Woodland Birds Project Plan – Swift Parrot v1.0

Protecting Critically Endangered Swift Parrots

The Swift Parrot Recovery Team held a workshop in August 2017 to determine the priority recovery actions for the species. At that workshop it was concluded that the key actions were:

(1) Protect nesting Swift Parrots from Sugar Gliders

(2) Continue population monitoring throughout their breeding range

(3) Design a winter habitat monitoring strategy for Swift Parrots

Swift Parrots are severely threatened by nest predation by invasive Sugar Gliders and developing techniques to manage this threat will be crucial to developing longer term management strategies to conserve the species. Activities to address this threat are covered in Aims 1 and 2 of this research plan.

The extent, variation and availability of winter habitat for Swift Parrots remains uncertain, so identifying priority areas for protection at landscape scales is difficult. Existing survey effort is ad hoc, and spatially limited sampling effort limits the inference that can be drawn from existing data. Aim 3 is targeted at addressing this knowledge gap, and aims to develop a sophisticated temporally dynamic species distribution model to inform the development of a new, targeted monitoring program. This will help guide Swift Parrot management on the mainland into the future.

Aims 1-3 directly address several key recovery objectives for the Swift Parrot that, until now, have received limited action and remain unresolved (Table 1). The project aims directly to tackle critical conservation problems for Swift Parrots, and will yield crucial new information for implementation of recovery actions.

Table 1. Recovery actions addressed by the proposed work.

Proposal Aim	Relevant Swift Parrot Recovery Action
Protect nesting Swift Parrots from Sugar Gliders	**2.1** Manage and protect nesting and foraging habitat. **4.1** Develop and implement an effective population monitoring program during the breeding season.
Continue population monitoring	**1.1** Identify and map foraging and nesting habitat throughout the breeding range and prioritise sites **1.2** Identify and map foraging and roosting habitat. **2.1** Manage and protect nesting and foraging habitat. **2.2** Monitor and manage for climate change

	4.1	Develop and implement an effective population monitoring program during the breeding season.
	4.2	Collect and analyse information on population dynamics and viability
Design a winter habitat monitoring strategy	**1.2c**	Establish habitat phenology data collection in existing research and monitoring studies, analyse findings and incorporate into recovery program.
	1.3	Identify and map movement patterns throughout the range of the species.
	2.1d	Provide Swift Parrot conservation information for consideration during the New South Wales. Local Government Local Environmental Planning (LEP) review process.
	2.2	Monitor and manage for climate change

AIM 1: Protect nesting Swift Parrots from Sugar Gliders

Background

Swift Parrots are severely threatened by nest predation by invasive Sugar Gliders. Sugar Gliders occur across the Tasmanian mainland breeding range of the Swift Parrot, but are absent from offshore islands. Predation intensity varies with mature forest extent, and deforestation across Tasmania is placing large areas of Swift Parrot breeding habitat at high risk of glider predation. At some locations on the Tasmanian mainland, Swift Parrot nests can suffer 100% predation by Sugar Gliders, and on average 50% of nesting adult female Swift Parrots are killed each year. Because patterns of food availability and parrot settlement vary annually, Swift Parrots may be subject to major extremes in predation risk, against which there is currently no effective management solution.

Population viability models predict that due to Sugar Glider predation alone, the Swift Parrot population is likely to decline by up to 94% in only three generations. This analysis underpinned a change in the conservation status of Swift Parrots to Critically Endangered in 2015. This project aims to address directly the threat posed by Sugar Gliders by developing innovative and practical conservation solutions for the Swift Parrot.

Method

This project will test the efficacy of a range of nest protection approaches to increase survival of Swift Parrots in glider occupied mainland Tasmanian forest. The project will utilise a network of 500 nest boxes already deployed across the Tasmanian breeding range of the Swift Parrot. Nest boxes occupied by Swift Parrots in Sugar Glider occupied forest will be

experimentally fitted with devices designed to: (1) exclude Sugar Gliders from entering nests, and/or (2) suppress/repel Sugar Gliders from the local area.

Pilot studies demonstrate that Swift Parrots readily utilise nest boxes and are not affected by the deployment of exclusion/repellent devices at their nests. Excluders will involve a mechanical door affixed to the entrance of active Swift Parrot nests, with a motor operated by an ambient light switch set to open during daylight hours and close at night. Repellents will involve intermittent broadcast of the calls of Sugar Glider predators near to active Swift Parrot nests.

Benefit

The project will provide new management options for Swift Parrots that may be attracted to nest in areas where the risk of predation is high, and will represent an essential and novel evaluation of the feasibility of intensive conservation management of a mobile species. This project will develop new and innovative approaches to address a key driver of decline in a critically endangered species, and empower conservation management aimed at preventing the extinction of Swift Parrots. Given that predation of Swift Parrots and their nests by Sugar Gliders may be the most severe driver of extinction, identifying how to mitigate and prevent predation is crucial to managing the species in the long term.

Key Performance Indicators – July to December 2018

(i) Quantification of box use by parrots.

- 500 nest boxes will be inspected for breeding status

(ii) Quantification of benefit of nest protection techniques,

- 100 nest boxes fitted with glider exclusion devices

(iii) Quantification of population level impact of nest protection/glider suppression

- Survival and reproductive success of parrots using protected nest boxes compared against unprotected nest boxes and natural hollows

AIM 2: Continue population monitoring

Background

Population monitoring is a basic element of any threatened species recovery program. Our group has monitored the Swift Parrot population in their breeding range for 9 consecutive years, and has generated a unique, long term, landscape scale dataset about the Swift Parrot population. This program forms the basis for all on-ground work and research undertaken in Tasmania by revealing the locations that Swift Parrots use, the trajectory of their population, and quantifying variation in their behaviour among years. This work is critical to measuring population-level responses of conservation interventions, and satisfies several crucial aims of the species recovery program.

Method

Standardized surveys are undertaken at >1,000 sites in potential Swift Parrot foraging habitat across their breeding range. The total surveyed area covers ~10,000 km^2. The results of this first component of the program then guide surveys in available nesting habitat, resulting in ~400 sites surveyed each year using a standardised protocol. In total the program has >1200 fixed sites in nesting habitat with number surveyed each year varying due to the variations in available habitat each year.

Benefit

Our monitoring has revealed the complex variation in annual settlement patterns of Swift Parrots. We distil and provide these data to Government agencies and other land managers to inform management decisions in almost real time. Understanding variation in their settlement patterns is critical to justifying actions relating to habitat management/protection, understanding the effects of Sugar Glider predation, and developing actions targeted towards Sugar Glider control/suppression. The program delivers: (1) annual settlement patterns during the breeding season, (2) a robust measure of population trends in abundance and density on which to base the success of recovery actions, (3) a measure of the proportion of the population exposed to Sugar Glider predation each year, (4) a measure of habitat use versus availability each year, thus identifying resource bottlenecks, (5) a spatially explicit guide to target both habitat management and Sugar Glider control/suppression, and (6) scientific papers in peer-reviewed journals on which land managers can base decision-making.

In particular, the monitoring program has led to the retention of several thousands of hectares of breeding habitat, identified multiple locations where resource bottlenecks occur, identified previously unknown breeding regions on which a large proportion of the population relies on in particular years (eg. Eastern Tiers, Southern Forests, South Bruny), and identified the importance of previously unknown habitats (eg. wet forests).

Key Performance Indicators - July to December 2018

(i) Broad scale surveys to locate parrots and nesting aggregations
-1000 sites surveyed for tree flowering and occupancy by parrots

(ii) Fine scale surveys of sites with parrots
- location of nest trees and hollows

(iii) Monitoring of survival and reproductive success
- nest trees climbed
- adult and nestling survival monitored

(iv) Data entered in database
- preparation for annual models of food and nest site availability and parrot settlement

(v) notify land managers of occurrence of Swift Parrots

AIM 3: Identify winter habitat and develop monitoring approach in collaboration with BirdLife Australia

Background

The extent, variation and availability of winter habitat for Swift Parrots remains uncertain, so identifying priority areas for protection at landscape scales is difficult. Existing survey effort is ad hoc, and spatially limited sampling effort limits the inference that can be drawn from existing data. Nevertheless, substantial volunteer collected data have been gathered by *Birdlife Australia* and others, and these represent a significant basis on which to develop a new monitoring program. Therefore, to address these major knowledge gaps in Swift Parrot management, we propose to develop sophisticated temporally dynamic species distribution models to inform the development of a new, targeted monitoring program. We propose to work in close collaboration with *BirdLife Australia* to implement the improved monitoring system for Swift Parrots on mainland Australia.

Method

We will generate sophisticated temporally-dynamic species distribution models, as well as compile the first comprehensive habitat map for the species across their winter range. This approach enables the production of dynamic habitat suitability maps reflecting the natural variation in habitat suitability over ecologically relevant time scales. It also offers an unbiased assessment of potential contemporary habitat, enabling the first robust evaluation of priority sites across the species' entire winter range.

This unique combination of modelling and spatio-temporal habitat data will then provide a strong basis for revising and improving the current winter range monitoring program. We will then work with *BirdLife Australia* to complement our recently initiated monitoring project for regent honeyeaters by expanding effort in areas identified as priority Swift Parrot habitat, with *BirdLife Australia* taking carriage of field delivery and volunteer coordination.

Benefit

This project builds on the success of our monitoring program for Regent Honeyeaters and will reduce potential waste of conservation resources by identifying locations where threat potential is greatest and management action is most needed. By taking a holistic approach (spatially and temporally) to habitat identification across the winter range, we will provide the first rigorous quantification of the extent and variability of the Swift Parrot mainland distribution. The project will also build on the expertise and volunteer force that *BirdLife Australia maintains* as part of its Woodland Birds program, which brings together thousands of community members in woodland bird conservation activities each year.

Our priority range mapping will enable managers to evaluate where best to focus on-ground conservation action (*e.g.* restoration, covenants), and assist with the identification of regions under threat. Rigorous, repeatable analysis of existing data will lay the ground work for understanding the ecology and conservation management needs of Swift Parrots in their wintering habitat, and empower managers to make the best use of scarce resources.

This phase of the project will not commence until 2019.

The applicants

ANU is uniquely placed to deliver the proposed program. ANU researchers developed the techniques necessary for studying nomadic species like Swift Parrots at the broad scales proposed. Consequently the ANU already maintains a substantial infrastructure critical to the attainment of the proposed project goals (e.g. 500 nest boxes already deployed across Tasmania, a network of >2000 monitoring sites for Swift Parrots and Regent Honeyeaters across Tas, Vic, NSW and Qld) and have already implemented annual monitoring of Swift Parrots since 2009 in Tasmania. As the custodian of the long-term monitoring data, ANU is able to deliver ongoing monitoring of Swift Parrots in Tasmania, and has a demonstrated track record in translating monitoring outcomes into on-ground action. ANU pioneered the development of nest boxes and nest protection for Swift Parrots, and are the only agency with expertise on how to find, monitor and protect Swift Parrot nests. Likewise, ANU developed and implemented a new range-wide monitoring program for the Regent Honeyeater, and we propose to leverage off this strong base to develop a new winter monitoring approach for Swift Parrots. ANU's role in developing and implementing research programs for difficult to study birds places it in a unique position for delivering robust results despite the challenges posed by Swift Parrots.

ANU will collaborate with BirdLife Australia for longer term implementation of winter monitoring for Swift Parrots. BirdLife Australia are a leading conservation NGO, and the custodians of critical data collected by volunteers over several decades. These data are crucial to aim 3 of this program, and will be used to develop bioclimatic models of Swift Parrot distributions over time, which in turn will be used to develop a new monitoring program. BirdLife Australia maintain the largest network of dedicated volunteers for surveying birds in the country, and this network will be used to support the new monitoring program we develop for Swift Parrots.

Budget Justification

The budget is designed to make best use of the Mt Pleasant mining offset allocated to Swift Parrots ($1 million). The project lifetime is between Jul 2018 and Jun 2021 (Aims 1 and 2), but Aim 3 will conclude by Jun 2023. Aims 1 and 2 are designed to build on existing work by the applicants, and these activities are time intensive, and for success, depend on an unbroken time series of data. These aims must be achieved as quickly as possible to achieve a conservation impact on Swift Parrots. Aim 3 will be achieved in two steps: step 1 is a 1 year duration modelling and planning exercise, and step 2 is a 4 year implementation of the monitoring plan. This process will ensure that survey sites (selected via bioclimatic modelling and ground truthing in 2017/18) deliver the most robust, informative and cost effective way of surveying Swift Parrots in their winter range.

Aim 1

Swift Parrots nest in new locations each year in Tasmania, demanding substantial expenditure to travel. To find nests, full time staff are required to search the landscape, and once found, nests must be intensively monitored. In addition, identifying and protecting nests from predators is capital intensive, requiring the manufacture of nest boxes, excluder

and repellent devices, and the acquisition and maintenance of tree climbing equipment. Specialist skills are required for successful implementation of this project, requiring specifically trained staff. Subsequently the majority of the budget allocation relates to salary.

Aim 2

This project received partial funding from other sources, however full funding is required to continue achieving the high level of impact of the current monitoring paradigm. Most of the budget is allocated to salary for full time staff so that critical tasks (data entry, analysis, reporting, planning and implementation) may continue to be achieved. Additional resources have been allocated for the implementation of monitoring via subcontractor costs and additional mileage to survey sites across Tasmania.

Aim 3

This project will be a collaboration between ANU and BirdLife Australia. It requires advanced analytical skills to succeed, and consequently substantial resources have been directed to attract a suitably qualified Postdoctoral researcher at ANU to the role in year 1. Attracting a suitably qualified Postdoc will ensure that the aims of the modelling are achieved quickly, including gathering, filtering and modelling existing data on Swift Parrots in their winter range. The modelling process is expected to take approximately one year, and towards the end of year 1 the Postdoc will work closely with BirdLife Australia field staff as they begin to ground-truth the model and survey site selection. During years 2 and 3 BirdLife Australia will work to assess the modelling and site selection fully, visiting all sites selected for monitoring over the course of the year (which will involve BirdLife travelling across large portions of the mainland range of the species, from Victoria to Qld). BirdLife will then begin to develop materials (maps, survey protocols) and work to phase in implementation of the monitoring via its network of program volunteers. In years 4 and 5 this will translate to BirdLife Australia working in a true coordination role, acting as an information hub for volunteers across the project, providing logistical support for community members, and working as the central point for entering data and managing the national Swift Parrot recovery team sightings database.

Monitoring, Evaluation and Reporting

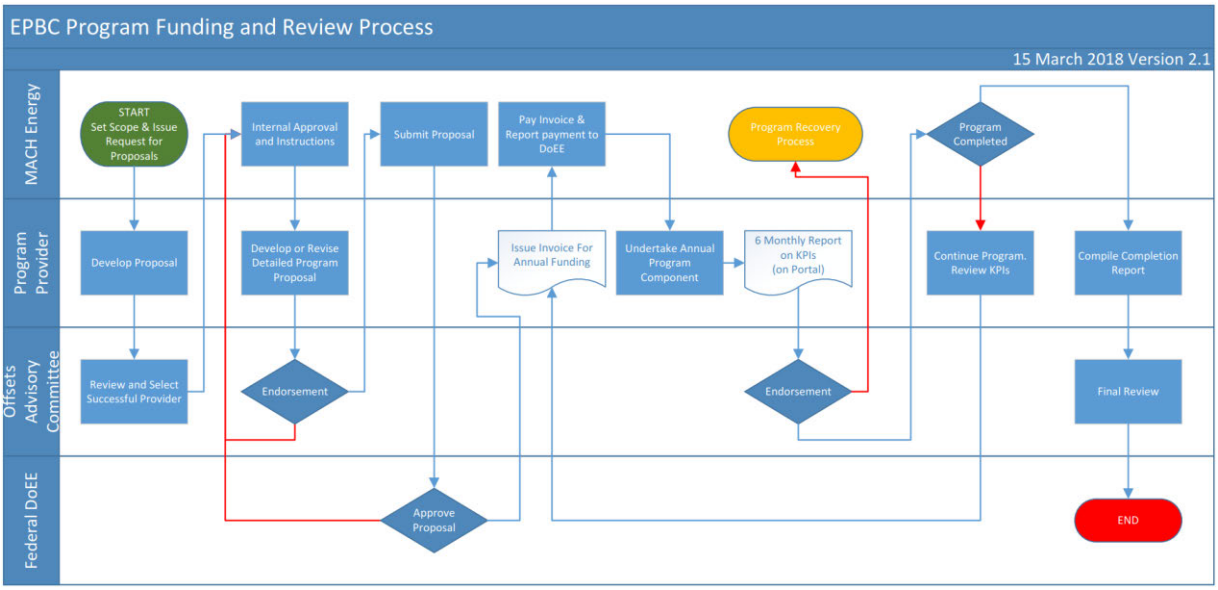
An adaptive management approach will be implemented. On an annual basis, actions will be reviewed and priorities will be reassessed in conjunction with the Swift Parrot National Recovery Team to determine if any changes are to be proposed for the subsequent years' activities.

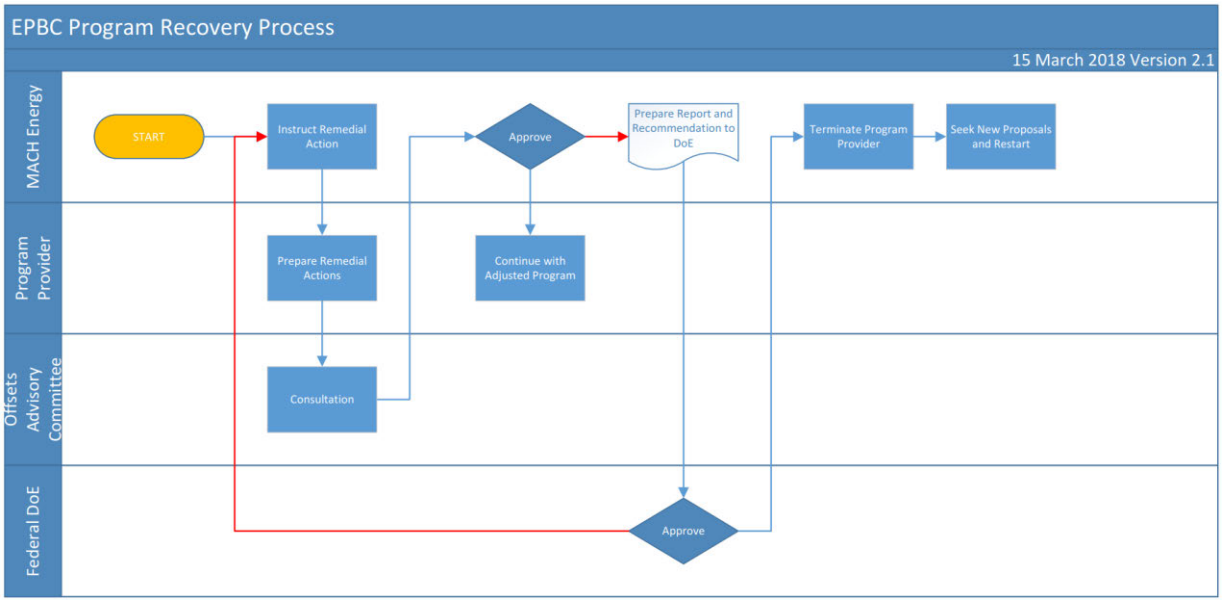
Reports will be submitted on the progress/status of actions within the proposal at the following frequencies:

- Informal 6 monthly report on KPIs, including new KPIs for subsequent 6 months (December).
- Detailed annual report, including financial information and new KPIs for subsequent 6 months (June).

The following figure demonstrates a flow-chart of the process to be incorporated and the EPBC Program Recovery Process.

Key results will also be published in relevant scientific journals, popular articles and via other forms of media. The applicants have a strong track record in dissemination of information to both scientific and lay audiences. Publishing will ensure the results are available to interested parties and ensure the results are disseminated widely.





Data sharing

Data including locations and movements of Swift Parrots, feeding and nesting sites, predation rates, reproductive success, and population dynamics will be kept in its raw form in spreadsheets and made available on open access data sharing sites, through

a creative commons license and upon request. It will be analysed by our team and made available to State and Federal Govt managers as written summarised reports and published in freely available peer-reviewed scientific journals. (NB journals often have their own specifications re how data should be made available). Some site specific breeding location data may be sensitive so data release may require permission of Tasmanian agencies (DPIPWE, ST, and FPA).

Budget breakdown

BUDGET BREAKDOWN		YEAR 1	YEAR 2	YEAR 3	YEAR 4	YEAR 5	TOTAL
ITEM	**DESCRIPTION**	**Jul 2018 – Jun 2019**	**Jul 2019 – Jun 2020**	**Jul 2020 – Jun 2021**	**Jul 2021 – Jun 2022**	**Jul 2022 – Jun 2023**	
Aim 1: Protect nesting Swift Parrots from predatory Sugar Gliders							
Primary field researcher	ANU Postdoctoral Fellow Level B2 @ 1 FTE	$146,644	$149,576.88	$152,568.42			
Project Equipment	Glider exclusion and repellent devices	$16,883	$16,883	$16,883			
Field mileage	14,000 km per survey round = 42,000 km @ $0.70 per km	$14,000	$14,000	$14,000			
Aim 1 Subtotal		**$177,527**	**$180,460**	**$183,451**			**$541,438**
Aim 2: Continue population monitoring							
Primary field researcher	ANU Research Officer, Level 8/2 @ 0.5 FTE	$72,461	$73,910	$75,388			
Other staff costs	subcontractors	$10,000	$10,000	$10,000			
Field mileage	6,000 km per survey round = 18,000 km @ $0.70 per km	$5,000	$5,000	$5,000			
Aim 2 Subtotal		**$87,461**	**$88,910**	**$90,388**			**$266,760**

	2018	2019		2020		2021		2022	2023	
Milestones Jul 2018 – June 2019	**Jul-Dec 2018**	**Jan-Jun 2019**	**Jul-Dec 2019**	**Jan-Jun 2020**	**Jul-Dec 2020**	**Jan-Jun 2021**	**Jul-Dec 2021**	**Jan-Jun 2022**	**Jul-Dec 2022**	**Jan-Jun 2023**

Aim 3: Identify winter habitat and develop monitoring approach							
Bioclimatic modelling/monitoring development	ANU Postdoctoral Fellow, Level A4 @ 1 FTE	$127,869	-	-	-	-	
BirdLife Australia monitoring program	Salary and on-costs – project manager (16 wks yr1, 0.8FTE yr 2, 0.5FTE yrs 3-5)	$26,500	$68,000	$43,000	$43,850	$44,734	
	Field expenses (vehicle, accom and meals) - 5,000km yr1, 20,000km yr2, 5,000km yr3	$7,000	$24,000	$6,850	$0	$0	
Aim 3 Subtotal		$161,369	$92,000	$49,850	$43,850	$44,734	$391,803
Total		**$426,357**	**$361,370**	**$323,689**	**$43,850**	**$44,734**	**$1,200,000***

* Total funds allocated to aims 1-3 is $1,200,000. The additional $200,000 will come from other funding sources.

Milestone 1: ANU – Field surveys of > 1000 sites to locate population and nesting sites	$87,461	-	$88,910	-	$90,388	-	-	-	-	-
Milestone 2: ANU climb/ monitor nests for predation & reproductive success	$78,906	81,738	$88,788	$74,788	$90,284	$76,284	-	-	-	-
Milestone 3: ANU Purchase/ installation/monitoring/data analysis for 200 nest boxes/glider exclusion devices	$16,883	-	$16,883	-	$16,883	-	-	-	-	-
Milestone 4: ANU – Bioclimatic modelling.	Defer till 2019	$63,935	$63,935	-	-	-	-	-	-	-
Model produced detailing over winter range										
Survey design developed and handed over to Birdlife Australia for implementation										
Total ANU invoice (May and November each year):	**$183,250**	**$145,673**	**$258,516**	**$74,788**	**$197,555**	**$76,284**	0	0	0	0
Milestone 5: Birdlife – Project management of monitoring program		$16,500	$63,000	$46,000	$24,925	$24,925	$21,925	$21,925	$22,367	$22,367
Total Birdlife invoice: NB still includes 200k to be invoiced from Whitehaven		**$16,500**	**$63,000**	**$46,000**	**$24,925**	**$24,925**	**$21,925**	**$21,925**	**$22,367**	**$22,367**
Total (ANU + Birdlife)	**$183,250**	**$162,173**	**$321,516**	**$120,788**	**$222,480**	**$101,209**	**$21,925**	**$21,925**	**$22,367**	**$22,367**

EPBC Approval Compliance

Condition	EPBC Condition	How the proposal satisfies this condition
18.	The Weed and Woodland Birds Project Plans must include, at a minimum the following information:	
a)	details of governance arrangements for an independent Trust, which may include representatives of Coal and Allied or similar organisation to oversee the implementation of the funded activities, including:	The project will be overseen by the established Project Offset Committee. The EPBC Fund and Review Process flow chart (available on pg.8) provides an overview of the governance arrangements for MACH Energy, the Offset Advisory Committee and the Department of Environment to oversee, manage and review project implementation progress over the project period, and allow for adaptive management/intervention processes to ensure outcomes are met.
i.	roles and responsibilities of individuals or organisations involved with implementation of the Project Plan	Refer to the Aims of the Proposal (Page 2-5). Also refer to 'Budget Breakdown Table'. (Page 10-11). The two sections together explain the roles of the organisations responsible for delivering and implementing the Project Plan. Aim 1. Protect Nesting Swift Parrots from Sugar Gliders – Responsibility: Rob Heinsohn - Australian National University Aim 2. Continue Population Monitoring – Responsibility: Rob Heinsohn - Australian National University. Aim 3. Identify winter habitat and develop monitoring approach in collaboration with BirdLife Australia – Responsibility: Rob Heinsohn - Australian National University and Dean Ingwersen - Birdlife Australia.
ii.	measures to account for recovery actions identified as priorities by the Swift Parrot recovery team	This proposal has been developed by a sub-group of the Swift Parrot Recovery Team, in consultation with the broader team. The Swift Parrot Recovery Team includes members from the Australian, NSW, Victorian, Tasmanian, SA and ACT governments, Birdlife Australian, the ANU and independent experts.

A letter of endorsement has been provided by the Team.

The key parties who will implement the research plan actions are members of the Recovery Team and will report both to the Team and others about project progress.

The project has been tailored to address the following actions from the Recovery Plan:

Proposal Aim	Relevant Swift Parrot Recovery Action
Protect nesting Swift Parrots from Sugar Gliders	**2.1** Manage and protect nesting and foraging habitat. **4.1** Develop and implement an effective population monitoring program during the breeding season.
Continue population monitoring	**1.1** Identify and map foraging and nesting habitat throughout the breeding range and prioritise sites **1.2** Identify and map foraging and roosting habitat. **2.1** Manage and protect nesting and foraging habitat. **2.2** Monitor and manage for climate change **4.1** Develop and implement an effective population monitoring program during the breeding season. **4.2** Collect and analyse information on population dynamics and viability
Design a winter habitat monitoring strategy	**1.2c** Establish habitat phenology data collection in existing research and monitoring studies, analyse findings and incorporate into recovery program. **1.3** Identify and map movement patterns throughout the range of the species.

		2.1d Provide Swift Parrot conservation information for consideration during the New South Wales. Local Government Local Environmental Planning (LEP) review process. **2.2** Monitor and manage for climate change
iii.	consultation with organisations aiming to facilitate the conservation of the White Box - Yellow Box -Blakely's Red Gum Grassy Woodland and Derived Native Grassland Ecological Community, regent honeyeater and Swift Parrot.	The key elements of the Swift Parrot Research Plan were developed at a workshop focussed on developing a new recovery plan for the species. Workshop participants included members of the Swift Parrot Recovery Team and from Sustainable Timber Tasmania and the Tasmanian Forest Practices Association.
b)	the specific activities that will be funded and the aims and objectives of the activities	The proposal aims to: 1) protect nesting Swift Parrots from Sugar Gliders; 2) continue population monitoring; and 3) design a winter habitat monitoring strategy. These actions are consistent with the 2011 Recovery Plan actions and the revised actions developed by the Recovery Team at a planning meeting in August 2017. The revised 2017 actions will form the basis of the new recovery plan for the species. See proposal for more detail.
c)	the timing of commencement and duration of activities;	The duration of the projects is as follows: Aim 1- Jul 2018 – Jun 2021 Aim 2 – Jul 2018 – Jun 2021 Aim 3 – Jul 2018 – Jun 2023 Refer to 'Implementation Schedule and Budget Summary' for more detail.
d)	the mechanisms to monitor and assess the effectiveness of the activities undertaken	Reporting against key performance indicators will occur every 6 months. Reporting will be provided to MACH Energy, the project Offset Committee and the Swift Parrot recovery team. A summary of this information will be reported in the MACH Energy EPBC Annual Compliance Report.
e)	the mechanisms to demonstrate the benefit to the White Box - Yellow Box- Blakely's	The project will be grounded in strong science. The impacts of interventions will be assessed at the population level using rigorous, landscape scale monitoring. This project will benefit from 9 years of

	Red Gum Grassy Woodland and Derived Native Grassland Ecological Community, regent honeyeater and Swift Parrot	continuous monitoring because changes to broader population trends that arise from project activities may be detected with continued monitoring (i.e. before/after comparison). We will also establish a robust monitoring program in the winter range so that future management interventions may be measured using reliable data. Refer to 'Priority Activities Identified for Funding' for more detail.
f)	the mechanisms to ensure that new or different activities will be funded, from within the agreed funding package of 1,000,000 over the life of the project for White Box Yellow Box Blakely's Red Gum Grassy Woodland and Derived Native Grassland Ecological Community and 2,000,000 over the life of the project for regent honeyeater and Swift Parrot, on the basis of monitoring information, advances in knowledge of species ecology, or the changing priorities as identified by recovery teams	This project has been developed in consultation with the Swift Parrot Recovery Team. The project directly addresses key priorities identified by the Team during recent review of the plan. The project will ensure continuity of monitoring (a top priority) and will develop new approaches to protect Swift Parrots from predators (also a top priority) and develop a new approach for winter monitoring (a new priority). Refer to 'Monitoring, Evaluation and Reporting' for more detail.
g)	the mechanisms to ensure that knowledge and information gained from these activities is easily available and useable to the department, to the general public and the scientific community, including website details	Reporting against key performance indicators will occur every six months. Reporting will be provided to MACH Energy and to the project Offset Committee. Key results will also be published in relevant scientific journals. Publishing will ensure the results are available to interested parties and ensure the results are disseminated widely. Refer to 'Monitoring, Evaluation and Reporting' for more detail.
h)	measures to ensure that funds are spent in accordance with the uses specified in these conditions of approval	The ANU and Birdlife have strong internal processes including audit to ensure that project spending meets contractual agreements. MACH Energy and supplier contracts will contain details of expenditures. This information will be included in each 6 monthly report.
i)	a mechanism for proof of payment to	The ANU and Birdlife are mature organisation and can provide proof of payment.

	agreed parties to undertake agreed activities	As per the EPBC Program Funding and Review Process, "*Pay Invoices & Report to DoEE*" is the mechanism to ensure proof of payment. Refer to 'Monitoring, Evaluation and Reporting' for more detail.
j)	measures to incorporate and integrate with any relevant separately funded activities (if any) for the conservation of the White Box - Yellow Box -Blakely's Red Gum Grassy Woodland and Derived Native Grassland Ecological Community, regent honeyeater and Swift Parrot and associated habitat for EPBC-listed species and communities at the landscape level, consistent with priorities identified by recovery teams for the relevant species or communities.	Project aim 3 is most likely to overlap with other work (ongoing Regent Honeyeater monitoring led by ANU) and we explicitly have listed integrating these two overlapping programs into one larger, holistic approach to monitoring both species. Both ANU and BLA are represented on the recovery teams for both Swift Parrots and regent honeyeaters, and project aim 3 will be conducted in collaboration with both recovery teams.

Key Contacts

Robert Heinsohn – Australian National University.
Professor, Fenner School of the Environment and Society.
Project leader
[redacted]

Dean Ingwersen – Birdlife Australia
Woodland Bird Program Manager and Regent Honeyeater recovery coordinator
Birdlife representative
[redacted]

Ashley Leedman – Department of Environment and Energy
Australian Government contact and Chair of the Swift Parrot Recovery Team
[redacted]

Chris Lauritzen
General Manager Resource Development
MACH Energy Australia Pty Ltd
[redacted]

11th April 2018

Dear Chris

The Swift Parrot Recovery Team supports the 'Woodland Birds Project Plan – Swift Parrot' proposal (v1.0). The funding will support three key research activities looking at: 1) protecting nesting swift parrots from sugar gliders; 2) continuing the population monitoring in Tasmania; and 3) designing a winter habitat monitoring strategy for swift parrots on the mainland.

In agreeing to support this proposal, the Recovery Team considered all potential recovery actions and agreed that the protection of swift parrots in Tasmania was the top priority for the conservation of the species. Swift Parrots are severely threatened by nest predation by invasive sugar gliders and developing techniques to manage this threat will be crucial to developing longer term management strategies to conserve the species. Activities to address this threat are covered in Aims 1 and 2 of the research proposal.

The extent, variation and availability of winter habitat for Swift Parrots remains uncertain, so identifying priority areas for protection at landscape scales is difficult. Existing survey effort is ad hoc, and spatially limited sampling effort limits the inference that can be drawn from existing data. Aim 3 is targeted at addressing this knowledge gap, and aims to develop a sophisticated temporally dynamic species distribution model to inform the development of a new, targeted monitoring program. This will help guide swift parrot management on the mainland into the future.

We are pleased that the activities and proposed timeframes recommended by the Recovery Team are supported by MACH Energy and look forward to working with you in developing the funding agreement to support the activities described.

Should you require further information please do not hesitate to contact me.

Regards,

Ashley Leedman
Chair of Swift Parrot Recovery Team

Dr Ashley Leedman
Assistant Director
Marine and Freshwater Species Conservation Section
Wildlife, Heritage and Marine Division
Department of Environment and Energy