# Module 4. Environmentally relevant activities

## 4.1 Concurrence environmentally relevant activities state code

### 4.1.1 Purpose

The purpose of this code is to protect Queensland's environment while allowing for development that improves the total quality of life, both now and in the future, in a way that maintains the ecological processes on which life depends (ecologically sustainable development).

Note: In deciding whether all reasonable and practical measures have been taken to minimise adverse effects of the activity, the chief executive may consider the following matters:

(1) the nature of the environmental harm or potential environmental harm
(2) the sensitivity of the receiving environment
(3) the current state of technical knowledge for the activity
(4) the likelihood of successful application of the different measures that might be taken to minimise the adverse effects
(5) the financial implications of the different measures as they would relate to the type of activity
(6) if the adverse effect is caused by the location of the activity being carried out, whether it is feasible to carry out the activity at another location.

### 4.1.2 Criteria for assessment

(1) Subject to subsection (2), development mentioned in column 1 below must be assessed against the assessment criteria in the table mentioned in column 2.

| Column 1 | Column 2 |
|---|---|
| Material change of use | Table 4.1.1 |

(2) A material change of use for an environmentally relevant activity mentioned in column 1 of Table 4.1.1 must comply with the relevant provisions of Table 4.1.2, Table 4.1.3 and Table 4.1.4 mentioned in column 2 of Table 4.1.1.

**Table 4.1.1: Environmentally relevant activity applicable criteria for activity**

| Environmentally relevant activity | Relevant provisions of code |
|---|---|
| All environmentally relevant activities (ERA) | **Table 4.1.2**—PO1–PO6 |
| ERA 16 (extractive and screening activities) other than riverine quarry extraction under the Environmental Protection Regulation 2008, schedule 2, section 16 in a strategic environmental area | **Table 4.1.2**—PO1–PO6<br>**Table 4.1.3**—PO1 |
| ERA 16 (extractive and screening activities) under the Environmental Protection Regulation 2008, schedule 2, section 16 that is riverine quarry extraction in a strategic environmental area | **Table 4.1.2**—PO1–PO6<br>**Table 4.1.3**—PO2–PO5 |
| Intensive animal industry | **Table 4.1.2**—PO1–PO6<br>**Table 4.1.4**—PO1–PO6 |

**Table 4.1.2: All environmentally relevant activities**

| Performance outcomes | Acceptable outcomes |
|---|---|
| **Site suitability** | |
| **PO1** The choice of the site at which the activity is to be carried out minimises serious environmental harm on areas of high conservation value and special significance, and sensitive land uses at adjacent places. | **AO1.1** Both of the following apply:<br>(1) areas of high conservation value and special significance likely to be affected by the activity are identified and evaluated, and any adverse effects on these areas are minimised, including any edge effects on the areas<br>(2) the activity does not have an adverse effect beyond the site.<br>OR<br><br>**AO1.2** Both of the following apply:<br>(1) areas of high conservation value and special significance likely to be affected by the proposal are identified and evaluated and any adverse effects on the areas are minimised, including any edge effects on the areas<br>(2) critical design requirements will prevent emissions having an irreversible or widespread impact on adjacent areas. |
| **Location of activity on the site** | |
| **PO2** The location for the activity on the site protects all environmental values relevant to adjacent sensitive land uses. | **AO2.1** The location of the activity means there will be no adverse effect on any environmental values.<br>OR<br><br>**AO2.2** Both of the following apply:<br>(1) the activity and components of the activity are located on the site in a way that prevents or minimises adverse effects on the use of adjacent land and allows for effective management of the environmental impacts of the activity<br>(2) areas used for storing environmentally hazardous materials in bulk are located to take into consideration the likelihood of flooding. |
| **PO3** The activity avoids adverse impacts on matters of state environmental significance or, where this is not reasonably possible, impacts are minimised and, where this is not reasonably possible, an environmental offset is provided for any significant residual impact to matters of state environmental matters that are prescribed environmental matters. | **AO3.1** Matters of state environmental significance likely to be affected by the activity are identified and evaluated, and any adverse effects on the matters of state environmental significance are avoided or, where this cannot be reasonably achieved, impacts are minimised, and where this cannot be reasonably achieved, an environmental offset is provided for any significant residual impact to matters of state environmental significance that are prescribed environmental matters.<br>Editor's note: Applications for development should identify anticipated losses, and outline what actions are proposed to be undertaken to offset the loss in accordance with the *Significant Residual Impact Guideline* and the relevant *Queensland Environmental Offsets Policy*. |
| **PO4** Development avoids or minimises and offsets any adverse impacts on riparian areas and ecological corridors located in a strategic environmental area. | **AO4.1** Development is set back from a waterway by at least 200 metres.<br>AND<br>**AO4.2** Development minimises adverse impacts on fish passage during works and the carrying out of the activity.<br>AND<br>**AO4.3** Clearing of riparian vegetation is minimised or, where this cannot be reasonably achieved, an environmental offset is provided for any significant residual impact.<br>AND<br>**AO4.4** Natural regeneration of native plant species is facilitated in cleared riparian areas. |
| **Critical design requirements** | |
| **PO5** The design of the facility at which the activity | **AO5.1** The activity does not involve the storage, production, treatment or |

| Performance outcomes | Acceptable outcomes |
|---|---|
| is to be carried out permits the activity to be carried out in accordance with best practice environmental management. | release of hazardous contaminants, or involve a regulated structure.<br>OR<br>**AO5.2** Development ensures that—<br>(1) all storage provided for hazardous contaminants includes secondary containment to prevent or minimise releases to the environment from spillage or leaks.<br>(2) regulated structures must comply with the *Manual for assessing consequence categories and hydraulic performance of structures,* Department of Environment and Heritage Protection, 2013.<br>(3) containers are provided for the storage of hazardous contaminants and are secured to prevent the removal of the containers from the site by a flood event.<br>(4) the design of the facility—<br>(a) prevents or minimises the production of hazardous contaminants and waste, or<br>(b) contains and treats hazardous contaminants, rather than releasing them. |
| **PO6** Development avoids or minimises any adverse impacts from pollutants on environmental values and water quality objectives for receiving waters (surface and groundwater) on site or leaving a site located in a strategic environmental area. | **AO6.1** Development demonstrates current best practice environmental management to meet relevant environmental values and water quality objectives of the *Environmental Protection (Water) Policy* or relevant to the ERA to be carried out on the site.<br>OR<br>**AO6.2** All stormwater, wastewater, discharges and overflows leaving the site are:<br>(1) treated to the quality of the receiving waters prior to discharge, or<br>(2) reclaimed or re-used such that there is no export of pollutants to receiving waters. |

**Table 4.1.3: Environmentally relevant activities in a strategic environmental area**

| Performance outcomes | Acceptable outcomes |
|---|---|
| **Concurrence ERA 16 (extractive and screening activities)—other than riverine quarry extraction**<br>**Geomorphic processes** | |
| **PO1** Bed and bank stability is preserved. | **AO1.1** Excavation in the bed of a stream is limited to scour depth.<br>AND<br>**AO1.2** Excavation in the bed of a stream is less than one-third of the bed width.<br>AND<br>**AO1.3** Clearing of in-stream vegetation is limited to the minimum area required for the activity to be carried out.<br>AND<br>**AO1.4** The final stream profile does not direct flow into a bank. |
| **Concurrence ERA 16 (extractive and screening activities)—riverine quarry material extraction**<br>**Geomorphic and hydrological processes** | |
| **PO2** Extraction must occur from areas of active deposition including:<br>(1) aggrading bars, or<br>(2) sand slugs, or<br>(3) benches and islands, or<br>(4) sediment pockets in bedrock channels. | No acceptable outcome is prescribed. |

| Performance outcomes | Acceptable outcomes |
|---|---|
| **PO3** Excavation must not occur below the current bed level of a watercourse or waters. | No acceptable outcome is prescribed. |
| **PO4** Bed and bank stability is preserved during the operation or the carrying out of the activity. | **AO4.1** Vehicle access tracks and crossings associated with the activity have scour protection on the bed immediately downstream of the crossing.<br>AND<br>**AO4.2** Access ramps and tracks are kept to a minimum and constructed to minimise erosion and turbulence problems at times of high flow.<br>AND<br>**AO4.3** Ramps cut into the bank for vehicle access are orientated downstream.<br>AND<br>**AO4.4** Vehicle crossings are orientated perpendicular to the stream channel ±10°.<br>AND<br>**AO4.5** Where vehicle crossings are required, these will be at stream-bed level; OR if it can be demonstrated that stream-bed level crossings are inappropriate, any culverts for vehicle crossing are aligned with the direction of natural stream flow, when that flow is of a depth equal to the culvert height.<br>AND<br>**AO4.6** The activity includes measures to prevent stormwater erosion in drains and cuttings on the bank.<br>AND<br>**AO4.7** Stream-bed controls are located upstream and downstream of the site.<br>AND<br>**AO4.8** Excavation in the stream-bed is less than one-third of the bed width.<br>AND<br>**AO4.9** Clearing of in-stream vegetation is limited to the minimum area required for the activity to occur. |
| **PO5** Bed and bank stability is preserved. | **AO5.1** The stream is rehabilitated as near as possible to its natural state after the activity has been conducted.<br>AND<br>**AO5.2** Exposed bank areas are prepared to facilitate natural regeneration of native plant species.<br>AND<br>**AO5.3** Stream-bed and bank controls are retained upstream and downstream of the site of the activity. |

**Table 4.1.4: Intensive animal industries**

| Performance outcomes | Acceptable outcomes |
|---|---|
| **Surface water** | |
| **PO1** The structures containing and controlling run-off from the activity and waste re-use areas minimise adverse effects on surface waters external to the activity. | No acceptable outcome is prescribed. |

| Performance outcomes | Acceptable outcomes |
|---|---|
| Editor's note: To meet the requirements of this performance outcome, it is recommended that the applicant develop a management system for the activity, detailing:<br>(1) environmental hazards<br>(2) risk assessment processes<br>(3) an auditable, risk-based management system for the operation of the activity<br>(4) procedures for annual review<br>(5) proposed maintenance operations<br>(6) stock numbers<br>(7) monitoring of pens, sheds, ponds, drainage and any obvious dust, noise and odour impacts.<br>Note: Development should have regard to the following industry guideline for surface water for the applicable ERA.<br>(1) **Cattle:** *National guidelines for beef cattle feedlots in Australia, 3rd Edition*, Meat & Livestock Australia, 2012<br>(2) **Cattle and sheep:** *National beef cattle feedlot environmental code of practice, 2nd Edition*, Meat & Livestock Australia, 2012<br>(3) **Pig keeping:** *National environmental guidelines for piggeries, 2nd Edition (Revised),* Tucker, RW, McGahan, EJ, Galloway, JL and O'Keefe for Australian Pork Limited, 2010<br>(4) **Poultry farming:** *Queensland guidelines for meat chicken farms*, Department of Agriculture, Fisheries and Forestry, 2012 | |
| **Groundwater** | |
| **PO2** The activity is designed and managed to prevent or minimise adverse effects on groundwater or any associated surface ecological systems.<br>Editor's note: Development should have regard to the following industry guideline for groundwater for the applicable ERA.<br>(1) **Cattle:** *National guidelines for beef cattle feedlots in Australia, 3rd Edition*, Meat & Livestock Australia, 2012<br>(2) **Cattle and sheep:** *National beef cattle feedlot environmental code of practice, 2nd Edition*, Meat & Livestock Australia, 2012<br>(3) **Pig keeping:** *National environmental guidelines for piggeries, 2nd Edition (Revised),* Tucker, RW, McGahan, EJ, Galloway, JL and O'Keefe for Australian Pork Limited, 2010<br>(4) **Poultry farming:** *Queensland guidelines for meat chicken farms*, Department of Agriculture, Fisheries and Forestry, 2012 | No acceptable outcome is prescribed. |
| **Amenity** | |
| **PO3** The activity is designed and managed to minimise adverse effects on the amenity of the surrounding community. | No acceptable outcome is prescribed. |
| **Native flora and fauna** | |
| **PO4** The activity is designed and managed to minimise adverse effects on ecological communities.<br>Editor's note: Development should have regard to the following industry guideline for native flora and fauna for | No acceptable outcome is prescribed. |

| Performance outcomes | Acceptable outcomes |
|---|---|
| the applicable ERA.<br>(1) **Cattle:** *National guidelines for beef cattle feedlots in Australia, 3rd Edition*, Meat & Livestock Australia, 2012<br>(2) **Cattle and sheep:** *National beef cattle feedlot environmental code of practice, 2nd Edition*, Meat & Livestock Australia, 2012<br>(3) **Pig keeping:** *National environmental guidelines for piggeries, 2nd Edition (Revised),* Tucker, RW, McGahan, EJ, Galloway, JL and O'Keefe for Australian Pork Limited, 2010<br>(4) **Poultry farming:** *Queensland guidelines for meat chicken farms*, Department of Agriculture, Fisheries and Forestry, 2012 | |

## 4.2 Reference documents

Tucker, RW, McGahan, EJ, Galloway, JL and O'Keefe for Australian Pork 2010 *National environmental guidelines for piggeries, 2nd edition (revised)*

Meat & Livestock Australia et al 2012 *National guidelines for beef cattle feedlots in Australia, 3rd Edition*

Department of Agriculture, Fisheries and Forestry 2012 *Queensland guidelines: Meat chicken farms*

Department of Environment and Heritage Protection 2013 *Manual for assessing consequence categories and hydraulic performance of structures*

Department of Environment and Heritage Protection 2014 *Queensland Environmental Offsets Policy*

Department of Environment and Heritage Protection 2009 *Environmental Protection (Water) Policy*

Department of Primary Industries 2000 *Reference manual for the establishment and operation of beef cattle feedlots in Queensland*

Meat & Livestock Australia et al 2012 *National beef cattle feedlot environmental code of practice, 2nd Edition*

Department of State Development, Infrastructure and Planning 2014 *State Planning Policy*

## 4.3 Glossary of terms

**Area of high conservation value or special significance** see the *Environmental Protection Act 1994*, section 17.

**Best practice environmental management**, for an activity, see the *Environmental Protection Act 1994*, section 21.

Editor's note: In deciding best practice environmental management of an activity is the management of the activity to achieve an ongoing minimisation of the activity's environmental harm through cost-effective measures assessed against the measures currently used nationally and internationally for the activity.

In deciding the best practice environmental management of an activity, regard must be had to the following measures:

(1) strategic planning by the person carrying out, or proposing to carry out, the activity
(2) administrative systems put into effect by the person, including staff training and monitoring and review of the systems
(3) public consultation carried out by the person
(4) product and process design
(5) waste prevention, treatment and disposal.

The above matters do not limit the measures to which regard may be had in deciding the best practice environmental management of an activity.

**Environment** includes:

(1) ecosystems and their constituent parts, including people and communities
(2) all natural and physical resources
(3) the qualities and characteristics of locations, places and areas, however large or small, that contribute to their biological diversity and integrity, intrinsic or attributed scientific value or interest, amenity, harmony and sense of community
(4) the social, economic, aesthetic and cultural conditions that affect, or are affected by, things mentioned in paragraphs (1) to (3).

**Environmental offset** see the *Environmental Offsets Act 2014*.

Editor's note: Environmental offset means an activity undertaken to counterbalance a significant residual impact of a prescribed activity on a prescribed environmental matter.

**Environmental value** see the *Environmental Protection Act 1994*, section 9.

Editor's note: Environmental value means—

(1) a quality or physical characteristic of the environment that is conducive to ecological health or public amenity or safety
(2) another quality of the environment identified and declared to be an environmental value under an environmental protection policy or regulation.

**Hazardous contaminant** see the *Environmental Protection Act 1994*, schedule 4.

Editor's note: Hazardous contaminant means a contaminant, other than an item of explosive ordnance that, if improperly treated, stored, disposed of or otherwise managed, is likely to cause serious or material environmental harm because of:

(1) its quantity, concentration, acute or chronic toxic effects, carcinogenicity, teratogenicity, mutagenicity, corrosiveness, explosiveness, radioactivity or flammability, or
(2) its physical, chemical or infectious characteristics.

**Matters of state environmental significance** see the *State Planning Policy*, Department of State Development, Infrastructure and Planning, 2014.

Editor's note: Matters of state environmental significance means the following natural values and areas:

(1) protected area (including all classes of protected area except nature refuges and coordinated conservation areas) under the *Nature Conservation Act 1992*
(2) marine parks and land within a 'marine national park', 'conservation park', 'scientific research', 'preservation' or 'buffer' zone under the *Marine Parks Act 2004*
(3) areas within declared fish habitat areas that are management A areas or management B areas under the Fisheries Regulation 2008
(4) threatened wildlife under the *Nature Conservation Act 1992* and special least concern animal under the Nature Conservation (Wildlife) Regulation 2006
(5) regulated vegetation under the *Vegetation Management Act 1999* that is:
    (i) Category B areas on the regulated vegetation management map, that are 'endangered' or 'of concern' regional ecosystems
    (ii) Category C areas on the regulated vegetation management map that are 'endangered' or 'of concern' regional ecosystems
    (iii) Category R areas on the regulated vegetation management map
    (iv) areas of essential habitat on the essential habitat map for wildlife prescribed as 'endangered wildlife' or 'vulnerable wildlife' under the *Nature Conservation Act 1992*
    (v) regional ecosystems that intersect with watercourses identified on the vegetation management watercourse map
    (vi) regional ecosystems that intersect with wetlands identified on the wildlife management wetlands map
(6) wetlands in a wetland protection area or wetlands of high ecological significance shown on the Map of Referable Wetlands under the Environment Protection (Water) Policy 2009, schedule 2
(7) legally secured offset areas.

**Prescribed environmental matters** see the *Environmental Offsets Act 2014*.

Editor's note: A prescribed environmental matter is any species, ecosystem or other similar matter protected under Queensland legislation for which an environmental offset may be provided. Each of the prescribed environmental matters are listed under the *Environmental Offsets Regulation 2014*. Not all environmental matters that may be impacted by development are associated with an offset requirement. Offsets are only required for a limited set of environmental values – categorised as prescribed environmental matters. These prescribed matters may be of national, state or local significance.

**Regulated structure** means a structure that is assessed as being a regulated structure under the *Manual for assessing consequence categories and hydraulic performance of structures* published by the Department of Environment and Heritage Protection, 2013.

**Sensitive land uses** mean any of the following as defined in the standard planning scheme provisions:

(1) child care centre
(2) community care centre
(3) community residence
(4) dual occupancy
(5) dwelling house
(6) educational establishment
(7) health care services
(8) hospital

(9) multiple dwelling
(10) office
(11) relocatable home park
(12) residential care facility
(13) retirement facility
(14) rooming accommodation
(15) short-term accommodation
(16) tourist park.

**Serious environmental harm** see the *Environmental Protection Act 1994*, section 17.

Editor's note: Serious environmental harm is environmental harm (other than environmental nuisance):

(1) that is irreversible, of a high impact or widespread
(2) caused to an area of high conservation value or special significance
(3) that causes actual or potential loss or damage to property of an amount of, or amounts totalling, more than the threshold amount or
(4) that results in costs of more than the threshold amount being incurred in taking appropriate action to:
    (a) prevent or minimise the harm
    (b) rehabilitate or restore the environment to its condition before the harm.

**Significant residual impact** see the *Environmental Offsets Act 2014*.

Editor's note: Generally, a significant residual impact is an adverse impact, whether direct or indirect, of a prescribed activity on all or part of a prescribed environmental matter that —

(1) remains, or will or is likely to remain, (whether temporarily or permanently) despite on-site mitigation measures for the prescribed activity; and
(2) is, or will or is likely to be, significant.

**Strategic environmental area** see the *Regional Planning Interests Act 2014*.

**Waste** see the *Environmental Protection Act 1994*, section 13.

Editor's note: Waste includes anything, other than a resource approved under the *Waste Reduction and Recycling Act 2011*, Chapter 8, that is:

(1) left over, or an unwanted by-product, from an industrial, commercial, domestic or other activity, or
(2) surplus to the industrial, commercial, domestic or other activity generating the waste.

## 4.4 Abbreviations

ERA – Environmentally relevant activity