

Information sheet

Environmental Protection Act 1994

Risk-based conditioning approach

The purpose of this information sheet is to describe the risk-based approach the Department of the Environment, Tourism, Science and Innovation takes when imposing conditions on environmental authorities under the Environmental Protection Act 1994.

Executive summary

As Queensland's environmental regulator the Department of the Environment, Tourism, Science and Innovation (the department) is responsible for assessing environmental authority (EA) applications and imposing conditions to protect the environment. Operators have responsibilities to comply with conditions imposed on their activities. The department adopts a risk-based approach when assessing EAs and determining the conditions imposed. Risk is considered in the context of the nature and location of the activity (what is termed inherent and residual risk), but also the quality of information provided in the application, and the existing knowledge of the baseline condition of the receiving environment and environmental values that may be impacted by the activity.

Where the risks of an activity are lower, or detailed information is provided about the baseline condition of the receiving environment and potential impacts to environmental values, the activity may be approved with outcome-focused conditions that outline the environmental outcomes the operator must achieve. Conversely, where the consequences of a breach of regulatory obligations may have significant negative consequences, or there is a limited understanding of the baseline condition of the receiving environment or potential impacts to environmental values, more prescriptive and management-based conditions may be required. Where a proposed activity poses an unacceptable risk to the environment based on the nature or location of the activity, or the level of information provided in the application about environmental impacts is insufficient, the EA application may be refused. Figure 1 is an overview of the department's risk-based conditioning approach.

Applicants are encouraged to organise a pre-lodgement meeting to discuss the key risks, mitigating actions and potential conditions for their proposed activity. Pre-lodgement meetings can improve the quality of applications and may reduce delays and un-anticipated problems associated with applications.

Figure 1: Overview of the department's risk-based conditioning approach.



Risk-based conditioning approach

Introduction

Under the *Environmental Protection Act 1994* (EP Act) and its subordinate legislation, a decision maker decides whether to approve or refuse applications for EAs. If an application is approved, the EA is subject to conditions imposed by the decision maker.

The purpose of this information sheet is to describe the risk-based approach the department takes when imposing conditions on EAs. This information sheet relates primarily to EAs issued through the site-specific application process, but also reflects the conditioning approach used for EAs issued through other processes such as variation and amendment applications. This information sheet supports the department's [Regulatory Strategy 2022-2027](#) and demonstrates that the department is adopting modern regulatory principles.

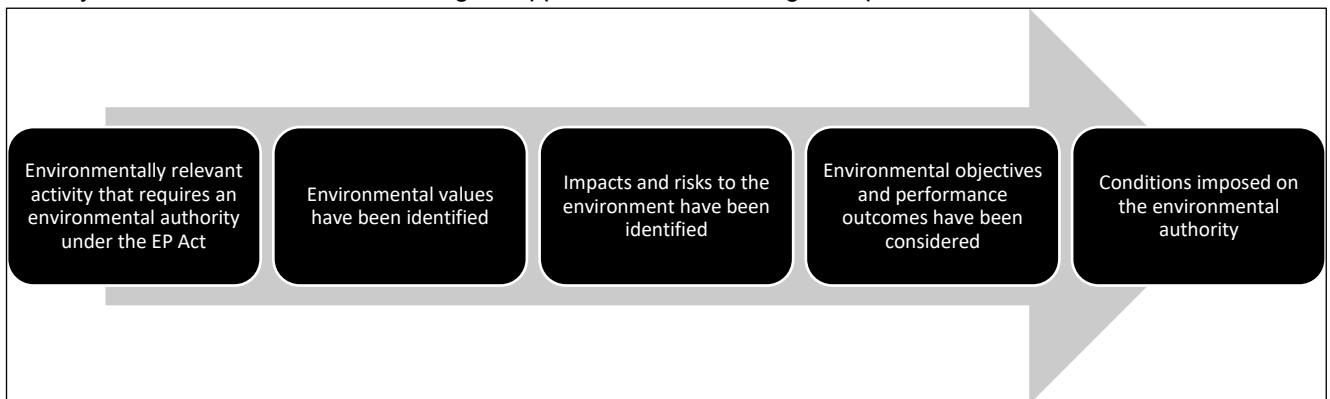
Important

While this document provides general information about the department's conditioning approach, it is not intended to be, nor is it, legally binding on the department. It does not override the EP Act or limit the decision maker from making assessment decisions and imposing conditions on EAs that they consider appropriate.

Regulatory framework

Chapter 5 of the EP Act provides for the application, assessment, and approval of EAs. The department operates under an evidence-based decision-making framework and sufficient information is required to support an application. Applications should identify the environmental values likely to be affected by the activity, the nature and extent of the impact, the performance criteria able to be achieved for the activity, and any prescriptive measures necessary to mitigate impacts to environmental values. Once an application is submitted, the department assesses the application material to determine whether the application should be approved subject to conditions or refused. Figure 2 provides an overview of the key considerations for assessing an EA application and deciding to impose conditions.

Figure 2: Key considerations when assessing an application and deciding to impose conditions.



For more detailed information about how the department assesses a site-specific application and imposes conditions on an EA, please refer to the guideline '*Assessment requirements for making a decision for an EA for an environmentally relevant activity*'. This guideline is available on the Queensland Governments website (www.qld.gov.au) using ESR/2015/1725 as a search term.

Why are conditions imposed?

The department imposes conditions on EAs to meet the requirements of the EP Act and set out the terms on which an environmentally relevant activity can proceed. Conditions may be imposed to:

- Specify the activity authorised to be carried out.
- Place clear parameters around the activity.
- Regulate the environmental impacts of the activity.
- Require the carrying out of appropriate mitigation measures for such impacts.

- Avoid, minimise, or offset the adverse impacts of the activity.
- Set out monitoring and reporting requirements for the activity.
- Set out auditing requirements to monitor compliance.

Types of conditions imposed and how they may be imposed

The conditions that may be imposed on EAs can be grouped into four broad types:

- General conditions.
- Outcome-focused conditions.
- Prescriptive conditions.
- Management-based conditions.

All EAs issued by the department will include a range of general conditions that relate to the activity. For example, general conditions will be used to define the extent of the activity and establish requirements for monitoring and reporting to check the effectiveness of the conditions imposed.

Conditions to mitigate adverse impacts on the environment fall into one, or a combination, of the other types of conditions. To determine the conditions imposed on an EA, the department assesses the inherent and residual risk of the activity, as well as any informational risks. That is, risks associated with the application information and existing knowledge of the environment. To understand the risk, the department considers the:

- Type and novelty of the activity and maturity of the industry.
- Type and nature of emissions from the activity.
- Pollution control measures used for the activity.
- Proximity to sensitive environments and sensitive receptors.
- Level of sensitivity of the environment and sensitive receptors.
- Level of baseline knowledge of the environment and understanding of threats to environmental values.
- Environmental performance of the operator (if known).

Due to the nature of the impacts that result from environmentally relevant activities, more than one type of condition will be necessary to give the decision maker confidence the activity will not have an unacceptable impact on the environment. The use of outcome-focused, prescriptive, and management-based conditions is determined on a case-by-case basis as outlined in the sections below.

Outcome-focused conditions

Outcome-focused conditions identify performance criteria that must be complied with to achieve an appropriate environmental outcome, but do not specify how the outcome is to be achieved. They allow the holder of the EA to be pragmatic and innovative about how the outcome is achieved and adopt an adaptive management approach to meeting the condition if desired. Outcome-focused conditions are typically expressed as:

- (a) an impact that must be avoided; or
- (b) a level of impact that must not be exceeded.

Outcome-focused conditions can be used on an EA to address a range of environmental matters and examples of outcome-focused conditions are shown in Table 1.

Table 1: Examples of outcome-focused conditions.

Aspect of environment	Examples of outcome-focused conditions
Air	Point source emissions of contaminants from the activity must only be released to air in accordance with the parameters listed in Table X – Point source air release limits.
	The EA does not authorise odours or airborne contaminants generated by the activity to cause a relevant act at a sensitive place or commercial place.
Water	Contaminants generated by the activity must not be released to waters unless the contaminants being released: a) are only released from the release points specified in <i>Table X – Contaminant release points and release limits to water</i>; and b) comply with the release limits (limit and type) for each quality characteristic specified in <i>Table X – Contaminant release points and release limits to water</i>; and c) are monitored at the minimum monitoring frequency for each quality characteristic specified in <i>Table X – Contaminant release points and release limits to water</i>; and d) are monitored at the following monitoring locations: i) The release points identified in <i>Table X – Contaminant release points and release limits to water</i>.
	Contaminants from the activity must not be released to groundwater.
Land	Disturbance to areas as a result of carrying out activities conducted under this EA must be rehabilitated in a manner that: a) The potential for erosion and sedimentation is minimised; and b) The potential for environmental nuisance caused by dust is minimised; and c) Land and water do not contain contaminants capable of causing environmental harm; and d) The landform is in stable condition; and e) The land is re-profiled to: i) a level consistent with surrounding soils or to original contours, and ii) established drainage lines; and f) The land is vegetated with groundcover that is established, actively growing, self-sustaining and is not a declared pest species.
Noise	Noise from the activity must not include substantial low frequency noise components and must not exceed the levels identified in <i>Table X – Noise limits at any sensitive place or commercial place</i> .

Outcome focused conditions may be used when:

- High quality baseline data is available; and
- There is sufficient information in the application to define appropriate performance criteria; and
- The performance criteria are measurable and able to be enforced; and
- Achievement of the performance criteria can be independently verified.

If some of these elements are not met, outcome-focused conditions may still be imposed on the EA as part of a hybrid set of conditions, with prescriptive or management-based conditions being used to address the environmental matters unable to be addressed by outcome-focused conditions.

Prescriptive conditions

Prescriptive conditions set an environmental outcome and specifies how that outcome is to be achieved. The method for achieving the outcome is chosen by the department but may be based on information provided in the application. Prescriptive conditions can be used on an EA to address a range of environmental matters and examples of prescriptive conditions are shown in Table 2.

Table 2: Examples of prescriptive conditions.

Aspect of environment	Examples of prescriptive conditions
Air	All particulate contaminants extracted from the test shop shot blasting machine must be treated in a fabric filter dust collector and cyclone prior to release into the receiving environment.
Water	Effluent must be treated by ultrafiltration and disinfected with ultraviolet light prior to being released into the receiving environment.
Land	All chemicals and flammable or combustible liquids must be stored and handled in accordance with the latest edition of AS1940-The storage and handling of flammable and combustible liquids.
	Significant residual impacts to prescribed environmental matters are not authorised under this EA, unless the impact is specified in Table X.
	In carrying out the mining activity authorised by this EA, disturbance to land: a) may occur in areas marked 'X'. b) must not occur in the areas marked 'X'.
Noise	A noise attenuation barrier X metres long and X metres high must be constructed at the location and to the specifications shown in Figure X.

Prescriptive conditions may be used when:

- There is an inability to define a suitable outcome; or
- There is limited scientific understanding or consensus about the likely impacts of the activity; or
- The activity is likely to contribute to cumulative impacts, or involves multiple projects or industries, making it difficult to identify responsibility for achieving the outcome; or
- There is a lack of robust baseline data, or a lack of knowledge about threats to environmental values; or
- There are environmental risks, or the ability to adequately manage risks, that require a high degree of management and/or prescription.

If one, or more, of these elements are met, it does not mean the activity will be approved subject to prescriptive conditions. These elements are considered in the context of the overall risk of the activity, and, in some circumstances, it may be more appropriate to refuse the application.

Management-based conditions

Management-based conditions identify one or more management objectives that must be achieved through the development and implementation of a management plan. Typically, management-based conditions will include:

- a) A condition that requires the EA holder to develop a management plan in compliance with the second condition in the set. This may be a management plan that was provided with the application, or the EA holder may be required to develop one.
- b) A second condition that details what the management plan must include. This may be a list of requirements, or a reference to mandatory requirements in a specific guideline.
- c) A third condition requiring implementation of the management plan.
- d) A fourth condition that requires the management plan to be reviewed and updated at specific intervals and to consider specific updating matters. This may be updates considering the implementation of the plan and addressing things that aren't working, or updates to meet any mandatory requirements of the most recent version of the relevant guidelines.

Management-based conditions may be imposed in similar circumstances to prescriptive conditions.

Case studies

The below examples demonstrate how risk generally influences how the department assesses EAs and imposes conditions.

Facility A proposes to operate in a semi-rural area with the nearest sensitive receptor being 1km away. Facility B proposes to operate in a more built-up area with commercial and residential premises bordering the site. The two facilities propose to undertake the same type and level of activity, discharge the same pollutants into the environment, and the two operators have similar levels of environmental performance. Facility B represents a higher risk to the environment compared to Facility A, due to the proximity to sensitive receptors. Facility B is subject to greater regulation, which may include prescriptive conditions or management-based conditions for the aspects of the activity that represent the greatest risk to sensitive receptors.

Facility A and Facility B propose to operate in an area that contains, and is surrounded by, similar environmental values. Facility A proposes to operate a metal smelter and refinery, which has an aggregate environmental score of 316. Facility B proposes to operate a thermal waste reprocessing facility, which has an aggregate environmental score of 33. Facility A represents a higher risk to the environment compared to Facility B, as the nature and toxicity of the emissions are greater for Facility A than they are for Facility B. Facility A will be subject to greater regulation, which may include prescriptive and management-based conditions to ensure releases from the activity are appropriately managed and monitored.

Two applications are received for the same activity in the same type of location, but in different geographic areas. Application A contains detailed information on the baseline condition of the environment, nearby environmental values, the potential impact to environmental values, and the proposed mitigation strategies. It demonstrates the activity will not have an unacceptable impact on the environment. Application B lacks detail in these areas. Consequently, the department uses the properly made provisions to request further information be provided in the application. However, the revised material for Application B only includes general information about potential environmental impacts and fails to give the assessing officer confidence that risks to the local environment are understood and will be adequately managed. The EA for Application A is issued with a mix of conditions including some outcome-focused conditions. As Application B did not include sufficient information to assess the environmental impacts on the local area, the application is refused.

Disclaimer

While this document has been prepared with care it contains general information and does not profess to offer legal, professional or commercial advice. The Queensland Government accepts no liability for any external decisions or actions taken on the basis of this document. Persons external to the Department of the Environment, Tourism, Science and Innovation should satisfy themselves independently and by consulting their own professional advisors before embarking on any proposed course of action.

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