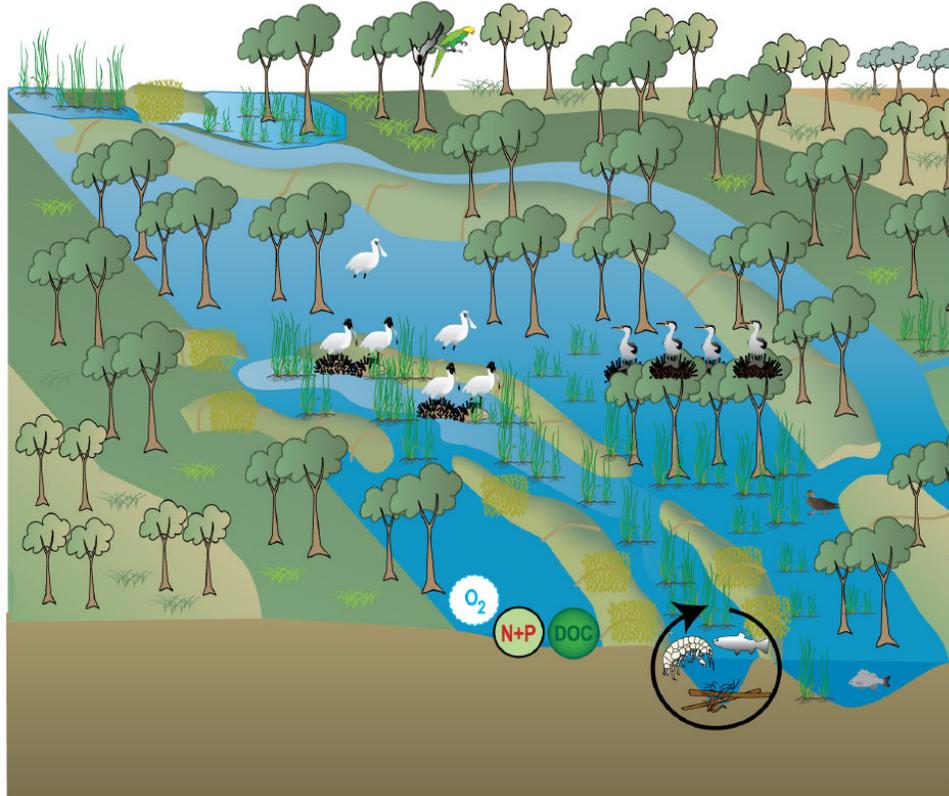


**Northern Victoria Irrigation Renewal Project**  
**Operation Impact Assessment on**  
**Wetlands of International Importance (Ramsar Wetlands)**



*(Source: J. Hale, 2009)*

Advice from the  
NVIRP Expert Review Panel  
to the  
Secretary of the Department of Sustainability &  
Environment

**8 January 2010**

**The NVIRP Expert Review Panel consists of:**

- **Denis Flett (Independent Consultant), Chair**
- **Terry Hillman (Independent Consultant)**
- **Jane Roberts (Independent Consultant)**

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## 1. INTRODUCTION

### 1.1 This Advice

This advice is in relation to a technical report which aims to quantify the potential changes in the ecology of Wetlands of International Importance (Ramsar Sites) that could result from the future operation of the Northern Victoria Irrigation Renewal Project (NVIRP) modernisation. The report, (Technical report #6) is referred to throughout this advice as the “Ramsar Wetland Report” or as a simpler abbreviation of this term.

### 1.2 Context

A delegate of the Minister for the Environment, Heritage and the Arts determined on 6 November 2009 that the proposed NVIRP action referred to the Federal Government under the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) is to be considered a Controlled Action. The proposed NVIRP action is “the modified operation of the fully modernised Goulburn Murray Irrigation District”. Accordingly, the Department of Environment, Water, Heritage and the Arts (DEWHA) advised NVIRP that it is to prepare a Public Environment Report (PER) that will determine the likely impact on Matters of National Environmental Significance (MNES) that are protected under Part 3 of the EPBC Act, including:

- wetlands of international importance;
- listed threatened species and communities; and
- listed migratory species.

Six technical reports have been commissioned by NVIRP as part of preparing the PER, and these are:

- Technical Report #1: Sinclair Knight Merz (2009a). *Northern Victoria Irrigation Renewal Project: Assessment of Hydrological Changes from the operation of the NVIRP modernised GMID - Surface Water Hydrology*, Sinclair Knight Merz report (Final Version) prepared for the Northern Victoria Irrigation Renewal Project, Shepparton
- Technical Report #2: Sinclair Knight Merz (2009b). *Northern Victoria Irrigation Renewal Project: Assessment of Hydrological Changes from the operation of the NVIRP modernised GMID - Groundwater Hydrology*, Sinclair Knight Merz report (Final Version) prepared for the Northern Victoria Irrigation Renewal Project, Shepparton
- Technical Report #3: King, A.J. and Tonkin, Z. (2009). *Northern Victoria Irrigation Renewal Project: Operational impact assessment on aquatic fauna*. Unpublished client report. Arthur Rylah Institute for Environmental Research. Department of Sustainability and Environment, Heidelberg
- Technical Report #4: Brett Lane & Associates (2009). *Northern Victoria Irrigation Renewal Project: Operational Impact Assessment on Terrestrial Vertebrate Fauna*, Brett Lane & Associates report 9056.2(2.8) prepared for Northern Victoria Irrigation Renewal Project, Shepparton
- Technical Report #5: Ecological Associates (2009). *Northern Victoria Irrigation Renewal Project: Assessment of Impacts on Flora Issues of National Environmental Significance*, Ecological Associates report EI001-3-D prepared for Northern Victoria Irrigation Renewal Project, Shepparton

- **Technical Report #6:** Hale, J. (2009). *Northern Victoria Irrigation Renewal Project: Operation Impact Assessment on Wetlands of International Importance (Ramsar Wetlands)*, Report prepared for Northern Victoria Irrigation Renewal Project, Shepparton, Jennifer Hale, Kinglake.

### 1.3 Role of Expert Review Panel

An Expert Review Panel (ERP) was appointed by the NVIRP and endorsed by the Minister for Environment and Climate Change (Victoria). The role of the ERP is to provide advice to NVIRP, the Minister for Water, and the Secretary, Department of Sustainability and Environment (DSE) in relation to the decision by the Minister for Planning (Victoria) that an Environment Effects Statement (EES) is not required for the NVIRP. The relevant condition of the Minister's decision is Condition 2, which determined that:

*“NVIRP must appoint an Expert Review Panel, the membership and terms of reference of which are to be endorsed by the Minister for Environment and Climate Change, to provide advice on hydrological and related ecological changes due to the implementation of NVIRP”.*

The ERP was established in late June 2009 and has met as required since the beginning of July 2009 to review the matters set out in the conditions specified by the Minister for Planning (Victoria).

### 1.4 Purpose of the Ramsar Wetland Report

This report considers whether the hydrological changes expected from the operation of NVIRP modernisation are likely to have a significant impact on the ecological character of any Wetland of International Significance (Ramsar site) within the NVIRP footprint. Potential impacts are assessed by considering ecological character against the Significant Impact Criteria set out in the EPBC Act Policy Statement 1.1 Significant Impact Guidelines. Sites which may possibly require mitigation measures to avoid or reduce impacts are also identified.

The Ramsar Wetland Report relies on the two hydrological reports (as shown in **Figure 1**) as well as the three ecological reports covering EPBC Act listed species and communities.

### 1.5 Process for Expert Review Panel Review

The ERP's advice is based on the version of this Technical Report received prior to 1 January 2010. This advice is submitted to the Secretary of the Department of Sustainability and Environment (DSE) on the understanding that editorial changes may be made to this report on full review by NVIRP and the DSE, and prior to submission of the PER to DEWHA.

NVIRP and the DSE formed a Steering Committee to define the scope and direct the consultant engaged for this assessment, Jennifer Hale. The ERP received a draft of this report, and a presentation by Jennifer Hale in mid December 2009. Since then there have been further iterations of the report incorporating refinements based on feedback from agencies and stakeholders, including from the ERP.

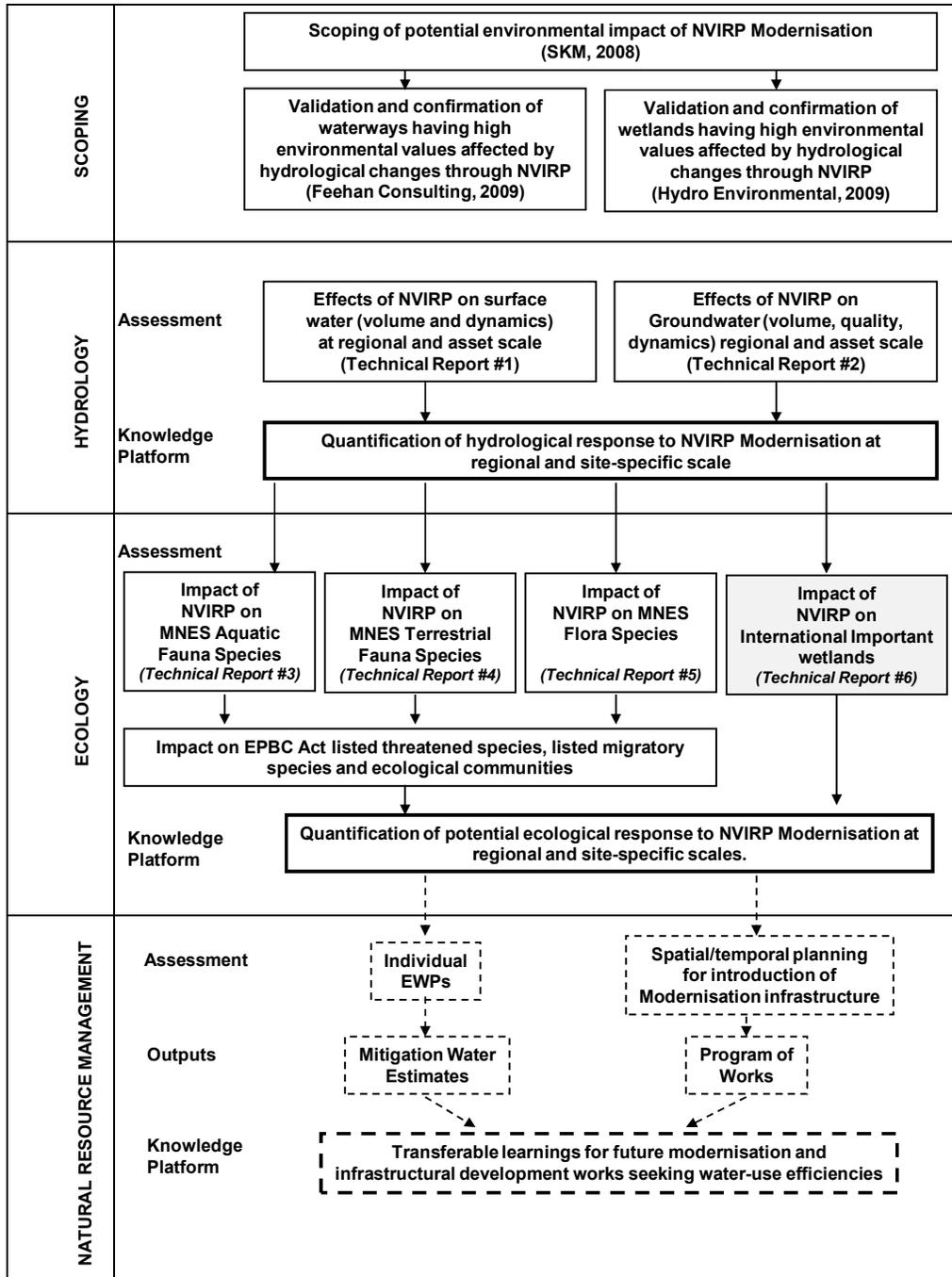
### 1.6 Criteria Used by the Expert Review Panel

The ERP established several criteria to guide its review of all six technical reports and to structure its advice to the Secretary of the DSE. These criteria are based on the EPBC Act Significant Impact Criteria, and on the directions given in his decision by the Minister for Planning (Victoria) that no EES is required for NVIRP. The criteria were developed with an awareness of the PER Guidelines provided to NVIRP by DEWHA on 24 December 2009.

These criteria are as follows:

- (i) Comprehensiveness of the Report
- (ii) Adequacy of the Technical Methods
- (iii) Effectiveness of the Process
- (iv) Suitability for Purpose

Figure 1: Assessment Purposes and Knowledge Platforms of PER Supporting Documentation



## 2. REVIEW OF THE RAMSAR WETLAND REPORT

### 2.1 Comprehensiveness of the Report

The report takes a systematic approach to determining which of the ten Ramsar sites identified by the Matters of National Significance (MNES) Search tool need to be considered. This is done by applying two hydrological filters, and drawing on information generated within the surface water hydrology report (Technical Report #1, **Figure 1**).

The ERP is confident that the hydrological filters used were sensible and that they have been properly applied, and that the final list for consideration, comprising just four Ramsar sites, does not wrongly exclude any that should be considered.

### 2.2 Adequacy of the Technical Methods

The methods used in this report included conceptual diagrams, impact pathways and stressor models. These are straightforward and effective organisation techniques for dissecting a question, for tracking connections, and for isolating critical points of interest. They are also effective in communicating issues to do with large ecosystems. In this case, the critical points of interest came from ecological descriptions, which were specifically and individually brought up to date, as needed, using contemporary information. Sources used are diverse, wide-ranging and not parochial, and are clearly acknowledged. These are used appropriately through the report to support statements or acknowledge sources.

The ERP believes that these techniques are suitable for the task, and that these were applied effectively. It believes that, overall, the assessment has benefitted from updating the Ramsar criteria, as this means that the processes, benefits and services are also up to date. This updating means that the assessment can be expected to be valid into the future.

### 2.3 Effectiveness of the Process

The report finds that the operation of NVIRP is *unlikely* to have a significant impact for the four Ramsar sites considered, but recognises there has been some uncertainty regarding one wetland in one of the Ramsar sites (Johnson Swamp, Kerang Lakes) and as such observes EPBC Significant Impact Criteria advice in stating that this ought to therefore be considered as potentially significant. However, this particular wetland was identified independently through the Scoping Study (**Figure 1**) as a wetland potentially affected by NVIRP-induced changes (to outfalls), and as such is the subject of more detailed hydrological analysis investigating the need for mitigation water.

The ERP considers that this assessment has been systematic and thorough, and that the analysis has benefitted from having the Ramsar criteria brought up to date. The rationales given for reaching the conclusion for each site are sound and are presented clearly.

### 2.4 Suitability for Purpose

The assessment shows a clear understanding of what is needed and is definitely viewed as appropriate for the purpose of supporting the PER as part of the EPBC Act referral process. The report works towards the five Significant Impact Criteria required by the EPBC Act guidelines. As with the other ecological reports, evaluation is largely based on the size of the hydrological changes, and any consequent effect on water quality.

The ERP considers that this report is suitable for its purpose, and that the findings are soundly based.

### **3. CONCLUDING ADVICE**

The Ramsar Wetland Report has evaluated Ramsar sites within the probable zone of influence of operational changes due to NVIRP modernisation using the relevant EPBC Act Significant Impact Criteria specific to Wetlands of International Importance. The evaluation used a number of the hydrological findings prepared as part of the PER process and produced a clear and readable report. The ERP concludes that this is a sound evaluation and appropriate for purpose.

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