

# Environmental Impact Assessment Planning Scheme Policy

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## 1 Introduction

Under the Act, the Integrated Development Assessment System allows for Council and other referral agencies to request additional information to assist in assessing a development proposal.

Additional information, in the form of an Environmental Impact Assessment Report as part of the general planning report will be requested by the assessment manager and/or a referral agency to assist in assessing proposals:

- that may have a significant effect on the biophysical environment because of their nature, scale, intensity or complexity or location in or near sensitive, valued or significant environments
- that may have a long term, cumulative or indirect potentially deleterious impact on the immediate or distant environs or community, including those that may result in major infrastructure implications
- that are located on or near a sensitive physical environment or natural resource that may be potentially deleteriously affected by an activity or development not normally considered to have significant impacts on those physical environments and natural resources
- where the nature of the impact, including scale, duration and spacial extent, or the resiliency or sensitivity of the receiving environment requires effective and sensitive environmental management.

Proposals that may require an Environmental Impact Assessment Report are listed below.

Where these criteria are locationally based, development that is of a minor or ancillary nature may be excluded, e.g. house, outbuilding or farm building.

Type of development	In what locations or circumstances
Uses listed in Industrial Areas—Schedule 2, or in Schedule 2 but slightly below the listed thresholds	In any Area
Abrasive blasting, commercially cleaning equipment or structures using a stream of abrasives	In any Area
Aerodrome for the use by persons not normally living at the premises	In any Area
Aquaculture facility for the commercial production of aquatic organisms	In any Area
Commercial, e.g. shop or office development	Outside of the Multi-purpose Centre
Extractive industry facility for the commercial winning of materials, other than minerals within the meaning of the <i>Mineral Resources Act 1989</i>	In any Area
Filling an area of more than 5,000m <sup>2</sup>	In any Area where on land below the flood line adopted by Council
Fuel burning equipment burning more than 100kg of fuel per hour	In any Area
Helicopter landing facility for commercial purposes	In any Area, except the Special Purpose Centre—Airport

Type of development	In what locations or circumstances
Impounded or excavated water bodies, including any artificial lake or other artificial water body having a surface area in excess of 0.2ha	In any Area
Intensive animal husbandry, including cattery and kennels	In any Area
Large outdoor sport and recreation development, e.g. golf course, major sporting venue or racing circuit, but not including a golf driving range	In any Area
Lot feeding	In any Area
Marina with more than 30 moorings or at least one refuelling facility	In any Area
New manufacturing or production technologies not currently in everyday use	In any Area
Refuse transfer station, sewerage treatment plant, waste disposal facility, waste landfill or waste treatment plant for burying, crushing, disposing of, incinerating, processing, recovering, storing or transferring hospital wastes or chemical, liquid, oil, petroleum or solid wastes	In any Area
Tourist resort development with accommodation for more than 1,000 people (including staff) or on an offshore island	In any Area
Any development	On land under a Conservation Plan under the <i>Nature Conservation Act 1992</i> (unless exempted) that is identified as a critical habitat for native wildlife or an area of major interest
Any development	In a catchment area under the <i>Water Resources Act 1989</i>
Any development	In an Erosion Prone Area under the <i>Beach Protection Act 1968</i>
Any development	In a designated landscape area under the <i>Cultural Record (Landscapes Queensland and Queensland Estate) Act 1987</i>
Any development	In a protected area, registered place or restricted zone under the <i>Heritage Act 1992</i>
Any development	In a protected area under the <i>Nature Conservation Act 1992</i> (unless exempted under a Conservation Plan under the Act for the area)
Any development	In reserves, sanctuaries and grounds, including Fish Habitat Areas, oyster grounds or public oyster reserve set apart and declared under the <i>Fisheries Act 1994</i>
Any development	In wetlands, whether fresh, brackish or marine, including coral reefs, mangrove areas, mudflats, sand flats, sandy beaches, seagrass beds and tidal marshes
Any development	In a Marine Park designated under the <i>Marine Parks Act 1982</i>

To enhance the smooth and quick assessment of these types of development proposals, applicants are encouraged to provide this additional information up front in the form of an Environmental Impact Assessment Report and an Environmental Management Plan as part of their development application.

In undertaking this assessment consideration of the social and economic environment may also be requested as outlined in the **Community Impact Assessment Planning Scheme Policy** and **Commercial Impact Assessment Planning Scheme Policy**.

The purpose of this information is to:

- assist in establishing sufficient facts about the development to support a well informed decision about the appropriateness of the development proposal
- minimise adverse impacts and maximise beneficial impacts of the development
- inform the community and facilitate participation by the community in the planning and development assessment process
- facilitate the consideration of alternative development proposals
- enhance existing data to inform the planning and development assessment process.

In preparing the report, community consultation will be requested. The **Consultation Planning Scheme Policy** recommends how this consultation be undertaken.

An Environmental Management Plan will be requested for these proposals, as well as any other development considered by Council to cause harm to the environment following an initial assessment of the application.

## 2 Environmental Impact Assessment Reports

The Environmental Impact Assessment Report is intended to provide detailed information about the proposal, the potential environmental impacts and the measures proposed to avoid or minimise adverse impacts.

The report is to consist of two parts:

- the main text of the document that is to be written in a clear and concise manner so as to be readily understood by general readers
- the appendices that contain detailed technical information.

The report is to be written so that any conclusions reached can be independently assessed. The document is to answer the questions of relevance from the

following guidelines (Sections 2.1 to 2.9) and focus on the salient features of a proposal and the environmental issues associated with it. Any feasible alternatives are to be discussed in sufficient detail so that the reasons for selection of the preferred option can be clearly seen.

The document is to include references and list individuals and organisations consulted. Relevant maps, diagrams and figures are to be included where necessary and the detailed technical information contained in the appendices is to be clearly cross-referenced in the main text.

The information requested by the assessment manager and/or referral agencies to be included in the report will vary for each individual development proposal. Applicants are encouraged to consult the Department of Communication and Information, Local Government, Planning and Sport prior to lodgement of an application likely to request an Environmental Impact Assessment Report for confirmation of the range of details to be included and issues to be addressed in the report.

The guidelines below demonstrate the sort of issues and degree of detail needed in the report. However, it should not be misconstrued that all these details will be requested of every application requiring an Environmental Impact Assessment Report. The matters to be addressed by the applicant will generally be selected from the following generic guidelines and tailored to the individual application type and complexity.

### 2.1 Report preparation

Include details of the educational qualifications of the person that prepared the Environmental Impact Assessment Report and experience in preparing Environmental Impact Assessment Reports, including a list of Environmental Impact Assessment Reports completed.

### 2.2 Summary and conclusions

Prepare a summary that is easy to read but at the same time conveys a thorough understanding of the project and its environmental implications. The information could be arranged under the following headings:

- **site location**—give a brief description of the site and surrounding areas, including the location of associated infrastructure development and figures/maps of all locations
- **project description**—summarise the objectives of the project and proposals for the construction and operation of the project and associated infrastructure developments

- **alternatives to proposed development**—summarise the features of alternatives investigated and detail the reasons for choosing the preferred option
- **existing environment**—summarise the features of the physical, biophysical and built environment relating to the proposed development and associated infrastructure
- **principal potential environmental impacts**—summarise the main potential impacts of the project (direct, indirect and cumulative), both beneficial and detrimental, and any alternatives, on the existing environment
- **environmental monitoring, protection and management procedures**—summarise the safeguards, standards and management procedures proposed to protect the environment, including environmental monitoring and the methods proposed to ameliorate or alleviate the potential impacts
- **conclusions**—summarise the key strategies and amendments to the proposal to address any adverse environmental impacts.

### 2.3 Background and scope of proposal

Outline the purpose and objectives of the proposed development.

Discuss the following to illustrate the background of the proposal:

- the need for the proposed development or works
- the history of proposal formulation
- the background of the applicant/s
- any alternatives considered and reasons for choosing the preferred option
- action already taken.

Describe the project by reference to the following:

- the precise nature and scale of the proposal
- the location and site requirements
- the plant and/or building layout, size and design and the development staging program
- the range and quantity of materials to be produced
- the production process
- possible waste discharges
- raw material requirements and sourcing storage areas/facilities
- transport systems
- other infrastructure requirements, e.g. water, sewerage, energy and waste disposal

- the workforce
- consultation processes, schedule and requirements
- anticipated costs
- project life and time scale for completion
- the possible future expansion of associated development/works
- in the case of developments that incorporate the construction of an artificial lake or water body through impoundment or excavation activities, a description of the design, form and proposed use of the artificial lake or water body taking into consideration public access, public liability and safety issues, protection of scenic quality and ecosystems of foreshore, intended and planned use of foreshore, and recreational opportunities.

Detail the implications of the proposal to the use of natural resources, including the quantity and source of water, raw materials and energy to be used, including comments on their overall supply.

Consider life cycle costing aspects of the proposal and detail the ability of the development to incorporate energy efficient design, e.g. recycled water, materials, energy efficiency, building reuse, and redesign in light of local character.

### 2.4 Existing environment

Describe the existing environment of the site and surrounding areas in sufficient detail to allow the environmental impacts of the proposal to be accurately and adequately assessed, and to provide a baseline against which predicted and future changes can be measured.

#### 2.4.1 Site details

Provide details of the site area and its environs including:

- location
- land tenure
- the planning scheme provisions relevant to the site
- land uses
- special characteristics of the site, e.g. recreation areas, historical or archaeological sites and characteristics of the site and adjacent lands likely to constrain the development proposal
- statutory provisions in power over the site and adjoining areas
- characteristics of the site and adjacent lands for development opportunities
- identification of area of influence

- the location of Highest Astronomical Tide, Mean High Water Springs and Mean Low Water Springs where relevant
- the location of any buffer areas including with respect to waterway features, wetlands and tidal lands.

### 2.4.2 Physical features

#### A Geology and geomorphology

Provide a description of the geology and geomorphology of the site and surrounding areas in sufficient detail to show:

- the geology of the site in terms of dominant rock types and the regional context
- the elevation, topography and landforms of the site and surrounding areas, including slope and terrain components, and an analysis of subsurface and slope stability
- any geomorphologically or geologically unique features and any associated biological importance
- a soil analysis, including profile, depth, stability, erodibility, nutrient status, contaminants, pH and revegetation potential
- any known mineral deposits of commercial significance on or adjacent to the site.

#### B Hydrology

Provide a description of the hydrology of the site and surrounding areas in sufficient detail to show:

- surface and subsurface hydrology, including definition of the local drainage basin and aquifers, water movements in and out of the site, and frequency and extent of flooding
- water quality of surface and subsurface water in terms of those indicators that most likely reflect waterway health, e.g. pH, turbidity/total suspended solids, nitrogen, phosphorus or salinity
- seasonal variations in surface and subsurface water flow, yield and quality
- any existing uses of water on or downstream of the site, including domestic consumption, agricultural use, fisheries, and wetland replenishment.

#### C Climate

Provide a description of climatic features and microclimate of the site and the drainage sub-basin, including:

- rainfall—amount, intensity and annual distribution
- wind—velocity, duration and prevailing direction
- temperature and evaporation characteristics

- the incidence of frosts, fogs or temperature inversions.

#### D Biotic characteristics

Describe the current ecological status, environmental values and conservation significance of the site both as a separate unit and as an integrated part of the local and regional setting under the following headings:

##### (i) Biotic character

Provide a description of the biological characteristics of the site and surrounding areas in sufficient detail to show:

- types, structure and location of vegetation associations on the site and surrounding areas, including measures of foliage cover, health and natural regeneration
- species of flora and fauna, including aquatic and terrestrial species, native and introduced species, weeds and pests. Include a description of the location and abundance of each species, especially the presence of rare or endangered species.

A flora report is to include consideration of four broad groups of criteria:

- intrinsic criteria—species present, distribution, abundance
- comparative criteria
- naturalness and ecological condition—disturbance, weed content, ecological viability, ecological health and ecological relationships
- extrinsic criteria—vulnerability, fragility, fauna habitat, soil conservation, water catchment protection and flood mitigation, landscape and scenic value, recreational value, cultural heritage value and educational, scientific and economic benefits.

A fauna report is to include information on the presence and distribution of species in the area as well as those suspected of being in the area, natural and ecological condition of the site, and the site's importance at local, regional and national levels.

##### (ii) Conservation significance

Provide a description of the conservation significance of the site as a separate unit and in the local and regional setting in sufficient detail to show:

- the ecological quality of the fauna and flora of the site in terms of integrity, diversity, naturalness, and degree and types of disturbance
- the significance of the site as a proportion of the total area or distribution of its species, associations and communities in Brisbane, South East Queensland and Queensland

- the conservation status of species, associations and communities on the site and adjacent areas with respect to their occurrence and abundance in national parks or other conservation reserves
- special ecological values of the site such as a refuge habitat, a breeding habitat, a corridor for wildlife movement and use by migratory species.

### **E Air quality**

Provide details of the existing air quality in terms of chemical composition and the presence of pollutants, including particulates, dust and odours, seasonal fluctuations and relevant meteorological conditions:

- identify atypical meteorological conditions and their likely frequency of occurrence
- identify existing point sources and ambient levels of pollution in the immediate vicinity.

### **F Noise levels**

Provide details of existing ambient noise levels on the site and in the immediate vicinity, including details of proximity to existing or future sensitive receiving environments.

Indicate the number and type of significant noise sources on the site and in the immediate vicinity, including details of noise levels, frequency of occurrence and significant tonal and impulsive qualities.

### **G Aesthetic character and amenity**

Describe the aesthetic and landscape values of the site and surrounding areas and other features contributing to the amenity including:

- the landform, visual character and aesthetic quality of the site and surrounding areas, including significant views, focal points and special features
- the viewshed for the site, the resident population in the viewshed, and the location of any major roads and recreation areas within the viewshed
- existing and potential uses of the site and surrounding areas for recreational activities, and the number and type of people currently using the site
- type, nature and extent of existing and potential biting insect pest (mosquito and midge) problems within and surrounding the site
- buildings, structures or other facilities of particular cultural, historical, religious or social importance.

This description would need to involve traditional land owners or appropriate Aboriginal contact groups to ensure adequate assessment of landscape values of cultural importance.

### **H Transport infrastructure**

Provide details of the existing or proposed transport infrastructure on the site and in the immediate area.

Describe the existing road network and quantify traffic flows including:

- volume and type of traffic
- fluctuations of traffic volumes
- internal traffic circulation
- provisions for carparking
- access points.

Describe public transport, bikeway and pedestrian networks.

## **2.5 Potential impacts of the development on the existing environment**

### **2.5.1 Introduction**

Identify and detail the nature of any potential impacts, including cumulative impacts, of the development on the existing environmental elements, including joint resolution of conflicts between economic, social and environmental issues. These may be adverse or beneficial, direct or indirect, short or long term, or incremental, and are to be considered for both the construction and operational phases of the development.

Identify possible accidental or abnormal impacts. A worst case scenario is to be included for the more significant of these.

Detail the relationship between local short term uses of the environment and the maintenance and enhancement of long term productivity.

Detail any irreversible or irretrievable commitment of resources that would be involved if the proposed development is implemented.

### **2.5.2 Bio/physical features**

#### **A Geology and geomorphology**

Provide an assessment of the potential impacts of the proposal on:

- the long term availability of known mineral deposits of commercial significance on or adjacent to the site
- any alteration to the existing topography and landforms, including tidal lands and aquatic features

- the quantity of filling expected, the source and quality of the filling needed, and the environmental consequences of the removal and redeposition of the fill
- the potential for erosion at the site and indirectly caused by the development
- existing and/or potential acid sulfate soils directly or indirectly affected by the development
- any rehabilitation, mitigation or post-development management plans proposed to ameliorate the potential impacts.

## **B Hydrology**

Provide an assessment of the potential impacts of the proposal on:

- watercourses on or adjacent to the site or indirectly affected by development on the site in terms of alterations to water quality, waterway/ecological health, drainage patterns, flooding characteristics, siltation rates and biotic characteristics, including impacts on fish movement
- subsurface water movement and alterations to the water table
- thermal characteristics/impacts on adjoining water bodies.

In the case of developments that incorporate the construction of an artificial lake or water body through impoundment or excavation activities, provide an analysis of:

- the surface and ground water quality and hydrological regime with respect to alternative designs, i.e. varying depth, profile and water treatments
- the necessary contingency measures if acceptable water quality objectives cannot be met
- the likely long term water quality and activities, including seasonal fluctuations and interaction with existing and future land use in the catchment area
- the suitability of the water body for proposed or possible uses
- the necessary maintenance requirements
- the impacts arising from the proposed uses on water quality and surrounding ecological systems
- the necessary performance monitoring regime.

If contaminants are or will be discharged to waters the following details are to be provided:

- the current environmental values and water quality objectives of receiving waters

- details of discharge points including the source of contaminants
- types of contaminants, rates of release and expected concentrations
- maximum and background concentrations of each contaminant if available
- any variations in quantity and quality of contaminants
- descriptions of pollution control equipment and how water quality objectives in receiving waters are to be met.

## **C Biotic characteristics**

Provide an assessment of the potential impacts of the proposal, both as a separate unit and as an integrated part of the local and regional setting, on flora and fauna including terrestrial and aquatic species (both native and introduced), weeds and pests and especially the impact on rare or endangered species.

## **D Air quality**

Provide an assessment of the potential impacts of emissions, including particulates, greenhouse gases, dust and odours on the existing air quality considering seasonal fluctuations and relevant meteorological conditions in accordance with the **Air Quality Planning Scheme Policy**.

## **E Noise levels**

Provide an assessment of the potential noise impacts of the proposal in accordance with the **Noise Impact Assessment Planning Scheme Policy**.

### **2.5.3 Infrastructure**

Provide an assessment of the potential impacts of the proposal on the following:

- water supply and reticulation system
- sewerage system if applicable
- provision of septic sewerage facilities or other alternative wastewater treatment systems if applicable with particular regard to capability of the environment to maintain such a system
- transport infrastructure, including road, rail and water transport
- pedestrian ways, bikeways and public transport
- review long term linkage to Council infrastructure networks and ongoing maintenance costs.

## 2.5.4 Safety and risk assessment

### A Potential events

Detail the extent of potential hazards to public safety and human life associated with accidents, spillages and abnormal events involving toxic, flammable and explosive substances.

Assess the possible frequency of accidents, spillages and abnormal events, and the likely effects.

This analysis is to address both plant operation and transport and storage of raw materials or finished products and include possible cumulative impacts if an explosion or fire extends to adjoining/nearby plants or an explosion and fire occur simultaneously in plants.

### B Safety program

Detail the design features, operating procedures and other safeguards, including staff training, to minimise or ameliorate potential hazards.

Detail fire fighting, evacuation, spillage and clean-up contingency plans.

## 2.6 Impact monitoring, protection, risk management and post-development management procedures

An Environmental Management Plan is to be prepared for the development. This will outline appropriate mitigation measures and monitoring programs to ensure effective environmental management. This is to include:

- a summary of environmental quality objectives based on the environmental standards to be achieved, including any relevant government policies and standards
- a proposed monitoring program to measure progress in achieving these objectives
- the design features, controls and safeguards proposed to minimise or ameliorate adverse impacts, including contingency plans if adverse impacts exceed expectations
- the various methods proposed to retain, protect, enhance or restore desirable environmental features and qualities
- a schedule of proposed actions showing timeframes, costs, sources of funds and the organisations responsible.

For example, in the case of the construction of an artificial lake or water body through impoundment or excavation activities, describe:

- mitigation measures and control structures preventing impacts on water quality and hydrological regime during construction and operating life of the proposal, including siltation, weed growth, flood protection and pest and insect control
- water quality objectives (within and downstream of the water body) and proposed water quality monitoring program, including sampling intervals, tests performed and responsibility for testing
- maintenance plans/procedures, responsibilities, handover arrangements and estimates of costs for long term management of the water body and associated structures, considering the suitability of the proposed use of the water body.

The Environmental Management Plan is to recognise where impacts of development can adopt design measures involving alternative technologies, efficient resource conservation systems, and smart design and/or reuse of buildings.

This is to include an assessment of the potential impacts, including cumulative, secondary, tertiary and long term. Mitigatory measures are to provide an integrated solution to the potential impacts.

## 2.7 Consultation

In preparing the report the applicant/consultant is to consult with relevant interest groups and parties likely to be affected by the proposal. The report is to detail the process and outcome of consultation undertaken and any mitigation measures adopted to address issues raised during consultation.

## 2.8 Sources of information

Detail all studies and investigations carried out in planning the project and preparing the report, including:

- listing other reference material and literature
- listing authorities consulted and contributors to the report
- cross-reference the reference material in the text to allow easier access to information.

## 2.9 Appendices

Include detailed technical information where necessary to support assessments or proposals and include relevant documents or correspondence from government authorities.

### 3 Environmental Management Plans

Once an Environmental Management Plan has been approved by Council, the development will be carried out in accordance with this approved plan.

An Environmental Management Plan may be requested in order to ensure that the impacts of the development on the environment are adequately controlled, where that development may otherwise cause harm to the environment. This can include the construction, operational and decommissioning stages of a development.

The information requested by the assessment manager and/or referral agencies to be included in the plan will vary for each individual development proposal and may deal with the management of one or a number of impacts. The content of the plan will vary depending on the nature and scale of the development, the characteristics of the site and the impacts generated by each proposal. This is necessary, as an approach used to deal with an impact on one site may not necessarily be appropriate for other sites because of different topography, soils, grades or other constraint considerations.

The plan is to detail the management strategies to be implemented for identified impacts and may be requested to include all stages of development as well as monitoring, corrective actions and complaint response. The plan is to also include specific performance indicators.

The plan is to demonstrate the commitments made to environmental impact management by:

- identifying all aspects of the project that require environmental management
- establishing practical and achievable measures for the containment of environmental impacts to acceptable levels
- allocating authority and responsibility for implementing management measures
- nominating criteria for measuring impact levels and any sources from which criteria may be derived, including legislative requirements and government policies
- describing a course of action and responsibilities for responding to incidents of non-compliance and emergency events that may be detected or arise
- establishing procedures for monitoring and reporting.

The range of issues that may be requested to be addressed in an Environmental Management Plan include:

- acid sulfate soil
- air quality
- biting insects
- buffer area management
- building/structure conservation or retention
- energy efficiency and management
- erosion and sediment control
- management of activities and events, including monitoring and corrective action
- management of the impacts of land uses on surrounding sites
- natural and cultural heritage preservation/management
- noise control
- rehabilitation/landscaping
- rehabilitation of sites
- resource and waste management
- stormwater management
- vegetation management
- visual amenity
- water quality/waterway health
- weed control.

Other matters identified through the development assessment process, including issues identified by stakeholders in the consultation process may also be requested to be addressed.