

# **GUIDELINES FOR THE CONTENT OF A DRAFT PUBLIC ENVIRONMENT REPORT**

Northern Victoria Irrigation Renewal Project,  
Goulburn Murray Irrigation District, Victoria  
EPBC 2009/5123

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*Environment Protection and Biodiversity Conservation Act 1999*

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# 1. Preamble

The State Owned Enterprise for Irrigation Modernisation in Northern Victoria, trading as Northern Victoria Irrigation Renewal Project (NVIRP), proposes to undertake the Northern Victoria Irrigation Renewal Project (NVIRP) – a systemic program of irrigation modernisation within the Goulburn Murray Irrigation District (GMID), to increase irrigation efficiency from ~70 *per cent* to ~85 *per cent*. The project involves the introduction of an automated control system and increased metering accuracy and channel efficiency. The irrigation network will consist of a public “backbone” of irrigation channels with rationalised customer service delivery points.

NVIRP is predicted to yield up to 425 gigalitres of long-term annual average water savings to be divided between existing entitlement holders (primarily irrigators), the Melbourne metropolitan water grid and environmental uses.

The referral of the proposed action under the *Environment Protection and Biodiversity Conservation Act 1999* (the EPBC Act) was accepted by the Department of the Environment, Water, Heritage and the Arts on 12 October 2009. Specifically, the action referred is “the modified operation of the fully modernised Goulburn Murray Irrigation District”. The following aspects of NVIRP are specifically excluded from the referral:

- all construction works;
- reconfiguration works within the Kerang Wetlands Ramsar site;
- reconfiguration of the Little Murray Weir and modernisation of the irrigation system in the vicinity of Swan Hill; and
- “administrative” decisions on the allocation of resulting water savings.

A delegate of the Minister for the Environment, Heritage and the Arts (the Minister) determined on 6 November 2009 that the proposed action is a controlled action, requiring approval under the EPBC Act, and that it will be assessed using a public environment report.

It was determined that the proposed action will have, or is likely to have, a significant impact on the following matters of national environmental significance that are protected under Part 3 of the EPBC Act:

- wetlands of international importance (sections 16 and 17B);
- listed threatened species and communities (sections 18 and 18A); and
- listed migratory species (sections 20 and 20A).

These matters are known as the controlling provisions for the assessment.

Information about the action and its relevant impacts, as defined in these guidelines, is to be provided in the public environment report. This information should be sufficient to allow the Minister to make an informed decision on whether or not to approve the taking of the action, under Part 9 of the EPBC Act, for the purposes of each controlling provision.

## 2. General advice on guidelines

### 2.1 General content

The public environment report must be a standalone document that primarily focuses on the controlling provisions listed above. It must contain sufficient information to avoid the need to search out previous or supplementary reports.

The public environment report must enable interested stakeholders as well as the Minister for the Environment, Heritage and the Arts (the Minister) or his delegate to understand the environmental impacts of the proposed action on the controlling provisions. Information provided in the public environment report should be objective, clear and succinct, and where appropriate, be supported by maps, plans, diagrams or other descriptive detail. The body of the public environment report must be written in a clear and concise style that is easily understood by the general reader. Where technical jargon cannot be avoided, it should be clearly explained within the text or else in a glossary. Cross-referencing may be used to avoid unnecessary duplication of text.

Detailed technical information, studies or investigations necessary to support the main text must be included as appendices to the public environment report. It is recommended that any additional supporting documentation and studies, reports or literature used to inform the report, and not normally available to the public, be made available at appropriate locations at least while the public environment report is on public display. The proponent should also make the public environment report available on the internet.

If it is necessary to make use of material that is considered to be of a confidential nature, the proponent should consult with Department of the Environment, Water, Heritage and the Arts (the Department) on the preferred presentation of that material, before submitting it to the Minister for approval for publication.

The level of analysis and detail in the public environment report must reflect the level of significance of the expected impacts on the environment. Any and all unknown variables or assumptions made in the assessment must be clearly stated and discussed. The extent to which the limitations, if any, of available information may influence the conclusions of the environmental assessment must be discussed.

In preparing the public environment report, the proponent must have regard to the objects and principles of the EPBC Act, provided in [Appendix 1](#), and must address each of the matters listed in Schedule 4 of the *Environment Protection and Biodiversity Conservation Regulations 2000* (the EPBC Regulations), provided at [Appendix 2](#).

## 2.2 Format and style

The public environment report must comprise the following three elements:

- an executive summary;
- the main text of the document, and
- appendices as required, containing detailed technical information and other information that can be made publicly available.

The public environment report must be written so that any conclusions reached can be independently assessed. To this end, all sources must be appropriately referenced using the Harvard standard referencing protocol. The reference list should include the uniform resource locator (URL) of any internet pages used as data sources.

The main text of the public environment report should include a list of abbreviations, a glossary of terms and appendices containing:

- a copy of these guidelines;
- a list of persons and agencies consulted in the preparation of the public environment report; and
- the names of, and work done by, the persons involved in preparing the public environment report.

Maps, diagrams and other illustrative material should be included in the public environment report where appropriate. The report should be produced on A4 size paper capable of being photocopied, with maps and diagrams on A4 or A3 size paper and in colour where possible.

The capacity of the internet to store and display data may have some bearing on the format and style of the public environment report.

### 3. Specific content

Specific details of matters to be addressed in the public environment report are provided under the headings below. This detail is **additional** to the generic requirements of Schedule 4 to the EPBC Regulations (refer Appendix 2), all of which are mandatory and must be addressed.

It would be sensible (but is not essential) to arrange the public environment report according to the headings provided below.

#### 3.1 General information

In relation to the requirement to describe the location of the action, specific geographic areas (and corresponding timing) must be defined wherever possible. Where specific geographic areas and timing cannot be identified, geographic priorities and criteria for the action must be described such that:

- i) interested parties can reach reasonable conclusions about likely effects of the action in areas of particular interest to them; and
- ii) consistency with the objectives of the action can be established.

Clear and accurate maps should be provided wherever possible.

In relation to the requirement to explain how the action relates to any other relevant actions that have been, or are being, taken, or that have been approved in the region affected by the action, the broad interlinkages between NVIRP and the following projects should be outlined:

- other irrigation modernisation projects in the Goulburn Murray Irrigation District;
- the Sugarloaf Pipeline Project; and
- proposed Living Murray Icon site project at Gunbower Forest.

The relationship of NVIRP to the *Northern Region Sustainable Water Strategy* and any other relevant policy documents should also be outlined.

In relation to the requirement to provide information on the current status of the action, a comprehensive inventory of works already completed under the auspices of NVIRP, as well as any planning, design or investigative activities that have been completed or are underway, must be provided.

A discussion of the assumptions underlying the predicted costs and water savings associated with the connections program must be provided. Discussion of contextual information on other projects and programs interacting with the connections program may be appropriate.

#### 3.2 Description of the action

In relation to the requirement to describe all components of the action, the components of the action (eg automated control system, increased metering

accuracy, increased channel efficiency, public “backbone” of irrigation channels with rationalised customer service delivery points) must be described in terms of their intended function and anticipated impacts on the operation of the system.

It is understood that proposed works within the Kerang Wetlands Ramsar site have not been referred and may not yet be fully planned. However, a summary of the status of any planning, design or investigative activities that have been completed or are underway must be provided. In addition, please ensure that any anticipated impacts on the Kerang Wetlands Ramsar site occurring as a result of works outside the Ramsar site are addressed.

### **3.3 Matters of national environmental significance**

An inventory of surveys conducted in relation to matters of national environmental significance, whether office-based or field-based, must be provided. These may be provided as appendices, but must at least be fully referenced and must be made publicly available unless the Department is furnished with compelling reasons not to do so.

The results, indicating the presence of matters of national environmental significance must also be provided. Where the matter of national environmental significance is a species, an indication should be provided of the likelihood of occurrence as well as, if relevant, the type of habitat (eg breeding, foraging). Consideration should be given not only to aquatic and riparian species and communities, but also to groundwater dependent species and communities, and terrestrial species and communities that may have become reliant on or habituated to artificial water sources associated with irrigation infrastructure.

Output from the Protected Matters Search Tool (accessible from the Department’s website) must be included as an appendix. Potential impacts on any species considered likely or known to occur in areas impacted by the controlled action must be addressed.

Any anticipated future surveys to be conducted in relation to matters of national environmental significance, whether office-based or field-based, must also be discussed.

### **3.4 Relevant impacts**

The components of the action as described pursuant to section 3.2 above must be characterised in terms of their estimated impacts in hydrology. Where water savings are anticipated, the methods for calculating these savings, as well as any underlying assumptions, sources of error, confidence intervals and audit / verification protocols must be explained (this may be done with reference to existing documents). Implications of changes to hydrology for any matters of national environmental significance determined, suspected or thought to be present within the area of influence must be discussed.

Discussion of potential impacts on hydrology must have regard to:

- surface water and groundwater relationships;
- water quality and quantity;
- natural, modified and constructed waterbodies and waterways (including floodplains), and any connectivity between them;
- consideration of the implications of climate change scenarios; and
- any periodic (eg daily or seasonal) variation in the above factors.

In addition to localised impacts, the downstream extent of potential hydrological impacts should be discussed, particularly in relation to the Murray River and associated Ramsar sites.

Potentially significant impacts on matters of national environmental significance other than hydrological impacts should also be considered. For example, these may include impacts associated with:

- reduced access to waterbodies for wildlife (eg through channel rationalisation or fencing);
- disturbance to riparian and aquatic habitat; or
- increased wildlife mortality caused by plastic lining of waterbodies.

### **3.5 Proposed safeguards and mitigation measures**

In relation to the requirement to provide information on proposed safeguards and mitigation measures to deal with relevant impacts of the action, the approach to developing environmental watering plans must be explained. The explanation must include:

- a list of sites for which environmental watering plans will be prepared, along with a summary of the matters of national environmental significance for which they are being protected;
- a discussion of how this list of sites was arrived at;
- summary information on any other sites for which the preparation of an environmental watering plan was investigated but will not proceed;
- an indicative schedule for the development and approval of environmental watering plans, including plans which have been completed and / or approved;
- a description of what information (minimum and typical) an environmental watering plan must include; and
- an explanation of how and by whom the source of any “mitigation water” will be determined.

Contingency measures for the unexpected future detection of matters of national environmental significance must be discussed. The discussion need not anticipate specific events or detail specific mitigation measures, but must explain in broad terms what steps will be taken to ensure that impacts will be managed.

Any environmental watering plans (dealing with matters of national environmental significance) that have already been completed, along with any supporting documentation on matters of national environmental significance determined, suspected or thought to be present, hydrological or ecological surveys undertaken and sources of mitigation water considered, should be attached to the public environment report as appendices.

### **3.6 Other approvals and conditions**

In relation to the requirement to provide information on what environmental assessment of the proposed action has been, or is being, carried out, the status of implementation of the decision of the Victorian Minister for Planning, the Hon Justin Madden MLC, must be described, and the decision itself provided as an appendix.

### **3.7 Environmental record of person(s) proposing to take the action**

No specific details.

### **3.8 Information sources provided in the public environment report**

No specific details.

### **3.9 Economic and social matters**

The economic and social impacts of the controlled action, both positive and negative, must be analysed. Matters of interest may include:

- details of any public consultation activities undertaken, and their outcomes;
- projected costs and benefits of the project
- details of changes to public channel access arising from rationalisation; and
- benefits arising from the deployment of water savings.

Economic and social impacts should be considered at the local, regional and national levels.

### **3.10 Conclusion**

A conclusion to the report must include a statement by the proponent as to whether it believes that the controlled action should be approved, and may recommend conditions pertaining to an approval.

## 4. Appendix 1 – Objects of the EPBC Act and principles of ecologically sustainable development

### 3 Objects of Act

- (1) The objects of this Act are:
  - (a) to provide for the protection of the environment, especially those aspects of the environment that are matters of national environmental significance; and
  - (b) to promote ecologically sustainable development through the conservation and ecologically sustainable use of natural resources; and
  - (c) to promote the conservation of biodiversity; and
  - (ca) to provide for the protection and conservation of heritage; and
  - (d) to promote a co-operative approach to the protection and management of the environment involving governments, the community, land-holders and indigenous peoples; and
  - (e) to assist in the co-operative implementation of Australia's international environmental responsibilities; and
  - (f) to recognise the role of indigenous people in the conservation and ecologically sustainable use of Australia's biodiversity; and
  - (g) to promote the use of indigenous peoples' knowledge of biodiversity with the involvement of, and in co-operation with, the owners of the knowledge.
- ...

### 3A Principles of ecologically sustainable development

The following principles are principles of *ecologically sustainable development*:

- (a) decision-making processes should effectively integrate both long-term and short-term economic, environmental, social and equitable considerations;
- (b) if there are threats of serious or irreversible environmental damage, lack of full scientific certainty should not be used as a reason for postponing measures to prevent environmental degradation;
- (c) the principle of inter-generational equity—that the present generation should ensure that the health, diversity and productivity of the environment is maintained or enhanced for the benefit of future generations;
- (d) the conservation of biological diversity and ecological integrity should be a fundamental consideration in decision-making;
- (e) improved valuation, pricing and incentive mechanisms should be promoted.

## **5. Appendix 2 – Schedule 4 to EPBC Regulations – Matters to be addressed by draft public environment report and environmental impact statement (regulation 5.04)**

### **1 General information**

1.01 The background of the action including:

- (a) the title of the action;
- (b) the full name and postal address of the designated proponent;
- (c) a clear outline of the objective of the action;
- (d) the location of the action;
- (e) the background to the development of the action;
- (f) how the action relates to any other actions (of which the proponent should reasonably be aware) that have been, or are being, taken or that have been approved in the region affected by the action;
- (g) the current status of the action;
- (h) the consequences of not proceeding with the action.

### **2 Description**

2.01 A description of the action, including:

- (a) all the components of the action;
- (b) the precise location of any works to be undertaken, structures to be built or elements of the action that may have relevant impacts;
- (c) how the works are to be undertaken and design parameters for those aspects of the structures or elements of the action that may have relevant impacts;
- (d) relevant impacts of the action;
- (e) proposed safeguards and mitigation measures to deal with relevant impacts of the action;
- (f) any other requirements for approval or conditions that apply, or that the proponent reasonably believes are likely to apply, to the proposed action;
- (g) to the extent reasonably practicable, any feasible alternatives to the action, including:
  - (i) if relevant, the alternative of taking no action;
  - (ii) a comparative description of the impacts of each alternative on the matters protected by the controlling provisions for the action;
  - (iii) sufficient detail to make clear why any alternative is preferred to another;

- (h) any consultation about the action, including:
  - (i) any consultation that has already taken place;
  - (ii) proposed consultation about relevant impacts of the action;
  - (iii) if there has been consultation about the proposed action — any documented response to, or result of, the consultation;
- (i) identification of affected parties, including a statement mentioning any communities that may be affected and describing their views.

### **3 Relevant impacts**

3.01 Information given under paragraph 2.01 (d) must include:

- (a) a description of the relevant impacts of the action;
- (b) a detailed assessment of the nature and extent of the likely short term and long term relevant impacts;
- (c) a statement whether any relevant impacts are likely to be unknown, unpredictable or irreversible;
- (d) analysis of the significance of the relevant impacts;
- (e) any technical data and other information used or needed to make a detailed assessment of the relevant impacts.

### **4 Proposed safeguards and mitigation measures**

4.01 Information given under paragraph 2.01 (e) must include:

- (a) a description, and an assessment of the expected or predicted effectiveness of, the mitigation measures;
- (b) any statutory or policy basis for the mitigation measures;
- (c) the cost of the mitigation measures;
- (d) an outline of an environmental management plan that sets out the framework for continuing management, mitigation and monitoring programs for the relevant impacts of the action, including any provisions for independent environmental auditing;
- (e) the name of the agency responsible for endorsing or approving each mitigation measure or monitoring program;
- (f) a consolidated list of mitigation measures proposed to be undertaken to prevent, minimise or compensate for the relevant impacts of the action, including mitigation measures proposed to be taken by State governments, local governments or the proponent.

## **5 Other approvals and conditions**

5.01 Information given under paragraph 2.01 (f) must include:

- (a) details of any local or State government planning scheme, or plan or policy under any local or State government planning system that deals with the proposed action, including:
  - (i) what environmental assessment of the proposed action has been, or is being, carried out under the scheme, plan or policy;
  - (ii) how the scheme provides for the prevention, minimisation and management of any relevant impacts;
- (b) a description of any approval that has been obtained from a State, Territory or Commonwealth agency or authority (other than an approval under the Act), including any conditions that apply to the action;
- (c) a statement identifying any additional approval that is required;
- (d) a description of the monitoring, enforcement and review procedures that apply, or are proposed to apply, to the action.

## **6 Environmental record of person proposing to take the action**

6.01 Details of any proceedings under a Commonwealth, State or Territory law for the protection of the environment or the conservation and sustainable use of natural resources against:

- (a) the person proposing to take the action; and
- (b) for an action for which a person has applied for a permit, the person making the application.

6.02 If the person proposing to take the action is a corporation — details of the corporation's environmental policy and planning framework.

## **7 Information sources**

7.01 For information given in a draft public environment report or environmental impact statement, the draft must state:

- (a) the source of the information; and
- (b) how recent the information is; and
- (c) how the reliability of the information was tested; and
- (d) what uncertainties (if any) are in the information.