

ATTACHMENT B

Orange-bellied Parrot
Offset Package Projects

Summary

As part of the Heemskirk Wind Farm (HWF) project, a commitment has been made to manage and mitigate the potential impacts of the development. This Offset Package embodies that commitment. The Offset Package involves the provision of three projects. They are:

1. *Rehabilitation or other works:* Habitat rehabilitation or other activities to improve the quality of at least two (2), possibly three (3) (if available) OBP wintering habitat sites to an upper limit of \$295,000.
2. *Analysis of the OBP Migratory Route in Tasmania:* Conduct an analysis of the feasibility of determining the migration route of OBPs through Tasmania.
3. *Population monitoring investigation:* Provide funds to investigate the OBP population monitoring program currently being carried out at Melaleuca. This investigation will be carried out by a panel of experts jointly selected with HWF and DEH. The results of this investigation will be shared with DEH, Department Primary Industries Water and the Environment (DPI WE) and HWF. Work will commence by the panel upon receipt of the current monitoring design and all data from the Melaleuca population monitoring program. Funding for this work will be specific and limited to \$100,000 over five (5) years. Excess funding to be diverted to offset works.

INTRODUCTION

As part of the Heemskirk Wind Farm (HWF) project, a commitment has been made to manage and mitigate the potential impacts of the development.

During the evolution of this Offset Package it was recognised that carrying out monitoring on-site for OBP collisions would be a very difficult and time-consuming task with a number of risks potentially affecting the success of any monitoring program. Furthermore it was considered that the undertaking of a monitoring program for detecting OBP fatalities would provide little to assistance to conservation and management of the species. These risks included:

- **Scavenging:** at the Heemskirk wind farm will be uncontrolled and as this is a small bird it is possible that scavenging would result in removal of a carcass with no evidence of a collision remaining around the turbine.
- **Difficult to observe:** as the OBP is a small, cryptic bird; any mortalities that occur may be difficult to find in the vegetation surrounding a turbine.
- **Small sample sizes:** the number of OBPs in the population is approximately 200, and this coupled with a likely low collision rate, will result in the presence of a carcass being a rare event, and consequently more difficult to detect.
- **Boredom factor:** there are constraints in monitoring by observers due to the "boredom factor" which can result in lowered vigilance during monitoring, a factor that is difficult to manage.

Because of these monitoring difficulties and the high costs of undertaking monitoring of this type the person responsible for the activity proposed to direct resources to projects that would have demonstrable benefits to the conservation and management of this species. From this motive this Offset Package was developed in consultation with the State and Federal Regulators and the OBP RT.

Since the Offset Package's inception the package has undergone numerous iterations. During more recent times, while the State Regulators saw benefits in obtaining more knowledge about the habit and habitat for the conservation of this species, it became evident that they were uncomfortable with the inability to identify direct impacts to the species from the proposed development. This concern was formally raised in the Draft 24 February 2005 draft permit conditions provided to the person responsible for the activity. Condition number WO1 (a) stated that "*...a program to be implemented by the Orange-bellied Parrot Recovery Team to monitor the Orange-bellied Parrot population (or subset thereof to detect any catastrophic short-term or significant longer term changes in the population.*"

Following receipt of condition number WO1 (a) the person responsible for the activity evaluated the feasibility of undertaking monitoring of the entire population. During this evaluation it was apparent that monitoring of the population would be unable to relate any changes in population size to this one development (see Response to Permit Condition WO 1 (a) in Attachment A above).

The person responsible for the activity elected to revisit the feasibility of undertaking on-site monitoring and determine whether or not the sampling challenges detailed above could be resolved. Following discussions with the Department of Environment and Heritage (DEH) concern was raised over the time and effort expended by other

developers carrying out monitoring on-site and trying to resolve the issues with sampling on site, and it was suggested that contributions would be better spent carrying out work for the conservation and management of the species. DEH raised interest in reviewing the population monitoring program currently being carried out at Melaleuca

In summary, there are three projects for this Offset Package. They are:

1. *Rehabilitation or other works:* Habitat rehabilitation or other activities to improve the quality of at least two (2), possibly three (3) (if available) OBP wintering habitat sites to an upper limit of \$295,000.
2. *Analysis of the OBP Migratory Route in Tasmania:* Conduct an analysis of the feasibility of determining the migration route of OBPs through Tasmania.
3. *Population monitoring investigation:* Provide funds to investigate the OBP population monitoring program currently being carried out at Melaleuca. This investigation will be carried out by a panel of experts jointly selected with HWF and DEH. The results of this investigation will be shared with DEH, Department Primary Industries Water and the Environment (DPIWE) and HWF. Work will commence by the panel upon receipt of the current monitoring design and all data from the Melaleuca population monitoring program. Funding for this work will be specific and limited to \$100,000 over five (5) years. Excess funding to be diverted to offset works.

It is proposed that the permit conditions for the wind farm could require the person responsible for the activity to:

- submit a plan detailing the methodology and milestones for each project;
- achieve performance outcomes in relation to each project within a specified timeframe; and
- the permit conditions would also require the person responsible for the activity, to provide annual reports on the outcomes of the projects undertaken and to conclude the expenditure of funds by a certain date.

A draft permit condition relating to OBP conservation commitments is set out in Attachment B 1.

The sections that follow provide further details on the projects proposed under this Offset Package.

COMMITMENTS

As discussed in the section above, the person responsible for the activity will commit to three projects; they are *Rehabilitation or Other Works*, *Analysis of the OBP Migratory Route in Tasmania*, and *Population Monitoring Investigation*. These commitments are described below.

Project 1: Rehabilitation or Other Works

Habitat rehabilitation or other activities to improve the quality of at least two (2), possibly three (3) (if available) OBP wintering habitat sites to an upper limit of \$295,000.

There are several areas in Victoria that have been identified by the OBP RT¹ as needing improvement to winter feeding habitat, including:

¹ As discussed with Peter Menkhorst (OBP RT), 28th June 2005.

- Lake Connewarre Wildlife Reserve;
- Point Wilson - including the Spit Nature Conservation Area, and the Western Treatment Plant area (this is an area impacted by Melbourne Water's wastewater treatment plant, mainly requiring Saltmarsh regeneration);
- Bream Lea Nature Conservation Area;
- Western Port; and
- Swan Bay.

Selection of two areas requiring works from the above locations will be undertaken by the person responsible for the activity. The following general areas of works were outlined by Parks Victoria, and will be firmed up following on-site discussions in late July.

Lake Connewarre Wildlife Reserve

The Lake Connewarre Wildlife Reserve contains important winter feeding habitat for the OBP. Due to clearing of all land surrounding the lake, there are no shrubs or other vegetation that would provide suitable roosting habitat for the parrots in the immediate vicinity. Observations indicate that OBPs fly northwards for several kilometres to roost, therefore, it is likely that the restoration of roosting habitat at Lake Connewarre would significantly improve the quality of the site for the OBP.

It is proposed to establish plots of native shrubs to act as roosting sites for the OBP.

The work will occur over a three year period with the following plan proposed:

- weed control, involving the spraying and slashing of weeds in areas to be planted;
- small areas of fencing;
- planting of shrubs and trees; and
- follow-up weed spraying and replacement of dead trees and shrubs, where required.

Point Wilson - Spit Nature Reserve

There are areas within the Spit Nature Conservation Reserve at Point Wilson that require fencing to keep cattle and people out of the saltmarsh areas. The proposed works at these areas will include:

- fencing;
- weed control;
- planting; and
- signage.

Bream Lea Nature Conservation Area

Areas to be selected within Bream Lea Nature Conservation Area for works will mainly be for elevated structures for roosting vegetation on elevated grounds. Some fencing maybe required to keep rabbits out, but fencing for stock is not required. Works will include:

- weed control;
- some rabbit proof fencing;
- planting of roosting vegetation; and
- follow up works, i.e. weed control and replanting, where necessary.

Swan Bay

There is a linear strip of vegetation around the Swan Bay foreshore that requires vegetation works. The Edwards Point end of the Bay and the south-western corner of the Bay are areas where planting of elevated structures for roost sites in the intertidal saltmarsh area are proposed. Fencing of areas at Swan Bay is not considered necessary. Typical works will include:

- weed control;
- planting of roosting vegetation; and
- follow up works, i.e. weed control and replanting, where necessary.

Parks Victoria were not familiar with the locations or works required at Western Port, however, works are expected to be similar to those outlined above, i.e. weed control, planting and possibly fencing.

The person responsible for the activity will be accountable for managing this work and reporting to the Regulators on its progress. This work will commence within 12 months of the completion of commissioning of the first turbine on the land and completed within five years of the completion of commissioning of the first turbine on the land (unless subject to unexpected delays).

Project 2: Analysis of the OBP Migration Route in Tasmania

Conduct an analysis of the feasibility of determining the migration route of OBPs through Tasmania (defined as the west coast between breeding grounds in Melaleuca and the northern most tip of mainland Tasmania). This would require:

- an assessment of the options available;
- a desk top assessment of the most appropriate technique to investigate the identified objectives; and
- an analysis of the potential impacts and recommendations on actions that should be undertaken.

Details on this proposed study follow.

Background

As stated in Supplement Two, determination of the migration route of OBPs through the Heemskirk area would contribute to understanding the level of risk this wind farm poses to the species. For example, if the migration route is inland of the Heemskirk range, and not through the wind farm site, the risk estimated from modelling work already carried out, should instead be zero. Given that the model assessed the 'worst case scenario', the predictions from the modelling would still apply if the migratory route was found to pass through the site.

This report will determine the most effective means of determining the migration route of this species through the entire west coast of Tasmania (from the breeding grounds in Melaleuca to the northern most tip of mainland Tasmania).

The report will focus on the following:

Suitable technology available

It could include (but not be limited to) the assessment of Automated Acoustic Monitoring System, but will not include radio tracking. The OBP RT has indicated that they do not believe it is appropriate to deploy devices on this species as the current technology is not suitable. Nor do they believe that animal ethics approval would be granted for such work due to the potential risk to the species.

The ability to answer the questions being raised

The report would determine if the techniques identified above will be able to obtain the data required to answer the objectives of such a study.

Aim

Undertake an assessment of the most appropriate means of determining the migration route of OBPs through Tasmania.

Objectives

To determine:

- What is the most suitable technique for this species to answer the question 'what is the migration route of OBPs through Tasmania during their autumn and spring migrations'?
- What sample sizes are required to adequately answer the questions and if this can be achieved?
- Is it possible to use a surrogate species that would be representative of the movements of OBPs in order to obtain a sufficient sample size?

Methods

This project would comprise a report to the Regulators which investigates each of the above questions. It would be compiled from:

- A review of the literature;
- A review of the technology currently available;
- Discussions with relevant experts, and
- May include a pilot study of a system that appears suitable

Recommendations would be provided on the most appropriate actions to undertake.

Deliverables

A report assessing the issues described above will be submitted within 12 months of commissioning of the wind farm.

Project 3: Population monitoring investigation

The person responsible for the activity will manage and fund the investigation into the 0131 population monitoring program currently being carried out at Melaleuca. This investigation will be carried out by a panel of experts jointly selected with HWF and Department of Environmental (DEH). The results of this investigation will be shared with DEH/Department Primary Industries Water and the Environment (DPIWE) and HWF. Work will commence by the panel upon receipt of the current monitoring design and all data from the Melaleuca population monitoring program. Funding for this work will be specific and limited to \$100,000 over five (5) years. Excess funding to be diverted to offset works.