ARROWSMITH HYDROGEN PROJECT

AHP1

FAUNA MANAGEMENT PLAN

Revision Control

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Terms & Abbreviations

Term or abbreviation	Definition
AHP	Arrowsmith Hydrogen Project
DBCA	Department of Biodiversity, Conservation and Attractions (formerly Department of Parks and Wildlife (DPaW))
EMP	Environmental Management Plan
EPBC Act	*Environment Protection and Biodiversity Conservation Act 1999*
ERP	Emergency Response Plan
FMP	Fauna Management Plan
IGE	Infinite Green Energy

Related Documents

Document #	Document Name
ARW-ENV-PLN-IGE-0001-REV3	AHP1 Construction Environmental Management Plan
ARW-ENV-PLN-IGE-0002-REV3	AHP1 Weed and Dieback Hygiene Management Plant
ARW-ENV-PLN-IGE-0003-REV3	AHP1 Vegetation Management Plan
ARW-ENV-PLN-IGE-0005-REV3	AHP1 Rehabilitation Plan
ARW-ENV-ADM-IGE-0001-REV3	AHP1 Section 38 Referral Supporting Documentation

1. Introduction

IGE propose to install the Arrowsmith wind and solar farms and construct a hydrogen plant within IGE owned freehold Lots 3, 4, 100 and 6110 in Arrowsmith, 30 km south of Dongara, within the Shire of Irwin, Western Australia (WA) (Appendix A). The proposed site is former agricultural land and has been grazed by sheep, cattle and goats. The AHP1 layout has been arranged to avoid wetlands, karst formations and Carnaby's Black Cockatoo (CBC) habitat on the property. The required clearing of vegetation for project construction is Gross 139.31 ha from a property maximum extent area of 1,929.68 ha. Existing cleared area on the property within the construction proposal area is 102.96 ha and these areas incorporated into the project to minimise overall development footprint. (Table 1).

Construction is planned to commence in quarter 1 2023 for production operations commencing in quarter 3 2025, subject to approvals and availability of equipment.

The scope of this referral includes the construction of the Arrowsmith Hydrogen Plant and associated infrastructure including:

- solar farm (65MW minimum to 85MW maximum)
- wind turbines (22 minimum to 25 maximum x 6 MW)
- water supply (groundwater)
- processing plant 23 to 42 tonnes per day output
- storage and offloading

Table 1: The Project Disturbance

Aspect	Max Extent Proposal Area	Previously Disturbed	Vegetation Clearing	Rehabilitated
Wind Turbines	22.16	1.09	21.08	10.13
Solar Array	139.85	82.73 (paddock)	57.12	
Hydrogen Plant/access road	35.88	0.47	35.41	
Project /Fire Roads	27.53	12.45	15.09	
Electrical Routes	1.91	0.35	1.56	
Property Boundary	7.83	3.86	3.97	
Marl Pits	4.19	0.0	4.19	4.19
Met Mast Relocation area	0.91	0.01	0.90	
Met Mast & Ex Marl Pit cleared July 2021	2.0	2.0	0.00	
TOTAL	**242.28**	**102.96**	**139.31**	**14.32**

2. Fauna Management Objective

The objective of this fauna management plan (FMP) is to protect terrestrial fauna so that biological diversity and ecological integrity are maintained.

3. Fauna Studies

Ecoscape was appointed to undertake a Level 1 flora and vegetation survey and basic fauna survey (including reconnaissance) in October 2020 (Ecoscape 2021) to identify the significant biological attributes of the development envelope which occupied 1,929.68 ha (Figure 2).

3.1 Desktop

The desktop component of the survey undertaken by Ecoscape in October 2020 identified 223 terrestrial vertebrate fauna species as potentially occurring in the proposed development envelope including 14 mammals (eight native and six introduced), 163 birds (160 native and three introduced), 39 native reptiles and seven native amphibians. Of these, 35 species are conservation listed either on NatureMap, DBCA database or Protected Matters Search.

Figure 1: AHP1 Hydrogen Project Plan

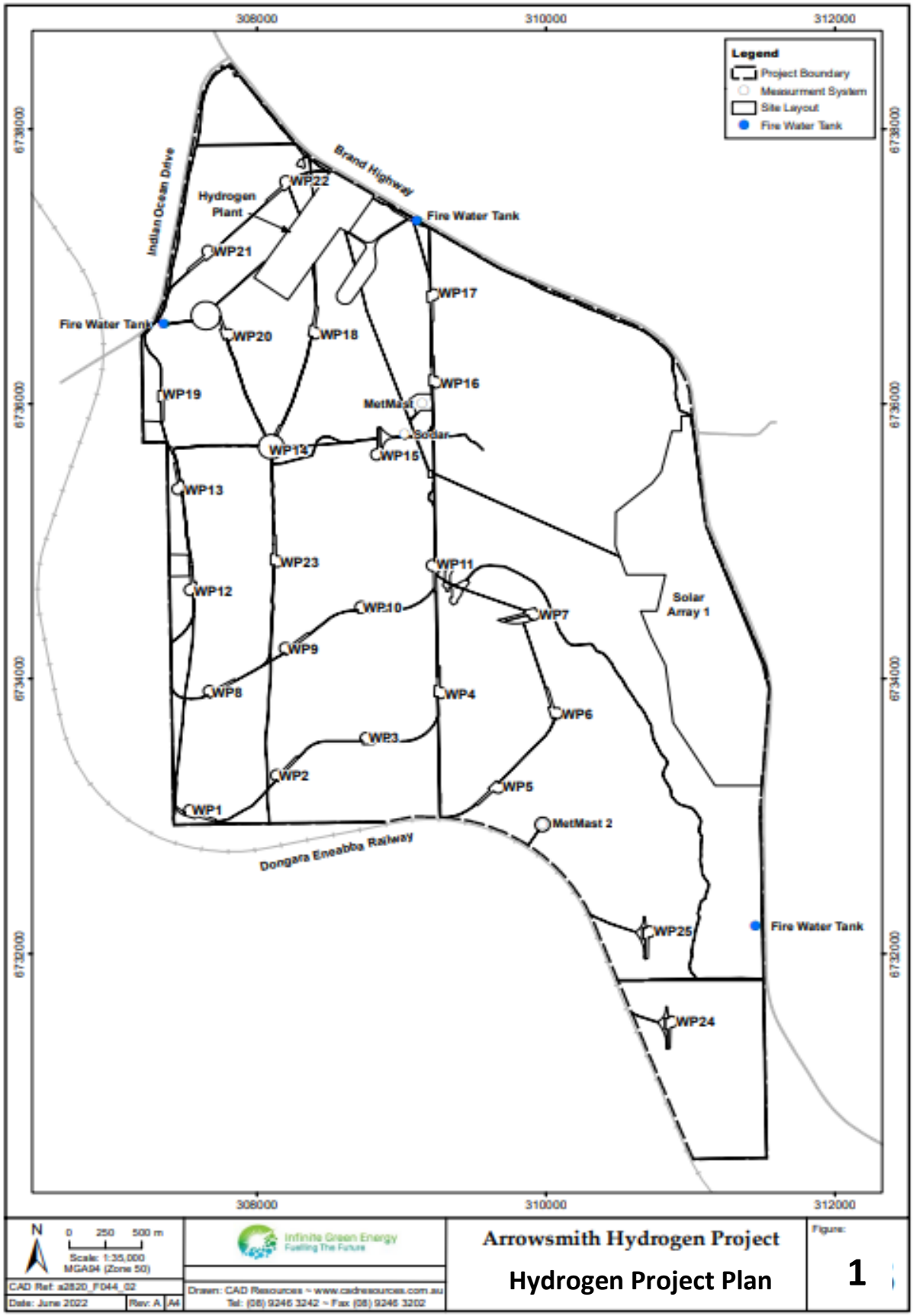
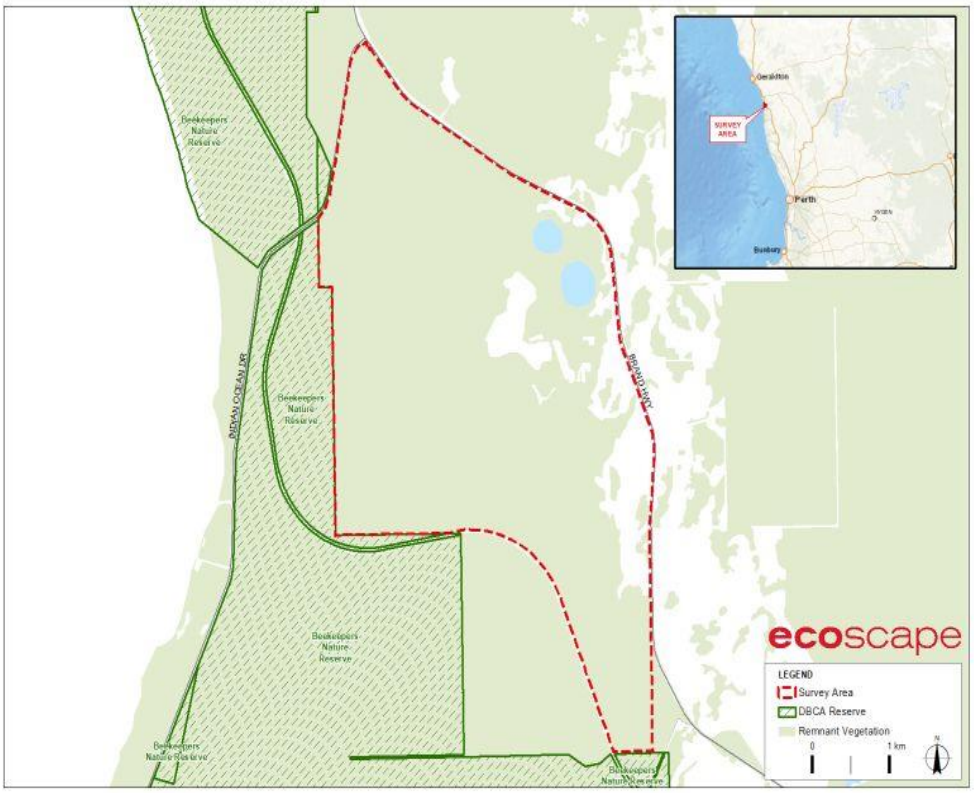


Figure 2: Ecoscape 2020 Fauna Survey Area (Ecoscape 2021)



3.2 Field Survey

The field fauna survey was conducted by Ecoscape 12th to the 16th October 2020.

Terrestrial vertebrate fauna were the main targets of the field survey which included the following techniques:

- opportunistic bird observations while moving through the survey area
- turning of surface debris (rocks, logs, vegetation spoil heaps) that reptiles and mammals may shelter beneath
- raking of litter beds using a three-pronged cultivator rake to locate fossorial reptile species
- tree hollow inspection to detect arboreal fauna
- spotlight surveys to detect nocturnal species
- baited motion cameras to capture evidence of cryptic and nocturnal fauna species not easily observed directly
- Songmeter acoustic recorders fitted with both acoustic and ultrasonic microphones to sample for birds and bats.

Fauna habitats within the survey area were identified and mapped.

The field survey recorded 57 vertebrate fauna species (42 birds, 12 mammals and three reptiles) including three conservation listed species:

- *Calyptorhynchus latirostris* (Carnaby's Cockatoo) – Endangered under the BC Act and EPBC Act
- *Calidris acuminata* (Sharp-tailed Sandpiper) – Listed Migratory species under the EPBC Act
- *Merops ornatus* (Rainbow Bee-eater) – Listed Marine species under the EPBC Act

The likelihood of the presence of all other potential conservation significant fauna was assessed and it was determined that the Common Sandpiper (*Actitis hypoleucos*) although not observed during survey, is considered likely to occur based on availability of suitable habitat and known behaviour.

Seven introduced fauna species were recorded:

- *Bos taurus* (European Cattle)
- Canis lupis subsp.familiaris (Dog)
- Capra hircus (Goat)
- Oryctolagus cuniculus (Rabbit)
- Vulpes vulpes (Red Fox)
- *Dacelo novaeguineae* (Laughing Kookaburra) – Introduced to Western Australia

Bat call analysis was completed identifying five bat species none of which are conservation listed. Three of these (*Chalinolobus gouldii*, *C. morio* and *Nyctophilus geoffroyi*) are commonly known from the region, whilst two species (*Austronomus australis* and *Vespadelus baverstocki*) do not have previous DBCA records from the area and thus represent range extensions.

Fauna Habitat

Eight fauna habitat types were recorded within the survey area (Table 1 and Figure 3):

- H: Heath
- Mw: Mallee Woodland
- P: Pastoral
- R: Riparian
- S: Shrubland
- Wb: Waterbody (seasonal)
- Wl: Wetland
- W: Woodland

The majority of the survey area was comprised of Mallee Woodland or Shrubland habitat, with moderate areas of Woodland or Pastoral habitat in the eastern portion, and Heath in the southern central section. Wetland and Riparian habitats were restricted to the vicinity of the two waterbodies in the northwest of the survey area, and along the Arrowsmith River tributary flowing into these waterbodies from the southeast.

Areas of vegetation in the south contain patches of some species of Banksia, which are a preferred forage species for Carnaby's Cockatoo. Seed from pasture and cropping grasses in the Pastoral habitat, and large paperbark trees within the Wetland habitat, also provide food and roosting habitat for this endangered bird species (Bamford 2022). The Wetland habitat is additionally important for migratory waders in the locality seasonally.

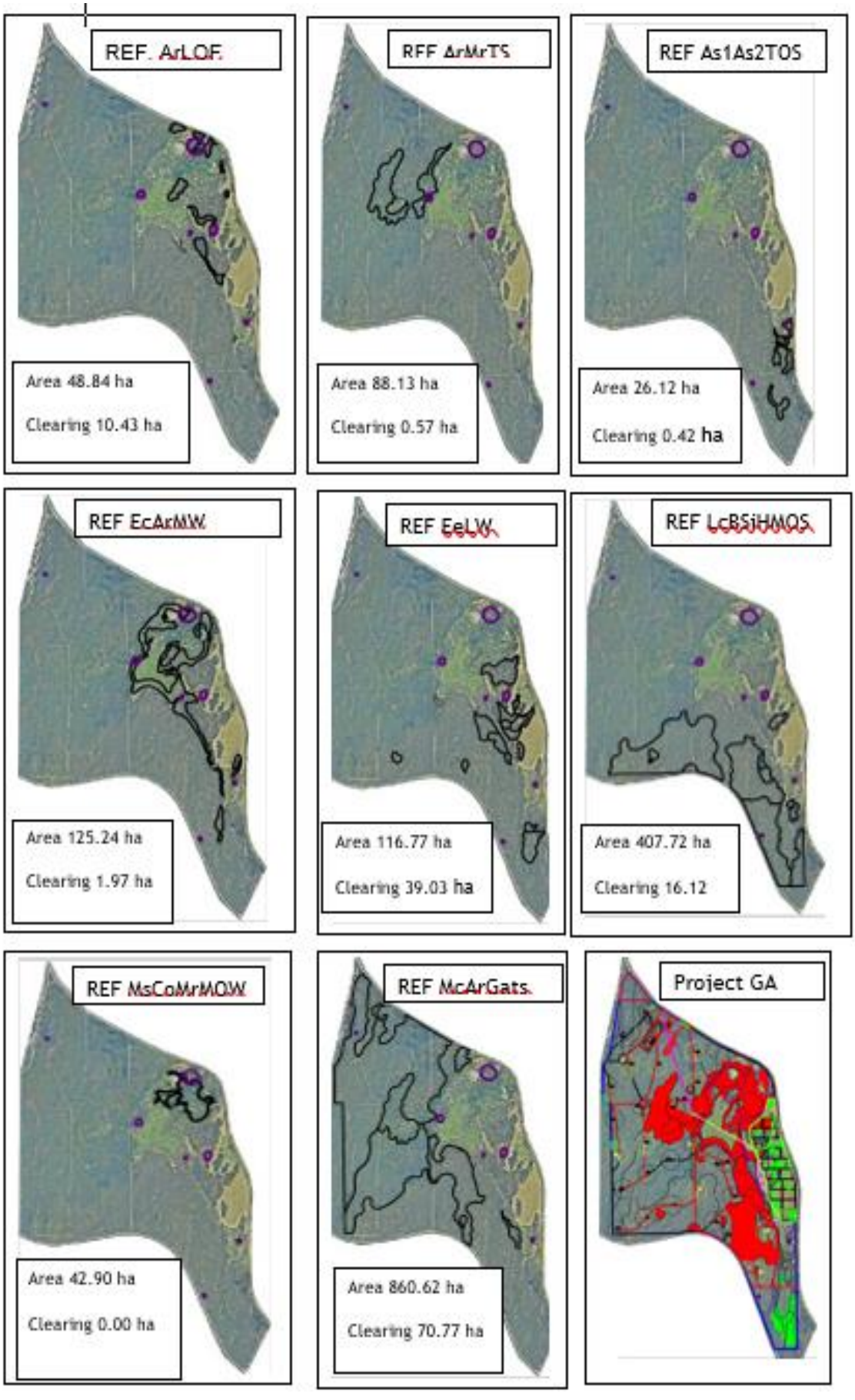
Table 2: Recorded fauna habitats

Habitat Type and Description	Photograph	Extent within the survey area (ha)	Extent within proposal footprint (ha) % clearing Proposal area]
Heath - Tall heath on sandplain, with emergent tall shrubs or isolated mallee. Areas of open sand with occasional small outcroppings exist amongst diverse low or mid-height flowering shrubs. Suitable habitat for nectivorous birds (e.g. honeyeaters), reptiles and predating raptors. Areas with low patches of Banksia prionotes present may provide forage for Carnaby's Cockatoo.		Extent: 185.88 ha; 9.63%	5.23 ha 2.81%
Mallee Woodland - Low mallee woodland with tall shrubs and stands of low Eucalypts. Dense thickets of understorey shrubs and climbers in some areas, with more open canopy of eucalypts. Habitat is suitable for a range of small to medium sized nectivorous and insectivorous birds, reptiles and small to medium mammals.		Extent: 482.08 ha; 25.44%	42.75 ha 8.86%
Pastoral - Pastoral plain of farmland pasture and cropped grasses, with scattered small woodland or shrubland remnants. This habitat provides forage habitat for seed-eating bird species (including parrot and cockatoo species), as well as insectivorous birds that prefer edge of woodland habitat. Fauna that require tree hollows for breeding, or predate on bird eggs/nestlings (such as monitor lizards or Chuditch) may also utilise treed remnants in this habitat.		Extent: 216.38 ha; 11.21%	101.49 ha 46.90%
Riparian - Mature Eucalypts (primarily Eucalyptus camaldulensis) along a seasonal creek line, over grasses or shrubs. Numerous tree hollows exist in mature Eucalypts within this habitat type, providing breeding habitat for multiple bird species such as larger parrots, hollow-nesting ducks and kingfishers, as well as microbat species. Seasonal water flow and pools support Sacred Kingfisher and Rainbow Bee-eaters, and are a water source for mammals and reptiles.		Extent: 123.10 ha; 6.37%	1.97 ha 1.6 %(access tracks)

Habitat Type and Description	Photograph	Extent within the survey area (ha)	Extent within proposal footprint (ha) % clearing Proposal area]
Shrubland - Tall shrubland of Acacia and/or Melaleuca with patches of mallee, on sandplain and limestone karst. Less degraded areas of this shrubland habitat have dense patches of diverse mid- and understorey, supporting honeyeater and wren bird species. Mammals including kangaroos and wallabies, as well as introduced mammal species, are likely to utilise this habitat. Some proteaceous shrub species (including Banksia prionotes), more common in the south-eastern sections, may provide forage habitat for Carnaby's Cockatoo. Limestone karst and outcroppings are present throughout much of the northern extent of this habitat unit, providing breeding habitat for reptiles and microbats.		Extent: 649.17 ha; 38.49%	45.82 ha 7.05 %
Waterbody (seasonal) - Seasonal lake with clay substrate and fringing vegetation. This aquatic habitat is fed by the Arrowsmith River tributary flowing from the southeast corner of the survey area. It supports local bird and mammalian fauna as a water source, and provides forage habitat for insectivorous birds and microbats, and local and migratory waders.		Extent: 8.41 ha; 0.43%	0.02 ha 0%
Wetland - Seasonal wetland of fringing Melaleuca vegetation. Mature Melaleuca trees are supportive of Carnaby's Cockatoo and other psittacine bird species, with lower shrubs at the edge of the waterbody proper suitable for nesting insectivorous birds.		Extent: 42.89 ha; 2.22%	0.00 ha 0%

Habitat Type and Description	Photograph	Extent within the survey area (ha)	Extent within proposal footprint (ha) % clearing Proposal area]
Woodland - Low eucalypt woodland, over mixed understorey shrubs or Acacia/Melaleuca scrub. This habitat is suitable as foraging or breeding habitat for numerous woodland bird species. Supportive of a broad range of reptile and mammal species, including microbats.		Extent: 103.49 ha; 5.67%	29.88 ha 28.87 %

Figure 3: Flora and Fauna Habitat



Carnaby's Black Cockatoo

Field survey of CBC habitat was undertaken 06/12/2021 (Bamford 2021). The survey found that areas of vegetation previously demarcated as potential CBC foraging habitat "unable to sustain a population of CBC" by Ecoscape (2021) was patchy and in most places low quality foraging habitat. The area was reassessed and mapped by Bamford. There was an area mapped as moderate to high value on the eastern portion of the property. CBC habitat is presented in Figure 4 (Bamford 2021).

CBC were observed during field survey 06/12/2021 roosting in the lake and wetland area (Bamford 2021).

SRE Invertebrates

Bennelongia undertook a desktop study (2021a) including a database search that found records of 21 species belonging to short range endemic (SRE) Groups in a 100 x 100 km area centred on the AHP. These included six species of trapdoor spider, one species of harvestmen, two species of pseudoscorpion, one species of scorpion, one species of snail, two species of slater, six species of millipede and two species of centipede. The desktop search also returned records of four conservation-listed species, including the Priority 1 trapdoor spider *Idiosoma kwongan*, the Priority 3 bee *Hylaeus globuliferus*, the Priority 1 land snail *Bothriembryon perobesus*, and the land snail *B. whitleyi*, which is currently classified as extinct, although recent evidence suggests it may be extant. *B. whitleyi* is considered to have very low probability of occurring in the AHP1.

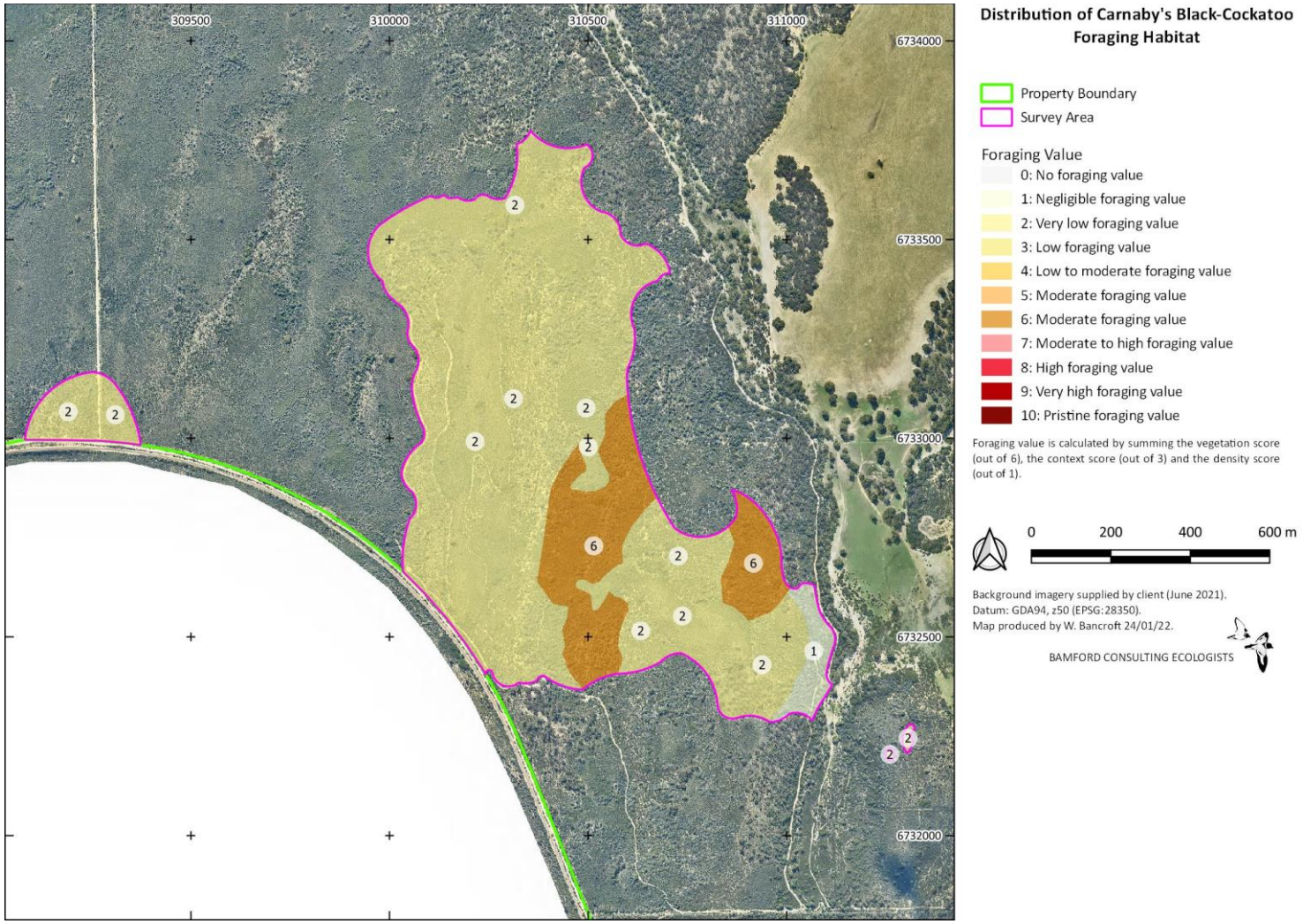
The survey found that while the development will result in the destruction of some habitat in which SRE species may occur, the loss will in all cases be minimal in relation to the regional extent of these habitats.

Subterranean Fauna

Bennelongia undertook a desktop study (2021b) and found that there is one troglofauna species, the beetle *Tripectenopus occultus*, uniquely known from Arramall Cave. In reality, the beetle is probably more widespread than this record suggests, and the single known location reflects lack of survey effort. Low survey effort itself is partly the result of subterranean fauna impact assessments usually excluding mites (EPA 2016b).

The study concluded that as the AHP1 development will be restricted to surface infrastructure and a small level of groundwater drawdown resulting in it being unlikely to affect the quality of troglofauna habitat (especially relative humidity) in either karstic areas or caves (Bennelongia 2021b).

Figure 4: CBC Habitat



Appendix B – Fauna Habit Health Figure 15

4. Potential Impacts to Fauna

Potential direct impacts of the proposal on fauna could include:

- Clearing of 14.32 ha of vegetated fauna habitat for a period of up to 12 months (Table 2 and Figure 5)
- Clearing of 105.93 ha for the life of the project (Table 2 and Figure 5)
- Bird or bat strike as a result of wind turbine operation
- Vehicle movements on access tracks potentially causing fauna strike over a period of 23 months during construction
- Occasional vehicle movements on access tracks potentially causing fauna strike during operations
- Behavioural modifications due to noise associated with construction
- Behavioural modifications due to noise associated with operation of Hydrogen Plant and wind turbines
- Behavioural modifications due to light emissions during operations
- Fauna entrapment in trenches during construction
- Barotrauma to bats as a result of wind turbine operation
- Cumulative impacts of other proposals on fauna habitat in the region

Potential indirect impacts of the proposal on fauna could include increased feral animal activity and altered fauna behaviour due to improper waste storage.

Habitat Type and Description	Extent within proposal footprint (ha)	Extent Rehabilitated Immediately after Construction (ha)
Shrubland - Tall shrubland of Acacia and/or Melaleuca with patches of mallee, on sandplain and limestone karst.	45.82 ha	5.8 ha
Mallee Woodland - Low mallee woodland with tall shrubs and stands of low Eucalypts.	42.75 ha	2.20 ha
Woodland - Low eucalypt woodland, over mixed understorey shrubs or Acacia/Melaleuca scrub.	29.88 ha	0.00 ha
Pastoral - Pastoral plain of farmland pasture and cropped grasses, with scattered small woodland or shrubland remnants.	101.49 ha	0.00 ha
Heath - Tall heath on sandplain, with emergent tall shrubs or isolated mallee.	5.23 ha	1.10 ha
Riparian - Mature Eucalypts (primarily Eucalyptus camaldulensis) along a seasonal creek line, over grasses or shrubs.	1.97 ha	1.0 ha
Wetland - Seasonal wetland of fringing Melaleuca vegetation.	0.00 ha	0.00 ha

Habitat Type and Description	Extent within proposal footprint (ha)	Extent Rehabilitated Immediately after Construction (ha)
Waterbody (seasonal) - Seasonal Lake with clay substrate and fringing vegetation.	0.00 ha	0.00 ha
TOTAL	247.91 ha	14.32 ha

Table 3: Fauna Habitat Impact

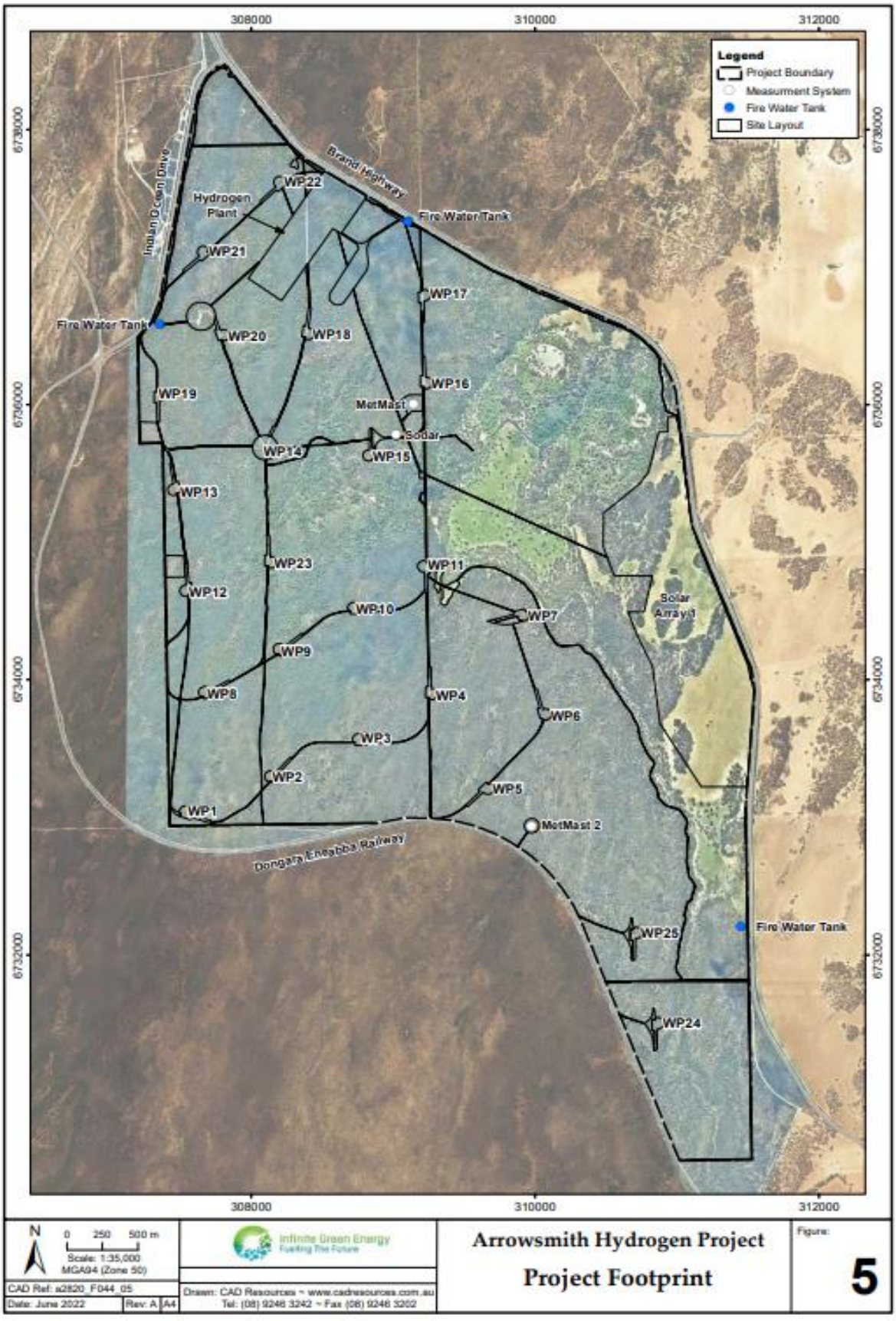
5. Environmental Risk Assessment

IGE have assessed the risks of their AHP1 activities and have developed measures to avoid and mitigate environmental impacts on fauna that could potentially be caused by IGE's activities. This process involved:

1. Identifying the potential direct and indirect impacts on fauna and their habitats within IGE controlled sites
2. Establishing management strategies to minimise the potential impacts on fauna within IGE controlled sites

The adequacy of these measures was assessed to determine whether they met ALARP and acceptability criteria.

Figure 5: Project Footprint



6. Avoidance and Mitigation

6.1 Land Clearing

Commitment #	Commitment	Responsibility	Timing
1.	The area of land disturbance for the AHP1 will be kept to the practicable minimum	Project Manager	Land Clearing
2.	Cleared areas no longer required for the project will be progressively rehabilitated	Project Manager	At all stages of the AHP1
Planning – Construction Management Plan			
3.	A Construction Environmental Management Plan (CEMP) is prepared and approved by the Project Manager to specify all details of construction requirements, including: • Areas to be cleared are clearly demarcated • Sensitivities identified in the fauna survey are avoided where possible • Clearing activities occur during daylight hours only • A walk through with a loud sound to flush fauna is conducted prior to clearing of native vegetation • All Crew have undertaken the construction induction • Vehicles and equipment to be used only within approved project footprint (as per Figure 5 of this FMP) • All waste is to be taken offsite for disposal	Project Manager	Prior to Construction
Planning - Approvals and Permits			
4.	No clearing will be undertaken until the Project Manager has approved and issued the Construction Environmental Management Plan	Construction Manager	Prior to Clearing Activity
5.	The CEMP cannot be issued until EPA Services has approved the project	Project Manager	Prior to Clearing Activity
Planning - Awareness			
6.	All construction personnel will receive instructions on the areas approved for clearing in the form of the AHP1 Construction induction and toolbox meetings	Construction Manager	Prior to Clearing Activity

Commitment #	Commitment	Responsibility	Timing
Planning - Schedule			
7.	All vegetation clearing is to occur in daylight hours only	Construction Manager	During Clearing Activity
Minimisation of Land Clearing			
8.	Clearing is undertaken to the extent necessary for the activity only	Project Manager	Prior to Clearing Activity
		Construction Manager	During Clearing Activity
Clearing Methodology			
9.	Sensitivities identified in the fauna survey are avoided where possible	Construction Manager	Clearing Activities
10.	Areas to be cleared are clearly demarcated	Construction Manager	Clearing Activities
11.	Construction activities occur during daylight hours only	Construction Manager	Clearing Activities
12.	A walk through with a loud sound to flush fauna is conducted prior to clearing of native vegetation	Construction Manager	Clearing Activities
13.	All Crew have undertaken the AHP1 construction induction	Construction Manager	Clearing Activities
14.	Vehicles and equipment to be used only within approved project footprint (Figure 5 of this FMP)	Construction Manager	Clearing Activities
Documentation			
15.	The person undertaking clearing is required to fill in a Clearing Vegetation Record Form for clearing activities to provide a record of all clearing undertaken for the Project	Person Undertaking Clearing	Post Clearing Activities
16.	The Construction Manager is required to submit the completed Clearing Vegetation Record Forms for all clearing activities undertaken for the Project	Construction Manager	Post Clearing Activities
Fauna Survey			
17.	If there were to be any additional vegetation clearing required, the FMP (including Figure 5 and Section 5) would require review and the identification of the requirement for any additional fauna survey and regulatory approvals made well in advance of operations	Project Manager	Prior to Clearing Activities

6.2 Other Commitments

Commitment #	Commitment	Responsibility	Timing
Access Tracks and Off-Road Travel			
18.	To prevent impact on native vegetation outside the project footprint, all personnel shall only drive on existing tracks, access roads, firebreaks, and service corridors. No travel outside designated access routes shall occur without the approval of the Project Manager	Project Manager	At all stages of the AHP
19.	All vehicles are to drive within the speed limits outlined in the AHP1 Construction induction or as posted.	Project Manager	At all stages of the AHP
Injured Wildlife			
20.	Personnel will report injured wildlife to the Site Supervisor to follow up with a fauna response agency listed in Section 10.1	Project Manager	At all stages of the AHP
Dust			
21.	All personnel shall adhere to vehicle speed limits as sign posted and outlined in the induction to prevent dust from accumulating on vegetation	All Personnel	At all stages of the AHP
22.	Should concerns of dust be raised, suppression measures will be investigated	Project Manager	At all stages of the AHP
Lighting			
23.	Lighting during all phases of the proposal will be directed on operational areas only to minimise fauna attraction to light spill	Project Manager	At all stages of the AHP
Waste			
24.	All waste will be stored in appropriately covered receptacles to exclude fauna before being removed from site	Project Manager	At all stages of the AHP
Housekeeping			
25.	Good housekeeping practices are enforced on site throughout Project including site inspections at all stages of Project	Project Manager	At all stages of the AHP

6.3 Excavations

Commitment #	Commitment	Responsibility	Timing
Excavations and Fauna Egress			
26.	Minimal lengths of trenches and open excavations will be left open overnight (with fauna escape mechanism) and will be checked for fauna prior to backfilling	Project Manager	At all stages of the AHP
27.	Open excavations and trenches will have a means of fauna egress (battered sides, escape ramp)	Project Manager	At all stages of the AHP
29.	Excavations will be inspected: • Daily – unfenced (Construction and Operations) • Weekly – fenced (Construction and Operations)	Project Manager	At all stages of the AHP
30.	Pipes that are stored in laydown areas will be capped.	Project Manager	At all stages of the AHP
31.	Pipes will be checked for fauna prior to installation.	Project Manager	At all stages of the AHP

7. Responsibility and Accountability

7.1 Responsibilities

The IGE Project Manager has overall responsibility for the safe and environmentally acceptable management of the operation. The Project Manager must ensure that the commitments and requirements of this FMP are implemented. All personnel, contractors and visitors must adhere to the requirements of this FMP.

7.2 Training

Training on relevant sections of this FMP will be incorporated into the AHP1 Inductions upon completion, trained personnel will be signed off and recorded in the training log along with the date and the specific induction for which training was conducted. All personnel and contractors are required to undertake the induction. Visitors accompanied by an inducted person are not required to complete the induction for the purposes of this FMP.

Commitment #	Commitment	Responsibility	Timing
32.	All personnel and contractors undertake the induction and the records are included in the training log.	Project Manager	At all stages of the AHP1

Commitment #	Commitment	Responsibility	Timing
	Specific items covered include: • IGE travel procedures, • Vehicle speed limits • Staying on access tracks, • Requirement for personnel to be alert for wildlife while driving; and • Waste management requirements		

8. Monitoring

8.1 Routine Site Inspection

Routine site inspections are undertaken as per Table 3.

Table 4: Routine Site Inspections

#	Stage	Frequency	Inspection Descriptor
9.1.1	Construction	Daily	Ground Condition Checks as part of Daily Vehicle Checks
9.1.2	End of Construction	Once	Construction Management Plan Check
9.1.3	Operations	Daily	Site Visual Inspection
9.1.4	Construction / Operations	Daily	Daily inspections of unfenced excavations
9.1.5	Construction / Operations	Weekly	Weekly inspections of artificial water bodies if utilised
9.1.6	Construction / Operations	Weekly	Weekly inspections of fenced excavations
9.1.7	Operations	Monthly	Monthly Workplace Inspections
9.1.8	Rehabilitation Works	Daily	Ground Condition Checks as part of Daily Vehicle Checks
9.1.9	Rehabilitation Monitoring	Monthly	Monthly Rehabilitation Inspections

8.2 Compliance Auditing

Auditing of the environmental management measures outlined in this FMP shall be undertaken by a suitably qualified person. Where audit findings show that environmental management actions are not effective, the audit may recommend changes to procedures. The Environmental Audits will be undertaken as per the schedule in Table 4.

Table 5: Environmental Auditing

#	Timing	Frequency
9.2.1	During or immediately post construction	Once
9.2.2	During operation activities	Annually
9.2.3	During rehabilitation activities	Each Campaign

9. Thresholds and Triggers

Table 5 presents the threshold criteria that provide a limit beyond which the fauna outcomes of this FMP are deemed not to have been achieved. It provides the trigger criteria that will provide an early warning that the fauna outcomes are not likely to be met, how the criteria will be monitored and contingency measures that will be implemented if threshold or trigger criteria are met.

Table 6: AHP1 Thresholds and Triggers for Fauna Management

#	Threshold Criteria	Trigger Criteria	Monitoring	Contingency Measures
1.	No fire entering native vegetation originating from AHP1 Activities	Fire any location, any size at AHP1 Activity	• Daily inspections ensure fire response equipment is in place, ignition sources are not left unattended, vehicles are parked in cleared areas and good housekeeping is in place • Audit to ensure vehicle and equipment logbooks show that vehicles and equipment are maintained in accordance with service schedule to minimise risk of fire • Site Supervisor monitors the DFES fire alerts • Training records show that all required personnel have completed training at the required intervals; basic firefighting, site induction, emergency exercises	• Implement Emergency Response Plan • Contact Emergency Services • Contact fauna injury response as per section 10.1 • All fires are reported as per Section 10.2
2.	No direct terrestrial native fauna deaths	Vehicle fauna strike	• Incident report • Audit as per 8.2	• Personnel will report injured wildlife to the Site Supervisor to follow up with a fauna response agency listed in Section 10.1 • Reporting as per Section 10.2
		Entrapment of terrestrial fauna in an excavation	• Daily inspection of unfenced excavations • Weekly inspection of fenced excavations • Audit as per 8.2	• Personnel to report to Site Supervisor • Personnel to ensure fauna egress in place • Contact with fauna handler to be made • In case of injury, fauna response agency listed in Section 10.1 to be contacted • Reporting as per Section 10.2
		Terrestrial fauna are attracted to light	• Walk around during operations checks areas lit outside • Audit as per 8.2	• Check light is directed onto operational areas only • Reporting as per Section 10.2
		Dust suppression required more than twice per day	• Daily inspections • Activity log on daily report • Audit as per 8.2	• Investigate better dust suppression measures • Reporting as per Section 10.2
		Fauna Strike from Wind Turbines	• Any Fauna found injured in the vicinity of Turbines to be reported. • Daily Site Inspections	• Investigate Bird Strike prevention applications.
		Terrestrial fauna found in waste receptacle	• Daily inspections • Monthly workplace inspections • Audit as per 8.2	• Allow fauna out of receptacle and cover receptacle • Personnel will report injured wildlife to the Site Supervisor to follow up with a fauna response agency listed in Section 10.1 • Enforce good housekeeping practices • Reporting as per Section 10.2

10. Reporting and Review

10.1 Fauna Injury Response

Agencies to call for a response to native fauna injury are included in Table 6.

Table 7: Native Fauna Injury Response Agencies

Agency	Location	Contact
DBCA	Jurien Bay	08 9688 6000
Wildcare	Greenough	08 9474 9055
GG Wildlife Rescue	Greenough	0401 272 608
Dongara Veterinary Hospital	Dongara	08 9927 1329
Dongara Shire Ranger	Dongara	08 9927 0000

10.2 Non-Compliance Reporting

Environmental incidents shall be reported and investigated as soon as practicable following identification, enabling effective actions to be implemented without delay. Environmental incidents are defined as events that cause or could potentially cause harm to the environment.

10.3 Clearing Recording

The person undertaking clearing is required to submit completed Clearing Vegetation Record Form/s for clearing activities to provide a record of all clearing undertaken for the Project.

10.4 Management Plan Review

The FMP is to be revised when there is a significant change to construction or operational activities.

11. References

Bamford Consulting (2021) Infinite Blue Energy, Arrowsmith Hydrogen Project, Black-Cockatoo Assessment, Unpublished Report for Infinite Blue Energy. January 2022.

Bennelongia (2021a) Arrowsmith Hydrogen Project SRE Desktop Assessment, Report Number 475, August 2021. Unpublished report to Infinite Blue Energy.

Bennelongia (2021b) Arrowsmith Hydrogen Project Subterranean Fauna Desktop Assessment, Report Number 473, November 2021. Unpublished report to Infinite Blue Energy.

Ecoscape (Australia) Pty Ltd, 2021, Arrowsmith Wind and Solar Farm Environmental Survey, 4562-20R final Dongara Environmental Survey

EPA (2016a) Environmental Factor Guideline Terrestrial Fauna, December 2016.

EPA (2016b) Environmental Factor Guideline Subterranean Fauna, December 2016.

Appendix A Clearing Vegetation Record Form

Infinite Blue Energy
Fuelling The Future

Clearing Vegetation Record Form

Section1 (Applicant to complete)		
Company:	Date:	Permit No:
Requested By:		Signature:
Permit Holder:		
Location of Work (Attach plan/map)		
Description of Work:		
Proposed Duration Dates:		
Area to be Cleared (m2):		
Co-ordinates of Clearing Location(s):		
Excavation Permit No:		
Are other Trades involved with or affected by the work process and have they been informed ☐Yes ☐No		
If yes, specify names of the other subcontractor/s involved:		
Under no circumstances shall any clearing of vegetation take place without consent from Regulatory Authorities and without the approval of the IBE's Environment Manager. The original Clearing Permit and supporting documentation shall be kept with the IBE and copies to be kept by the Contractor undertaking land clearing.		
Standard Conditions		
1. Clearly mark the area to be cleared. 2. Clear and stockpile vegetation in designated area. 3. Excavation permit must be obtained and attached.		
Section 2 (Subcontractor to complete)		
Environment		**Description**
Work method/JSA submitted?	☐Yes ☐No	
Dieback management [illegible]?	☐Yes ☐No ☐N/A	
Conservation areas acknowledged?	☐Yes ☐No	
Heritage management [illegible]?	☐Yes ☐No	
Fire management [illegible]?	☐Yes ☐No	
Spill management measures in place?	☐Yes ☐No	
Dust management [illegible]?	☐Yes ☐No	
Equipment		**Description**
Weed and seed inspection reports?	☐Yes ☐No	
Plant inspections [illegible]?	☐Yes ☐No	
Section 3 (IBE to complete)		
IBE Environment Manager		
Clearing permit number?		
Pre-clearing activities undertaken?		
Name	**Signature**	**Date**
Permission to conduct clearing work is granted, subject to special conditions (in addition to the above) noted below:		
Section 4 Close –Out (IBE)		
Works completion date (permit close out):		
Name Signature:	Date:	
Heritage Third Party Sign Off:		
Name Signature:	Date:	

Permit To Be Kept With the Operator at All Times All holders of permits are to stay with that particular activity for the duration of the work, if the permit holder has to leave for any reason, the work stops until the permit holder returns, additionally if the work type changes the permit also stops and a new permit generated by the contractor and IBE.

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Appendix B Fauna Habitat Health Figure 15