

**A**

# **PART A**

# **Project Environmental**

# **Assessment**



# PART A

## Project Environmental Assessment

A

### A.1 Purpose

The purpose is two-fold.

1. To confirm the assessment process under which a project will be assessed (ie. internal process, with or without one or more of the external assessment processes).
2. To determine the actual and potential environmental impacts (both positive and negative) of the project/activity.

### A.2 Responsibility

It is the responsibility of the project manager or their delegate to ensure that Project Environmental Assessment is undertaken. The project manager is responsible for ensuring that the relevant environmental considerations have been identified and incorporated into the environmental assessment. The project manager may seek advice from an Environmental Officer or another suitably qualified person.

The assessment includes the following tasks.

- Determining the level of assessment necessary.
- Deciding who can undertake the assessment (either internal staff and/or external consultants) and carry out the assessment.
- Reviewing the triggers for external assessment processes to determine which process is to be followed.
- Reviewing additional environmental approvals/permits/licences requirements.

- Delivering a report that collates the above information.

### A.3 Timing

Project Environmental Assessment is to be carried out during the preparation of the Options Analysis phase. The collection of information about the existing environment and identification of potential impacts enables the environmental costs and benefits to be compared between different design solutions.

### A.4 Content

#### Task 1 - Determine the level of assessment

There are several benefits in determining the appropriate level of assessment.

- Cost savings - being able to target the assessment of each environmental element in line with the level of risk and other projects on the program reduces unnecessary assessment costs and achieves value-for-money.
- Avoiding project delays - by identifying all relevant environmental constraints and approval process should streamline project delivery.
- Improving Main Roads environmental performance - technically suited environmental assessments will contribute value to the design and construction of a project. This will also continually improve the environmental performance of Main Roads and the perception of Main Roads' environmental

performance in the community.

- Achieving government outcomes - undertaking the appropriate level of assessment helps to establish the actual and potential environmental impacts and therefore works towards achieving the government's outcomes (refer to Preface for explanation of government outcomes).

**A**

There are fourteen environmental elements that should be addressed as a minimum for each Main Roads road project.

- Water quality
- Hydrology/hydraulics
- Fauna
- Flora
- Soils/topography/geomorphology
- Noise
- Air quality
- Land use and planning
- Landscape and visual amenity
- Cultural heritage
- Social and economic issues
- Climate (seasonal constraints)
- Waste management
- Legislative requirements

Each of the above elements may be assessed in varying levels of detail. Several factors will determine the level of assessment for each element. While the scale of works may provide some indication of the level of assessment necessary, the principle determinants should be the potential to cause environmental harm. This includes consideration of the proximity to significant environmental areas, and sensitivities among the community.

Three levels of assessment (high, medium or low) have been developed for ten of the fourteen environmental elements (see Appendix C). The level of assessment for climate, waste management and legislative requirements are common to all assessments, while assessments related to cultural heritage and public consultation are discussed elsewhere (refer to the Main Roads Cultural Heritage Manual 1998 and Main Roads Public Consultation Policy and Guidelines).

A series of questions to help identify the appropriate level of assessment for each environmental element is provided in Appendix C. In addition, an example terms of reference for each of the key issues/ activities and the minimum outputs associated with each level of assessment is also provided in Appendix C. Appendix C may be used by Environmental Officers when undertaking an internal assessment or used to develop a 'brief' or 'terms of reference' if employing external consultants to undertake the assessment.

The information required to determine the appropriate level of assessment should have been collected during the Corridor Planning phase (Phase 3 of the strategic framework for road system asset management). Alternatively, a short scoping study may be required to better identify the level of assessment appropriate for the project.

Once the appropriate level of assessment has been determined, the next task is to establish who can undertake the assessment.

## **Task 2 - Decide who can undertake the assessment**

Several factors will influence who can undertake the assessment.

- The availability and expertise of the Environmental Officer.
- The budget available.

- The level of assessment as identified above.
- Community expectation.
- Scale of the project.
- Environmental significance/risk associated with the project.

The project manager should discuss these factors with the Environmental Officer or appropriately qualified person to determine whether the assessment will be undertaken in-house or by a consultant (or a combination of both).

### **Task 3 - Review assessment process triggers**

At the time of publication (2004) there are four external environmental assessment processes of relevance to Main Roads projects. A fifth process associated with an Environmental Impact Statement under the *Environmental Protection Act 1994*, is not triggered directly, rather it is used on a voluntary basis.

The four external assessment processes are not mutually exclusive. Therefore, any one Main Roads project may need to be assessed using one or more of these processes. The level of information to be collected under each process differs, and may add up to six to twelve months to the assessment timing. Therefore it is beneficial to determine the process to be followed early in the Concept Phase.

The four external assessment processes are as follows.

1. The Commonwealth process as administered under the *Environment Protection and Biodiversity Conservation Act 1999*.
2. The state process administered by the Department of State Development under Section 26 of the *State Development and Public Works Organisation Act 1971*.

3. The state assessment process under the *Integrated Planning Act 1997*.
4. The Commonwealth process administered by the Federal Department of Transport and Regional Services under the *Australian Land Transport Development Act 1988*.

A brief description of each of the four external assessment processes is provided below (refer to the Main Roads Environmental Legislation Register for more details).

### **Assessment Process 1 - Environment Protection and Biodiversity Conservation Act 1999**

#### **Background to the Act**

The Commonwealth *Environment Protection and Biodiversity Conservation Act 1999* (EP&BC Act) commenced on the 16th July 2000.

Before the EP&BC Act, Commonwealth involvement in Main Roads projects was only required for those projects that received federal funding (i.e. blackspots, National Highways). The Commonwealth is now able to be involved in any activity that is likely to have a significant impact on the environment of Commonwealth land, and/or on a matter of national environmental significance. As such, Commonwealth involvement may be required on any Main Roads project, not simply those with federal funding.

The Commonwealth may, through bilateral agreements, delegate to the States the process under which the environmental assessment is conducted. However, a bilateral agreement with Queensland had not been reached at the time of publication of this manual (2004). Therefore, until such an agreement has been reached, Main Roads projects that trigger the EP&BC Act are to follow the Commonwealth assessment process.



### **How is the Act triggered?**

The EP&BC Act is triggered if an action is carried out which has, will have, or is likely to have a significant impact on the environment of Commonwealth land, and/or on a matter of National Environmental Significance (NES matters). Commonwealth land includes federally owned airports and defence lands. Matters of National Environmental Significance are as follows.

- World Heritage properties.
- Ramsar wetlands.
- Nationally threatened species and ecological communities.
- Migratory species.
- National Heritage List.
- Commonwealth marine areas.
- Nuclear actions (including uranium mining).
- Heritage.

Appendix D provides a checklist of the triggers to be addressed when determining whether a Main Roads activity requires assessment under the EP&BC Act. The checklist considers each of the issues relevant to the determination of Commonwealth involvement. The checklist has been developed to help address all relevant questions and to allow a record of the assessment to be placed on the appropriate project file.

To further aid the completion of the checklist, a description of each trigger in the checklist and the appropriate information sources relevant to Main Roads to help address the trigger is provided. In addition, the administrative guidelines developed by Commonwealth Department of Environment and Heritage to help determine the level of significance associated with triggering NES matters may be accessed at <http://www.ea.gov.au/>.

By completing the checklist and placing it on the appropriate project file, Main Roads demonstrates due diligence in respect of the Commonwealth Act and retains a record of the assessment in the event that a third party referral is submitted. A third party referral may be submitted by any individual or community group directly to the Commonwealth Department of Environment and Heritage in relation to a Main Roads project. Should this occur, Main Roads would be contacted by the Commonwealth Department of Environment and Heritage and asked to demonstrate compliance with the Act.

### **Implications of triggering the Act**

If the Act is triggered, a referral to the Commonwealth Environment Minister is required. The referral is to be submitted on the twelve-page referral form developed by Commonwealth Department of Environment and Heritage. A current version of the form and associated guidelines can be accessed at <http://www.ea.gov.au/>.

The purpose of the referral is to provide the Commonwealth Environment Minister with sufficient information so that he/she, following advice from Commonwealth Department of Environment and Heritage, may determine whether or not the activity requires assessment under the EP&BC Act. If the Commonwealth Environment Minister decides that the action is a controlled action, then the Commonwealth assessment process applies.

It is vital that a representative from Main Roads establishes contact with Commonwealth Department of Environment and Heritage as early as possible in the process. This will ensure that Main Roads is fully informed about the requirements and concerns of the Commonwealth Department of Environment and Heritage, and minimise the likelihood of delays in the referral process.

Figure A-1 outlines the key steps and timing associated with the Commonwealth

assessment process. This figure shows that triggering the EP&BC Act will add from 5 to 6 months to the Main Roads project assessment depending on the level of assessment required. This period is only the 'controlled time', allocated for reviews and approvals by the Commonwealth. A further 6 to 12 months may be required for consultation and report preparation undertaken by Main Roads.

## **Assessment Process 2 - The State Development and Public Works Organisation Act 1971**

### **Background to the Act**

Main Roads has environmental responsibilities pursuant to the *State Development and Public Works Organisation Act 1971* (SDPWO Act). The legislation is designed to ensure that environmental issues are adequately addressed throughout the planning and delivery of infrastructure projects. The SDPWO Act requires appraisal of environmental issues when considering the undertaking of works or when considering an application for approval of a project deemed to be of State significance.

### **How is the Act triggered?**

There are two sections of the revised Act (Section 25 and 26) relevant to identifying the assessment process to be followed.

- **Section 25** (previously Section 29A) establishes that all activities require consideration of environmental impacts. Compliance with this section can be achieved by following the internal Main Roads assessment process.
- **Section 26** (previously 29B) of the Act is triggered if Main Roads' project is declared to be of State significance. The Coordinator-General, by his/her own motion or at the direction of the Minister, may declare a road project a 'significant project'. Alternatively, Main Roads may seek a Main Roads project to be deemed

a significant project. Should either occur, the assessment process under the SDPWO Act is to be followed. Appendix E provides a checklist to establish whether an external assessment process is triggered under the SDPWO Act.

### **Implications of triggering the Act**

As Main Roads has developed an internal assessment process that addresses environmental impacts of their activities, triggering **Section 25** of the revised Act has no implications.

If **Section 26** of the Act is triggered, the assessment process under the SDPWO Act is to be followed. This process is described in Division 3, Part 4 of the SDPWO Act. The key requirements are as follows.

- The Coordinator-General must advise the proponent (Main Roads) that an Environmental Impact Statement (EIS) is required.
- The Coordinator-General must publicly notify:
  - that an EIS is required
  - where copies of the draft terms of reference may be obtained
  - that comments on the draft terms of reference are invited
- The Coordinator-General must have regard to the comments received when finalising the terms of reference for the EIS.
- The proponent must prepare an EIS to the satisfaction of the Coordinator-General.
- After the proponent has prepared an EIS, the proponent must publicly notify the following.
- Where a copy of the EIS is available for inspection
- Where a copy of the EIS may be obtained at a stated reasonable cost (the cost



**A**

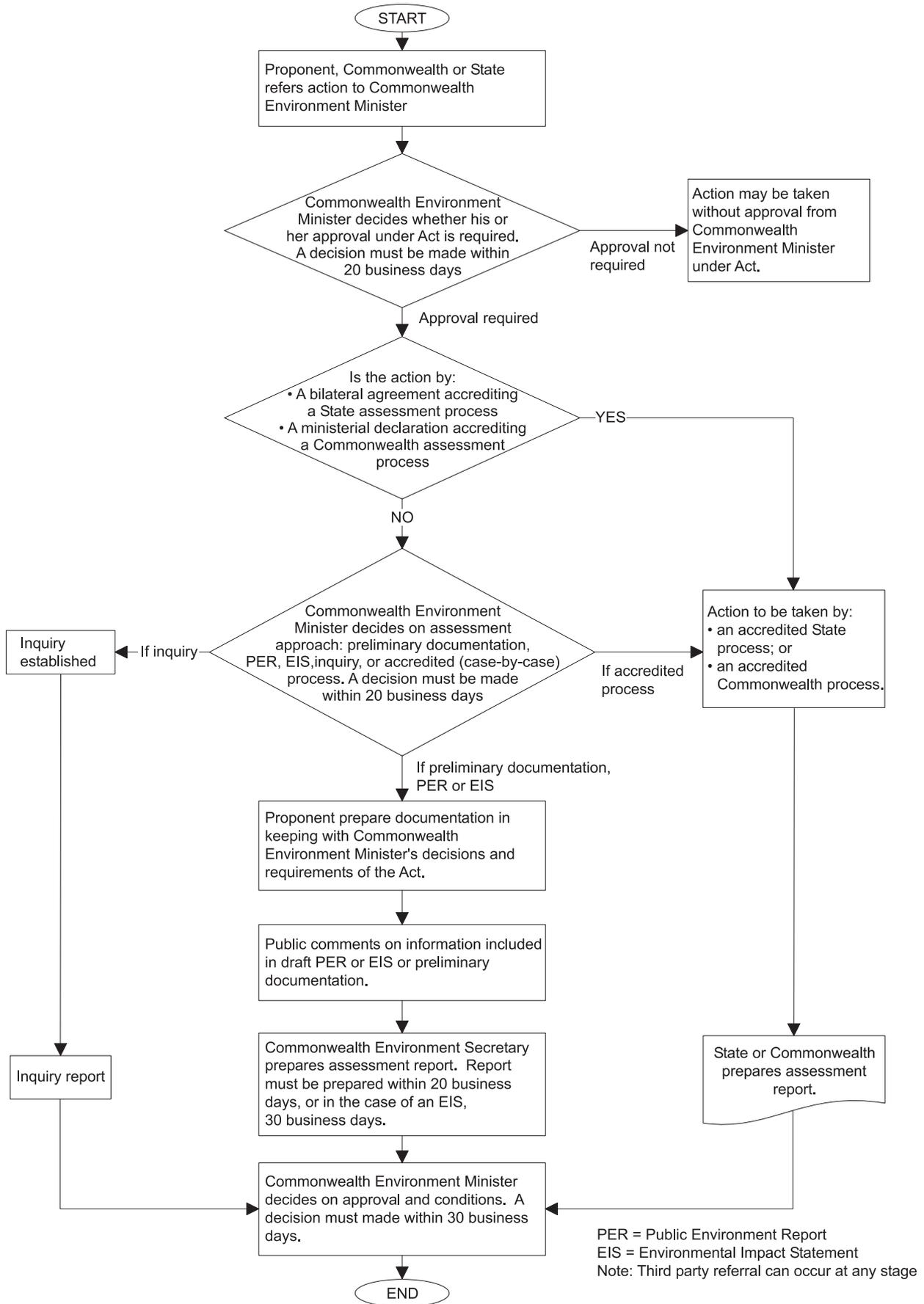


Figure A-1 Outline of the EPBC assessment and approvals process

Source: EA. October 1999. An Overview of the EPBC Act

must not be more than the actual cost of producing the copy)

- That submissions may be made to the Coordinator-General about the EIS
- The period set by the Coordinator-General during which a submission may be made
- The Coordinator-General must consider, after the end of the submission period, the EIS, submissions about the EIS and any other material the Coordinator-General considers relevant to the project.
- The Coordinator-General may ask the proponent for additional information or comment about the EIS.
- The Coordinator-General must prepare a report evaluating the EIS. In this evaluation, the Coordinator-General may:
  - evaluate the environmental effects of the project and any other related matters
  - state conditions for the project
  - make recommendations for the project
- After completing the report, the Coordinator-General must give a copy of it to the proponent and issue a public notice about the completion of the report.

No indication of timing for the assessment or approval process is provided within the SDPWO Act. However, a timeframe from two to six months is likely to establish the terms of reference, evaluate the EIS and develop the required report. Six to twelve months of additional time may also be required for Main Roads to prepare the EIS, await public submissions and prepare responses to these submissions (if required by the Coordinator-General).

### **Assessment Process 3 - The Integrated Planning Act 1994**

This section of the manual discusses the *Integrated Planning Act 1999* (IPA) in relation to the environmental assessment process for Main Roads. It is not written to reflect the legal context and terminology of IPA. Rather, to help determine whether the assessment process under IPA is triggered.

#### **Background to the Act**

Within Queensland the planning system operates under the IPA. The Act integrates all development decision-making processes and aims to achieve ecological sustainability through the coordination, integration and streamlining of a number of land use planning processes.

The Act focuses on land use planning outcomes, the management of development processes and the management of impacts on the environment by development. Under IPA, local government planning schemes and State planning policies guide the manner in which development is undertaken.

#### **How is the Act triggered?**

IPA may be triggered by the road or certain activities (eg quarries, site offices, etc.) associated with roads project. This is dependant on the tenure of the land which the activity occurs on, the content of the local government planning scheme and the activity triggers licencing under specific legislation (eg quarry, overland flow). Depending on these factors, the road/activity may require external assessment and approval (state agency and local government or internal assessment and approval. Furthermore, an external assessment process is only required if the project id designated as community infrastructure.

Figure A-2 outlines the steps in determining whether and when designation would be considered and how a Main Roads project may trigger IPA. Appendix F provides a checklist to determine if a Main Roads project



**A**

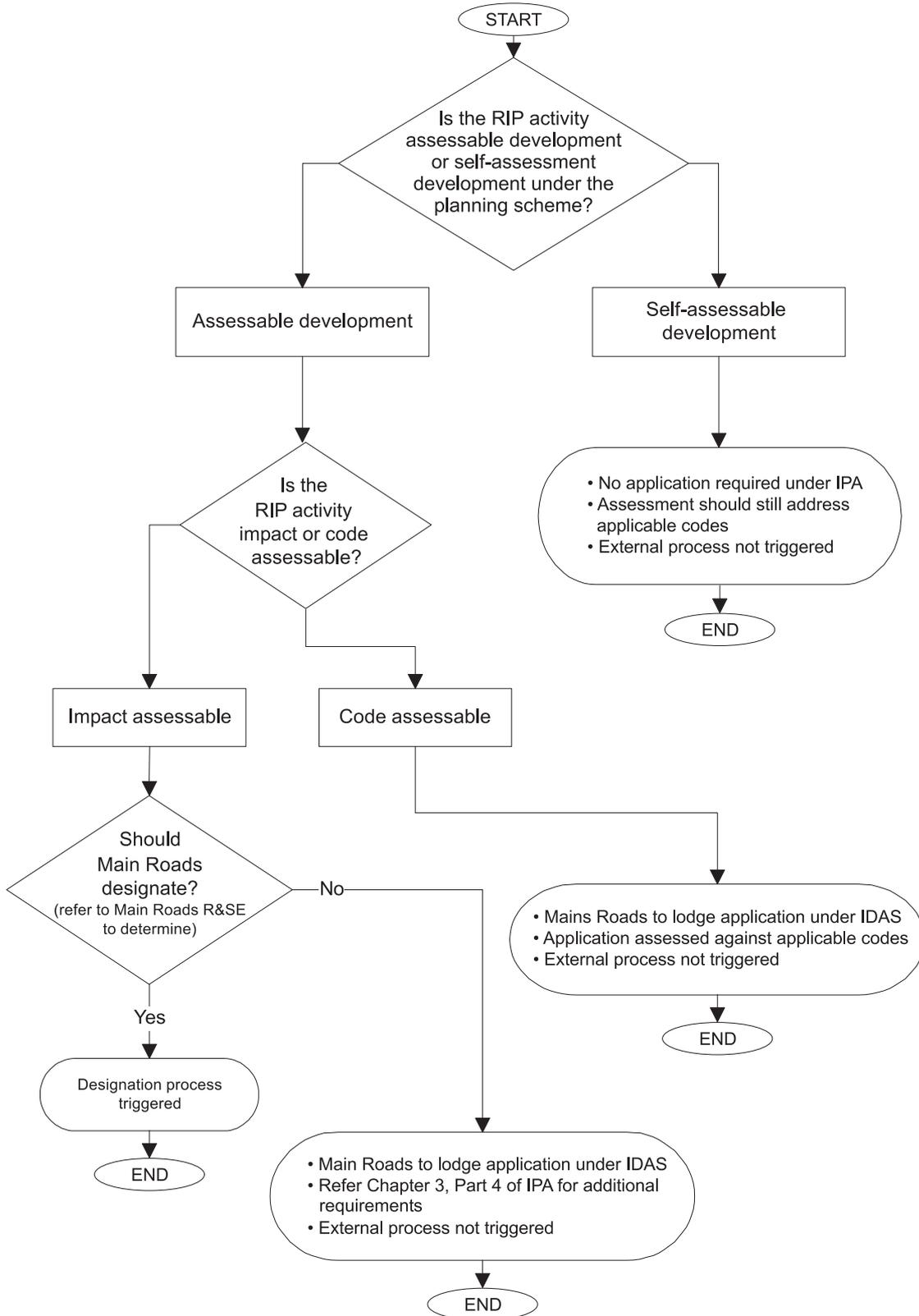


Figure A-2 Summary of IPA triggers applicable to Main Roads

triggers an external assessment process and the implications of triggering an approval process under IPA. The checklist in Appendix F should be completed for all Main Roads projects, and placed on the relevant project file.

As per Figure A-2, there are three questions that need to be answered in relation to IPA.

1. Is the Main Roads project 'assessable development' or 'self-assessable development'?
2. If 'assessable development', is it 'impact assessable' or 'code assessable'?
3. Should Main Roads designate the project as community infrastructure?

### Questions 1 and 2 - determining the type of assessment

The 'IPA Planning Scheme Manual' and the 'IDAS Manual for Main Roads as an Applicant' should be referenced to help answer these questions. A summary of the key points from Schedule 8 of the IPA and issues relevant to a Planning Scheme to help determine the level of assessment is also provided below. However, as changes may occur to Schedule 8 and Planning Schemes, it is recommended that the two source documents (ie Schedule 8 of the *Integrated Planning Act 1997* and the Planning Scheme of the local government in which the works are to be undertaken) be reviewed at the time of addressing these questions.

#### Under Schedule 8, Part 3 of IPA

- Reconfiguring a lot is 'assessable development' unless it is done as a necessary result of building/delivering a road.
- Undertaking any Environmentally Relevant Activity (ERA) listed under the *Environment Protection Act 1994* triggers 'assessable development'.

- Clearing of native vegetation is 'assessable development' if the clearing occurs on freehold land and:
  - Clearing is occurring in an urban area and in an area of high nature conservation or clearing a remnant endangered regional ecosystem as shown on a Queensland Herbarium regional ecosystem map.
  - Clearing is occurring in a non-urban area unless it is reconfiguration not for opening a road or the total area of the land on which the development is carried out is less than 5 hectares.
- Ancillary Works and Encroachments if undertaken in accordance with a gazette notice under Section 47 of the *Transport Infrastructure Act 1994* are deemed to be 'exempt development'.



#### Under a Planning Scheme

- Any activities identified as being 'exempt development' under Schedule 8 of IPA cannot be made 'assessable or self-assessable development' under a Planning Scheme.
- Local government through its Planning Scheme may control road development and/or road activities. Triggers for 'assessable development' under a Planning Scheme may not only relate specifically to a road but also associated issues such as tree clearing, disturbing acid sulfate soils and protecting water catchments. Therefore, the Planning Scheme should be reviewed for all issues related to the Main Roads project and not simply a review for the word 'road'.
- The road development and associated activities may be identified in the Planning Scheme as 'self-assessable', 'code assessable', 'impact assessable' or 'exempt'.

### Question 3 - should Main Roads designate?

As a general guide, Main Roads would only consider designation if the project triggers 'impact assessable' development. Even then, designation may not occur. If designated, the project is exempt under a Planning Scheme, however triggers under Schedule 8 still apply.

**A**

The key issues in relation to designation are as follows.

- Designation must still consider environmental protection.
- If designated, an external assessment process is required. The designation process is described in the IPA.
- If considering designation, it is essential that Road System and Engineering group be consulted.

#### **Implications of designation**

If the external assessment process is triggered (ie. the project will be designated), the implications are as follows.

- An EIS as per the process under the *Integrated Planning Act 1997*, *Environmental Protection Act 1994* or the *State Development and Public Works Organisation Act 1971* is to be undertaken. This is to include a minimum public consultation period of 20 business days.
- Main Roads (acting on behalf of the Minister) is to provide written notice of an intention to designate to each affected local government and/or the local government nearest to the land proposed for designation.
- Main Roads (acting on behalf of the Minister) must publish a notice at least once in a newspaper circulating generally in the area of each local government giving notice (see Schedule 6 of IPA for information to be included in the notice).

- A sign notifying the public of the intention to designate is to be erected on the project site.

If the Act is triggered the internal assessment process may be followed, however the implications are as follows.

- If 'self-assessable' - Main Roads can follow their internal assessment process and no application or approval to local government is required. However, the relevant external standards (eg standard building regulations) are to be addressed.
- If 'code assessable' - Main Roads is required to lodge an application and gain development approval. However, the information required may be obtained through the internal Main Roads assessment process. In this instance, the information provided within the application would be assessed by an external agency (ie. State or Local Government) against the applicable codes.
- If 'impact assessable' - Main Roads will be required to lodge an application under the IPA and requirements additional to those of the internal Main Roads process will be required (refer Chapter 3 Part 4 of IPA for these requirements).
- If 'exempt' - no application under IPA is required.

### **Assessment Process 4 - The Australian Land Transport Development Act 1988**

#### **Background to the Act**

This Act was developed to establish a reserve for the purpose of the construction and maintenance of land transport systems and related purposes. The Act commenced on 1 January 1989.

### **How is the Act triggered?**

The Act is triggered on any Main Roads project that receives Federal Department of Transport funding. Such funding is provided for construction or maintenance works carried out on a National Highway. The Minister may declare a National Highway if:

- the road is a principal link between two or more State capital cities and/or between Brisbane and Cairns (as per Section 4 of the Act)
- the road constitutes a road that should, in the opinion of the Minister, be treated, by reason of its national importance, as a national highway

### **Implications of triggering the Act**

Federally funded projects are also subject to the *Environment Protection and Biodiversity Conservation Act 1999*.

It is necessary to first establish whether the project triggers this Act. Section A.4 discusses how to establish whether a project triggers the *Environment Protection and Biodiversity Conservation Act 1999*. If the *Australian Land Transport Development Act 1988* and the *Environment Protection and Biodiversity Conservation Act 1999* are triggered, the following tasks are to be completed.

- Provide a briefing note or the actual environmental assessment documentation to the Federal Department of Transport on the environmental issues of the project (including indigenous and non-indigenous heritage) 10 days prior to undertaking referral to the Commonwealth Department of Environment and Heritage.
- Provide the referral to the Commonwealth Department of Environment and Heritage and provide a copy of all referral documents to the Federal Department of Transport.

If the *Environment Protection & Biodiversity Conservation Act 1999* is not triggered, the environmental assessment report(s) undertaken for the Main Roads project and the environmental certification are to be provided to the Federal Department of Transport. The environmental certification is to be as follows (as per Appendix 4 of the *Australian Land Transport Development Act 1988* Notes on Administration).

*Following consultation with the 'Environment Protection Agency' or 'in accordance with procedures agreed between the Department of Main Roads and the Environment Protection Agency', the environmental implications of the proposal have been assessed and are set out in the 'Project Proposal Report' or 'attached documentation'. In my opinion, the proposal 'is' or 'is not' a matter which raises 'any environmental issues under Commonwealth or State legislation' or 'any environmental issues have been addressed to the satisfaction of the relevant environmental authorities, whether Commonwealth or State'.*

### **Internal Assessment Process**

The internal assessment process is to be followed for all projects. However, it may have been completed by an external assessment process.

If the internal assessment process is followed, it achieves the objectives of Section 25 of the *State Development and Public Works Organisation Act 1971*. The internal assessment process is described in Parts A, B and C of this manual.

### **Task 4 - Review additional environmental approvals/permits/licences**

The project manager in charge of the proposed project is responsible for ensuring that all necessary project approvals, permits/licences have been identified and obtained



where possible. Some permits/licences may not be obtained prior to letting the contract. In this case, it is the project manager's responsibility to ensure the contract documentation identifies those permits/licences to be obtained by the contractor.

**A**

There are two issues associated with the timing of internal approvals and external permits/licences.

1. Identifying the required approvals/permits/licences
2. Obtaining the approvals/permits/licences.

### **Identifying the required approvals/permits/licences**

There are numerous environmental approvals/licences/permits that may be required for any Main Roads project. The Main Roads Environmental Legislation Register should be referenced to establish all possible approvals/permits/licences. The most common required on Main Roads road projects include the following.

- Environmental certification of all projects by the District Director (for Federal project certification see Section A.3; for all other projects see Section C.5)
- Obtaining a development approval under the *Integrated Planning Act 1997*
- Authority required for an Environmentally Relevant Activity
- Permit/licence required for works within a watercourse
- Permit/licence required for works within tidal waters (coastal districts)
- Permit/licence required for removal of marine plants (coastal districts)

The number and type of approvals/permits/licences required for a project will need to be considered as early as possible in the Concept Phase and reviewed throughout

the life of the project.

### **Obtaining approvals/permits/licences**

The timing of external permits/licences will vary depending on the extent and location of works and the amount of relevant information that can be supplied to the approving authority (see the latest permit application forms for required information). An indication of the timing associated with the most common external permits/licences is shown in Table A.1.

All necessary approvals/permits/licences should be identified prior to letting a construction contract.

### **Task 5 - Preparation of a report**

The information collected throughout the Project Environmental Assessment process establishes the condition of the existing environment in the area of the proposed Main Roads road project and the potential environmental opportunities and constraints associated with the proposed works so that they may be investigated further, later in the process.

Reports are needed for each of the environmental assessment, management and certification processes. A separate report may or may not be prepared for each of these stages. If separate reports were prepared, these would best correlate with the following.

- Project Environmental Assessment stage - Review of Environmental Factors (REF)
- Project Environmental Management stage - Environmental Management Plan (Planning) (EMP Planning)
- Project Environmental Certification stage - Environmental Certification and Environmental Design Report (EDR).

Alternatively, a single report may be prepared to combine all of the above information. For the purpose of this manual, this report is

termed an Environmental Approval Report (EAR). This single report includes the environmental certification and forms the basis of the information to be included in the construction and maintenance contract documentation. Appendix G describes the suggested content of an EAR.

Irrespective of the number of reports produced during the Concept and Development phases, the main objective is to assess the environmental implications of the Main Roads project and ensure that cost-effective and practical mitigation measures are included within the contract documentation.



**Table A.1** Indication of time to obtain permits/licences

<b>Activity</b>	<b>Associated Act</b>	<b>Timing</b>
Development approval under the <i>Integrated Planning Act 1997</i>	<i>Integrated Planning Act 1997</i>	12-22 weeks
Environmentally Relevant Activity	<i>Environmental Protection Act 1994</i>	4-8 weeks
Works within a watercourse	<i>Water Act 2000</i>	8-16 weeks*
Works within tidal waters	<i>Harbours Act 1955</i>	6-8 weeks
Removal of marine plants	<i>Fisheries Act 1994</i>	8-16 weeks
Removal of scheduled plants	<i>Nature Conservation Act 1992</i>	2-4 weeks

\* longer period required if Native Title notification by the Department of Natural Resources and Mines is needed

