

C7557 Terms of Reference for Preliminary Environmental Assessment

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Feedback

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1 Introduction

This document specifies the requirements of a *Preliminary Environmental Assessment* completed as part the desktop assessment of the environmental process for a project.

1.1 Purpose of the Preliminary Environmental Assessment

The purpose of the *Preliminary Environmental Assessment* is to make an early assessment of environmental factors that could be impacted by a project, and that could impact delivery of a project. The *Preliminary Environmental Assessment* identifies potential environmental impacts and opportunities that could have a major or severe consequence¹ on the project. The *Preliminary Environmental Assessment* should not assess and catalogue potential environmental impacts that will be managed under standard environmental management processes.

The intended outcome of the *Preliminary Environmental Assessment* is to determine:

1. the risk for each environmental factor
2. major constraints and opportunities for the project
3. the impact of the environmental constraints on project delivery
4. indicative costs for future environmental assessment and management.

1.2 Assessment area

The area to be assessed in the *Preliminary Environmental Assessment* shall include the full known project footprint (including alignment options) as well as a suitably sized buffer zone to allow for ancillary construction impacts and minor scope creep. Determination of a suitable buffer zone should also consider surrounding land uses that may impact the project area, for example, contamination of groundwater. This area will be referred to as the assessment area.

1.3 Project scope

The project scope that the assessment is based on shall be identified in the *Preliminary Environmental Assessment*. The Project scope needs to identify the likelihood of the following activities:

- Geotechnical investigations
- Public utility relocations
- Side tracking
- Materials sourcing and spoil disposal
- Construction laydown, stockpiles, and offices.

¹ Refer to the definitions for Consequence in the Transport and Main Roads Risk Matrix in Appendix B

1.4 Suitably qualified personnel

All work undertaken for the *Preliminary Environmental Assessment* must be performed by Suitably Qualified and Experienced Personnel.

A person is considered to be suitably qualified and experienced if they possess a degree in environmental science, environmental planning, environmental engineering or similar from a recognised tertiary institution, and have at least five years of relevant experience in environmental assessment. If the author does not have more than five years relevant experience, they must be supervised, or the report reviewed, by a suitably qualified person that does.

Submission of the report must be accompanied by details of the author and supervisor / reviewer, including relevant qualifications and experience.

1.5 Mapping and spatial data

In all instances where the Terms of Reference (ToR) specifies the collection of spatial data, preparation of maps, preparation of spatial datasets and display of spatial co-ordinate the following requirements apply:

- The Standard Australian Government datum is to be used – GDA2020.
- Coordinates are to be displayed as Latitude / Longitude and as grid co-ordinates in the appropriate Map Grid of Australia (MGA) Zone (54, 55 or 56). The MGA Zone used must be noted on every table where co-ordinates are listed.
- The method used to derive the spatial data needs to be specified and the level of accuracy noted.
- Maps, figures, plans and aerial photos should include:
 - north points
 - GPS datum identifier
 - legend
 - labelled points / sites
 - data source and date
 - scale, and
 - a location key if necessary, where multiple photos / maps / plans / figures are spread along a route.

2 Desktop Assessment

2.1 Rapid Desktop Checklist

The Rapid Desktop Checklist (Appendix C) must be used to review the datasets applicable to the project. For each dataset, determine the consequence of the project. Datasets with Severe and Major consequences must be included in the constraints and opportunities map and summary of constraints table.

The Rapid Desktop Checklists identifies the factor for each dataset. The highest consequence for each factor must be determined and recorded in the Assessment Summary. The likelihood for each factor is determined and the risk calculated for the factor. The factor risk is given a value in accordance with the table of risk level values in the 'Lookups' tab of the Rapid Desktop Checklist. The factor risk values are summed to determine the level of impact that the environmental constraints will have on project delivery (time and costs) in accordance with the 'EnvConstraintsImpact2Project' table in the 'Lookups' tab of the Rapid Desktop Checklist.

The assessment must use the risk dimensions and definitions show in Appendix B.

2.2 Preliminary Environmental Assessment Report structure

The Preliminary Environmental Assessment report must include the following information:

- The project scope and assessment area.
- Summary of the Rapid Desktop Checklist results, factor risk assessments and impact of the environmental constraints on project delivery (with the Rapid Desktop Checklist attached as an appendix).
- Constraints and opportunities map (or maps) of the assessment area.
- Summary of the constraints highlighting the issues and impacts on the project.
- Recommendations for future assessment, management, and estimated costs.

Appendix A provides a basic example of a typical constraints map and table.

3 Legislative review and offsets

The *Preliminary Environmental Assessment* shall consider implications for the proposed project options in relation to major Commonwealth and State legislative requirements and triggers. This shall be documented in the Rapid Desktop Checklist. The purpose of this review is to determine permits and approvals required under Commonwealth and State laws. A legislative review shall be undertaken to determine:

- permits and approvals required under Commonwealth, State laws²
- non-statutory approvals requirements (such as *State Government Supported Community Infrastructure Koala Conservation Policy*) as well as applicable self-assessable guidelines and codes (in accordance with State policy) that may also be applicable to the project
- other obligations required for compliance with legislation, and
- determine the potential for offsets to be triggered by the project.

Where major or severe legislative triggers are identified, a summary shall be provided that identifies the:

- Approval / Obligation / Requirement
- regulatory authority

² The department is exempt from complying with local laws under *Local Government Act 2009* and *City of Brisbane Act 2020*. The department is also exempt from having to obtain approval from local government for construction and maintenance of departmental infrastructure under *Planning Regulation 2017*.

- possible actions to avoid the trigger
- actions to be undertaken to address the trigger (including additional information requirements, surveys), and
- impact to the project (cost, time, political, reputation).

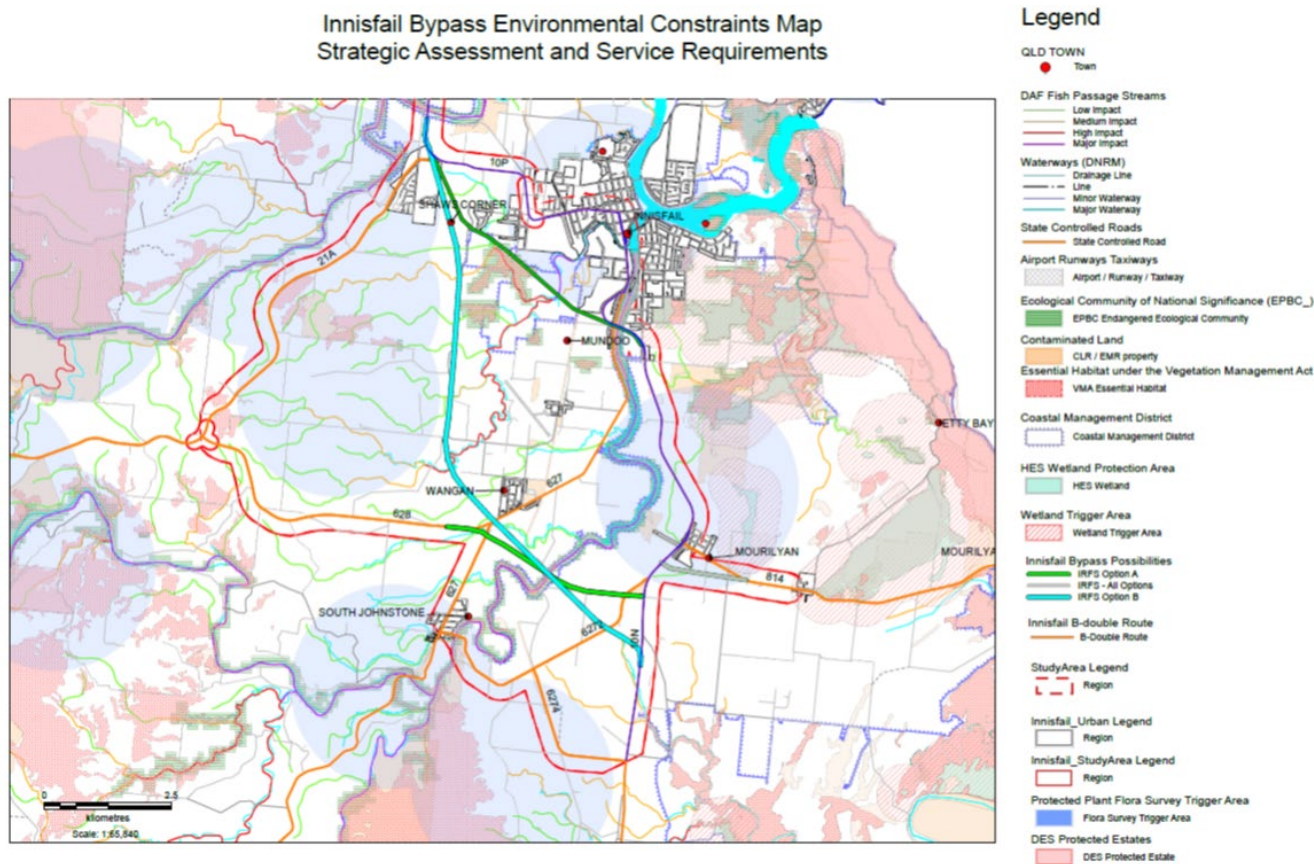
Where there are likely to be significant commitments that extend past project finalisation, these must be identified within the *Preliminary Environmental Assessment* to ensure sufficient funding is available. Commitments may include ongoing maintenance of offset sites for the life of a permit. Where further information is required to determine whether a permit, approval or obligation applies, then the Contractor is required to document likely costs and timeframes for approvals³.

4 Future assessment, management and estimated costs

It is critical that the costs associated with major and severe consequences are estimated. This should include costs associated with detailed assessments, approvals, offsets, maintenance, and monitoring beyond the end of the project.

³ Note that in some instances, projects may be eligible for a discounted assessment fee through the State Assessment and Referral Agency for community infrastructure. Where Development Approval applications are submitted to SARA, a letter should be sent to request consideration for a reduced SARA assessment fee.

Appendix A – Example for Section 3 and Section 4 of Preliminary Environmental Assessment



Constraint	Issue	Impact on Project
EPBC Listed Threatened ecological community	<p>Severe</p> <p>Impacts on the EPBC listed threatened ecological community will require full ecological assessment.</p> <p>Potential referral to the Commonwealth Dept of Environment</p>	<p>A detailed ecological assessment is likely to take 6 months (to accommodate seasonal investigations) and costs \$100K.</p> <p>The current cost of for referring a project for a controlled action determination is \$6577.</p> <p>Referral can take 6 – 18 months to negotiate conditions and resolve offset requirements.</p> <p>Offsets costs will be in addition to the previously described costs and require further investigation to quantify. It can be in the order of \$1M when considering the additional investigations, purchase of land-based offsets and ongoing maintenance of offset areas.</p>
Number of Waterways mapped for waterway barrier works	<p>Major</p> <p>All options for the bypass will involve significant upgrades or construction of new waterway crossings on fish passage waterways. It is likely that approvals for waterway barrier works will be required.</p>	<p>All culverts and bridges will need to incorporate fish passage requirements in the design.</p> <p>Infrastructure on Red or Purple fish passages will require a Development Application which may take 6 – 12 months. Additional hydrological investigations will be required to support these applications.</p>

Appendix B – Transport and Main Roads Risk Assessment and Ratings Matrix abridged

Risk Dimensions		LIKELIHOOD LEVELS					
		Rare	Unlikely	Possible	Likely	Almost Certain	
Environmental		0-5%	6-30%	31-60%	61-90%	>91%	
		This event may have happened previously in TMR or 'like' organisations. Not expected to occur in TMR in the foreseeable future.	The event has occurred infrequently in TMR or 'like' organisations. Occurrence in TMR would be considered highly unusual.	This event may have occurred occasionally in TMR or 'like' organisations. Distinct possibility of occurrence.	This event may have occurred in TMR or 'like' organisations on a regular basis. Occurrence within the financial year.	This event occurs frequently within TMR.	
CONSEQUENCE LEVELS	Severe	Irreversible impact on the environment including ecosystems and air quality or community health impact that covers a wide area, or is of high intensity, and/or is difficult to contain. Irreversible impact to conservation areas or Endangered Vulnerable and Near Threatened species. Significant breach of legislation resulting in prosecution. Potential for inquiry and widespread high-level public concern. Ministerial Intervention.	MEDIUM	HIGH	HIGH	EXTREME	EXTREME
	Major	Medium to long-term impact on the environment including ecosystems and air quality or community health impact that requires specific specialist actions to contain. Major breach of environmental legislation (including restoration orders). Potential for high level public concern in a regional area. D-G Intervention.	MEDIUM	MEDIUM	HIGH	HIGH	EXTREME
	Moderate	Temporary impact on the environment where the impacts are on a medium scale. Breach of or non-compliance with environmental legislation. Potential for moderate public concern.	LOW	MEDIUM	MEDIUM	HIGH	HIGH
	Minor	Short-term impact on the environment limited to a small area and can be rectified using an existing process. Non-compliance with environmental legislation not resulting in environmental harm but with minor potential environmental impact e.g. environmental nuisance.	LOW	LOW	MEDIUM	MEDIUM	MEDIUM
	Insignificant	Minimal short-term effect on the environment. Minor to no action required for management or containment. Administrative breach of legislation that could not be anticipated or prevented with no environmental harm.	LOW	LOW	LOW	MEDIUM	MEDIUM

