

**A referral questionnaire for local government
roadworks**

**A Bulletin of the
Environmental Protection Authority**

**Environmental Protection Authority
Perth, Western Australia
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Purpose of this report

The purpose of this report is to:

- provide advice regarding referral of a local authority roadworks proposals to the Environmental Protection Authority;
- refer local authorities to other relevant state government agencies where environmental concerns are primarily dealt with by those agencies; and
- highlight the need for adequate environmental management to reduce potential environmental impacts of roadworks proposals and thus reduce the need for referral.

Appeals

There are no appeal rights associated with this report.

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Map

1. Conservation reserves and other environmentally sensitive land of Western Australia.

1. Background

1.1 Development of this Bulletin

In 1984 the Environmental Protection Authority published Bulletin 184 "Environmental assessment of roadworks - Guidelines for local authorities", which provided both advice on the type of roadworks that should be referred to the Environmental Protection Authority (EPA) for assessment (i.e. referral advice), and provided some guidance on environmental issues pertaining to roadworks.

Since 1984, the Environmental Protection Act (1971) has been repealed and a new Environmental Protection Act (1986) is now in place. Also, the Roadside Conservation Committee was established by the State Government in 1985 and this Committee's role includes providing guidance regarding topics relevant to environmental management of roadworks proposals. The Roadside Conservation Committee has produced a number of publications.

The sections of Bulletin 184 dealing with guidance on environmental management of roadworks have largely been replaced by publications of the Roadside Conservation Committee and the EPA.

Guidelines for referral of local authority roadworks proposals under the Environmental Protection Act 1986 have not been updated since the Act was proclaimed in 1987.

Accordingly, the EPA decided that a revised Bulletin should focus on the need for referral of proposals to the EPA, that it should be prepared with assistance from the Roadside Conservation Committee and with the benefit of targeted consultation. Section 2 describes the purpose, scope and limitations of the revised Bulletin.

This Bulletin recognises that a decision on whether a proposal requires referral to the EPA or any other agency is dependent in part on how the proposal is to be managed. Where a proposal uses management procedures as recommended in relevant publications (such as those published by the Roadside Conservation Committee) the need for referral to the EPA is less likely to be necessary. For example, implementation of adequate environmental management practices can make the difference between a project which is environmentally acceptable, and one which causes pollution (such as noise or dust) and therefore not environmentally acceptable.

The Bulletin is based on a referral questionnaire and supersedes EPA Bulletin 184. The referral questionnaire assumes adequate environmental management procedures (as detailed in Section 4 of this Bulletin) would be used.

1.2 About the Roadside Conservation Committee

The Roadside Conservation Committee was formed in 1985 in response to concern expressed by the community, the tourism industry and the conservation movement about the declining condition and loss of roadside vegetation.

The Roadside Conservation Committee was originally established under the Western Australian Land Resource Policy Council within the Department of Premier and Cabinet. It is now convened by the Department of Conservation and Land Management. It replaces the Road Verge Conservation Committee which addressed similar issues between 1968 and 1983.

Roadside management guidelines on how best to manage roadside vegetation have been developed by the Roadside Conservation Committee, in conjunction with other government agencies. These are presented in a Roadside Manual, available from the Department of Conservation and Land Management.

The terms of reference of the Roadside Conservation Committee are to coordinate and promote the conservation and effective management of rail and roadside vegetation for the benefit of the environment and the people of Western Australia.

The Roadside Conservation Committee is able to assist with the development of roadside vegetation management plans and seeks to foster cooperative communication between all stakeholders in the community.

1.3 Bulletin format

Section 2 of the bulletin outlines the purpose, scope and limitations of this Bulletin. Section 3 describes activities which are considered to be part of local government roadworks proposals within the scope of this Bulletin. Section 4 highlights the need for adequate environmental management to reduce potential environmental impacts of roadworks proposals to reduce the need for referral. This section also provides a list of publications which detail recommended environmental management measures. Section 5 explains the legislative basis for the referral questionnaire. Section 6 contains the referral questionnaire which has two parts, namely overview questions and topic questions. Section 7 is a list of legislation and references used in the preparation of this Bulletin, and Section 8 provides a glossary of terms used.

2. Purpose and scope and limitations of this Bulletin

2.1 Purpose

The purposes of this Bulletin are to:

- provide advice on which local authority roadworks proposals require referral to the EPA;
- refer local authorities to other relevant state government agencies where environmental concerns are primarily dealt with by those agencies; and
- highlight the need for adequate environmental management to reduce potential environmental impacts of roadworks proposals and thus reduce the need for referral.

2.2 Scope and limitation

The referral questionnaire relates only to environmental protection concerns which the EPA consider fall within the ambit of the Environmental Protection Act (1986).

The referral questionnaire applies only to local government roadworks proposals. A Memorandum of Understanding is in preparation between Main Roads Western Australia and EPA regarding referral of Main Roads Western Australia roadworks proposals.

The questionnaire does not remove the proponent's responsibility to seek the necessary approvals from other relevant agencies (e.g. Aboriginal Affairs Department, Department of Conservation and Land Management).

This questionnaire does not consider visual impacts. Visual impacts should be considered through the planning process and local authorities should seek advice from Department of Conservation and Land Management when road proposals are visible from the existing or proposed conservation estate.

This questionnaire applies only to local government roadworks activities identified in Section 3 below which are managed in accordance with the publications identified in Section 4.

3. Activities considered to be part of roadworks proposals

The term "roadworks" includes all related activities associated with road construction and major maintenance such as:

- siting and survey of new alignments;

- activities associated with sourcing materials such as the construction, operation and rehabilitation of borrow pits and quarries;
- storage of materials;
- disposal of excess earth and old road materials;
- clearing within road alignments, including for verges and batters;
- installation of associated infrastructure;
- related drainage works; and
- construction camps.

4. Recommended environmental management measures for roadworks

All roadworks proposals should be planned and undertaken with due regard for environmental management measures. Adequate environmental planning and management significantly reduces environmental impacts of roadworks and can therefore significantly affect whether or not roadworks proposals require referral.

The referral questionnaire assumes that the recommended environmental management measures outlined in the publications below will be implemented.

The following list of environmental management publications should be utilised in developing roadworks proposals:

Roadside Conservation Committee (undated), *Roadside Manual*, Roadside Conservation Committee, Perth WA.

Roadside Conservation Committee 1994, *Guidelines for planning, operating and rehabilitating borrow pits*, Roadside Conservation Committee, Perth WA.

Roadside Conservation Committee 1994, *Guidelines for the clearing and maintenance of roadside vegetation by local government*, Roadside Conservation Committee, Perth WA.

Environmental Protection Authority 1990, *Dust control guidelines - Guidelines for assessment and control of dust and wind-borne material for land development sites*, Environmental Protection Authority, Perth WA, September 1990.

Environmental Protection Authority 1994, *Smoke control guidelines - Guidelines for control of smoke from development sites*, Environmental Protection Authority, Perth WA, April 1994.

Government of Western Australia; Noise abatement (Neighbourhood Annoyance) Regulations, 1979.

The following management issue has not yet been addressed by relevant publications and is included within the referral questionnaire.

- stormwater management

Some design issues are also embedded within the questionnaire (e.g. location of roads along watercourses).

5. Legislative basis for the referral questionnaire

Under the Environmental Protection Act decision-making authorities such as local government and other government departments are required to refer to the Environmental Protection Authority proposals which "appear likely, if implemented, to have a significant effect on the environment".

The referral questionnaire is based on the EPA's interpretation of topics which fall within the scope of the Environmental Protection Act 1986, and its interpretation of what is environmentally significant.

The EPA recognises that agencies other than the Department of Environmental Protection have expertise and responsibility for management of particular environmental issues. For example, the Commissioner for Soil and Land Conservation has expertise in the land degradation impacts of clearing remnant native vegetation. However, the impacts of clearing remnant native vegetation are also of concern to the EPA as they fall within the definition of environment under the Environmental Protection Act.

Where the expertise and responsibility for management of a particular environmental topic lies with another state agency or the topic is covered in part by other State legislation, the referral questionnaire generally refers the proposal to the relevant government agency/department in the first instance.

When a proposal is referred to a relevant agency, the agency could be required under the Environmental Protection Act to refer that proposal to the EPA if it considers the environmental impacts of the proposal, if implemented, are likely to be significant. However, early negotiations with the relevant agency and the local government authority may significantly reduce environmental impacts so referral is not necessary. If agreement cannot be reached with the local government authority to modify or manage the proposal so that environmental impacts are not significant it should be referred to the EPA. The EPA has, or is developing Memoranda of Understanding with several government departments which specify which proposals should be referred to the EPA.

A list of relevant legislation and regulations used by the EPA and other agencies in formulating the referral questionnaire appears in Section 7.2 "Legislation".

6. Referral questionnaire

6.1 Use of the questionnaire

The need for referral of roadworks to the EPA, or other relevant state authority responsible for a particular aspect of environmental management, can be determined by using the referral questionnaire which follows.

The questionnaire assumes that management measures, as advised in Roadside Conservation Committee and EPA publications (See Section 4 "Environmental management of roadworks"), will be used as appropriate in the roadworks construction.

If this is not the case, advice should be sought from the Executive Officer of the Roadside Conservation Committee and the Environmental Planning Branch of the Department of Environmental Protection's Evaluation Division regarding the need for referral.

The questionnaire starts with a set of overview questions, which if the response is "yes", either immediately identifies a need for referral, or directs the assessor to another set of questions which deal with that topic. The topic questions also deal with the need to refer, or otherwise, the proposal to the EPA or other relevant state agency which deals with that topic.

The questions apply to the whole roadworks proposal as indicated by Section 3, "Activities considered to be part of roadworks proposals".

If the response to each overview question is "no", then there is no need for referral to the EPA or other state authorities on environmental grounds. All overview questions should be answered, and topic questions responded to, where directed by the overview question.

Referral questionnaire

for local government roadworks proposals which incorporate recommended environmental management measures¹

Answer **all** overview questions. If the answer is "yes" to **any** question, follow the instructions and then continue answering the remaining overview questions. If the answer is "no" to **all** of the above questions (1.1 to 1.8), there is no need to refer the proposal to the EPA.

If the roadworks proposal requires referral to the EPA or any other state agency, consideration should be given to modifying the roadworks proposal to avoid the need for referral.

A. Overview questions

Referral always necessary to EPA

A1.1 Does the proposal affect a **an area of regional significance** (Refer to map which covers your local government area).

If "yes" refer to EPA and the affected owner/vesting agency, unless the proposal is consistent with a management plan prepared in accordance with the Conservation and Land Management Act which has had the benefit of public review and endorsement by the National Parks and Nature Conservation Authority.

Environments where impacts from roadworks may warrant referral - respond to Topic questions

A1.2 Is any part of the proposal located within 50 m of an **estuary, wetland** or a **watercourse**?

If "yes" respond to Topic 1: "Estuaries, wetlands and watercourses" questions.

A1.3 Is the proposal located in the **coastal zone** (refer to glossary for definition).

If "yes" respond to Topic 2: "Coastal zone" questions.

A1.4 Does the proposal include clearing of **remnant native vegetation**?

If "yes" respond to Topic 3: "Remnant native vegetation", questions.

A1.5 Is any part of the proposal located within or next to a ground or surface water **public water supply area**?

If "yes" respond to Topic 4: "Protection of water supply" questions

Referral necessary under Wildlife Conservation Act

A1.6 Does the proposal affect an area which is habitat for rare flora or fauna.

(Local authorities should refer to their register of rare flora, or contact the Department of Conservation and Land Management).

If "yes", refer proposal to Department of Conservation and Land Management.

Construction impacts which may require referral

A1.7 Does implementation or construction of the proposal result in any of the following:

- solid or liquid wastes which are not able to be disposed of at an approved waste disposal facility;
- noise levels during construction which exceed the Noise Abatement (Neighbourhood Annoyance) Regulations 1979/Environmental Protection (Noise) Regulations at the nearest residence;

¹ As recommended in Section 4 of this Bulletin

- blasting during construction;
- the use of vibrating rollers within 150 metres of any residential building; or
- the construction of a bridge within 150 metres of a residence?

Operational impacts which may require referral

A1.8 Will operation of the proposal result in significant traffic noise levels at any point along the road, as identified according to the following procedure?

- (i) Estimate the Annual Average Daily Traffic flow (AADT) before and after the roadworks.
- (ii) Estimate the distance from the near edge of the road to the façade of the nearest residence along the road, for the situations before and after the roadworks.
- (iii) Divide the AADT from (i) above by the distance to the nearest residence (ii), for the before and after situations.
- (iv) a) Is "AADT/Distance" after the roadworks greater than 150?
b) Is the increase in "AADT/Distance" from before to after more than 15%?
- (v) If the answer to BOTH Questions a) and b) in (iv) above is "YES", refer to the EPA.

B. Topic questions

Topic 1: Estuaries, wetlands and watercourses

You only need to answer question B1.2 if directed by question B1.1. Continue with Overview questions when this topic dealt with.

B1.1 Do the roadworks involve any of the following:

- (i) filling, excavation or clearing of remnant vegetation within 50 m of a estuary or wetland;
- (ii) drainage works which direct water into a estuary, wetland or watercourse without 3 to 4 days retention of a 1 in ten year storm event of 72 hours duration prior to discharge;
- (iii) sections of **new** roads which are generally parallel to the watercourse **and** which are closer than:
 - (a) 50 m to permanent watercourses;
 - (b) 30 m to seasonal watercourses; or
 - (c) 10 m to watercourses that flow in response to rainfall events.
- (iv) significant alteration of drainage patterns (e.g. re-alignment of creeks);
- (v) watercourse crossings which would increase the extent of flooding from a 1 in 100 year flood;
- (vi) traverse mud-flats.

If "no", to all the above, continue with the Overview questions.

If "yes" to (i), (ii) or (vi) go to Question B1.2.

If "yes" to item (i) or (iii) and more than 1 ha of vegetation is to be cleared, also refer to the Commissioner for Soil Conservation.

If "yes" to (iii) to (vi), refer the proposal to the Water and Rivers Commission.

B1.2 Is the wetland covered by any of the following policies or agreements:

- (i) Environmental Protection (Swan Coastal Plain Lakes) Policy 1992;
- (ii) Revised draft Environmental Protection (South West Agricultural Zone Wetlands) Policy 1995; or
- (iii) any of the following international agreements: Ramsar, JAMBA or CAMBA (Refer to Map 1)

If "yes" to any of (i) to (iii), refer to EPA and Water and Rivers Commission. If "no", refer to Water and Rivers Commission only.

Topic 2: The coastal zone

B2.1 Are the roadworks located in or within 50 m of the following habitat types:

- (i) mangroves;
- (ii) mudflats;
- (iii) vegetated foreshore and primary dunes.

If "yes" to (i), refer to EPA and Ministry for Planning.

If "yes" to (ii), check Map 1 for application of the following international agreements: Ramsar, JAMBA or CAMBA. If the agreements apply refer to the EPA.

If "yes" to (iii) refer to Ministry for Planning.

If "no" to all the above, continue with the Overview questions.

Topic 3: Remnant native vegetation

Answer both questions B3.1 and B3.2.

Some Shires have maps indicating conservation significance of vegetation in road reserves and verges. These maps should be utilised when road re-alignments are considered.

Several of the topic questions above may have identified remnant vegetation of significance and the referral requirements for these is not duplicated here.

B3.1 Is more than 1 ha to be cleared?

If "yes" refer the proposal to the Commissioner for Soil Conservation.

3.2 Will the roadworks affect poorly represented flora communities? (This may have been, or need to be, determined in accordance with EPA Technical Series 55 (Environmental Protection Authority 1993b). The Department of Conservation and Land Management may be able to advise.)

If "yes", refer to the EPA.

If "no" to all the above, continue with the Overview questions.

Topic 4: Protection of water supply

Answer both questions B4.1 and B4.2.

B4.1 Is the proposal located over a Priority 1 or 2 Underground Water Pollution Control Area or any other gazetted water supply area where water is sourced from underground sources overlain by sandy soils?

If over Priority 1 area, refer the proposal to the EPA and Water and Rivers Commission. If over Priority 2, refer proposed groundwater protection measures to the Water and Rivers Commission.

Note there is a general presumption against new roads over Priority 1 Underground Water Pollution Control Areas.

B4.2 Is the proposal located within a gazetted surface water catchment?

If "yes" refer proposal to Water and Rivers Commission.

If "no" to all the above, continue with the Overview questions.

7. Legislation and references

7.1 Legislation

Environmental Protection Act 1986

Local Government Act 1960

Conservation and Land Management Act 1984

Soil and Land Conservation Act 1945

Wildlife Conservation Act 1950

Acts relating to Mining, Water and Planning.

7.2 References

Environmental Protection Authority 1975, *Conservation Reserves for Western Australia - Systems 4, 8, 9, 10, 11, 12*, Department of Conservation and Environment, Perth WA,

Environmental Protection Authority 1976, *Conservation Reserves for Western Australia - Systems 1, 2, 3, 5*, Department of Conservation and Environment, Perth WA,

Environmental Protection Authority 1980, *Conservation Reserves for Western Australia - System 7*, Department of Conservation and Environment, Perth WA,

Environmental Protection Authority 1983, *Conservation Reserves for Western Australia - The Darling System - System 6 (Parts I and II)*, Department of Conservation and Environment, Perth WA, Report 13, October 1983

Environmental Protection Authority 1990, *Dust control guidelines - Guidelines for assessment and control of dust and wind-bourne material for land development sites*, Environmental Protection Authority, Perth WA, September 1990

Environmental Protection Authority 1993a, *Red Book status report on the implementation of conservation reserves for Western Australia*, Environmental Protection Authority, Perth WA, Report 15, February 1993

Environmental Protection Authority 1993b, *Natural resource zones of the South West Land Division, Western Australia*, Environmental Protection Authority Perth WA Technical Series 55, October 1993.

Environmental Protection Authority 1994, *Smoke control guidelines - Guidelines for control of smoke from development sites*, Environmental Protection Authority, Perth WA, April 1994

Environmental Protection Authority 1995, *Revised draft Revised draft Environmental Protection (South West Agricultural Zone Wetlands) Policy 1995* Environmental Protection Authority, Perth WA, June 1995.

Government of Western Australia 1992, *Environmental Protection (Swan Coastal Plain Lakes) Policy Approval Order 1992* Government Gazette WA, 18 December 1992

- Roadside Conservation Committee 1992, *Fire management of roadside vegetation*, Roadside Conservation Committee, Perth WA,
- Roadside Conservation Committee 1994, *Guidelines for planning, operating and rehabilitating borrow pits*, Roadside Conservation Committee, Perth WA,
- Roadside Conservation Committee 1994, *Guidelines for the clearing and maintenance of roadside vegetation by local government*, Roadside Conservation Committee, Perth WA,
- Roadside Conservation Committee (undated), *Roadside Manual*, Roadside Conservation Committee, Perth WA
- Water Authority of Western Australia 1993, *From groundwater to tap... A protected water supply*, Water Authority of Western Australia, Perth WA, Brochure WPC1 - 1993.
- Donaldson B, Eliot I G & Kay R C 1995 *Review of coastal management in Western Australia: A report to the Minister for Planning* Coastal Management Review Committee, Perth WA.

8. Glossary

Affect - In relation to Question A1.1 means the proposal is either within those areas or the proposal is near to and constructed in a manner that will affect the vegetation or hydrology of the conservation area or area of regional significance. (e.g. modification of drainage pathways which lead to vegetation death or deposition of eroded soil into the conservation area or area of regional significance).

Approved liquid waste disposal facility - a liquid waste disposal facility operated by a local government authority or the Waste Management Division of the Department of Environmental Protection in accordance with the Health Act.

Approved solid waste disposal facility - a landfill gazetted in accordance with the requirements of the Health Act. All landfill sites operated by local government authorities are required to be gazetted.

Area of regional significance - In this Bulletin, areas of regional significance include;

- existing reserves which include conservation as a purpose;
- systems areas identified in the Conservation Through Reserves Committee Red Book reports (Environmental Protection Authority 1975, 1976, 1980 & 1983);
- areas identified as having conservation as a primary purpose by the Ministry for Planning;
- areas proposed for conservation by Department of Conservation and Land Management in its management plans;
- areas identified by the Environmental Protection Authority as containing threatened or poorly reserved plant communities;
- areas identified by the Environmental Protection (Swan Coastal Plain Lakes) Policy 1992 (Government of Western Australia 1992) or the Revised draft Environmental Protection (South West Agricultural Zone Wetlands) Policy 1995 (Environmental Protection Authority 1995);
- areas identified by the Ramsar Convention; and
- mangrove communities.

Coastal zone - the definition here is based on that provided in the *Final Report of the Review of Coastal Management in Western Australia* (Donaldson et. al. 1995) but excludes estuaries as these are explicitly covered in the questionnaire.

The coastal zone is defined as a region comprising:

- coastal waters, the seabed and offshore islands, including gulfs and sounds, under the jurisdiction of the Western Australian government;
- the mobile beach zone and modern (Holocene) dune systems, mangroves, and wetlands and flats subject to tidal influence;
- areas potentially subject to shoreline movements; and
- coastal lagoons.

CAMBA - is the China Australia Migratory Bird Agreement. The seasonal use of a wetland by reasonable numbers of migratory birds covered by this agreement includes a wetland into the scope of this agreement.

Estuary - a type of wetland (see definition of wetland below).

JAMBA - is the Japan Australia Migratory Bird Agreement. The seasonal use of a wetland by reasonable numbers of migratory birds covered by this agreement includes a wetland into the scope of this agreement.

Ramsar - An abbreviation to identify wetlands listed in accordance with the Ramsar Convention on Wetlands of International Importance

Remnant vegetation - means all those portions of original indigenous (native) vegetation, including areas where regrowth has occurred to the extent there is little difference between it and the original indigenous (native) vegetation.

Watercourse - means a creek, stream, river, or artificial drainage channel.

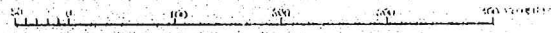
Wetland - "area of marsh, fen, peatland or water, whether natural or artificial, permanent or temporary, with water that is static or flowing, fresh, brackish or salt, including areas of marine water the depth of which at low tide does not exceed six metres" (Ramsar Convention on Wetlands of International Importance). On the Swan Coastal Plain, the Water Authority of Western Australia has mapped wetlands. Palusplain wetlands (i.e. seasonally waterlogged flat wetlands) without remnant vegetation are not considered wetlands for the purpose of this Bulletin.

MAP 1

CONSERVATION RESERVES AND OTHER ENVIRONMENTALLY SENSITIVE LAND OF WESTERN AUSTRALIA

TIMOR SEA

SCALE 1 : 2 500 000



ADDITIONAL RESERVE PROPOSALS WITHIN GOVERNMENT AREAS (BY 25/000 SCALE)

LEGEND

NATIONAL PARK	CALIA PROPOSALS (AS APPROVED IN FINAL REGIONAL MANAGEMENT PLANS)
'A' NATURE RESERVE AND CONSERVATION PARK	RED BOOK (OUTSTANDING RECOMMENDATIONS)
'B' AND 'C' NATURE RESERVE AND CONSERVATION PARK	WETLANDS OF INTERNATIONAL IMPORTANCE (RAMSAR TREATY)
STATE FOREST	MANGROVE COMMUNITIES
LIMIT OF DIEBACK RISK ZONE	REMNANT BATH FOREST AREAS
SWAN COASTAL PLAIN LAKES	REMNANT BATH FOREST AREAS

28 APRIL 1995

This map is based on the 1:250,000 scale maps of the Department of Minerals and Energy, Western Australia, and is not to be used for navigation.



Geological Survey of Western Australia

INDIAN OCEAN

TERRITORY

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