: Common Features

The process provides a framework for identifying environmental impacts and determining ways to manage those impacts. The main steps are:

#### Proposal, Notice of Intention, Environment (Management) Plan or Initial Advice Statement

The proponent mining company describes the proposal, its duration; the infrastructure it will need; the proposed community consultation program; potential environmental impacts, their significance, and how those impacts are to be managed. In practice, informal discussions are held with government agencies as the proposal is developed. The company proposal is often presented as a formal document of advice which the proponent uses to:

- (i) trigger the approvals process; and
- (ii) inform the community about the project.

#### **Government Assessment**

A number of government agencies are normally involved in assessment of the proposal, including an environment protection agency or similar agency with responsibility for the environment impact assessment; a resources department which grants and administers mining tenements and petroleum titles; and local government, which grants local planning approvals (where needed) and provides services.



The relevant Government authority decides whether an environmental assessment is necessary (i.e. whether a project is environmentally significant) and, if so, the environmental issues to be addressed, and the required level of environmental impact assessment (EIA). In some States, the authority is an environment agency; in others, it is the resources department operating on advice from an environment agency.

Furthermore, in some instances, parallel environmental assessments for a proposal are conducted both by the environment agency and the resources department, in consultation. This occurs when legislative requirements overlap.

Most EIA processes have several levels of assessment, appropriate to the environmental significance and complexity of the proposed project. Where it is clear from the initial advice that the company has adequately addressed environmental concerns and will be using adequate environmental management practices, the government authority may not require further assessment. This would often apply to mineral and petroleum exploration programs, some sampling trials and quarrying operations. In Queensland, codes of environmental compliance are used for low impact activities without any government assessment.

Where further assessment is required, the government agency scopes the environmental issues and priorities to be addressed, frequently with some community consultation. A public environmental report (PER), or similar document, is generally used for proposals which are likely to be of only local or regional public interest and where potential environmental impacts are few or easily managed. A PER provides details of the proposal including potential environmental impacts and proposed management techniques. A PER may typically be available for public comment from four to six weeks. An environmental impact statement (EIS) or similar document is more comprehensive and detailed and may be required for major projects which attract wider public interest and/or deal with complex issues of environmental significance. Because these proposals have potentially significant impacts, they require detailed evaluation, need to be the subject of extensive community advice and review, and may need comprehensive environmental management programs. The public review period for an EIS is usually eight to twelve weeks. [You could mention the Bilateral Agreement here as a way to prevent duplicated EIS processes being run by State and Commonwealth]

A public inquiry (or Commission of Inquiry) is an official process of investigation which can be used for very complex or controversial projects. It involves hearings and submissions by supporters and opponents. A public inquiry can help people understand complex scientific information, economic and social impacts, and can be a channel for independent advice to decision makers. Inquiries are particularly useful where different viewpoints are involved, where new technologies or developments have been proposed, or where a significant change in land use is proposed.

The proponent then responds to issues identified in the public review. Based on the proponent's response, a report and recommendations may be issued by the assessing authority.

#### **Government Approvals**

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The government authority, or its Minister, will then issue an environmental approval for the project (or a decision may be made to not issue an approval if the government considers the project would have an unacceptable effect on the environment). The approval is often tied to an Environmental Management System (Environmental Management Plan in Queensland, or Mining Operations Plan). Several Plans of Management may be tied to the approved mine. These systems link the EIS and planning processes to mine operations and the mining title. They address such issues as tailings, water, stockpiles, noise and vegetation management; site rehabilitation, erosion issues; emissions controls; dust suppression; monitoring and reporting arrangements.

Australian mining and petroleum operations frequently voluntarily adopt the International Organisation for Standardisation's ISO 14001 or rarely the British Standards Institute's BS 7750 guidelines and specifications for environmental management systems.

## The Environmental **Management Process:** State Specific Assessment Processes

State and Territory Governments generally follow the above common approach. However, some State specific environmental assessment processes also comprise:

#### **New South Wales**

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The Department of Primary Industries maintains an Environmental Sustainability Branch (ESB) whose roles include environmental assessment of most new proposals, ensuring that environmental management systems are in place on mine sites to support effective progressive rehabilitation and ensuring that mined land is effectively rehabilitated and returned to a productive post mining land use.

Environmental and rehabilitation performance is enforced and regulated through title conditions. The principal process used is the requirement for all mines to prepare, and comply with, Mining Operations Plans (MOPs) and Annual Environmental Management Reports (AEMRs). These require mines to actively consider environmental and rehabilitation outcomes and to provide management systems to integrate these outcomes with mine planning and production. They also provide a mechanism to integrate the reporting requirements of other agencies into a single document. This coordination enhances the ability of government agencies to effectively ensure that the economic benefits of mining are balanced with good environmental management.

ESB monitors the industry through inspections and audits of mine and exploration sites to ensure compliance with conditions and with the MOP/AEMR documents. These may be conducted by the ESB alone, or in conjunction and cooperation with other regulatory agencies.

#### **Northern Territory**

In the Northern Territory, the Department of Business, Industry and Resource Development is responsible for the regulation of mining, OH&S and environmental management activities for the mining and exploration industry under the Mining Management Act 2001. Prior to the issue of approvals, development proposals are referred to the Office of Environment and Heritage within the Department of Infrastructure, Planning and Environment to determine if the proposal warrants formal assessment under the Environmental Assessment Act 1994. Recommendations from the environmental assessment process are incorporated into the authorisation process under the Mining Management Act 2001.

#### Queensland

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In Queensland, the Environment Protection Agency (EPA), formed in 1999, authorises environmentally relevant activities for mining and exploration. Mining and exploration projects considered to have a low risk of serious environmental harm will need to comply with standard conditions specified in a Code of Environmental Compliance. For all other mining and exploration projects, the EPA must decide conditions for an environmental authority before the Minister for Mines and Energy or Governor in Council grants the tenement. The environmental authority under the Environmental Protection Act 1994 does not take effect until the mining tenement is granted under the Mineral Resources Act 1989.

#### **South Australia**

Protection of the environment in relation to resource industry activities is primarily ensured by the Minerals and Energy Division of the Department of Primary Industries and Resources (PIRSA) through its roles in assessment, permitting, environmental regulation and monitoring. A Memorandums of Understanding haves been developed between PIRSA and the Environment Protection Authority and the South Australian Department of Environment and Heritage, which aims to provide a one-stop-shop for industry, with PIRSA acting as the single primary point of contact and is therefore the lead agency.

#### Tasmania

Mineral Resources Tasmania issues exploration licences and mining leases. Conditions and bonds are set in consultation with land managers. Exploration programs are approved, reviewed and monitored on technical performance and on environmental impact. Mining development is assessed by the relevant municipal council and the Department of Primary Industry, Water and Environment following submission of an environmental management plan and public comment. Council permits must incorporate Department of Primary Industry, Water and Environment conditions.

#### Victoria

The Department of Primary Industries (DPI), Minerals and Petroleum Division is the key agency responsible for minerals, petroleum and stone extraction. However, a range of other agencies are also involved in relation to the granting of planning approvals and works approvals.

When a mining project is first proposed, an initial assessment of the level of investigation by the proponent is required. Small projects with limited potential to impact on the community or the environment normally require an abbreviated assessment via a planning permit obtained from the relevant local council. For larger projects in more sensitive areas, a more comprehensive Environment Effects Statement may be required under the Environmental Effects Act 1978 administered by the Department of Sustainability and Environment. The EPA may also be required to give works approvals for some activities. Once a mine has been established, a project-specific Community Reference Group (CRG) may be established. These are usually established for significant mining activities and include community members as well as DPI. CRGs are established to review all aspects of the operation of the mine and its relationship with the community and other stakeholders. The scope of a review ranges from production plans to progress of rehabilitation to environmental monitoring. The licensee normally carries out environmental monitoring. Other key Government agencies also participate on these committees.

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#### Western Australia

If a mining or petroleum proposal has a potential to have a significant impact on the environment, it has to be referred to the WA Environmental Protection Authority (EPA) under the WA Environmental Protection Act 1986 to determine if a formal environmental impact assessment is required.

Projects which have the potential of triggering matters of National Environmental Significance are referred to the Commonwealth Department of Environment & Heritage (DEH) for their assessment.

In addition, the Department of Industry and Resources (DOIR) undertakes an environmental assessment for most almost resource proposals. Relevant environmental approvals for resource activities are required under the WA Mining Act 1978, Petroleum Act 1967, Petroleum (Submerged Lands) Act 1982 and Petroleum Pipelines Act 1969.

The DOIR also acts as a designated authority for the Commonwealth, in assessing petroleum proposal under the Commonwealth Petroleum (Submerged Lands) Act 1967. Environmental aspects for proposals in Commonwealth waters off WA are regulated under the Petroleum (Submerged Lands) (Management of Environment) Regulations 1999.

However, if a mining or petroleum proposal has particular environmental significance, DOIR refers it to the WA Environmental Protection Authority (EPA) Department of Environment and (when required under the relevant memorandum of understanding) for assessment under the WA Environmental Protection Act 1986.

Furthermore, environmental advice and regulatory services for resource projects may also be provided by the Department of Environment and Conservation (DEC) and the Department of Water (DoW) as required.

Finally, projects which have the potential of triggering matters of National Environmental Significance are referred to the Commonwealth Department of Environment & Heritage (DEH) for their assessment.

## The Australian Government's role in Environmental Protection

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#### The State has established a coordination unit to streamline all government approval processes.

The Environment Protection and Biodiversity Conservation Act 1999 (the EPBC Act) requires the Australian Government to take an active role in specific situations. The primary focus of the legislation is the protection of matters of national environmental significance. Any action that is likely to have a significant impact on a matter of national environmental significance needs to be considered for environmental assessment and approval under the EPBC Act.

The seven matters of national environmental significance protected by the EPBC Act are:

- > the Commonwealth marine environment;
- > World Heritage properties;
- > National Heritage places;
- > Ramsar wetlands of international importance;
- > nationally threatened species;
- > migratory species; and
- > nuclear actions.

The EPBC Act also regulates the environmental impact assessment and approval of:

- > actions by Australian Government departments and agencies that are likely to have a significant impact on the environment anywhere;
- > actions taken in a Commonwealth area that are likely to have a significant impact on the environment generally, and actions taken outside a Commonwealth area that are likely to have a significant impact on the environment of a Commonwealth area

Activities invoking the requirements of the EPBC Act must not be carried out unless the activity has the approval of the Australian Government Minister for the Environment. However, in certain circumstances assessments and approvals under the EPBC Act may not be required – see the text on bilateral agreements and declarations below.

The EPBC Act places the onus for referring proposals onto the person proposing to take the action, rather than the Australian Government. Proponents are able to determine early in the planning stages whether a project or activity will trigger Australian Government involvement under the EPBC Act and, if so, the extent of that involvement. If the proponent is in any doubt whether the EPBC Act applies, the proposed action may be referred to the Australian Government Environment Minister who must make a binding decision within 20 business days whether the legislation is triggered.



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Modern exploration camps are designed to be self sufficient and portable and leave minimal impact on a fragile arid environment.

There are three stages for a project proponent to obtain an approval:

- > referral proponents may refer their development proposals to the Australian Government Environment Minister who has 20 business days in which to decide whether the proposed action is likely to require approval under the EPBC Act;
  - if the action does not require approval the proponent can proceed with the taking of the referred action without exposure to legal liability, remembering there may also be a need to gain State, Territory and local government authorisations for the action;
  - if the action does require approval, the application then proceeds to the second stage, assessment;
- > assessment the Australian Government Environment Minister may use a number of assessment approaches, from assessment on preliminary documentation to the preparation of an environmental impact statement or the conduct of a public inquiry. State and Territory assessment processes can also accredited on a case-by-case basis; and
- > approval is either granted, granted with conditions, or denied.

For the purposes of the EPBC Act, the environmental assessment will focus on the matters of national environmental significance, and the environment if the proposed development involves impacts on Commonwealth land or the action is being taken by a Commonwealth agency. If State/Territory authorisations are required also, the relevant State/Territory will assess the matters required to be considered under their particular legislation and are required to explain how these other matters have been assessed.

For example, where a proposal is likely to have a significant impact on a matter of national environmental significance, such as a particular threaten species, the assessment required to be conducted under the EPBC Act only needs to consider the impact of the proposal on the threatened species, and the proposed measures to mitigate or avoid that impact;.

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"Before" and "after" photos of a bauxite mine in the Darling Range of Western Australia. The area was mined in 1981 and rehabilitated in 1982. The picture on the left was taken at completion of mining and the picture on the right was taken nine years later.

The Australian Government may accredit State and Territory environmental assessment processes and, in particular circumstances, State and Territory approvals through the use of bilateral agreements developed under the EPBC Act. If an action is assessed under a bilateral agreement by a State or Territory then the action does not need to be assessed under the EPBC Act – the State/territory assessment report is provided to the Australian Government Environment Minister for an approval decision. Actions approved by the States and Territories in accordance with approvals bilateral agreements do not require assessment and approval under the EPBC Act. Bilateral agreements need to satisfy the requirements of the EPBC Act. In a similar way the Environment Minister may make declarations that provide for the accreditation of assessment processes and management plans in force under Commonwealth law that can also remove the need for either assessment or approval of actions under the EPBC Act.

The Department of the Environment and Heritage's website at www.deh.gov.au is an open public domain. It provides the key means for accessing data, for providing policy advice on the referrals, assessment and approvals process and for industry to progress projects through the environmental system in an open and transparent manner. The public (and potential active third parties) may also monitor and make comment on at appropriate stages in the approval processes. The EPBC Act protected matters search tool allows you to search for matters of national environmental significance in an area where you propose to take an action. The search tool is located on the Department of Environment and Heritage web site; http://www.deh.gov.au/erin/ert/epbc/ index.html.

The EPBC Act Policy Statement 1.1 – Significant Impact Guidelines provides guidance in determining whether or not an action is likely to have a significant impact on a matter of national environmental significance. The EPBC Act Policy Statement 1.2 – Significant Impact Guidelines provide guidance on determining whether or not an actions involving Commonwealth land or taken by Commonwealth agencies are likely to have a significant impact on the environment. The policy statements are available on the Department of Environment and Heritage web site: http:// www.deh.gov.au/epbc/policy/index.html ...

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## **Environmental Assessment and Approvals** For Offshore Petroleum Projects

Australia has jurisdiction over more than 12 million square kilometres of ocean waters - an area about one and a half times the size of the Australian Continent. These waters are rich in natural resources, including proven oil and gas reserves. The Petroleum (Submerged Lands) Act 1967 (PSLA) provides for:

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- > the Australian Government Minister for Industry, Tourism and Resources to administer petroleum exploration and development activities in Australia's offshore areas (beyond the first three nautical miles of territorial sea); and
- > the relevant State/Territory Minister for Mines (or equivalent ), as the "Designated Authority", is responsible for the day to day administration.

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These activities are subject to the assessment and approvals conditions of the EPBC Act (the Commonwealth marine environment is considered a matter of NES) as well as the environmental conditions specified in the PSLA, and associated Regulations and Directions.

The PSLA contains a broad requirement for title holders to operate in accordance with "good oilfield practice". Specific environmental provisions relating to work practices essentially require operators to control and prevent the escape of wastes and petroleum. The Act also requires activities to be carried out in a manner that does not interfere with other rights, including the conservation of the resources of the sea and seabed. Before any drilling operation begins, companies must have an approved oil spill contingency plan.

In some cases, special conditions are applied to an exploration permit area. These conditions can be tailored to suit the unique environment of an area or the multiple marine uses within the area, and take account of sensitive environments in the adjacent State or Northern Territory.

The holder of an exploration permit, retention lease, production licence or pipeline licence must maintain, as directed by the Designated Authority from time to time, insurance against expenses or liabilities arising in connection with carrying out work on the lease.

The Petroleum (Submerged Lands) (Management of Environment) Regulations 1999 are an objective-based, co-regulatory regime for managing the environmental performance of the Australian offshore petroleum industry. Under the regulations, petroleum operators are required to prepare and implement environment plans for each specific activity, which will identify environmental risks and effects, establish specific performance standards, including measurement criteria to assess performance against those standards, and incorporate an implementation strategy to achieve those standards. Comprehensive guidelines (under continuous review for best practice) aim to assist operators and regulators implement the proposed arrangements. The regulations encourage petroleum operators to employ innovative and efficient technological and environmental management solutions, tailored to their specific circumstances, to achieve superior environmental outcomes while also reducing compliance costs.

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As petroleum activities that are subject to both the PSLA and EPBC Act assessment processes normally involve the same measures for environment protection, the Australian Government provides for examination of the interaction of the two processes. The main avenue is currently through the Standing Committee on Environmental Approval Processes for Offshore Acreage comprised of officers from the Department of Industry, Tourism and Resources and the Department of the Environment and Heritage. The aim of the Standing Committee is to provide certainty of process and outcomes for environmental approvals processes by addressing issues that are identified as relevant to both regulatory frameworks.





Australian Government Department of Industry, Tourism and Resources Invest Australia Geoscience Australia

