

Noosa Threatened Fauna Recovery Road Map



Noosa Council's plan to conserve and protect priority fauna species within the Noosa Shire



NOOSA'S THREATENED FAUNA
RECOVERY ROADMAP
CONSERVE & PROTECT

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Acknowledgement of Country

Noosa Council proudly acknowledges and respects Australia's First Nations people and their deep and abiding connection to this country. We recognise the Kabi Kabi people as the Traditional Owners of the lands and waters of the Noosa area and offer gratitude for their careful custodianship of this unique environment over thousands of years. We pay respect to Kabi Kabi elders who have come before us and acknowledge and deeply regret the traumas experienced by Kabi Kabi people through colonialism and beyond.

We pay respect to current and emerging leaders and their enduring commitment in pursuing a strong and healthy future for First Nations people. Across the life of this Corporate Plan we seek to support Kabi Kabi in progressing their priorities for their people. We seek genuine reconciliation and will work to strengthen our relationship with Kabi Kabi – to listen, to understand their needs, to include them as valuable partners and to facilitate greater opportunities for First Nations people. Critical to achieving this, Noosa Council is taking the important step of developing Noosa Council's first Reconciliation Action Plan.



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1. Introduction

Noosa Shire is located within the Southeast Queensland bioregion, an area of exceptionally high biodiversity that supports a diverse range of ecosystems. It is this ecosystem diversity that results in a significantly high proportion of threatened species and ecological communities. To ensure the future protection and enhancement of existing biodiversity values, The Noosa Environment Strategy (NES) was developed in 2019. In relation to long-term survival of threatened and protected fauna, the NES detailed Council’s commitment to significant implementation actions for the first three (3) years of the Strategy (19/20 to 21/22). Hence, the objective of the Road Map (this document) is to guide Council’s approach to the on-going management and recovery of threatened terrestrial, aquatic, and marine fauna within the Noosa Shire Local Government Area (LGA) and adjacent coastal waters. The NES identified specific targets for each of Council’s environmental strategies.

The primary focus of Strategy 1.3 is to:

‘Improve long-term survival for threatened species and ecological communities’

Theme 1 - Biodiversity		
Strategy 1.3: Improve long-term survival for threatened species and ecological communities		
<p>By 2030, populations of key threatened indicator species remain viable.</p>	<p>A baseline is to be developed for 6-8 key threatened species based on:</p> <ul style="list-style-type: none"> - Representativeness across biological families - Representativeness across ecosystems - Iconic value to the Noosa community - Availability of existing data and records <p>Depending on the species selected, there may already be existing data, however a new baseline for some species will be required.</p>	<p>A key threatened species list is already being developed and will be workshopped and finalised in 2019</p> <p>A longitudinal study of key threatened species will be undertaken over 10 years.</p>

Figure 1: Strategy 1.3 of the Noosa Environment Strategy (2019)



For net improvement of local biodiversity values, an integrated approach in threatened species conservation across a diverse range of key habitats is required. This approach will support related Council environment strategies, fostering improved outcomes in threatened fauna conservation. This will be achieved through the development and implementation of clear management strategies and key performance indicators, via the pathway presented within this Road Map:

1. Review of Council's investments in threatened species conservation, including stakeholder involvements
2. Desktop review of Council's supporting biodiversity assessments, along with relevant external resources
3. The identification of key habitats, ecological communities and fauna of conservation significance
4. A review of the current and foreseeable threatening processes to biodiversity (e.g., climate change)
5. The shortlisting of fauna species (29) for potential management priorities (based on conservation advice)
6. The development of a Decision Matrix tool to identify a total of nine (9) species for priority management
7. A Stakeholder Consultation Plan that included an Expert Panel to complete the Decision Matrix
8. Collation of stakeholder nominations to determine the final nine (9) species for priority management
9. The provision of a detailed delivery plan to action species conservation and recovery programs
10. The development of an Anticipated Delivery Schedule detailing the key milestones, timelines and resources required to implement the recommendations provided within this Road Map.



2. Background

2.1 Supporting Information

Council developed the NES in 2019, to prioritise investments and deliver an integrated approach to managing Noosa's environment over a ten-year period. To support the Strategy, two (2) key Shire wide biodiversity assessments were developed;

- The Noosa Biodiversity Assessment Report 2019 (Eco Logical 2016)
- The Noosa Shire Priority Species Assessment 2019 (Noosa & District Landcare 2019)

A desktop review of the above reports, and other supporting resources is provided in Section 3.

2.2 Council's current investment in threatened species conservation

Noosa Shire Council is pro-actively invested in threatened fauna conservation, working closely with community groups, landholders and external organisations to ensure the protection and enhancement of biodiversity values across the LGA. Council's established environmental initiatives which contribute to threatened species conservation include;

- Environmental Levy Program
- Noosa Biosphere Reserve Foundation
- Land for Wildlife Program
- Community Bushland Care Program
- Bushland Reserve Management Program
- Integrated Water Quality Monitoring Program
- Waste and Recycling
- The Noosa Plan 2020
- Draft Noosa River Plan
- Coastal Hazards Adaptation Plan
- Climate Change Response Plan and the Climate Action Roadmap

Council also has several existing monitoring and management strategies in place specifically for threatened and iconic species, including the Koala, Grey-headed flying-fox and the Glossy black cockatoo. Table 1 details examples of Council's established threatened fauna species conservation programs.



Table 1: Examples of Noosa Council’s investments in threatened species conservation

Species	Establishment	Items	Outcomes
Koala	2016	Noosa Shire Koala Conservation Plan 2016	Details Council’s commitments to monitoring and management of the species
	2017	Yurol and Ringtail Project	2,400ha of land transitioning to National Park status over the next 10 years
	2020	QUT Yurol-Ringtail State Forest Koala Baseline and Monitoring Project	Baseline population monitoring
Glossy black cockatoo	Annual	The Great Glossy Count	Supporting the Glossy Black Conservancy and local community members active in population monitoring
	Annual	Support to the Glossy Black Conservancy	Contribution to management of the species
Flying-foxes	Annual	Operational budget	Sustainable reducing human / wildlife conflicts
	2021 - 2022	DES Flying-fox Management Grants	Site-specific Flying-fox Roost Management Plans
	2022	Regional Flying-fox Statement of Management Intent	Development of a regional approach to sustainable flying-fox management

Council works collaboratively with several stakeholders invested in threatened fauna conservation. Consultation will continue to be undertaken with key external stakeholders in both the development and implementation of future fauna conservation programs. A Stakeholder Consultation Plan is provided as Attachment Two.





Glossy Black Cockatoo
Photo - Spencer Hitchen



3. Desktop Review of Supporting Information

To identify future threatened fauna for management priorities, a comprehensive Desktop Review of the supporting information was undertaken. As summarised earlier, the *Noosa Biodiversity Assessment Report (NBA)* and the *Noosa Shire Priority Species Assessment (NPSA)* are the two (2) key supporting resources to this Road Map. The review process identified the key habitats, fauna species of conservation significance and threatening processes to biodiversity values across the Noosa LGA. For context, the backgrounds, objectives and outcomes of the assessment reports are summarised below.

3.1 Noosa Biodiversity Assessment Report

The NBA was prepared by Eco Logical in 2017, to guide planning and decision-making in the development of the Noosa Environment Strategy. This assessment details the scientific understanding of biodiversity values across the Noosa LGA, to assist in determining the key issues for conservation management within the Noosa Shire (Eco Logical 2016). The report identifies regional biodiversity values through detailing the broad vegetation groups (BVGs), regional ecosystems, ecological communities and threatened fauna species found within the Noosa Shire.

From one hundred and eight-five (185) identified fauna species of national, state or regional environmental significance, six (6) key and iconic fauna species were nominated as consideration for management priorities. Threats to biodiversity values, such as climate change were also presented and discussed at a habitat, ecological and species level.

3.2 Noosa Shire Priority Species Assessment

The NSPSA was prepared by Noosa & District Landcare in 2019 to complement biodiversity goals (Strategies 1.1, 1.2 & 1.3) of the Noosa Environment Strategy. Council identified there had been several independent studies which have contributed to threatened species knowledge in the area, but an overview of practical conservation action relevant at Council level had previously not been undertaken (Noosa & District Landcare 2019). Thus, the assessment was commissioned to consolidate a list of conservation significance fauna and flora known to occur within the Noosa LGA.

Through a comprehensive stakeholder engagement program, a total of forty-five (45) priority fauna species were identified as consideration for management priorities. The paper also succinctly identified nine (9) threatening processes to the region's biodiversity values, along with recommended management actions.

3.3 Validation of findings

To ensure information presented within this Road Map is reflective of shifting species conservation advice and evolving threats to biodiversity, information extracted from the above papers was cross-checked against the following resources;



- Environmental Protection and Biodiversity Conservation Act ‘*Protected Matters Search*’
- The Nature Conservation Act ‘*Request a Species List*’
- Qld Department of Environment and Science – ‘*Threatened Species Back on Track Status*’

4. Findings from Desktop Review

Noosa Shire is located within the South-East Queensland Bioregion, an area of exceptionally high biodiversity, lying in the zone where tropical and temperate land zones overlap. This provides for a set of conditions that support a great variety of plants and animals. Noosa has a large variety of all three levels of biodiversity, at the genetic, species and ecosystem level. These are supported by a wide range of ecosystem types, including key habitat areas such as rainforests, beaches, woodlands, wetlands, lakes, rivers, forests, mountains and marine areas.

4.1 Key habitats and broad vegetation groups

From the evaluation of supporting information, seven (7) key habitat types were identified across the Noosa LGA (see Table 2 below). Please note that for the purpose of this Road Map *Heaths and other coastal communities* have been combined with *mangroves and saltmarsh* (due to habitat distribution of threatened species). Table 2 breaks down the key habitat types into twenty-seven (27) broad vegetation groups (BVGs) (comprised of sixty-four (64) regional ecosystems).

Table 2: Key habitat breakdown for Noosa LGA

Key Habitat Types	Number of Different BVGs (within key habitat types)	Proportional Spread of the 27 BVGs (across key habitats)
Rainforests and scrubs	5	19%
Eucalypt forests and woodlands combined with Melaleuca woodlands	13	48%
Ecotones and combined habitats	Variable	Not definable
Freshwater waterways, wetlands and riparian zones	3	11%
Heaths and other coastal communities	4	15%
Saltmarsh and mangroves	2	7%
Coastal and Marine	N/A	N/A



Actions Required under the Road Map

To achieve an integrated approach, key threatened species nominated for management priorities should proportionally represent each of the key habitat types identified above, see Section 6.3 - Representation of key habitats (BVGs) across the Noosa Nine.

4.2 Threatened ecological communities

The Noosa Shire contains four (4) threatened ecological communities that are (or are to be shortly) recognised and protected under Commonwealth legislation (EPBC Act 1999);

- Critically Endangered Lowland Rainforest of Subtropical Australia (lowland rainforest)
- Vulnerable Subtropical and Temperate Salt Marsh (saltmarsh)
- Endangered Coastal Swamp Oak (*Casuarina glauca*) Forest
- Coastal Swamp Sclerophyll Forests (conservation advice soon to be listed)

4.3 Threatening processes to biodiversity

From the desktop review of supporting information, in combination with internal Noosa Council review, the nine (9) following threats to fauna and associated biodiversity values were identified;

1. Climate change impacts (temperature, sea level, fire, weather events etc.)
2. Development, clearing and habitat fragmentation
3. Inappropriate fire regimes (prescribed burning)
4. Riparian health, water quantity and quality management
5. Invasive flora / fauna and domestic animals
6. Disease (species susceptibility)
7. Negative human / wildlife interactions (vehicle strike, conflicts etc.)
8. Marine impacts (commercial fishing, litter, boat strike etc.)
9. Recreational impacts (four-wheel driving, bikes, recreational fishing, foreshore use etc.)

4.4 Fauna of conservation significance

The *Noosa Biodiversity Assessment Report* and the *Noosa Shire Priority Species Assessment Report* identified a combined total of one hundred and eighty-five fauna (185) fauna species of conservation significance within the Noosa Shire. Both assessments also identified priority species for management considerations, with a combined total of forty-five (45) priority fauna identified across both assessments, as per Table 3 below.



Table 3: Identified species of conservation significance within the Noosa Shire

Noosa Biodiversity Assessment Report	Noosa Shire Priority Species Assessment
A total of 185 species of conservation significance identified	
185 fauna species of conservation significance identified	45 priority fauna species for management considerations
6 key and iconic fauna species prioritised for management considerations	
A total of 45 priority fauna species for management considerations identified	

4.5 Summary of findings

The Desktop Review identified the following key findings relevant to the planning, development and implementation of threatened fauna management and conservation within the Noosa LGA;

- Seven (7) key Shire-wide habitat types were identified
- Twenty-seven (27) broad vegetation groups were identified
- Four (4) threatened ecological communities were identified
- Nine (9) threatening processes to biodiversity values were identified
- A combined total of forty-five (45) fauna species of conservation significance were nominated for priority management considerations across both the *NBAR* and *NSPSAR*.





Koala

Photo – Ruth Huckstepp



5. Shortlisted Fauna

5.1 Shortlisted species

From the forty-five (45) fauna species of conservation significance identified in the Desktop Review, A total of twenty-nine (29) Shire-wide conservation significant species were shortlisted for potential management priorities under this Road Map. That is, species which reside in the Noosa LGA that are currently listed under the Nature Conservation Act (Queensland) or the Environment Protection and Biodiversity Conservation Act (Commonwealth), and afforded either of the following conservation advices;

- Critically Endangered
- Endangered
- Vulnerable

Given both Acts form the primary overarching legislation regarding threatened species conservation advice, it is appropriate to shortlist Noosa's conservation significant species using such criteria. Species classified as Conservation Dependent (EPBC) or Near Threatened (NCA) have been excluded from consideration by Noosa Council for priority management.

Table 4 (below) identifies the twenty-nine (29) fauna species of conservation significance shortlisted for potential management priorities under this Road Map.



Table 4: The 29 shortlisted threatened fauna species for potential management priorities

Species of National or State Conservation Significance		
Species	Current Conservation Status	
	EPBC	NCA
<i>Mammals</i>		
Greater gliders (Central greater glider)	Endangered	Vulnerable
Grey-headed flying-fox	Vulnerable	Least Concern
Koala	Endangered	Vulnerable
Water mouse	Vulnerable	Vulnerable
<i>Birds</i>		
Australian painted snipe	Endangered	Endangered
Beach stone-curlew	N/A	Vulnerable
Black-breasted button-quail	Vulnerable	Vulnerable
Coxen's fig-parrot	Endangered	Endangered
Glossy black cockatoo	Vulnerable	Vulnerable
Ground parrot	N/A	Vulnerable
Plumed frogmouth	N/A	Vulnerable
Powerful owl	N/A	Vulnerable
Red goshawk	Vulnerable	Endangered
<i>Reptiles</i>		
Common death adder	N/A	Vulnerable
Green turtle	Vulnerable	Vulnerable
Loggerhead turtle	Endangered	Endangered
Mary River turtle	Endangered	Endangered
<i>Frogs</i>		
Cascade treefrog	N/A	Vulnerable
Giant barred frog	Vulnerable	Vulnerable
Tusked frog	N/A	Vulnerable
Wallum froglet	N/A	Vulnerable
Wallum rocketfrog	N/A	Vulnerable
Wallum sedge frog	Vulnerable	Vulnerable
<i>Fish and Rays</i>		
Australian lungfish	Vulnerable	N/A
Honey blue-eye	Vulnerable	Vulnerable
Mary River cod	Endangered	N/A
Oxleyan pygmy perch	Endangered	Vulnerable
<i>Invertebrates</i>		
Pink underwing moth	Endangered	N/A
Richmond birdwing butterfly	N/A	Vulnerable



5.2 Exclusions

5.2.1 Migratory, few verified records or least concern fauna with Noosa Shire

The primary focus of Strategy 1.3 of the NES is to, 'Improve long-term survival for threatened species and ecological communities'. Species that fell under the following categories were excluded from Table 5 (not shortlisted), with the following justifications;

- **Migratory species with no regionally confirmed breeding activity**
Migratory Species including several shorebirds (Eastern curlew), some marine animals (Leatherback turtle, Dugong and whales), which may seasonally occur but do not breed within the Noosa Region, are not suitable indicator species for ecosystem health changes. This is because their presence within the Noosa LGA may be a result of impacts occurring outside the LGA.
- **Species with very few, or no recent verified recordings with the Noosa LGA**
Species which have limited, or no recent recordings within the Noosa LGA such as the Australian fritillary, Spotted-tail quoll and the Sand yabby (*Cherax robustus*) are not suitable for the development of useful baseline population monitoring data. Therefore, it is not possible to undertake indicative longitudinal population studies. Both of which are required to measure species and habitat recovery under the objectives of the NES and this Road Map.
- **Least Concern Wildlife under the NCA Act**
Fauna Species listed as special / least concern under the NCA were not short-listed (excluded from the twenty-nine conservation significant species) for management priority under this Road Map, given their decreased risk of extinction. Council does however acknowledge some of these species may be of conservation significance within the Shire, and our approach to managing such species is provided below in Section 5.3.

5.3 Management of least concern and non-listed species

Council does also acknowledge that there are a number of species found within the LGA that are not listed under either the NCA or EPBC Act, however, are still of conservation importance, these include species which;

- are regionally significant in SEQ (Green-thighed frog)
- are regionally significant in the Noosa Shire (Blue-winged kookaburra)
- have restricted distribution (Cooloola propator, *Cherax robustus* and the Great Sandy blind skink)
- occur at their southern or northern distribution limits within Noosa Shire (Frimled (neck) lizard)
- are iconic species (such as the platypus), however are not listed as near threatened / conservation dependent to critically endangered.



Recognising the importance of conserving species that fall into the above categories, Noosa Council is currently exploring additional research and conservation opportunities to ensure a holistic approach in threatened species conservation across the LGA. Furthermore, the design of existing and future conservation strategies for the prioritised species will also consider opportunities to target beneficiary species utilising the same habitat (for example: Mary River cod - Mary River turtle - Platypus).



Greater Glider
Photo – Rachel Lyons



6. Methods - Nominating the Noosa Nine

6.1 The Noosa Nine

In response to Council’s development of the *NES*, nine (9) key and iconic threatened fauna species (known as the *Noosa Nine*) were drafted in 2018/2019. Expanding upon these works, this Road Map formalises the decision process, scientifically justifies, and prioritises (through a comprehensive stakeholder consultation process) a list of key threatened fauna species for management priority to 2029 and beyond.

Given Council’s prior investment in marketing the Noosa Nine, the program will be revamped to maximise threatened species conservation outcomes. Hence, a total of nine (9) key threatened fauna species for management priorities will be nominated under the pathway presented in this Road Map.

6.2 Threatening processes as core selection criteria

Eleven (11) criteria will be used to score and rank the shortlisted species for management priorities to determine the *Noosa Nine* species list. The two items / criteria critical to the delivery of Strategy 1.3 of the *NES* (*‘conservation advice’* and *‘suitability for longitudinal population trend monitoring’*) will form 18% of the total weighting in the decision process. The remaining nine criteria (identified threatening processes) will be evenly weighted (9% each of the total score). Table 5 groups the selection criteria and presents their combined weighting used in nominating the *Noosa Nine* from the twenty-nine shortlisted species.

Table 5: Selection criteria and weighting

Criteria	Weighting
Items Critical to the Delivery of Strategy 1.3 of the NES	
Conservation advice	9%
Suitability for longitudinal population trend monitoring	9%
Sub-total	18%
Identified Threatening Processes across the Noosa LGA	
Climate change impacts (temperature, sea level, fire, weather events etc.)	9%
Development, and clearing and habitat fragmentation	9%
Inappropriate fire regimes (prescribed burning)	9%
Riparian health, water quantity and quality management	9%
Invasive flora / fauna and domestic animals	9%
Disease (species susceptibility)	9%
Negative human / wildlife interactions (vehicle strike, conflicts etc.)	9%
Marine impacts (commercial fishing, litter, boat strike etc.)	9%
Recreational impacts (four-wheel driving, bikes, recreational fishing, foreshore use etc.)	9%
Sub-total	82%
Total	100%



6.3 Representation of key habitats (BVGs) across the Noosa Nine

To deliver an integrated approach, the spread of the *Noosa Nine* (where justifiable) should proportionally represent each of the Shire’s seven key habitat types.

This may be best achieved through ensuring species spread is determined in relation to the proportional coverage of key habitat types across the Noosa LGA. Thus, Table 6 below, identifies the proportional spread of BVG types across the key habitats. From here, the optimum spread of the *Noosa Nine* across the seven key habitat types has been calculated.

Table 6: Optimum spread of the *Noosa Nine* across key habitat types

Key Habitat Types	Proportional Spread of BVGs (across key habitats)	Optimum Spread of the Noosa Nine (across key habitats)
Rainforests and scrubs	19%	1
Eucalypt forests and woodlands combined with Melaleuca woodlands	48%	3
Ecotones and combined habitats	N/A	1
Freshwater waterways, wetlands and riparian zones	11%	1
Heaths and other coastal communities	15%	1
Saltmarsh and mangroves	7%	1
Coastal and Marine	N/A	1
Totals	100%	9

6.4 Decision Matrix

A sample Decision Matrix template is presented as Attachment One. The Decision Matrix was used as a stakeholder evaluation tool to score and rank the twenty-nine shortlisted fauna species in relation to their conservation advice, the items critical to the delivery of Strategy 1.3 of the *NES*, and the species susceptibility to the nine identified threatening processes (see Section 6.2).



Decision Matrix - 31 Shortlisted Fauna Species of Conservation Significance - Stakeholder Consultation Program																		
Selection Criteria			Highest conservation advice listing (EPBC or NCA)	Suitability for longitudinal population monitoring	Climate change impacts - any	Development, land clearing and habitat fragmentation	Inappropriate fire regimes	Riparian health, water quantity and quality management	Invasive fauna / flora and domestic animals	Disease (susceptibility)	Negative human / wildlife interactions (car strikes, conflicts etc.)	Marine impacts (commercial fishing, litter, boat strike etc.)	Recreational impacts (4WD's, bikes, fishing, foreshore use etc.)	Totals (higher score = increased susceptibility to threatening processes)				
Scoring Method			E = 3 V = 2, CD / NT = 1	Low = 1, Med = 2, High = 3	Low Susceptibility = 1, Medium Susceptibility = 2, High Susceptibility = 3										Total Score (auto calculated)	Max Possible Score		
Key Habitat Type (as a % of BVGs)	Number of BVG Types (as a %)	Optimum Spread of the Noosa Nine	Shortlisted Threatened Species (grouped into their primary habitat)		Score(Do Not Edit)	Score	Score	Score	Score	Score	Score	Score	Score	Score	Score			
Rainforests and Scrubs	18%	1	Black-breasted button-quail	2											2	30		
			Coxen's fig-parrot	3											3			
			Cascade tree frog	2													2	
			Giant barred frog	2													2	
			Plumed frogmouth	2													2	
			Pink underwing moth	3													3	
			Richmond birdwing butterfly	2													2	
Eucalypt forests and woodlands and Melaleuca woodlands	48%	3	Common death adder	2											2	30		
			Glossy black cockatoo	2											2			
			Greater glider	2											2			
			Koola	3											3			
			Powerful owl	2													2	
			Red goshawk	3													3	
Combined Habitats (Ecotones and species that reside across habitats)	N/A	1	Australian painted snipe	3											3	30		
			Grey-headed flying-fox	2											2			
			Tusked frog	2											2			
Freshwater Waterways, Wetlands and Lakes	15%	1	Australian lungfish	2											2	30		
			Honey blue-eye	2											2			
			Mary River cod	3													3	
			Mary River turtle	3													3	
			Oxleyan pygmy perch	3													3	
			Swamp yabby	3													3	
Heaths and other coastal communities	15%	1	Ground parrot	2											2	30		
			Great Sandy blind snake	1											1			
			Acid Frogs	Wallum froglet	2													2
				Wallum rocketfrog														
Wallum sedge frog																		
Saltmarsh and Mangroves	7%	1	Water mouse	2										2	30			
Coastal and Marine	N/A	1	Marine Turtles	Green turtle	2										2	33		
				Loggerhead turtle	3										3			
			Beach stone-curlew	2											2			
			Estuary stingray	1											1			

Figure 2: Sample Decision Matrix template



6.5 Stakeholder Input

Using the Decision Matrix, the twenty-nine shortlisted fauna species were scored against the selection criteria. For criteria 'Conservation Advice' (which is critical to the delivery of the NES), a suitably qualified Noosa Council environmental staff member completed this section of the distributed matrix, through reference to the supporting information identified in Section 3.

For item two 'Suitability for Longitudinal Population Trend Monitoring', along with all other nine (9) criteria (identified threatening processes), members of the Expert Panel were presented with the opportunity to score and rank each of the twenty-nine shortlisted species, in turn nominating their priority species to jointly develop the Noosa Nine species list.

6.6 Expert Panel

Stakeholders from an Expert Panel completed the Decision Matrix through scoring the shortlisted species against the set criteria. The Expert Panel was formed from key stakeholders invested in Shire-wide threatened fauna conservation. To increase the scientific robustness of the process, panel members were sourced from a variety of stakeholder groups. The participants who completed the Decision Matrix are identified below in Table 6. In total, ten participants (71%) out of the fourteen approached completed the Decision Matrix.

Table 6: Expert Panel members

Noosa Nine Decision Makers	
Stakeholder Groups	Panel Members
Non-for-profit environmental organisations	Mary River Catchment Committee
	Noosa & District Landcare
	Noosa Biosphere Reserve Foundation
	Noosa Integrated Catchment Association members
Wildlife consultants	Wildwise Environmental
	Future-Plus Environmental
	Ecological Australia
Internal Noosa Council staff	David O’Gorman
	David Burrows and Vanessa Moscato
Sunshine Coast Council	Tyron de Kauwe

Acknowledgments are also extended to Professor Hugh Possingham (UQ), who provided valuable guidance during the development of this Road Map.

Please refer to Attachment Two, Stakeholder Consultation Plan for full details.





Wallum Sedge Frog
Photo – Eva Ford



7. Decision Process

7.1 Optimum spread of the *Noosa Nine*

On completion of the Stakeholder Consultation Program the results from all panel members were collated. This process determined the final species list of the Noosa Nine. Table 7 summarises the decision methodology.

Table 7: Expert Panel to finalise the *Noosa Nine*

Key Habitat Type	Species Spread across Habitats (29 shortlisted species)	Optimal Spread of the <i>Noosa Nine</i>	Final <i>Noosa Nine</i>
Rainforests and scrubs	7	1	The single species with the highest number of nominations across the Expert Panel
Eucalypt forests and woodlands combined with Melaleuca woodlands	6	3	The <u>three</u> species with the highest number of nominations across the Expert Panel
Ecotones and combined habitats	3	1	The single species with the highest number of nominations across the Expert Panel
Freshwater waterways, wetlands and riparian zones	6	1	The single species with the highest number of nominations across the Expert Panel
Heaths and other coastal communities	6	1	The single species with the highest number of nominations across the Expert Panel
Saltmarsh and Mangroves	1	1	The single species with the highest number of nominations across the Expert Panel
Coastal and marine	4	1	The single species with the highest number of nominations across the Expert Panel
Totals	29	9	The <i>Noosa Nine</i>



7.2 Scoring methodology

Under the results collation process, the species within each of the key habitats that received the highest score by the stakeholder was attributed an arbitrary value of 1.0. Some participants scored more than one species with the equal highest score (within a key habitat) and in this situation, the score of 1.0 was proportionally split between the nominated species during collation of the results. For example, if a participant nominated both the Mary River cod and the Mary River Turtle for the freshwater waterways, wetlands and riparian zones key habitat category, the value of 1.0 was split (at 0.5) between the two species (see example below in Figure 2).

Decision Matrix - 29 Shortlisted Fauna Species of Conservation Significance - Stakeholder Consultation Program														Totals (higher score = increased susceptibility to threatening processes)		
Selection Criteria	highest conservation advice listing category	suitability for longitudinal	Climate change impacts - any	Development, land clearing and	Inappropriate fire regimes	Riparian health, water quantity	Invasive fauna / flora and domestic	Disease (susceptibility)	Negative human / wildlife interaction	Marine impacts (commercial fishing, etc.)	Recreational impacts (4WD's, etc.)	Score	Score	Score		
Scoring Method	E = 3 V = 2, CD / NT = 1	Low = 1, Med = 2, High = 3	Low Susceptibility = 1, Medium Susceptibility = 2, High Susceptibility = 3											Total Score (seto calculated)	Max Possible Score	
Key Habitat Type (as a % of BVGs)	Shortlisted Threatened Species (grouped into their primary habitat)	Score (do not edit)	Score	Score	Score	Score	Score	Score	Score	Score	Score	Score	Score	Score	Score	Score
Freshwater Waterways, Wetlands and Lakes	Australian lungfish	2	2	1	2	1	2	3	1	1	2	17	30			
	Honey blue-eye	2	1						1	Not applicable (do not score)	1	17				
	Mary River cod	2	1						1	Not applicable (do not score)	3	21				
	Mary River turtle	3	2						1	Not applicable (do not score)	3	21				
	Chalayan pygmy perch	3	1	2	3	1	2	3	1	1	2	13				
	Swamp yabby	3	1	2	2	1	2	2	2	1	1	17				

Figure 2: Strategy 1.3 of the Noosa Environment Strategy (2019)

7.3 Species not scored by panel members

A total of ten Expert Panel members completed the Decision Matrix. Participants either completed the entire Decision Matrix or completed part of the matrix for the species which they held adequate knowledge on. Therefore, nominating up to nine (9) species for management priority. While a small number of species were not scored by panel members, these species are generally also not of primary interest to the stakeholder. Therefore, it is assumable that these species were unlikely to receive nomination by the panel member regardless. Furthermore, the inclusion of three expert wildlife consultants within the Expert Panel (who all completed the entire matrix), diluted the impact of this variable.



8. Results

In accordance with the pre-determined optimum spread of the Noosa Nine (see Table 7), nominations from each of the ten Expert Panel members were collated to determine the overall highest scoring species for each key habitat type.

Given a total of ten Expert Panel members completed the Decision Matrix, the maximum score a species could receive within a key habitat type was ten (10.0). The collated Expert Panel species nominations are presented in below in Figure 3 and form the final Noosa Nine under this Road Map.



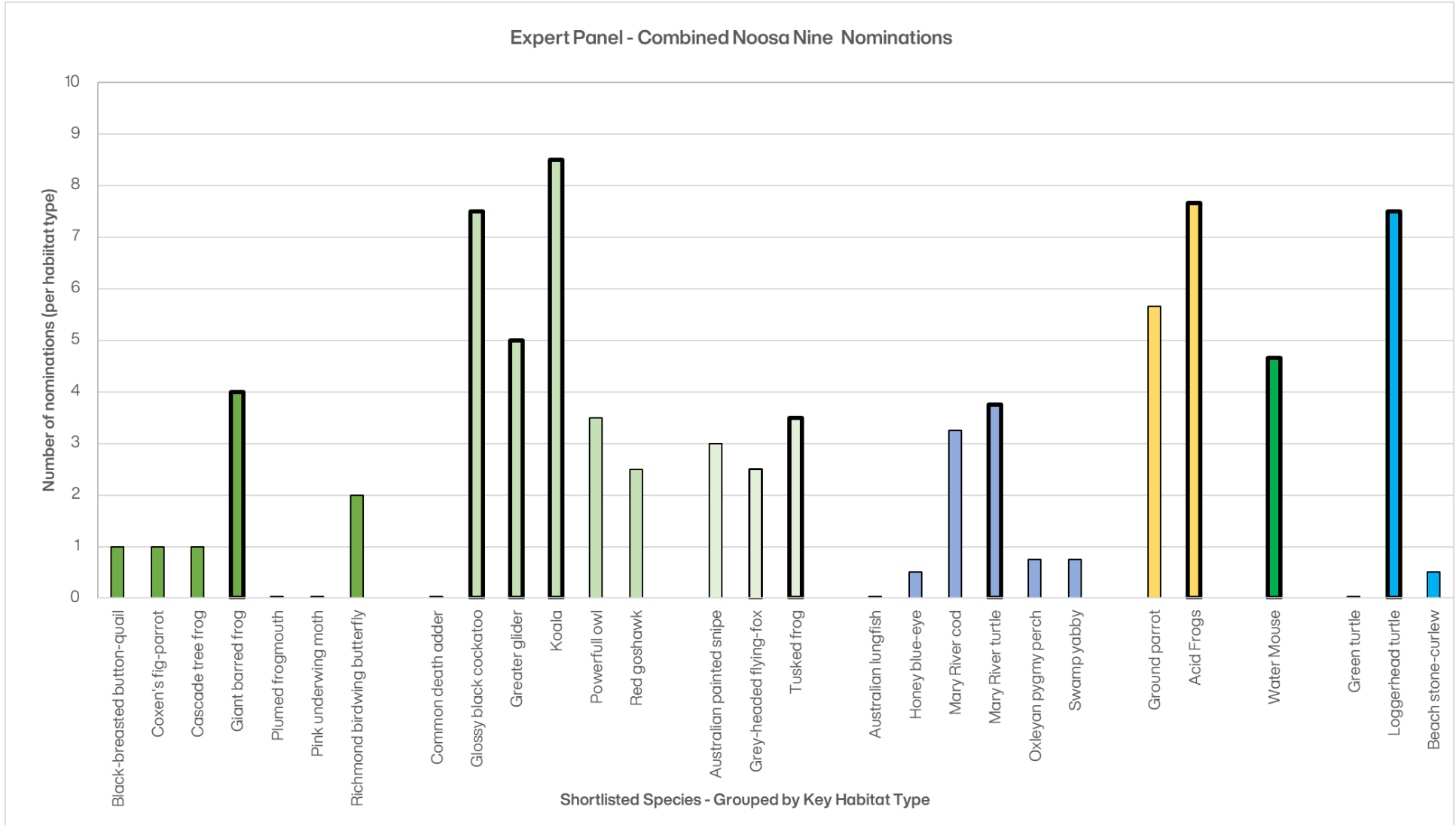


Figure 3: Results – Expert Panel nominations determining the final *Noosa Nine*



8.1 The Final Noosa Nine

The Expert Panel has jointly nominated the below species (listed by habitat type) for the final Noosa Nine. The species presented below now need to be evaluated to determine management priorities under the implementation phase of this Road Map (refer to Section).

- Giant barred frog (*Mixophyes iteratus*)
- Glossy black cockatoo (*Calyptorhynchus lathami*)
- Greater glider (*Petauroides polans*)
- Koala (*Phascolarctos cinereus*)
- Tusked frog (*Adelotus brevis*)
- Mary River turtle (*Elusor macrurus*) and Mary River cod (*Maccullochella mariensis*)
- Acid frogs (Wallum froglet, rocket frog and sedge frog)
- Water mouse (*Xeromys myoides*)
- Loggerhead turtle (*Caretta caretta*)

8.2 Significant co-benefit species to be included in management priorities

Two clear co-benefit opportunities are apparent in the Noosa Nine species list, the Green turtle and the Mary River Cod. Both species present efficient opportunities to extend the scope of the Noosa Nine program without significant additional investments.

8.2.1 The Green turtle

Green turtles (listed as vulnerable) frequently nest on Noosa beaches alongside the Loggerhead turtle. Likewise, the conservation initiatives required to protect both species align seamlessly. Noosa Council will action the protection of the Green turtle alongside the Loggerhead turtle in a joint Recovery Action Plan.

8.2.2 The Mary River cod

The Mary River cod is listed as an endangered species under both the EPBC and the NCA acts, and Noosa Shire Council recognises and supports the need to ensure the long-term survival of this species within and external to our LGA. Participants of the expert panel scored the Mary River cod only slightly lower than the Mary River turtle (nominated within the *Noosa Nine*). Both species share similar habitat types and benefit from similar in stream and riparian recovery actions. Noosa Council will continue to prioritise recovery of the Mary River Cod through a Mary River cod Recovery Action Plan. This will be developed and implemented alongside the Recovery Action Plan for the Mary River turtle.





Mary River Cod
Photo - Gunther Shmida



9. Management priorities for the Noosa Nine

9.1 Conservation advice

A staged implementation approach is recommended to deliver Strategy 1.3 of the *NES* to promote;

- maximum outcomes for minimal investment
- allow for any potential project risks to be identified and mitigated
- opportunity for increased stakeholder involvement
- access to future funding opportunities

The more threatened a species is, the higher the risk of extinction. Therefore, it is scientifically appropriate to prioritise conservation resources to more vulnerable species. For example, species listed as critically endangered, should be considered for temporal management priority over less threatened species (see Figure 4).

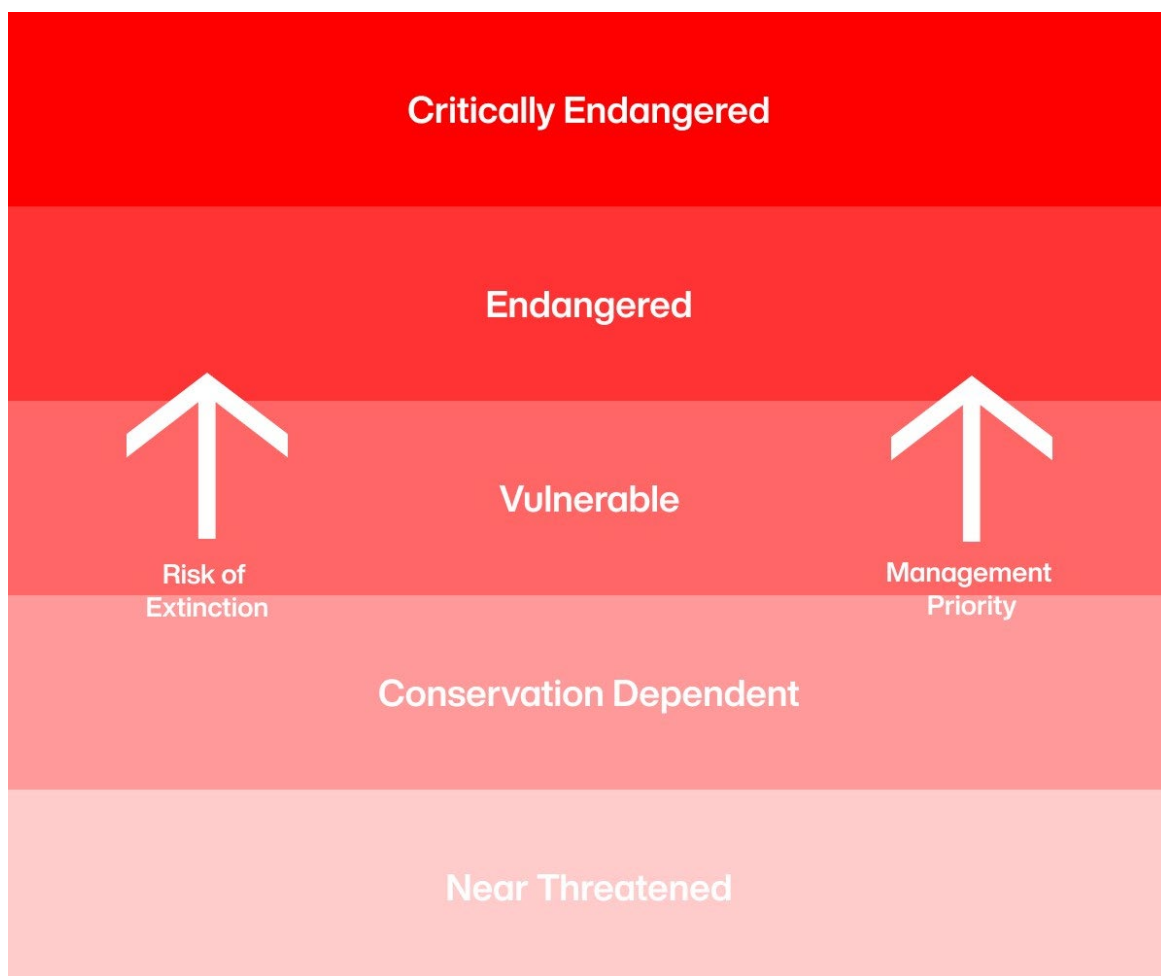


Figure 4: Structured prioritisation of the management actions for the *Noosa Nine*



9.2 Considering regional threats to populations and habitats

The objective of this Road Map is to guide Council's approach to the on-going management and recovery of threatened fauna within the Noosa Shire Local Government Area (LGA) and adjacent coastal waters. Therefore, we must also consider the regional population dynamics of a species and the threats impacting species and their habitats during prioritisation of the *Noosa Nine*. For example, the increased severity of climate change induced coastal erosion is decreasing the regional breeding potential of sea turtles, particularly along highly dynamic beaches, such as the Noosa Eastern Beaches. These erosion events (often associated with tropical depressions) also coincide with the sea turtle breeding season (November to May).

9.3 Year one priorities – sea turtles (Loggerhead and Green turtle)

Through a risk assessment process, Council has been able to identify sea turtles (including the Loggerhead and Green turtle) as a *Noosa Nine* implementation priority given the following considerations;

- A significant decrease in nesting activity across the Sunshine Coast and Noosa regions during 21/22
- Increases in compromised and dead sea turtle strandings on Noosa beaches during 21/22
- Loss of nesting habitat due to recent severe coastal erosion
- Funding opportunities under state and Commonwealth threatened species recovery programs
- Newly formed research and management partnerships with the Sunshine Coast Council and TurtleCare.

9.4 Future implementation priorities under the Road Map

The Road Map is to be reviewed annually, at this time implementation priorities of the *Noosa Nine* will jointly be determined by the Environmental Services Team for the following financial year. Decisions will be made based on the consideration outlined above and other factors as they may arise. The development of Action Recovery Plans for a nine species shall occur by 2030, as per organisational commitments under the NES. A Delivery Schedule of the Road Map is provided below in Section 10.4 – Key milestones, implementation timeline and resources.





Turtle Hatchling
Photo – Chelsea Greensill



10. Delivery

10.1 The Noosa Environment Strategy and this Road Map

This Road Map now places Council in a position where the appropriate scientific justification, planning and stakeholder consultation are in place to implement Strategy 1.3 of the *NES*. Council's foremost organisational commitments to Strategy 1.3 are;

- 'Significant implementation actions for the first 3 years'
- 'Improve long-term survival for threatened species and ecological communities'

10.2 Typical approaches to threatened species conservation

The development of threatened species recovery plans are a scientifically accepted, and widely adopted method to implement threatened species management and conservation (DES 2021). However, we acknowledge that for some species, extensive work has already been undertaken by various stakeholders in threatened species conservation. Therefore, Council's approach under this Road Map will be to develop and implement Threatened Species Action Plans for each of the Noosa Nine. As well as habitat conservation (planning and policy) at the broad landscape level, some species will also require interventions at the site level to address threatening processes such as climate change.

Where information, research or recommendations are lacking for a species, Council will ensure that works are undertaken to determine the required information necessary to action threatened species recovery. An example of this approach is demonstrated through the Noosa Council Koala Conservation Plan, produced in 2016.

For some species (koalas and flying-foxes), Council already has active monitoring and management programs in place. However, these factors should not impact species temporal prioritisation over the ten-year life of the *NES* and beyond. Funding resources and scope of management actions will be species specific, dependent upon existing investments, species requirements and available funding streams.

10.2.1 Example - Noosa Council Koala Conservation Plan (2016)

As an example, Noosa Council is pro-actively ensuring local koala populations remain viable into the future through the implementation of the Noosa Shire Koala Conservation Plan (2016). The twenty-seven-point action plan works together with the community and various stakeholders to ensure koalas remain an essential component of Noosa's biodiversity. An example of an actioned koala habitat conservation initiative under the Plan, is the Yurol Ringtail Project, which has resulted in 2,400ha of land transitioning to koala habitat and National Park status over the next 10 years.



10.3 Actioning threatened species conservation and recovery under this Road Map

To deliver Strategy 1.3 of the NES, individual Threatened Species Recovery Action Plans will be developed and implemented for the Noosa Nine. It is important to highlight that these works should not aim to replace existing management strategies, rather consolidate monitoring and management efforts, and most importantly, implement existing management recommendations. Typical elements and tasks that may be required in the development Threatened Species Recovery Action Plan include;

- Review of species conservation advice
- Consolidation of (regional) population baseline monitoring data
- Review of species biology, ecology, distribution and habitat requirements
- Identification of the current and future threatening processes likely to impact species viability
- Review of existing research, management strategies and recommendations (stakeholder consultation)
- Identification of limitations or opportunities to management recommendations under planning and policy
- The identification of any social or economic considerations
- As required, the joint development of new conservation strategies alongside relevant stakeholders
- Joint implementation of management recommendations and monitoring programs
- The periodic review (and improvement) of the Recovery Action Plan under key performance indicators

10.3.1 Co-benefit species of the Noosa Nine (Mary River turtle and Mary River cod)

Where opportunities lie for co-benefit management outcomes across species, Council will actively ensure viable opportunities are pursued. One example may be the opportunity to target both Mary River turtle (priority species two of this Road Map) and the Mary River cod simultaneously. Both species share similar habitat types, may be surveyed for collectively, benefit from the similar management interventions and often share the same funding streams. Furthermore, species that were scored highly by the Expert Panel but were unable to be included in the Noosa Nine (such as the Mary River Cod) will be afforded extra consideration for such opportunities.

10.3.2 Periodic review

Threatened Species Recovery Action Plans must undergo periodic review to ensure their effectiveness under evolving threats, and as new population data or funding opportunities becomes available. Review may also be required when longitudinal studies indicate notable changes in a species population or distribution.



Pre-determine key performance indicators (KPIs) will be used to evaluate species and habitat recovery progress, and to identify when management or monitoring actions may need to be reviewed. Metrics used will be species specific, however examples of KPIs that will be used for the Noosa Nine may include;

- Habitat and ecosystem condition changes
- Annual (census) population trends
- Breeding effort and success
- Type and quantity of human / wildlife interactions
- Active community and stakeholder involvement
- Longitudinal population and distribution monitoring data trends
- Success in attaining available funding streams, such as grants.

10.4 Key milestones, implementation timeline and resources

Provided below is an Anticipated Delivery Schedule (Figure 5), which identifies the key milestones, timelines and the resources required to implement the recommendations provided in this Road Map, over the remaining seven-year life of the NES.



Milestone	Items	Financial Year														
		2021/2022			2022 / 2023	2023 / 2024	2024 / 2025		2026 / 2027		2028 / 2029		2030			
		April	May	June			Jul -Dec	Jan - Jun	Jul -Dec	Jan - Jun	Jul -Dec	Jan - Jun		Jul -Dec	Jan - Jun	
Project Development	Review of supporting information	█														
	Analysis															
	Determine Approach	█														
Funding, Consultation and Finalise Plan	Draft Road Map to Council		█		Oct	Feb	Jun									
	Funding approval (Fauna Mangment Officer)			█				Jul -Dec	Jan - Jun	Jul -Dec	Jan - Jun	Jul -Dec	Jan - Jun	Jul -Dec	Jan - Jun	
	Community consultation and expert review			█	█										Jan - Jun	
	Final Road Map to Council and year one funding					█	█									
Development of Species Recovery Action Plans	Consolidate baseline data															
	Stakeholder consultation (species specific)							Loggerhead turtle	Species 2	Species 3	Species 4	Species 5	Species 6	Species 7	Species 8	Species 9
	Development of monitoring / management programs															
Implementation of Species Recovery Action Plans	Loggerhead turtle															
	Species 2															
	Species 3															
	Species 4															
	Species 5															
	Species 6															
	Species 7															
	Species 8															
	Species 9															
Species Prioritisation and Review	Periodic review of implemented Recovery Action Plans and species prioritisation for following financial year							x		x		x		x		x

Figure 5: Anticipated Delivery Schedule



11. Priority Recommendations

With the Road Map now endorsed for implementation by Council (March 2023), to deliver Council's commitment to significant implementation of Strategy 1.3 of the *Noosa Environment Strategy* by 2022, the following short-term priority recommendations require action (in respective order);

- 1) Stakeholders (Expert Panel) are notified of the final Noosa Nine (22/23)
- 2) Stakeholder consultation to commence in the development and implementation of a Recovery Action Plan for the Loggerhead turtle (priority one species), to coincide with the start of the 23/24 breeding season (November to May).



Loggerhead Sea Turtle



12. Conclusion

With the appropriate scientific justification, planning and consultation mechanisms now in place, Council is in a timely position to deliver the following organisational commitments under Section 1.3 of the *Noosa Environment Strategy (2019)*:

- 1) 'Significant implementation actions for the first 3 years (22/23)'
- 2) 'Improve long-term survival for threatened species and ecological communities'

For net improvement of Shire-wide biodiversity values, the *Noosa Nine* species list promotes an integrated approach in threatened species conservation across a diverse range of habitats. Such an approach also presents opportunities for threatened fauna conservation programs to support other related Council environment strategies, which is an overarching goal of the *NES*.

Moving into the implementation phase of the Threatened Fauna Road Map, the establishment of productive stakeholder relationships, clear management strategies and key performance indicators (via the pathway described within this document) positions Council to meet and exceed organisational targets, and deliver stakeholder commitments to threatened fauna recovery across the Noosa shire.

Mary River Turtle



13. References

- Australian Government (1999) *Environmental Protection and Biodiversity Conservation Act*
- Australian Government (1999) *Environmental Protection and Biodiversity Conservation Act 'Protected Matters Search'*
- Eco Logical (2016) *Noosa Biodiversity Assessment Report*
- Noosa & District Landcare (2019) *Noosa Shire Priority Species Assessment*
- Queensland Department of Environment and Science (2022) *Threatened Species Back on Track Status*
- Queensland Government (2022) *Nature Conservation Act*
- Queensland Government (2022) *Nature Conservation Act 'Request a Species List'*
- Noosa Shire Council (2019) *Noosa Environment Strategy*
- Noosa Shire Council (2016) *Noosa Shire Koala Conservation Plan*



14. Attachment One – Sample Decision Matrix Template



Decision Matrix - 31 Shortlisted Fauna Species of Conservation Significance - Stakeholder Consultation Program

Selection Criteria		Highest conservation advice listing (EPBC or NCA)	Suitability for longitudinal population monitoring	Climate change impacts - any	Development, land clearing and habitat fragmentation	Inappropriate fire regimes	Riparian health, water quantity and quality management	Invasive fauna / flora and domestic animals	Disease (susceptibility)	Negative human / wildlife interactions (car strikes, conflicts etc.)	Marine impacts (commercial fishing, litter, boat strike etc.)	Recreational impacts (4WD's, bikes, fishing, foreshore use etc.)	Totals (higher score = increased susceptibility to threatening processes)				
Scoring Method			E = 3 V = 2, CD / NT = 1	Low = 1, Med = 2, High = 3	Low Susceptibility = 1, Medium Susceptibility = 2, High Susceptibility = 3								Total Score (auto calculated)	Max Possible Score			
Key Habitat Type (as a % of BVGs)	Number of BVG Types (as a %)	Optimum Spread of the Noosa Nine	Shortlisted Threatened Species (grouped into their primary habitat)		Score(Do Not Edit)	Score	Score	Score	Score	Score	Score	Score	Score	Score	Score		
Rainforests and Scrubs	18%	1	Black-breasted button-quail	2										2	30		
			Coxen's fig-parrot	3										3			
			Cascade tree frog	2												2	
			Giant barred frog	2												2	
			Plumed frogmouth	2												2	
			Pink underwing moth	3												3	
			Richmond birdwing butterfly	2												2	
Eucalypt forests and woodlands and Melaleuca woodlands	48%	3	Common death adder	2										2	30		
			Glossy black cockatoo	2										2			
			Greater glider	2										2			
			Koala	3										3			
			Powerful owl	2												2	
			Red goshawk	3												3	
Combined Habitats (Ecotones and species that reside across habitats)	N/A	1	Australian painted snipe	3										3	30		
			Grey-headed flying-fox	2										2			
			Tusked frog	2										2			
Freshwater Waterways, Wetlands and Lakes	16%	1	Australian lungfish	2										2	30		
			Honey blue-eye	2										2			
			Mary River cod	3												3	
			Mary River turtle	3												3	
			Oxleyan pygmy perch	3												3	
			Swamp yabby	3												3	
Heaths and other coastal communities	15%	1	Ground parrot	2										2	30		
			Great Sandy blind snake	1										1			
			Acid Frogs	Wallum froglet	2												2
				Wallum rocketfrog													
Wallum sedge frog																	
Saltmarsh and Mangroves	7%	1	Water mouse	2										2	30		
Coastal and Marine	N/A	1	Marine Turtles	Green turtle	2									2	33		
				Loggerhead turtle	3											3	
			Beach stone-curlew	2												2	
			Estuary stingray	1												1	

Note: Excel version of the Decision Matrix template will be made available on request.



15. Attachment Two – Stakeholder Consultation Plan (implemented)



Stakeholder Consultation Plan

Noosa Threatened Fauna Recovery Road Map Indicator Species Selection Process

Background

The Noosa Environment Strategy identifies specific targets for each of Council's environmental strategies. The primary focus of Strategy 1.3 is to, 'Ensure populations of key threatened indicator species remain viable'. For net improvement of Shire-wide biodiversity values, an integrated approach in threatened species conservation, across a diverse range of key habitats is recommended to support other related Council environment strategies.

Through the comprehensive Desktop Review contained within the Noosa Threatened Fauna Recovery Road Map, a total of twenty-nine (29) Shire-wide conservation significant species were shortlisted from the available resources. That is, species which reside in the Noosa LGA that are currently listed under the Nature Conservation Act (Queensland) or the Environment Protection and Biodiversity Conservation Act (Commonwealth), and afforded either of the following conservation advices;

- Critically endangered
- Endangered
- Vulnerable
- Conservation dependent (EPBC) / near threatened (NCA)

A comprehensive Decision Matrix tool has been developed to allow an Expert Panel to score and rank the shortlisted twenty-nine (29) fauna species in relation to items critical to the delivery of the NES, and the nine (9) identified threatening processes to biodiversity values. This method will then determine the final species list for the Noosa Nine.

Approach

Using the Decision Matrix, stakeholders from the Expert Panel will score the twenty-nine shortlisted fauna species of conservation significance against the selection criteria. For item / criteria one 'Conservation Advice' which is critical to the delivery of the NES, a suitably qualified Noosa Council Environmental staff member has completed this section of the Matrix. This was undertaken through reference to the supporting information identified in Section 3.

For item two 'Suitability for Longitudinal Population Trend Monitoring', along with all other nine (9) criteria (identified threatening processes), members of an Expert Panel will be presented with the opportunity to score and rank each of the twenty-nine shortlisted species in relation to their susceptibility to the identified threatening processes.



On completion of the consultation program, the results from all participants will be collated. This exercise will determine the nominated species for conservation under the Noosa Threatened Fauna Recovery Road Map.

The expert panel will be formed to represent key stakeholders invested in regional threatened fauna species management. Where possible, panel members will be sourced from the following stakeholder groups;

- Noosa Council
- Sunshine Coast Council
- CSIRO
- Academics (ecologists)
- Local wildlife conservation organisations
- Wildlife consultants

Methods

Panel members will be nominated based on internal knowledge of stakeholder involvement in threatened species conservation. The desired panel members will be approached prior to engagement to determine their willingness to participate in the program.

Each panel member will then be provided a blank Decision Matrix, of which participants will be required to score the twenty-nine shortlisted species against each of the identified criteria.

The participants will be provided with the Draft Noosa Threatened Fauna Recovery Road Map to aid in the understanding of Council's proposed approach to threatened fauna conservation.

On return of the completed Decision Matrixes, the results will be collated. This process will determine the final Noosa Nine species list for conservation priorities.

Objectives

To call on a variety of stakeholders to scientifically score and rank each of the twenty-nine shortlisted species in relation to the set criteria. This exercise will determine the Noosa Nine species list.

Key Messages

The campaign, under the Noosa Threatened Fauna Recovery Road Map, will be referred to as the 'Noosa Threatened Fauna Recovery Road Map Species Selection Process'



Target Audience

Table One identifies the desired stakeholders who will be approached under the Consultation Program. Panel members have been strategically selected to promote representation across the stakeholder groups.

Table One: Target Panel Members

Stakeholder Group	Stakeholder	Number of Panel Members
Corporate	Noosa Council	2
	Sunshine Coast Council	1
Academic / Ecologist	Professor Hugh Prossingham - QUT	1
Community focused and non-for-profit conservation organisations	Coolum Coast Care	1
	Mary River Catchment Coordinating Committee	1
	Noosa Biosphere Reserve Foundation	1
	Noosa & District Landcare	1
	Noosa Parks Association	1
	Noosa Integrated Catchment Association	1
Fauna Consultants / Ecologists	WildWise Environmental Services	1
	Eco Logical Australia	1
	Future-Plus Environmental	1
Total number of participants approached		14

Delivery

Table Two presents the anticipated delivery schedule of the Stakeholder Consultation Program, finalisation of the Noosa Threatened Fauna Recovery Road Map is expected in September 2022.



Table Two – Delivery Schedule

Deadline	Activity	Target audience	Comms Tools	Staff to action
22/08/22	Initial consultation	Identified stakeholders	Meetings Email Phone	David O’Gorman (Noosa Council)
05/09/22	Distribution of Decision Matrix and supporting information	Stakeholders willing to participate	Email	
19/09/22	Check-in / reminder to Panel members			
23/09/22	Return of Decision Matrix by Panel members (3 weeks to complete)			
15/10/22	Consolidation of results and finalisation of nominated species	Noosa Council	Email	

Key Performance Indicators

The effectiveness of the program will be measured through;

- The completion rate of the task by the nominated panel members (Table One).
- The spread of participants across the identified stakeholders. Ideally, we see uptake of the program across all stakeholder groups.

Mitigation of potential stakeholder bias

Spreading the consultation process across a range of stakeholders will dilute any potential species selection bias that may be originate from an individuals or organisations values.

The design of the Decision Matrix, along with the Noosa Threatened Fauna Recovery Road Map will ensure no priority threatened fauna species, or regional threatening processes (criteria) are omitted from the Decision Matrix and consultation process.



16. Attachment Three – Expert Panel Completed Decision Matrices

Available on request, pending data share agreements.



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