CAIRNS REGIONAL COUNCIL NO.4:04:06

Planning Scheme Policy

REPORTS AND INFORMATION COUNCIL MAY REQUEST

Application
This Policy applies to the whole area covered by the Cairns Plan, Planning Scheme for the City of Cairns.

Intent
This Policy is intended to support the local dimension of the Planning Scheme by identifying the information which the Council may request a proponent to provide to demonstrate that a proposal for development meets the performance criteria and will be ecologically sustainable.

Objectives
The objectives of this policy are:

- To ensure that all necessary information is provided to enable the assessment of the impacts of a proposed development or to confirm that impacts of a proposed development can be minimised;
- To ensure that any potential impacts associated with development can be identified and minimised to an acceptable level to protect the biodiversity and environmental integrity of the City.

Information Council May Request

The Council may request the following information from the applicant to assist in the assessment of a development application:

- Architectural Report
- Bushfire Hazards Assessment
- Cultural Heritage Report
- Engineering Report
- Environmental Report
- Erosion and Sediment Control Plan
- Flood Study Report
- Geotechnical Engineering Report

Endnote - Amendments

#956408v3

Bruce Gardiner
Acting Chief Executive Officer
Cairns City Council.

This policy is to remain in force until otherwise determined by Council.

General Manager Responsible for Review: Development Assessment

ORIGINAL ADOPTION: 27/01/2005
ORIGINAL COMMENCEMENT: 01/03/2005
CURRENT ADOPTION: 05/12/2012
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Endnote - Amendments
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PART A – Ecological Assessment Reports and Environmental Management Plans

Purpose

- To encourage more ecologically sustainable development;
- To provide or expand on existing ecological information known about a site in order to assist in the development assessment process;
- To minimise adverse impacts on areas of ecological significance and to maximise the beneficial impacts of the development;
- To provide guidance on the preparation and assessment of Ecological Assessment Reports and Environmental Management Plans.

Preparation of an Ecological Assessment Report

Report to be prepared by a suitably qualified person

The Ecological Assessment Report will be prepared by a suitably qualified person and references naming other similar reports prepared by the consultant or consultants should also be included.

State interests

The report should include reference to any applicable State policy contexts.

Report format and content

It is recommended that the proponent should consult with the Council prior to preparation of the report in order to ensure that all issues are covered in the report. As a general guide the following format and contents description indicates the depth of detail required:

Summary and Conclusions:

- Site location - 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 (for major or intensive development projects) - 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.

**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;
  - any alternatives considered and reasons for choosing the preferred option;
  - action already taken;
- Description of the project:
  - the precise nature and scale of works;
  - 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;
  - on-site works and operations;
  - off-site works and operations;
  - transport systems;
  - infrastructure requirements (water, sewerage, energy, waste disposal);
  - the workforce;
  - project life and time scale for completion;
  - the possible future expansion of associated development/works;
- Use of resources - detail the implications of the proposal for the use of natural resources, including the quantity and source of water, raw materials and energy to be used.

**Existing Environment:**

- Site and locality;
- Landform, geology and geomorphology;
- Hydrology (surface water and groundwater);
- Climate;
- Air quality;
- Noise environment;
- Coastal processes (if applicable);
- Ecological status/significance including:
  - 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 (aquatic and terrestrial, native and introduced), weed and pest species, including the location and abundance of each species, especially the presence of rare or endangered species;
  - conservation significance - bioregional status, local and national status;
  - special ecological values of the site such as refuge habitat, a breeding habitat, a corridor for wildlife movement and use by migratory species;
- Social cultural and economic characteristics;
- Landscape character and visual amenity;
- Infrastructure;
Endnote - Amendments


- Transport;
- Water supply;
- Effluent treatment and disposal;
- Solid waste;
- Power and communications.

Potential impacts of the development on the existing environment

Identify and detail the nature of any potential impacts, including cumulative impacts of the development on the existing environment (adverse or beneficial, direct or indirect, short or long term or incremental) including potential impacts on:

- Geology and geomorphology;
- Hydrology (surface and groundwater);
- Ecological status/significance;
- Air quality;
- Noise levels;
- Coastal processes (if applicable);
- Infrastructure;
- Potential events;
- Safety program.

Impact monitoring, protection, risk management and post development management procedures

- An Environmental Management Plan should be prepared for the development (refer below).

Consultation

- The applicant/consultant should consult with relevant interest groups and parties likely to be affected by the proposal, and issues generated should be documented along with any proposed measures to address these issues.

References

- Listing other reference material and literature used;
- List authorities consulted and contributors to the report;
- Cross-reference the reference material in the text to allow easier access to information.

Appendices

- Include detailed technical information collected through the investigation; and
- Include relevant documents or correspondence from government authorities.

Preparation of Environmental Management Plans

An Environmental Management Plan (EMP) seeks to ensure that the impacts of development on the environment are adequately controlled. This can include construction, operational and decommissioning stages of a development.

The range of issues

The range of issues that may be requested to be addressed in an EMP 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.

**Essential components**

Essential components of an EMP are:

- Establishment of agreed performance criteria and objectives in relation to environmental and social impacts;
- Detailed prevention, minimisation and mitigation strategies (including design standards) for controlling environmental impacts at specific sites;
- Details of the proposed monitoring of the effectiveness of remedial measures against the agreed performance criteria in consultation with relevant government agencies and the community;
- Details of implementation responsibilities for environmental management;
- Timing (milestones) of environmental management initiatives;
- Reporting requirements and auditing responsibilities for meeting environmental performance objectives; and
- Corrective actions to rectify any deviation from performance standards.

**Report format and content**

The following provides a guide to the type of information that might be included in an EMP and how it could be structured.

**Introduction**

- Description of the development proposal;
- The need for the EMP in relation to the development;
- Structure and scope.

**Aims of the EMP**

- As a framework for practically addressing and monitoring the significant environmental impacts of the proposal;
- Compliance with legislative requirements and government policies;
- Evidence that the works and operations are being conducted in an environmentally responsible manner.

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**Endnote - Amendments**

Identification of environmental issues

For each issue or environmentally impacting activity:
- Policy for addressing the issue/activity;
- Performance criteria;
- Implementation strategy;
- Monitoring program;
- Details of how reporting will influence mitigation measures and how reporting is to take place.

A Site Rehabilitation Plan is prepared addressing the following matters:
- After use options, including the most likely or preferred option;
- Conceptual design of after use infrastructure;
- Proposed final surface contours;
- Capping material to be used;
- Drainage system including final discharge point;
- Provision for irrigation measures to promote vegetation growth; and
- Anticipated period of after care.
PART B - Preparation of a Cultural Heritage Report and Archival Report

A Cultural Heritage Report (CHR) seeks to ensure that development, redevelopment on, or alterations to, a Local Heritage site are undertaken in a sensitive manner that conserves and manages the cultural heritage values and significance of the site.

The purpose of the CHR is to:
- Review the cultural heritage significance assessment for the purpose of determining in detail the significance of the Local Heritage Site identified on the Cultural Heritage Areas Overlay;
- Identify the measures that will be included in the development proposal to ensure that it will not cause irreversible damage to the cultural heritage significance; and
- Demonstrate how the development will protect and promote the cultural heritage values and significance of the Local Heritage Site.

Report to be prepared by a suitably qualified person

The Cultural Heritage Report must be prepared by a suitably qualified and experienced heritage consultant with references naming other similar reports prepared by the consultant or consultants should also be included. A conservation architect may be required to be involved.

State interests

The report should include reference to any applicable State policy contexts.

Industry Standards

The report should include reference to, and be guided by the principles in the ICOMOS Australia Charter for the Conservation of Places of Cultural Heritage Significance (Burra Charter).

Report format and content

It is recommended that the proponent should consult with the Council prior to preparation of the report in order to ensure that all issues are covered in the report. As a general guide the following format and contents description indicates the depth of detail required.

Summary Introduction

Include name of developer and the heritage professional.
- Site location and description – brief statement of the location of the site and briefly outline nature of the heritage items or aspects of the site.
- Project description - summarise the proposed development.
- Include details of heritage consultant team and qualifications/ experience.

Background

- Contextual history of the site.
- Architectural/ landscape assessment;
- An analysis of the documentary and physical evidence.
- Description of the current site conditions in detail including any buildings, or structures or historic items on the site, the vegetation on the site, any prior impacts on the site, the
condition of all buildings, structures and items on the site, and the landscape character and visual amenity of the site.
- Outline of any conservation constraints and management issues.

Statement of Significance

- A review of the cultural heritage significance should be undertaken to determine in more detail the significance of the site. The review should have reference to the eight significance criteria set out in the ‘Definitions’ section of the CairnsPlan.

Scope of proposal

- Outline the nature of the proposed development:
  - the precise nature and scale of works;
  - the location of new structures, buildings or works;
  - the type of building materials to be used;
  - the possible future expansion of associated development/works.

Impact Assessment

- Identify and detail the nature of any potential impacts on the site and its significance. These impacts should show that the development has aimed to preserve, or minimise the impact on, the significance of the site. The impact assessment should show that the design of the new work has considered the following heritage considerations:
  - The design of, and materials used in, the development or redevelopment of a Cultural Heritage Site complement and not detract from the cultural heritage significance of the site.
  - The design of any new building or structure has regard to the form, bulk, height, scale, siting, orientation, roof profiles, materials and detailing of the existing buildings or structures on the site, without necessarily repeating any of the elements and decorative detailing, in particular.
  - The design incorporates such basic design features, materials and detailing as to give the development or redevelopment an external appearance in a complementary design idiom to existing buildings without necessarily repeating existing designs, in particular.
  - New development does not obscure the appearance or prominence of the Cultural Heritage Site when viewed from adjoining streets or public rights of way or obscure important vistas of the Cultural Heritage Site.
  - New development is sited so that it does not detract from or conflict with the Cultural Heritage Site. The spacing between a new building, structure or item and a listed building, structure or item is sympathetic to, and respectful of, the listed building, structure or item. The setback of any new development from the street is compatible with the existing setback of the listed building, structure or item from the street.
  - The design of alterations to a listed building, structure or item respects the location of the Cultural Heritage site within the streetscape to ensure the final development is compatible with the existing streetscape.
  - The alteration of a listed building, structure or item retains and enhances any existing external and internal architectural features or elements which are representative of the era of the Cultural Heritage site.

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The external and internal alteration is sympathetic to the architectural style of the listed building, structure or item and the streetscape so that the altered place maintains the setting in which it is located.

Ancillary buildings and structures (particularly garages and carports) are designed and constructed in a manner which is sympathetic with, and respectful of, the character of the Cultural Heritage Site, and the existing streetscape.

Landscape features which are a component of the integrity of the significance of the Cultural Heritage Site are retained and enhanced in the development, redevelopment or alteration of the place.

The impact of the proposal on the archaeological resources on the site.

Mitigation Measures

Outline the mitigation measures that will help to preserve, or minimise the impact of the development on, this significance of the site. This may include recording of historic elements prior to removal or alteration, and/or the public interpretation of aspects of the place prior to removal or alteration.

References

Listing other reference material and literature used;
List authorities consulted and contributors to the report;
Cross-reference the reference material in the text to allow easier access to information.

Appendices

Include detailed technical information collected through the investigation; and
Include relevant documents or correspondence from government authorities.

Preparation of an Archival Report

An Archival Report is required before a Local Heritage Site is demolished or partly demolished.

Demolition shall only be undertaken after the Archival report has been submitted to Council and accepted. If special dispensation is considered necessary; for example, where a structure is deemed unsafe, Council may waive this requirement on production of certification by a Structural Engineer or similar competent authority.

Minimum requirements for archival recording include:

Title page with subject, author, client, date, copyright etc

Statement of why the record was made.

Outline history of the site and associated items, structures and people.

Statement of cultural heritage significance

Inventory of archival documents related to the item and their location (e.g. company records, original drawings and photographs), when available.

As part of the archival record, a minimum requirement would be to establish the existence of such documents and to prepare a bibliography. If a site or structure is to be demolished determine the possibility of having these documents or reproductions deposited within the library or museum.

Endnote - Amendments

Location plan
Show relationship to surrounding geographical features, structures, roads etc. Include a north point. A site plan or floor plan should show any movable items.

Base plans, drafted or hand-drawn.
This should be cross-referenced to photographs and name the relevant features, structures and spaces. The base plans should show a north point and be easy to read.

Photographic Record
A photographic recording can be made using either film based technology or digital technology. (Note: colour negative film and prints are unacceptable as they are not able to sustain colours long term)

Images should include:
- views to and from the site (possibly from four compass points)
- views showing relationships to other relevant structures, landscape
- features and movable items
- all external elevations
- views of all external and internal spaces (e.g. courtyards, rooms, roof spaces etc.)
- external and internal details (e.g. joinery, construction joints, decorative features, paving types etc.).
- views and details of external and internal colour schemes as appropriate.

Black and white photographic record
One set of 35 mm black and white negatives, labelled and cross-referenced to base plans and accompanied by informative catalogues and two copies of A4 proof sheets.

Selected prints to give an overall picture of the item may be required. They should be dated and include descriptive labels.

Negatives, proofs and prints should be kept in waxed paper envelopes, not in plastic folders.

All technical details including camera, lenses, film type and processing should be recorded

Colour slides
One set of slides mounted in archival stable slide pockets, clearly labelled and cross-referenced to base plans.

Selected prints to give an overall picture of the item may be required. They should be dated and include descriptive labels.

Digital Photographic Record
Preferably use a 8 mega pixel or more resolution as this can produce high quality A4 or A3 images.

Photographs should be taken at the highest quality and recorded in the RAW format to capture the maximum amount of information. The image can be converted to TIFF format, a universal format. Do not save images as JPEG format as this degrades the image to some extent.

Endnote - Amendments
Three sets of thumbnail images sheets showing images and file numbers. Thumbnail sheets should be processed with archival stable inks using approved archival photographic paper. The thumbnail sheets should be cross-referenced to the base plans.

Three copies of archival quality CD-R discs containing electronic images and associated metadata, cross referenced to catalogue sheets. If there are a large number of images than DVD media can be used.

A set of A5 prints using archival quality paper and archival stable inks. If there are a large number of images then key or representative images may be reproduced.

**Additional Requirements May Include:**

**Catalogue or Inventory of Significant Items**

Where individual items make significant contributions to the heritage significance of a place or be of significance in their own right a catalogue of these should be prepared.

The catalogue should be compiled by a heritage consultant or conservation specialist and include information on location, history, designer, creator and previous owners. A condition report may be required.

**Other Records**

Such as oral histories, videos or films, measured drawings or samples of material and finishes.

**Storing the Archival Record**

Three copies of the archival record including the photographic record will be provided to Cairns City Council. One copy will be kept with Council, one copy provided to the Cairns City Library for its reference section and one copy provided to the Cairns Historical Society, in accordance with Article 28 of the Burra Charter.

*For Further Information refer to the following guidelines from the NSW Heritage Information Series:*

- How To Prepare Archival Records of Heritage Items, Heritage Information Series, NSW Heritage Office 1998, Sydney; and
- Photographic Recording of Heritage Items using Film or Digital Capture, Heritage Information Series, NSW Heritage Office 2006, Sydney

**Interpretative Material**

If a place is to be demolished or partially demolished interpretive material may be required. It is recommended that the proponent should consult with Council prior to preparing the interpretive material to ensure the signage is suitable.

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**Endnote - Amendments**

PART C - Preparation of a Development Plan for Reconfiguration of a Lot

A Development Plan provides the necessary planning framework to ensure that new development is planned and developed in an orderly and integrated manner.

Generally a Development Plan is prepared to obtain preliminary approval that will guide subsequent development applications.

The major components of the site are to be designed with consideration of the surrounding area. It should be clear how the proposed development will integrate into the existing or proposed planning framework of the surrounding community. However, at the Development Plan stage, site development may be shown conceptually with flexibility to allow the proposal to be refined and improved as detailed design considerations come to light.

State interests

The report should include reference to any applicable State policy contexts.

Report format and content

Each Development Plan is to contain the degree of detail appropriate to the particular proposal and its circumstances. At a minimum, it is to include a plan and/ or statement that:

- Provides a site description of the land;
- Addresses key issues including:
  - Topography, landscape, and significant vegetation and watercourses;
  - Existing environmental constraints and opportunities;
  - Existing streets and localities;
  - Existing land uses surrounding sites and their compatibility with the proposed development;
- Indicates an approximate lot or dwelling yield for the proposed development;
- Shows the location, mix and density of the range of proposed land uses;
- Illustrates how the proposal fits into the overall road hierarchy and transport network;
- Demonstrates that consideration has been given to potential subdivision and development of adjoining allotments;
- Illustrates, where applicable, the approximate location and extent of facilities proposed such as community, retail, child care, service and educational facilities;
- Illustrates the general location of public open space including open space linkages and networks;
- Shows, where applicable, the pedestrian/ cycle network and links to internal facilities, adjacent neighbourhoods and facilities i.e. Schools, places of employment, centres;
- Broadly shows physical infrastructure to be provided;
- Shows the location of major stormwater flow paths;
- Illustrates the initial concept for staging of the development;
- Demonstrates that consideration has been given to all relevant environmental issues, including those pertaining to any short term or cumulative impacts on biodiversity and cultural heritage values.
PART D – Hillslopes Assessment Report

The purpose of the Hillslopes Assessment Report is to ensure that any proposed development is based on a thorough site survey and site analysis that identifies all environmental constraints in order to preserve and prevent depletion of the hillslope character.

State interests

The report should include reference to any applicable State policy contexts.

Report format and content

It is recommended that the proponent should consult with the Council prior to preparation of the report in order to ensure that all issues are covered in the report. As a general guide the following format and contents description indicates the depth of detail required:

Hillslopes Assessment Report

Site Survey

The site survey of the land shall include but not necessarily be limited to the following:

1. Contours (at least 2 metre intervals) and slope steepness categories:
   - less than 1:6,
   - between 1:6-1:3,
   - steeper than 1:3.
2. Geotechnical details;
3. Bush fire risk;
4. Existing vegetation (areas of woodland, rainforest, scrub and grasslands);
5. Existing buildings and structures;
6. Existing land use/s;
7. Existing services infrastructure;
8. Existing roads/tracks or benches;
9. Sites of cultural heritage significance;
10. Drainage lines;
11. Other natural or built form features;
12. Ecological values (e.g. Habitat, rare and vulnerable flora);
13. Rare or endangered fauna including categories of Regional Ecosystems.

Site Analysis

The analysis task shall identify:

1. Areas that are too sensitive to develop due to the presence of gradients greater than 1 in 3 or significant vegetation or slope stability problems.
2. Slopes facing northeast through north to northwest as these are the most suitable locations for orientation of buildings, terraces, and other open space to the sun;
3. Areas that are visually exposed to other locations;
4. Major views within the site and vistas beyond;
5. Areas exposed to strong winds and areas sheltered from wind to assist in locating buildings and buffer planting;

Endnote - Amendments


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6. Areas that may require special protection, e.g. sites of cultural heritage significance;
7. Shady area which will be cool in summer; and
8. Bush fire hazard.

Geotechnical / Natural Hazard Assessment – Landslide / Slope Stability

Report to be prepared by a suitably qualified person

A geotechnical report and Natural Hazard Assessment – Landslide report will be prepared by a qualified and experienced geotechnical engineer and references naming other similar reports prepared by the consultant or consultants should also be included.

This report/s shall include, but not be limited to assessment of the following:

1. Existing site conditions, including:
   - soil type, depth and properties;
   - rock type and properties;
   - depth of weathering;
   - angles of dip of rock bedding planes and fault planes;
   - slope stability;
   - erosion stability;
   - existing surface water characteristics;
   - proposed treatments for surface water;
   - location of and concentration of ground water;
   - disposal of sewage;
   - allotment specific geotechnical assessments;
   - history of any known geological problems or occurrences on the site or adjoining property.

2. Details of measures proposed to be incorporated in the development to ensure safe and otherwise satisfactory construction practices, including:
   - Measures to be adopted to control soil and rock movement from future weathering and saturated conditions; and
   - Design matters to be considered during the construction of building foundations, roads, driveways or any other works involving the excavation or filling of any land.
   - Development of allotments and dwellings outside Landslide prone areas.

3. A slope stability report including revegetation and stabilisation measures shall be provided. The measures shall address the driveway batters (existing and any further proposed works) as well as the earthworks to be undertaken for the construction of within proposed development envelopes.

   All hillslope development proposals shall include a preliminary grading plan with summary field data and analysis relative to the topography, soils and drainage aspects, vegetation, rock outcropping.

Endnote - Amendments
The report/s shall include a statement of methodology regarding the testing procedures adopted, the scope of the report and the tests undertaken to ensure the findings of the report are representative of the site.

**Visual Assessment Report**

**Report to be prepared by a suitably qualified person**

The Visual Assessment Report will be prepared by a suitably qualified Landscape Architect or an approved professional, and references naming other similar reports prepared by the consultant or consultants should also be included.

This report shall include, but not be limited to, the following:

1. Location plan and site identification details;
2. Site survey plan,
3. Details of the proposal, with plans, levels, elevations, sections and perspectives, (where appropriate) and include:
   - site layout and design;
   - site works (including excavation and fill works);
   - building design, form, colours, materials and finishes;
   - services to be provided on site;
   - method, siting and design of effluent and stormwater drainage systems;
   - access (vehicular, pedestrian and parking within the site);
   - likely construction time and details of on-site management of buildings and works (if possible);
   - maintenance programme especially for effluent system and landscaping;
   - photographs of the site from significant public viewing points indicating the relative visibility of the site.

**Natural Hazard Assessment - Bush Fire Hazards Report**

The Bushfire Hazards Report will be prepared by a suitably qualified person and references naming other similar reports prepared by the consultant or consultants should also be included.

This report shall address the requirements of State Planning Policy 1/03 Mitigating the Adverse Impacts of Flood Bushfire and Landslide and include, but not be limited to, the following details and assessments:

- Site survey plan.
- Slope and aspect analysis.
- Details of the proposed ingress/egress.
- Details of the vegetation type and flammability and statements on the level of disturbance of the vegetation.
- Details of previous fires in the locality and the direction of travel.
- An assessment of the bushfire hazard for the subject site.
- Any existing fire protection plans or strategies endorsed by Council or State Government Agency.
- The presence of watercourses, gullies and the like on the land.
- The potential presence of underground water in the localities.
- Buildings and structures are to be located downhill from the bushfire hazard, and this is to be demonstrated on a site by site basis and building envelopes determined.
PART E – Extractive Industry Environmental Management Plan

An Environmental Management Plan shall be prepared to ensure that the extractive industry utilises mitigation measures that minimise any likely adverse impact on ecological and hydrological processes.

Report to be prepared by a suitably qualified person

The Environmental Management Plan will be prepared by a suitably qualified person and references naming other similar reports prepared by the consultant or consultants should also be included.

State interests

The report should include reference to any applicable State policy contexts.

Report format and content

The Environmental Management Plan shall address the following matters:

- Site establishment works;
- Type and quantity of materials to be excavated per year and the time period involved;
- Limits of the area proposed to be excavated;
- Method and staging of operations;
- Depth and extent of excavations;
- Existing contours of the land;
- Estimated depth and description of overburden;
- Energy efficiency measures and ongoing management plan;
- Erosion and sediment control measures during start up and for the life of the extractive industry;
- Natural and cultural heritage preservation/management during start up and for the life of the extractive industry;
- Noise control during start up and for the life of the extractive industry;
- Air quality during start up and for the life of the extractive industry;
- Vibration impacts during start up and for the life of the extractive industry;
- Resource and waste management;
- Stormwater management during start up and for the life of the extractive industry;
- Vegetation management during start up and for the life of the extractive industry;
- The capacity of the existing road system to carry the type and volume of traffic likely to use the road, during the life of the use; and
- The capacity of the proposed haul routes to carry the type and volume of traffic generated by the proposed use;
- Landscaping Plan shall be provided that details the landscaping and buffer treatments for the life of the extractive industry. The plan must provide adequate buffering of the proposed excavation from nearby drains, waterways,
roads, footpaths, buildings and other structures and buffer area management during start up and for the life of the extractive industry;

- Rehabilitation to be undertaken following completion of identified stages of extraction in accordance with a Rehabilitation Management Plan which identifies:
  a) the final landform and levels of the rehabilitated site;
  b) the location, shape and depth of any water bodies;
  c) that the site will be stable and will not be subject to erosion;
  d) that the site will be free of contaminants;
  e) that water quality downstream of the site will not be adversely affected in the future;
  f) that the water quality of any water bodies on the site will be of a standard which can support fish life and other aquatic invertebrates;
  g) the areas of the site to be revegetated and the species to be used in the revegetation;

- That the visual amenity of the rehabilitated site is consistent with the visual amenity expected for the alternative uses;

- The landform is suitable for alternative uses.
PART F – Hydrological Study

Report to be prepared by a suitably qualified person

The Hydrological Study will be prepared by a suitably qualified person and references naming other similar reports prepared by the consultant or consultants should also be included.

Introduction

A detailed hydrologic and hydraulic study is required to demonstrate that the proposed development would not create adverse flooding impacts upon external properties during design flood events ranging from 2 year ARI to 100 year ARI (in terms of peak water level, discharge or velocity). Modelling shall also demonstrate that flood immunity consistent with the requirements of FNQROC Development Manual will be provided.

Model Development

Development of detailed hydrologic and hydraulic models is required. These models may be based upon those previously developed and accepted by Council.

Sensitivity Testing

In recognition of the sparsity of calibration information, a sensitivity test shall be undertaken using both the hydrologic and hydraulic models to investigate the impact of model parameters upon peak water level predictions. Parameters shall be varied within generally accepted ranges. Parameters to be varied include the storage lag parameter ($\kappa$) within URBS and the hydraulic roughness coefficient ($n$) within MIKE11. Simulations shall be undertaken assuming upper bound, lower bound and median values as discussed further below.

Existing Case Simulations

Existing case model results shall be produced for The Waterway flood events ranging from 2 year ARI to 100 year ARI, assuming model parameters determined from the sensitivity tests. A range of tailwater levels shall be investigated (with reference to the Drainage Management Plan as available) to confirm any impact upon peak water levels at the site. The existing case simulations shall assume that current and already approved development is in place. The adopted existing case flood level predictions shall assume median values for the model parameters ($\kappa$ and $n$).

Developed Case Simulations

Developed case hydrologic and hydraulic models shall be produced. The proposed development shall be represented in the hydrologic and hydraulic models, considering:

- any earthworks within the extent of 100 year ARI flood event inundation; and
- urbanisation of the site.
Design event simulations consistent with the existing case shall be undertaken using the developed case models.

Impact Assessment

Comparisons of the developed case results and existing case results shall be used to demonstrate that proposed development would not adversely impact properties external to the site under Waterway flood events of the magnitudes specified. Impacts shall be calculated assuming median and upper bound model parameter values (\(x\) and \(n\)).

Particular locations where this should be demonstrated, shall be agreed to by the applicant/owner and Council prior to finalising the Study, and shown on a plan.

Flood Immunity

Model results from the developed case simulations must demonstrate that flood immunity consistent with the requirements of Council's Development Manual. Fill level and floor level requirements shall be determined assuming median model parameter values (\(x\) and \(n\)). Additionally, floor levels shall be checked against upper bound water levels.

Deliverables

A Hydraulic Report shall be submitted to Council to describe the methodologies used, assumptions made and present the modelling results. The report shall include Figures to illustrate models details and results. Sufficient information shall be provided in the report to facilitate independent review of the assessment. Electronic copies of the final models shall be provided to Council for independent review.

Development in the Barron Delta

Council intends to control the management of future development within the Barron Delta in particular the effects of flooding. It is intended that the findings of the Barron Delta Study will form the basis on which Council will consider development proposals with regard to flooding.

The documents “Barron River Delta Flood Study – Development in the Delta” Parts A and B are a guide by which potential developers, consultants and other technical users can gain an understanding of how Council will deal with future development and provide protection to existing properties.

The “Barron River Delta Flood Study – Development in the Delta” Parts A and B (Revision A October 94) includes the following components.

Part A – Technical Guide

Part A explains the aims and results of the study and describes the computer model, which was developed as part of the study. Various drawings are included to provide information on design flows and flood levels.

Part B – Policy

Endnote - Amendments

This document sets out Council’s policy on development in the Barron River Delta. Included with this document are details of the procedure to be followed in using the model in association with any development application or when undertaking detailed design.

Council has adopted the numerical hydraulic model developed during the Barron River Flood Study and subsequently updated as the yardstick by which all development proposals are judged. The adoption of a single model operated and interpreted by those skilled in its development and use is intended to ensure that all proposals are dealt with in a consistent and objective manner.

Individual development applications are to be considered in detail using the Barron Delta Flood Model so that the effects on flooding can be assessed both in respect to the project itself and to other areas within the delta.
PART G - Vegetation Conservation / Waterway Significance

Report to be prepared by a suitably qualified person

The Reports will be prepared by a suitably qualified person and references naming other similar reports prepared by the consultant or consultants should also be included.

State interests

The report should include reference to any applicable State policy contexts.

Report format and content

It is recommended that the proponent should consult with the Council prior to preparation of the report in order to ensure that all issues are covered in the report. As a general guide the following format and contents description indicates the depth of detail required:

Vegetation Conservation

A detailed vegetation survey and assessment of the existing vegetation is required to identify the impacts on existing vegetation as a result any proposed development.

Waterway Significance

Demonstrate that no lining or engineering of the waterway channel, bed or banks will occur or if engineering works are essential because of pre-existing conditions:
  a) demonstrate the environmental management measures to mitigate the impacts of the works;
  b) demonstrate that in-stream habitat elements such as fallen logs, overhangs and rocks are to be left in situ, replaced or restored;
  c) provide channel designs which simulate, as near as practicable, natural waterway conditions with meanders, pools, riffles and bars;
  d) provide hydraulic calculations which allow for the presence or establishment of a vegetated (closed canopy) waterway area to improve bank stability and in-stream ecological values and to restrict weed growth.
  e) Demonstrate that development does not damage the root zone of vegetation through compaction, excavation or filling.

Other matters are to be determined on a site by site basis.
PART H - Natural Hazard (Bushfire) Management Plan

Report to be prepared by a suitably qualified person

The Bushfire Management Plan will be prepared by a suitably qualified person and references naming other similar reports prepared by the consultant or consultants should also be included.

State interests

The report should include reference to any applicable State policy contexts.

Report format and content

It is recommended that the proponent should consult with the Council prior to preparation of the report in order to ensure that all issues are covered in the report. As a general guide the following format and contents description indicates the depth of detail required:

For Development in High Bushfire Hazard Areas (except single dwellings on existing lots)

The Bushfire Management Plan shall include the following:

1. a. An assessment of the nature and severity of the bushfire hazard affecting the site. The key factors to be considered are vegetation type, slope and aspect as described in Appendix 3 of the State Planning Policy Mitigating the Adverse Impacts of Flood, Bushfire and Landslide Guideline. The assessment should also address other site-specific factors that are important in devising suitable bushfire mitigation strategies. These factors could include matters such as: likely direction of bushfire attack, environmental values that may limit mitigation options, location of evacuation routes and/or safety zones.

b. An assessment of the specific risk factors associated with the development proposal, including matters such as the nature of activities and materials to be conducted/stored on the site, numbers and types of persons likely to be present, particular warning and/or evacuation requirements.

c. A plan for mitigating the bushfire risk identified in (a) and (b). The plan should address all of the matters raised in Appendix 5B of the State Planning Policy Mitigating the Adverse Impacts of Flood, Bushfire and Landslide Guideline and recommend specific mitigation actions for the proposed development including:
   - road and lot layout and land use allocations;
   - firebreaks and buffers;
   - building locations or building envelopes;
   - landscaping treatments;
   - warning and evacuation procedures and routes;
   - fire fighting requirements including infrastructure;
   - any other specific measures such as external sprinkler systems and alarms;
   - purchaser/resident education and awareness programs; and
• ongoing maintenance and response awareness programs.

2. The level of detail required will vary with the nature of the development proposal and site, and with the type of development application.

3. If the application must be followed up by another application before works can commence (e.g. a Material Change of Use application that must be followed by a Reconfiguring a Lot application), then matters of detail could be dealt with at the latter application stage.

4. The level of detail required to accompany a particular application should be determined in consultation with the assessment manager. However, it is recommended that, at a minimum items (a), (b) and (c) (1) – (3) outlined above should be addressed in and BMP.
PART I - Landscape Plan

Report to be prepared by a suitably qualified person

The Landscape Plan will be prepared by a suitably qualified person and references naming other similar reports prepared by the consultant or consultants should also be included.

Report format and content

It is recommended that the proponent should consult with the Council prior to preparation of the report in order to ensure that all issues are covered in the report. As a general guide the following format and contents description indicates the depth of detail required:

The landscape plan should show, where relevant:

a. all existing trees with a girth of greater than 0.5 m measured at 1.5 m above Ground Level or of greater than 4 m Height (and indicating which trees are proposed to be retained) and other natural features, such as watercourses and rock formations;

b. the function of planting areas (e.g. screen planting, enhancement etc.), plant spacing and species to be used;

c. the general surface treatment of landscaped areas e.g. paving, mulched gardens, lawn;

d. the location and type of fencing to the frontage and boundaries (e.g. 2 m mesh security fence, 1.8 m timber fence etc.);

e. existing and proposed finished ground levels indicating in particular:
    i. the approximate Height of any mounding;
    ii. the extent of any Excavation and/or Filling greater than 0.5 m in Height and greater than 150 mm where within the drip line of any existing tree;
    iii. the location and type of any retaining walls; and
    iv. site drainage.

f. where the development adjoins a residence, or other use that is sensitive to amenity considerations such as aesthetics, light spill, noise or dust pollution, overshadowing or reduction in privacy, the location of the adjacent impact sensitive buildings and areas e.g. show the location of the child care building and play area if it is adjacent to a proposed industrial or commercial development; and

g. where the development is of a type that is likely to be adversely impacted upon by an existing or proposed use or development on adjacent land, the location and type of that impact’s source, e.g. show any open storage area or industrial use adjacent to the proposed development if the proposed development is for a residence or other sensitive use.
PART J – Social and Community Impact Assessment Report

Social Impact Assessment (SIA) is the analysis and management of social changes and impacts on individuals, groups and communities that are likely to occur as a result of a particular development, planning scheme, or policy decision (Department of Families, Youth, and Community Care 1998).

Social impacts are significant events experienced by people as changes in one or all of the following (Armour 1992):
- people’s way of life – how they live, work, play and interact with one another on a day-to-day basis;
- their culture – shared beliefs, customs, values, and practices;
- their community – its cohesion, stability, character, networks, services and facilities.

Purpose of this information request

- To encourage more socially sustainable development;
- To provide or expand on existing information about a site and a local community in order to assist in the development assessment process;
- To minimise adverse impacts on individuals, groups, and local communities, and to maximise the beneficial impacts of the development;
- To inform and involve community members in decisions which affect them.

Principles

The steps involved in the SIA process are underpinned by a specific set of principles

- Involve the diverse public in all stages of the SIA;
- Analyse impact equity;
- Focus the assessment;
- Develop methods and assumptions in collaboration with the Council;
- Identify both the positive and negative impacts;
- Use professional SIA practitioners to undertake assessments;
- Plan for gaps in data;
- Focus on the desired outcome of sustainability.

Key Elements of Social Impact Assessment

SIA has three broad functions:
- Identifying social issues and potential social impacts relevant to particular developments and policies for particular communities and circumstances;
- Assessing those impacts, in terms of their magnitude, duration and the probability of their occurrence;
- Recommending measures that will reduce negative impacts and enhance positive impacts of a development or a decision;
- What developments require social and community impact assessment?;
- Developments that require an EIS;
- Development that is inconsistent with the planning scheme provisions for the local area;
- Development that has a cumulative (time and space) impact, e.g. boarding house redevelopment or demolition, caravan park redevelopment or demolition, loss of agricultural land to residential development, new residential suburbs or other large housing developments, loss of character areas and community space to new development;
- Development that is of regional significance and/or of significant public interest, e.g. large scale infrastructure projects, hospital or health care extension or development, shopping centres, transport links and interchanges;

Endnote - Amendments

- Development that is likely to result in a significant change in population characteristics (numbers, densities, profile), e.g. large-scale residential developments, tourist developments;
- Development that may impact on the need for or existing capacity and operation of community infrastructure, e.g. expansion and development of sports facilities, expansion or development of educational facilities, intensive residential developments, loss of existing parklands and community recreational areas to new development;
- Development that may impact on a particular target group, e.g. amusement centres, child care centres, housing for older people and people with a disability, group homes, large cultural or religious centres, public open space, refuges and shelters, youth centres;
- Development that has the potential to have substantial impacts on the existing social fabric, character or wellbeing of the immediate and surrounding area, e.g. commercial development, industrial development, relocatable home parks, tourist development;
- Any other circumstances where there is likely to be significant community concern, e.g. brothels, redevelopment of old industrial sites.

Preparation of a Social Impact Assessment Report

Report to be prepared by a suitably qualified person

The report should be prepared by a person qualified and experienced in carrying out social impact assessment.

State interests

The report should include reference to any applicable State policy contexts. The Department of Communities has lead agency status in terms of social impact assessment in Queensland, and employs a Social Planner in their Regional Office in Cairns.

Steps in social impact assessment

<table>
<thead>
<tr>
<th>Step 1</th>
<th>Screening – does the development proposal require a social impact assessment?</th>
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<tbody>
<tr>
<td></td>
<td>A designated council officer will decide which development applications require some form of social impact assessment (SIA). It is at this stage that the level of assessment should be defined in line with available resources and significance of the proposal. An agreed Terms of Reference (ToR) for the assessment process is established by the proponent in consultation with the Council officer. Any decision not to conduct a SIA needs to be noted on the file.</td>
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<th>Step 2</th>
<th>Scoping – identifying issues and affected groups.</th>
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<td></td>
<td>The proponent undertakes scoping activities that identify the main issues of concern and the range of likely potential social impacts. This stage of the assessment process includes notification and consultation with all relevant stakeholders including local community leaders and members.</td>
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</table>

Endnote - Amendments

### Step 3: Profiling – data collection, identifying historical trends, assessing current social context.

To assess the potential social impact/s of a proposed development, it is important to understand and analyse the existing social conditions within the community. The proponent uses profiling methods to establish base line information. Social profiles, social plans, safety audits, community needs assessments, cultural plans, community infrastructure plans, local area plans, the strategic sport and recreation plan, and the Corporate Plan can all be used to determine what impact a project may have on the social wellbeing of people in the community.

### Step 4: Predicting – identifying future possible impacts.

Using the baseline data, the type of impacts that are likely to occur are determined by the proponent. At this stage, a number of questions should be asked:

- Who will be affected? In what way? How long will the impacts last? What level of social change would occur if the development did not go ahead?

Also, different scenarios should be addressed, including:

- the future social environment with the development;
- the future social environment without the development.

### Summary of steps involved in social impact assessment for Cairns City Council

<table>
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<th>Step 5</th>
<th>Assessing – analysis of the impacts.</th>
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<td>The predicted impacts from step 4 are assessed by the proponent based on their level of importance. Significant impacts should be separated from the less significant ones. The significance of a predicted impact will have been determined through the process of consultation and negotiation with key interest groups.</td>
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Assessing can be done by categorising impacts against different criteria, including:

- Magnitude,
- Weighting,
- Duration,
- Current conditions,
- Future conditions,
- Local policy goals or community sustainability indicators.

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<tr>
<th>Step 6</th>
<th>Evaluating – evaluate social impacts and develop mitigation measures.</th>
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<tr>
<td>The proponent evaluates impacts of the proposal, which takes into account measures for managing impacts that might help prevent or alleviate negative social and community impacts, as well as maximising any benefits.</td>
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<tr>
<th>Step 7</th>
<th>Recommending – whether the development should be approved and what mitigating measures should be adopted.</th>
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</table>
### Recommending approval:
The assessment undertaken by the proponent needs to address specific management measures. These measures should include appropriate conditions of approval relating to the development designed to prevent or alleviate negative social impacts and/or maximise social benefits. This should be negotiated with Council.

### Recommending refusal:
If the recommendation by the proponent or the Council is for refusal, the social impact assessment should fully justify this course of action. This should be based on the evidence presented in the assessment and the level of significance of the impacts. The assessment must be able to stand up in the Planning and Environment Court.

### Summary of steps involved in social impact assessment for Cairns City Council

<table>
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<tr>
<th>Step 8</th>
<th><strong>Deciding</strong> – the Council either approves the development, with or without conditions, or it refuses the application.</th>
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<tr>
<td></td>
<td>If the development is refused the process ends here; otherwise the next stage is entered into – that is, monitoring. All relevant stakeholders should be informed about any conditions of consent. This should include the conditions themselves and what steps will be taken to ensure they are fully complied with.</td>
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### Monitoring – monitoring both conditions of consent and the social impacts of the development.

**Monitoring conditions of consent:** all social impact conditions should be followed up by the relevant Council officer. Failure to comply with conditions needs to be resolved early. Some developments may have conditional consents for a period of time, so a follow up social impact assessment may be required at the end of a trial period.

**Monitoring social impacts:** the social impacts of particular developments and categories of development should be routinely monitored. This may involve establishing databases on various types of information. Special studies may be commissioned, such as post-occupancy surveys of new housing estates, recreational needs studies, and housing studies.

### Report format and content

It is required that the proponent consults with the Council prior to preparation of the report in order to identify an appropriate and agreed **Terms of Reference** for the report. As a general guide the following format and contents description indicates the depth of detail required.

**Site location** - 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.
Define the scope of the issues and impacts of the proposal – identify key interest groups, and the significant positive and negative issues and impacts relating to the proposed development.

Existing social and community environment – establish baseline community characteristics and conditions of the agreed catchment area, including: an overview of the socio-demographic profile and changes over time; key interest groups and their characteristics and needs; a review of the provision and capacity of existing community services, networks and infrastructure; cultural heritage and Indigenous interests and issues; local development and economic trends affecting different groups; housing issues; accessibility and mobility issues; safety issues; and other relevant local social and community issues.

The predicted social and community impacts - summarise the main potential impacts of the project (direct, indirect and cumulative), both beneficial and detrimental, and any alternatives, on particular groups and communities likely to be affected.

The communities or groups likely to be affected – outline the existing and future communities likely to be affected by the immediate and long-term impacts of the project in a local, regional and city-wide context.

The proposed response to manage the impacts - summarise the strategies and amendments proposed to minimise any adverse impacts and maximise the community benefit of the proposal. Include any links to such things as community infrastructure contributions, and clear recommendations for progressing the proposal.

The affected community’s perspective of the proposed responses – summarise the process of gaining the community’s perspective on these responses and their feedback. Include how this feedback has been considered in refining responses and final recommendations.

Documentation of the methods and rationale for the conclusions reached – include in this an outline of your Community Engagement Plan and findings, and any measures taken to advise the affected communities of the findings of this SIA.

Appendix – detailed information and findings should be outlined in an Appendix document attached to the main report.

Assessing the likely impacts

Council will assess the level of importance of the predicted impacts and examine the proposed responses to the impacts, taking into account alternatives that are proposed. Consideration in determining the significance of the social and community impacts includes:

- the number of people likely to be affected;
- principles of social justice, i.e. equity, access, fairness, intergenerational impacts;
- the extent to which the interests of the community as a whole are enhanced or sustained;
- the degree of change likely to arise as a result of the development relative to the existing circumstances, and the significance of this change;
- the duration and nature of the impact/s;
- the importance of the objectives of the proposal in relation to Council’s Corporate goal of achieving sustainability;
- whether the impacts would represent a good planning outcome for Cairns.

Social Impact Management Plans

Endnote - Amendments
Once a development is approved, a Social Impact Management Plan (SIMP) may be required to document measures to be implemented to manage the predicted impacts of a proposal. These can apply for the life of the project, including construction and operational stages. The plan is to establish required levels of performance for the development, a monitoring regime for checking performance and strategies for rectifying any diversion from these levels.

The information requested by the assessment manager and/or referral agencies to be included in the plan will vary for each development proposal. The content of the plan will vary depending on the nature and scale of the development, the characteristics of the site and surrounding community, and the impacts generated by the proposal.

The plan must detail the management strategies to be implemented for identified impacts, and must include specific performance indicators. The plan will include:

- All potential impacts;
- Performance criteria establishing acceptable levels of impact;
- Mitigating strategies for minimising identified impacts;
- Monitoring and reporting processes to enable performance against the performance criteria to be measured;
- A contingency plan or corrective actions to be implemented if an undesirable or unforeseen level of impact occurs;

Procedures for monitoring and reporting, and periodic review and updating of the plan.

Useful references that may assist in preparing the Social Impact Assessment Report and Social Impact Management Plan are:

- Mina Mir Lo Allan Mun: Proper Communication with Island People, Office of Aboriginal and Torres Strait Islander Affairs. Available from Department of Communities.
- Protocols for Consultation and Negotiation with Aboriginal People, Office of Aboriginal and Torres Strait Islander Affairs. Available from Department of Communities.