

Notice of Meeting

Biodiversity Advisory Committee Meeting

A Biodiversity Advisory Committee Meeting of Byron Shire Council will be held as follows:

Venue	Conference Room, Station Street, Mullumbimby
Date	Thursday, 15 September 2022
Time	9.00am

Shannon Burt
Director Sustainable Environment and Economy

*I2022/1203
Distributed 06/09/22*



BYRON
SHIRE
COUNCIL

CONFLICT OF INTERESTS

What is a “Conflict of Interests” - A conflict of interests can be of two types:

Pecuniary - an interest that a person has in a matter because of a reasonable likelihood or expectation of appreciable financial gain or loss to the person or another person with whom the person is associated.

Non-pecuniary – a private or personal interest that a Council official has that does not amount to a pecuniary interest as defined in the Code of Conduct for Councillors (eg. A friendship, membership of an association, society or trade union or involvement or interest in an activity and may include an interest of a financial nature).

Remoteness – a person does not have a pecuniary interest in a matter if the interest is so remote or insignificant that it could not reasonably be regarded as likely to influence any decision the person might make in relation to a matter or if the interest is of a kind specified in the Code of Conduct for Councillors.

Who has a Pecuniary Interest? - a person has a pecuniary interest in a matter if the pecuniary interest is the interest of the person, or another person with whom the person is associated (see below).

Relatives, Partners - a person is taken to have a pecuniary interest in a matter if:

- The person’s spouse or de facto partner or a relative of the person has a pecuniary interest in the matter, or
- The person, or a nominee, partners or employer of the person, is a member of a company or other body that has a pecuniary interest in the matter.

N.B. “Relative”, in relation to a person means any of the following:

- (a) the parent, grandparent, brother, sister, uncle, aunt, nephew, niece, lineal descends or adopted child of the person or of the person’s spouse;
- (b) the spouse or de facto partners of the person or of a person referred to in paragraph (a)

No Interest in the Matter - however, a person is not taken to have a pecuniary interest in a matter:

- If the person is unaware of the relevant pecuniary interest of the spouse, de facto partner, relative or company or other body, or
- Just because the person is a member of, or is employed by, the Council.
- Just because the person is a member of, or a delegate of the Council to, a company or other body that has a pecuniary interest in the matter provided that the person has no beneficial interest in any shares of the company or body.

Disclosure and participation in meetings

- A Councillor or a member of a Council Committee who has a pecuniary interest in any matter with which the Council is concerned and who is present at a meeting of the Council or Committee at which the matter is being considered must disclose the nature of the interest to the meeting as soon as practicable.
- The Councillor or member must not be present at, or in sight of, the meeting of the Council or Committee:
 - (a) at any time during which the matter is being considered or discussed by the Council or Committee, or

- (b) at any time during which the Council or Committee is voting on any question in relation to the matter.

No Knowledge - a person does not breach this Clause if the person did not know and could not reasonably be expected to have known that the matter under consideration at the meeting was a matter in which he or she had a pecuniary interest.

Non-pecuniary Interests - Must be disclosed in meetings.

There are a broad range of options available for managing conflicts & the option chosen will depend on an assessment of the circumstances of the matter, the nature of the interest and the significance of the issue being dealt with. Non-pecuniary conflicts of interests must be dealt with in at least one of the following ways:

- It may be appropriate that no action be taken where the potential for conflict is minimal. However, Councillors should consider providing an explanation of why they consider a conflict does not exist.
- Limit involvement if practical (eg. Participate in discussion but not in decision making or vice-versa). Care needs to be taken when exercising this option.
- Remove the source of the conflict (eg. Relinquishing or divesting the personal interest that creates the conflict)
- Have no involvement by absenting yourself from and not taking part in any debate or voting on the issue as of the provisions in the Code of Conduct (particularly if you have a significant non-pecuniary interest)

RECORDING OF VOTING ON PLANNING MATTERS

Clause 375A of the Local Government Act 1993 – Recording of voting on planning matters

- (1) In this section, **planning decision** means a decision made in the exercise of a function of a council under the Environmental Planning and Assessment Act 1979:
 - (a) including a decision relating to a development application, an environmental planning instrument, a development control plan or a development contribution plan under that Act, but
 - (b) not including the making of an order under that Act.
- (2) The general manager is required to keep a register containing, for each planning decision made at a meeting of the council or a council committee, the names of the councillors who supported the decision and the names of any councillors who opposed (or are taken to have opposed) the decision.
- (3) For the purpose of maintaining the register, a division is required to be called whenever a motion for a planning decision is put at a meeting of the council or a council committee.
- (4) Each decision recorded in the register is to be described in the register or identified in a manner that enables the description to be obtained from another publicly available document, and is to include the information required by the regulations.
- (5) This section extends to a meeting that is closed to the public.

OATH AND AFFIRMATION FOR COUNCILLORS

Councillors are reminded of the oath of office or affirmation of office made at or before their first meeting of the council in accordance with Clause 233A of the Local Government Act 1993. This includes undertaking the duties of the office of councillor in the best interests of the people of Byron Shire and the Byron Shire Council and faithfully and impartially carrying out the functions, powers, authorities and discretions vested under the Act or any other Act to the best of one's ability and judgment.

BYRON SHIRE COUNCIL

BUSINESS OF MEETING

1. APOLOGIES

2. DECLARATIONS OF INTEREST – PECUNIARY AND NON-PECUNIARY

3. ADOPTION OF MINUTES FROM PREVIOUS MEETINGS

- 3.1 Confirmation of minutes of the Biodiversity Advisory Committee Meeting held on 19 May 2022 6

4. STAFF REPORTS

Sustainable Environment and Economy

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ADOPTION OF MINUTES FROM PREVIOUS MEETINGS

**Report No. 3.1 Confirmation of minutes of the Biodiversity
Advisory Committee Meeting held on 19 May
2022**

5

Directorate: Sustainable Environment and Economy

Report Author: Michelle Chapman, Project Support Officer

File No: I2022/1176

10

RECOMMENDATION:

That the minutes of the Biodiversity Advisory Committee Meeting held on 19 May 2022 be confirmed.

15

Attachments:

1 Minutes 19/05/2022 Biodiversity Advisory Committee, I2022/545 

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BYRON SHIRE COUNCIL

ADOPTION OF MINUTES FROM PREVIOUS MEETINGS

3.1

Report

The attachment to this report provides the minutes of the Biodiversity Advisory Committee Meeting of 19 May 2022 .

Report to Council

- 5 The minutes were reported to Council on 23 June 2022. **Comments**

In accordance with the Committee Recommendations, Council resolved the following:

22-279 Resolved that Council notes the minutes of the Biodiversity Advisory Committee Meeting held on 19 May 2022.

22-280 Resolved:

- 10 1. That the Biodiversity Advisory Committee recommends to Council to adopt the constitution at Attachment 1 (E2021/147945) with an amendment to the number of community members of up to 5.
2. That the Biodiversity Advisory Committee elects Cr Sarah Ndiaye as Chair.

15 The constitution will be updated following 22 September Council meeting when new committee members are expected to be nominated.

22-281 Resolved that the Biodiversity Advisory Committee recommends to Council that the Memorandum of Understanding between Brunswick Valley Landcare and Byron Shire Council (Attachment – E2021/121393) be endorsed.

The MOU between Council and BVL was signed on Monday 5 September 2022.

20

STAFF REPORTS - SUSTAINABLE ENVIRONMENT AND ECONOMY

Report No. 4.1 Brunswick Valley Landcare Support Officer quarterly reports January to June 2022

5 **Directorate:** Sustainable Environment and Economy
Report Author: Arika McElroy, Project Support Officer
File No: I2022/950

Summary:

10 This report tables the activities of the Landcare Support Officer quarterly reports, from January to June 2022.

RECOMMENDATION:

15 **That the Biodiversity Advisory Committee notes the report.**

Attachments:

- 20
- 1 Brunswick Valley Landcare Support Officer report March 2022, E2022/72912 
 - 2 Brunswick Valley Landcare Support Officer report June 2022, E2022/72911 

Report

5 Council provided an allocation of funds in the 2022/23 budget to continue to support the Brunswick Valley Landcare, Landcare Support Officer position for 1 day per week to deliver the Land for Wildlife Program and respond to customer enquiries.

Attached are the quarterly reports, January to March and April to June 2022, from the Brunswick Valley Landcare Support Officer, for the Committee’s reference.

Strategic Considerations

Community Strategic Plan and Operational Plan

CSP Objective	L2	CSP Strategy	L3	DP Action	L4	OP Activity
Community Objective 3: We protect and enhance our natural environment	3.2: Strive to become a sustainable community	3.2.2: Support community environmental and sustainability projects	3.2.2.5	Support Brunswick Valley Landcare to deliver the Land for Wildlife Program and biodiversity enquiries	Community Objective 3: We protect and enhance our natural environment	3.2: Strive to become a sustainable community

10 Recent Resolutions

N/A

Legal/Statutory/Policy Considerations

N/A

Financial Considerations

15 Funding allocated in 2021/22 budget.

Consultation and Engagement

N/A

Report No. 4.2 Biodiversity and Agriculture Projects and Operations Update

Directorate: Sustainable Environment and Economy

Report Author: Lizabeth Caddick, Biodiversity Officer

5 **File No:** I2022/1112

Summary:

This report provides the Biodiversity Advisory Committee with an update on current projects and programs being undertaken by the Biodiversity team, including:

- 10 • Wildlife corridor mapping
- Mapping restoration sites
- Mitchell's Rainforest Snail habitat likelihood mapping
- Updates to vegetation and HEV mapping
- Koala vehicle strike
- Koala habitat restoration
- 15 • Pest animal management (wild dogs, feral deer)
- Bringing Back the Bruns
- Keeping Cats Safe at Home project
- Smart Farms project
- 20 • Combating Pests and Weeds project

RECOMMENDATION:

25 **That the Biodiversity Advisory Committee notes the update on current projects and programmes being undertaken by Council staff.**

Report

Wildlife Corridor Mapping

Council's draft Wildlife Corridor Mapping (Landmark 2022) was endorsed by Council for public exhibition on 7 August (Resolution 22-366).

- 5 Public exhibition will occur following a SPW with Councillors in October to discuss the implications of the Local Government Act management requirements for Community and Crown Land on wildlife corridor mapping.

10 Public exhibition will run for 4 weeks and proposed housekeeping amendments to Council's Biodiversity DCP will be exhibited at the same time. The intent of these changes is to:

- Ensure that the definition of a wildlife corridor in the DCP reflects the new mapping,
- Ensure that management intent is clear for both corridors in rural and built-up areas.
- Ensure that management intent is clear for both vegetated and cleared parts of corridors.

15 Other Mapping Projects

Mapping restoration sites

Biodiversity Conservation Strategy Action **1.20**: Map areas that have been revegetated: a) using public funds, and b) for conservation purposes.

20 Ascent Ecology have recently completed a GIS database that shows restoration sites in Byron Shire, including planting and restoration projects done by Council, and those done on private land by groups such as Landcare (where landholders permission has been obtained). Council and Brunswick Valley Landcare staff will use this map to help prioritise future planting sites, and new sites will be added to the map.

25 The map has also been used by DPE to help develop the Atlas of Living Australia (ALA) Koala Habitat Restoration Archive, an on-line database listing all koala habitat restoration sites in the Northern Rivers, funded under the NSW Koala Strategy. The Koala Habitat Restoration Archive is likely to be expanded in future to include all habitat restoration sites, not just koala-specific koala. When this happens, it is likely that the ALA database will supersede Council's one, as it will ultimately be more comprehensive.

30 Mitchell's Rainforest Snail habitat likelihood mapping

Biodiversity Conservation Strategy Action **1.25**: Map potential habitat areas for Mitchell's Rainforest Snail.

35 A Mitchell's Rainforest Snail (MRS) habitat likelihood map is now available on Council's GIS. This map will be used to guide Council as to when further searches for MRS may be required as part of land development, as well as to encourage the community to conserve

MRS habitat and report MRS sightings. Staff will be following up with some community engagement later in 2023.

Updates to Vegetation and HEV mapping

- 5 Biodiversity Conservation Strategy Actions: **1.14**: Update and maintain Council's vegetation and HEV mapping with revised Plant Community Types (PCTs) and current aerial photography; **1.19** Update vegetation mapping to clearly identify recently listed threatened ecological communities

10 Council's 2017 High Environmental Value (HEV) and Vegetation mapping were updated in May 2022 to reflect ground truthing of approximately 250 sites carried out as part of the C-Zone review. Updates also includes integrating other recent vegetation mapping surveys and known koala habitat restoration sites into the mapping and updating remnant boundaries using NearMaps aerial photography. Earthscapes Consulting have now been engaged to undertake further updates to vegetation mapping, including updating the mapping with revised Plant Community Types (NSW State Vegetation Type Mapping), and

15 clearly identifying recently listed threatened ecological communities (Coastal Swamp Oak and Coastal Swamp Sclerophyll Forest). This second round of updates is funded by a \$24,000 grant from NSW DPE Biodiversity Conservation Division.

Updates to Byron Shire Threatened Species Lists

- 20 Biodiversity Conservation Strategy Action **1.11**: Conduct a review of Byron Shire's biodiversity values as a baseline for ongoing biodiversity monitoring. Including updated Byron Shire flora and fauna lists and Status of threatened flora and fauna.

25 Landmark Ecological Services have developed threatened species lists, to update those that were included in the 2004 Byron Shire Biodiversity Conservation Strategy. These lists are being added to Council's website and will provide a useful resource to anyone wanting to find out more about the Shire's threatened flora and fauna. Because they are in digital format, it will be easy to update them where status changes occur.

Identifying open forest ecosystems for ecological restoration

- 30 Biodiversity Conservation Strategy Action **4.4** Identify priority open forest ecosystems requiring restoration through the reintroduction of fire.

35 This project, funded by a \$11,000 grant from NSW DPE Biodiversity Conservation Division, is using GIS, expert elucidation and ground truthing to identify and mapping open forest ecosystems in Byron Shire that would benefit from the reintroduction of ecological fire management. In fire-dependent ecosystems (including Eucalypt, Brush Box and Paperbark forests and also heathlands), regular fire is needed to maintain shade-intolerant plant communities and fauna habitat, promote germination of open forest species and maintain canopy tree health, through maintaining appropriate soil chemistry and reducing the risk of Bell Miner Associated Dieback. The map will assist Council and Landcare Groups to identify future priority ecological restoration sites.

- 40 **Koalas**

Koala Vehicle Strike

5 Last month two female koalas and their joeys were killed on Byron Shire's roads. Following this tragedy, Council and Bangalow Koalas spoke on local television and radio and made several social media posts asking motorists to slow down, particularly during breeding season when koalas are most active. A variable message sign was installed temporarily on Broken Head Rd.

10 We also successfully lobbied the NSW State Government for a grant of \$15,440 to trial the use of relocatable variable message signs at black spots in the shire over this breeding season. Two trailer-mounted VMS will be deployed for 4 weeks at each of 4 sites to alert drivers about wildlife. Traffic data loggers will also be installed to monitor the effectiveness of the signs, using traffic speeds as a surrogate. Signs will be deployed at:

- Coolamon Scenic Drive
- Granuaille Rd
- Lismore Rd
- 15 • Broken Head Rd

20 Staff are also continuing to work with DPE to develop longer term road strike mitigation actions at key sites in Byron Shire. To date we have conducted site assessments and met with wildlife carer groups to identify key hotspots. We are currently seeking up to date wildlife road strike data. The next stage will be to develop a contractor specification for development of road strike mitigation options at selected sites.

Koala Habitat Restoration

25 The 2022 Koala Habitat Restoration project is progressing with a NSW Koala Strategy grant of \$101,211. Six restoration / planting sites confirmed, and landholder and contractor agreements are being finalised for planting in September and October. Project finishes 23 December.

In July Council also gave away over 4,000 koala habitat trees and shrubs to 14 local landholders. These trees were left over stock from State Government projects and have all gone to sites adjacent to existing koala habitat.

Pest Animal Management Program

30 Wild Dogs, Cats and Foxes

Council's fox, cat and wild dog soft-jaw trapping program recently ran from 9/4/22 to 9/8/22. This years' program was delayed due to the February-March floods, with other interruptions caused by ongoing heavy rain and land slips. Species trapped include: 19 foxes, 34 wild dogs (plus 45 unborn pups), 1 fallow deer and 5 cats.

35 Ear samples of all dogs caught were supplied to the local LLS for DNA testing.

Feral Deer

BYRON SHIRE COUNCIL

STAFF REPORTS - SUSTAINABLE ENVIRONMENT AND ECONOMY

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There were a few feral deer sightings in Byron Shire in July and August. Council followed up with social media posts and radio interviews to encourage people to look out for deer and report sightings.

5 This financial year Council is partnering with other regional councils to support a Feral Deer Coordinator hosted by Tweed Shire Council. Initially the project will be focussing on awareness raising due to the imminent incurrence of Deer into Tweed and from Clarence and Kyogle. A workshop at Kyogle is planned in the near future.

Keeping Cats Safe at Home' Project - RSPCA NSW

10 Keeping Cats Safe at Home is a 4-year behaviour change project aiming to reduce the impacts of pet cats on wildlife. The project encourages cat owners to keep their cats safe at home either exclusively indoors or indoors and outdoors using cat enclosures or modified fencing.

15 This project has been assisted by the NSW Government through its Environmental Trust. The project is being led by RSPCA NSW, in partnership with several NSW local councils. Over recent months RSPCA NSW has used the data collected during the initial stage of the project to develop specific strategies for each of the 11 councils involved.

Currently, Byron Shire Council and RSPCA NSW are undertaking the following as part of Byron Shire Council's specific strategy –

- 20 • Partnered with Catnets (they sell nets and cat enclosures) and to offer a 15% discount code to cat owners – being promoted via Council's media unit and customer service area.
- 25 • Partnered with Vetlove Billinudgel to offer funding free desexing and microchipping (funded by the project). The aim is to target stray cats and kittens that people have taken on, or multiple cat households. However, any cat owner living in Byron Council area is eligible. In the first instances, approval has been given for Pets for Life and Animal Welfare League to use the first 30 spaces.

30 In addition to the above, Council are participating in the 'Adopt a Stray' program with the Cat Society of NSW. This program targets residents who have adopted a stray cat or are considering adopting one and allows them to desex, vaccinate, microchip and obtain lifetime rego for a cat for \$50.

35 Two Council officers also recently attended a cat trapping workshop and field day organised by Tweed Shire Council. The training provided guidance in the effectiveness of cat trapping, the challenges and how to engage better with private landholders that deploy traps. One highlight was the importance of reducing animal negative association – such as bad trapping assemblage – linked to the fact that there is no formal legislation for trapping, just a code of practice. Private landholders can buy traps themselves and there is no formal guidance provided for trap assembly, which can reduce the effectiveness of the trap and result in negative responses to the use of traps for feral animals.

Bringing Back the Bruns

5 The Federally funded *Fish Habitat Restoration Project* on the Brunswick River in Mullumbimby is progressing with permits and approvals currently being sought by project partners North Coast Local Land Services. Pending suitable weather, erosion control works by Soil Conservation Services are expected to commence soon, with construction of the bank stabilisation works completed by the end of 2022. Riparian revegetation will subsequently be carried out with the help of Ozfish and the Brunswick Heads Angling and Deep-Sea Fishing Club. The project aims to stabilise and rehabilitate a 190m stretch of riverbank in Mullumbimby to improve aquatic, riparian and terrestrial habitat on a strategic reach of the river.

10 A new opportunity has arisen with Local Land Services to bring Council into the State-wide River Rehabilitation Project. \$200,000 have been allocated to Byron Shire Council this year, to rehabilitate priority river erosion sites impacted by the recent floods. Part of this money is going to riparian restoration (sites are yet to be determined). A project working group has been established to prioritise sites for works this year.

15 Council's bush regeneration team is currently working on 73 bushland sites (369 Hectares) across the shire. Of these 73 sites, 42 sites (114 Hectares) are at a maintenance level containing less than 1% non-native vegetation. The Brunswick River and its tributaries are a primary focus of Council's bush regeneration team, with 53 Hectares and 11,500m of Brunswick River bank being managed across 14 sites. Of these Brunswick River sites, 7
20 sites (23 Hectares - 4500m of river bank) are at a maintenance level containing less than 1% non-native vegetation.

Council is also investigating river-bank stabilisation works in Marshalls Creek with a design investigation to be undertaken this year.

25 **Researching the Impacts of Recreational and Tourism Uses on Coastal Biodiversity, Wildlife and Habitats**

A recent project has just begun, which aims to review current scientific research to provide evidence-based information on the effects of recreational and commercial tourism uses on biodiversity, wildlife and habitats in the coastal zone of Byron Shire, and to investigate novel solutions to sympathetically manage impacts in alignment with relevant legislation.
30 The purpose of the study is for inclusion within the Coastal Management Programs CMP(s) planning process and preparation. The project is expected to be completed by June 2023, and is funded by a \$30,000 grant from NSW DPE Biodiversity Conservation Division.

Sustainable Agriculture

35 SmartFarms

All SmartFarms workshops will be complete by September. Workshops include:

- You and your land – planning what to do.
- Soils our national capital with BVL and Casino Food Co Op.

BYRON SHIRE COUNCIL

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- Integrated pest management on macadamia farms.
- Trees for your Land.
- Monitor your Soils.
- Rehydrating Landscapes.

5 Due to the impact of COVID-19, an extension of time to deliver the workshops was granted by the Federal Government.

The SmartFarms Mentoring Program, in partnership with Southern Cross University, is in progress, and the handbook for aspiring farmers - *Starting Out! - An introductory Guide to Farming in the Byron Shire* has been distributed.

10 [Combating Pests and Weeds Grant \(Commonwealth\) 2020 - Agricultural advice, weed and pest animal control in Byron Shire](#)

This project finished in April 2022. The final output from this project was a film clip on regenerative farming in Byron Shire, which has been disseminated via Council social media and website.

15 [Regenerative Farming A resilient future for Byron Shire cc - YouTube](#)

Other key project achievements included:

- Engagement of an Agricultural Extension Officer to provide best practice farming information and advice to local farmers regarding drought preparation, business profitability, biosecurity, and natural resource management. Communication with rural land managers includes 5 newspaper articles, 3 newspaper advertisements, 4 radio appearances, 31 social media posts, over 700 letters/emails to targeted landholders, 79 on-farm consultations, 14 field days/workshops/events and 7 presentations as well as developing partnerships and collaborations with 10 local organisations or businesses involved in the rural economy.
- Development of the Byron Shire Farmers Network, which now has over 300 members signed up. This database enables targeting of information dissemination, consultation and expressions of interests to farmers of all types in the Shire including grazing, horticulture and orchards, and will continue to be a critical resource for Council to support our rural land managers.
- Trapping 29 wild dogs, 18 foxes and 2 feral cats were on primary production lands within Byron Shire.
- Control of over 5ha of Tropical Soda Apple (the known extent of the weed) in Byron Shire, at 28 properties.
- Strategic environmental weed control in 19.4 ha of riparian and high biodiversity areas on local farms. Landholders at these sites have committed to maintain

restoration areas for a minimum of 3 years after treatment, to ensure long-term environmental and productivity benefits.

- Supported rotational grazing program for local landholders. Provided small grants for 8 farmers to attend a site planning workshop, and for 6 farmers to purchase and install infrastructure to transition their business from conventional to rotational grazing. As a result, an additional 204ha of farmland in Byron Shire is being managed using rotational grazing.

Strategic Considerations

Community Strategic Plan and Operational Plan

CSP Objective	CSP Strategy	DP Action	Code	OP Activity
2: Inclusive Community We have an inclusive and active community where diversity is embraced and everyone is valued	2.2: Enhance safety and contribute to the physical, mental, and spiritual health and well being of our people	2.2.4: Companion animals - Promote awareness of the requirements of the Companion Animals Act with respect to the ownership of companion animals	2.2.4.3	Facilitate companion animals education
3: Nurtured Environment We nurture and enhance the natural environment	3.1: Partner to nurture and enhance our biodiversity, ecosystems, and ecology	3.1.1: Native species - Use best practice land management to improve ecological resilience and reduce threats to biodiversity	3.1.1.1	Partner with DPE to implement koala vehicle strike mitigation in Byron Shire as part of the NSW Koala Strategy 2022-2026.
3: Nurtured Environment We nurture and enhance the natural	3.1: Partner to nurture and enhance our biodiversity, ecosystems,	3.1.1: Native species - Use best practice land management	3.1.1.2	Engage with the community regarding mitigating threats to koalas.

BYRON SHIRE COUNCIL

STAFF REPORTS - SUSTAINABLE ENVIRONMENT AND ECONOMY

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environment	and ecology	to improve ecological resilience and reduce threats to biodiversity		
3: Nurtured Environment We nurture and enhance the natural environment	3.1: Partner to nurture and enhance our biodiversity, ecosystems, and ecology	3.1.1: Native species - Use best practice land management to improve ecological resilience and reduce threats to biodiversity	3.1.1.3	Partner with Regional Koala Group to progress koala conservation in Northern Rivers region.
3: Nurtured Environment We nurture and enhance the natural environment	3.1: Partner to nurture and enhance our biodiversity, ecosystems, and ecology	3.1.1: Native species - Use best practice land management to improve ecological resilience and reduce threats to biodiversity	3.1.1.9	Seek funding to implement the Biodiversity Conservation Strategy, Coastal Koala Plan of Management and Flying Fox Camp Management Plan.
3: Nurtured Environment We nurture and enhance the natural environment	3.1: Partner to nurture and enhance our biodiversity, ecosystems, and ecology	3.1.2: Pest and weed management - Use best practice land management to improve ecological resilience and reduce threats to biodiversity	3.1.2.1	Implement Dog, fox and cat trapping program.
3: Nurtured Environment We nurture and enhance the natural	3.1: Partner to nurture and enhance our biodiversity, ecosystems,	3.1.2: Pest and weed management - Use best practice land	3.1.2.3	Participate in Northern Rivers Feral Deer Management group.

BYRON SHIRE COUNCIL

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environment	and ecology	management to improve ecological resilience and reduce threats to biodiversity		
3: Nurtured Environment We nurture and enhance the natural environment	3.1: Partner to nurture and enhance our biodiversity, ecosystems, and ecology	3.1.3: Habitat restoration - Restore degraded areas that provide high environmental or community value	3.1.3.1	Update Byron Shire habitat restoration database and DPE Koala Habitat Restoration Archive.
3: Nurtured Environment We nurture and enhance the natural environment	3.1: Partner to nurture and enhance our biodiversity, ecosystems, and ecology	3.1.3: Habitat restoration - Restore degraded areas that provide high environmental or community value	3.1.3.3	Implement 2022 Koala Habitat Restoration Project.
3: Nurtured Environment We nurture and enhance the natural environment	3.1: Partner to nurture and enhance our biodiversity, ecosystems, and ecology	3.1.3: Habitat restoration - Restore degraded areas that provide high environmental or community value	3.1.3.4	Investigate grant opportunities for improving the Brunswick Estuary ecosystems and river health.
3: Nurtured Environment We nurture and enhance the natural environment	3.1: Partner to nurture and enhance our biodiversity, ecosystems, and ecology	3.1.3: Habitat restoration - Restore degraded areas that provide high environmental or	3.1.3.5	Deliver Federal Fish Habitat Restoration Project

BYRON SHIRE COUNCIL

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		community value		
3: Nurtured Environment We nurture and enhance the natural environment	3.2: Deliver initiatives and education programs to encourage protection of our environment	3.2.3: Planning - Plan to improve the quality of the natural environment	3.2.3.1	Update flora and fauna lists for the shire, including status of threatened flora and fauna.
3: Nurtured Environment We nurture and enhance the natural environment	3.2: Deliver initiatives and education programs to encourage protection of our environment	3.2.3: Planning - Plan to improve the quality of the natural environment	3.2.3.2	Update Byron Shire Vegetation and HEV mapping
3: Nurtured Environment We nurture and enhance the natural environment	3.2: Deliver initiatives and education programs to encourage protection of our environment	3.2.3: Planning - Plan to improve the quality of the natural environment	3.2.3.3	Participate in regional coastal and environmental working groups and initiatives
3: Nurtured Environment We nurture and enhance the natural environment	3.2: Deliver initiatives and education programs to encourage protection of our environment	3.2.3: Planning - Plan to improve the quality of the natural environment	3.2.3.4	Identify priority open forest ecosystems requiring restoration through the reintroduction of fire.
3: Nurtured Environment We nurture and enhance the natural environment	3.3: Protect the health of our coastline, estuaries, waterways, and catchments	3.3.1: Coastal Management Program planning and implementation - Undertake Coastal Management Program	3.3.1.5	Research the effects of recreational uses on coastal biodiversity and habitats

BYRON SHIRE COUNCIL

STAFF REPORTS - SUSTAINABLE ENVIRONMENT AND ECONOMY

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		planning and implementation		
4: Ethical Growth We manage growth and change responsibly	4.3: Promote and support our local economy	4.3.5: Regenerative agriculture - Develop and implement strategies to support regenerative agriculture, agri-business and farmers	4.3.5.1	Maintain and update Byron Shire Farmer database.
4: Ethical Growth We manage growth and change responsibly	4.3: Promote and support our local economy	4.3.5: Regenerative agriculture - Develop and implement strategies to support regenerative agriculture, agri-business and farmers	4.3.5.2	Provide extension services to farmers to support and promote sustainable agriculture.
4: Ethical Growth We manage growth and change responsibly	4.3: Promote and support our local economy	4.3.5: Regenerative agriculture - Develop and implement strategies to support regenerative agriculture, agri-business and farmers	4.3.5.3	Deliver farmer mentoring and farmer education activities.

Recent Resolutions

RESOLUTION NUMBER: 22-366

- 5 1. That Council endorses the Byron Shire Wildlife Corridor System for public exhibition, with proposed updates to Council's Biodiversity DCP (as set out in this report) included as supporting information.

2. That following exhibition, Council receives a submissions report to consider key issues raised and formally adopt the new Wildlife Corridor System.

3. Following completion of '2' above, that Council:

- 5
- a) update DCP Chapter 'B1 – Biodiversity' to reflect the adopted Wildlife Corridor Map and any additional supporting amendments; and
 - b) exhibit the DCP chapter updates in accordance with relevant legislative requirements.

Legal/Statutory/Policy Considerations

N/A

10 **Financial Considerations**

Where relevant, budgets for specific projects noted above.

Consultation and Engagement

N/A

Report No. 4.3 2021 Byron Coast Koala Activity Monitoring

Directorate: Sustainable Environment and Economy

Report Author: Caitlin Weatherstone, Project Officer - Koala

File No: I2022/1118

5 **Summary:**

Koala activity and occupancy surveys were conducted in 2021, as per the Byron Coast Comprehensive Koala Plan of Management requirements.

10 Results showed that there was an increase in the number of sites with koala activity, although the number of sites with breeding/resident populations had decreased. Koala activity and occupancy was highest between Brunswick Heads and Broken Head.

It is recommended that consistent, and more frequent, monitoring be conducted to better manage Byron's coastal koalas into the future.

15

RECOMMENDATION:

That the Biodiversity Advisory Committee notes the 2021 Byron Coast Koala Activity Monitoring Report

20

Report

Background

5 Koalas (*Phascolarctos cinereus*) are iconic marsupials only found in. They have a long history of occupancy in the Byron Shire. They were recently up-listed in NSW and Federally to 'Endangered'.

10 Koala activity assessments of the 13,790ha coastal portion of the Byron Local Government Area (LGA) were completed three times over the last 10 years (once every 5 year period) in 2011/12, 2016 and 2021. The Byron Coast Koala Habitat Study (Hopkins & Phillips 2012) identified 63 survey sites which were selected using a random grid spaced 1km apart. Spot Analysis Technique (SAT) surveys were used to estimate approximately 240 koalas using 1,750ha of highly fragmented habitat in the Byron Coast area in 2012.

15 Informed by the Habitat Study, the koala planning area has been divided into two Koala Management Areas (KMAs), north and south, recognising two genetically distinct koala populations. The Habitat Study also recognised five distinct Key Management Precincts (KMPs) in which to focus management effort (Figure 1).

20 In Byron Shire, koala management is guided by the Byron Coast Comprehensive Koala Plan of Management (CKPoM), which was adopted by Byron Shire Council in 2016 and by the NSW Government in March 2021. The overall vision of the Plan is to enable a long-term, sustainable future for koala populations inhabiting the planning area along the Byron Coast. Koala management is also guided by the NSW Koala Strategy ([NSW Koala Strategy | NSW Environment and Heritage](#)), which lists much of Byron Shire as part of an Area of Regional Koala Significance, prioritised for immediate investment in koala conservation activities. Byron Shire works with the NSW Government, through the Northern Rivers Regional Koala Partnership, to deliver actions in the NSW Koala Strategy, including habitat restoration, vehicle strike mitigation and community education. The Northern Rivers Regional Koala Partnership is currently developing a Northern Rivers Regional Koala Strategy.

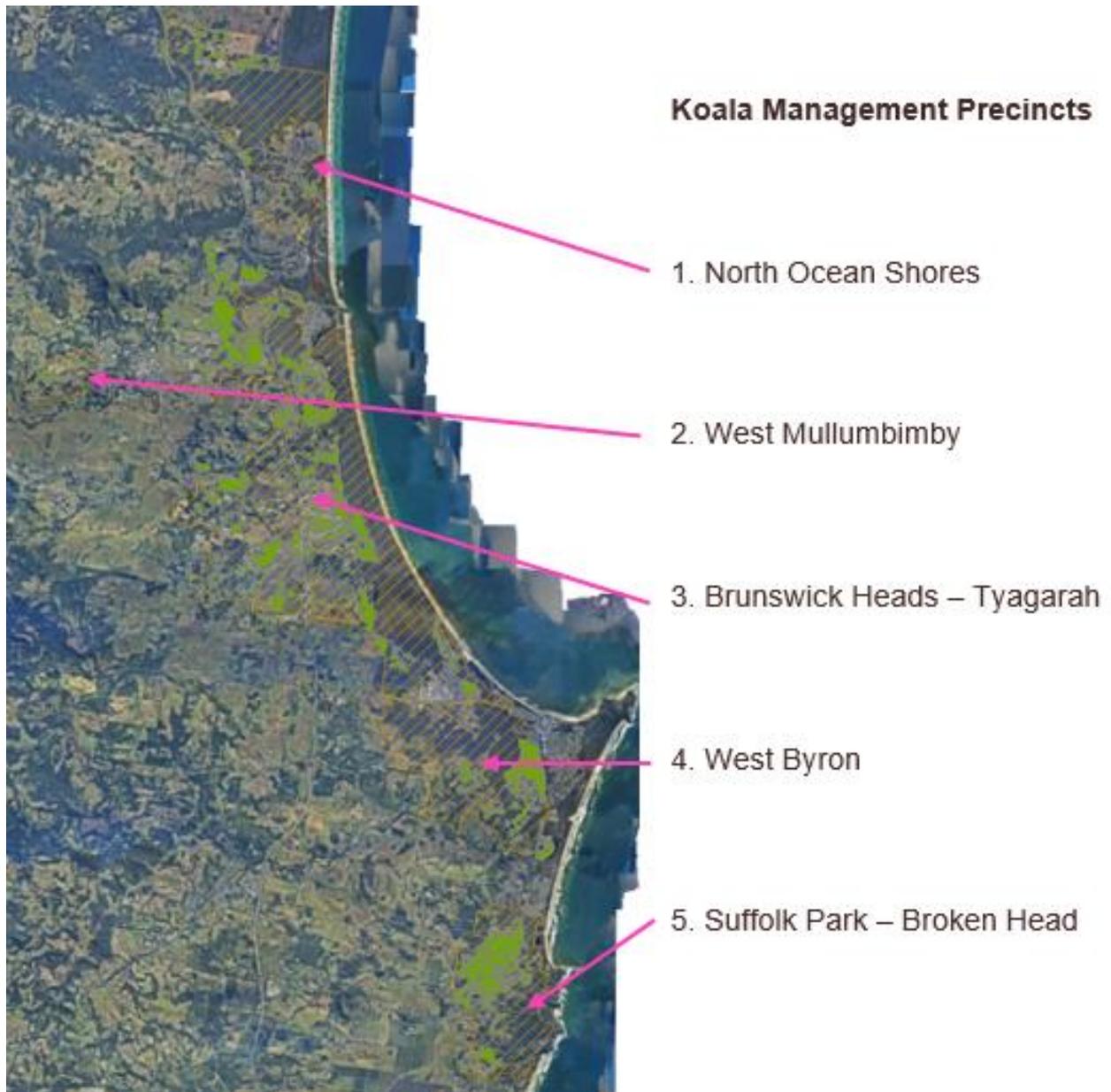


Figure 1. The Five KMPs outlined in the 2012 Koala Habitat Study; North Ocean Shores, West Mullumbimby, Brunswick Heads- Tyagarah, West Byron and Suffolk Park – Broken Head.

5 2021 Koala Activity Monitoring

The 2021 koala monitoring project was funded by a grant from the NSW Government. The aims of monitoring program the were to:

- Engage with Byron Coast landholders to gain property access to designated survey sites.
- Monitor the previous survey sites for koala occupancy, activity, vegetation and site health.

- Answer the question “Is this site currently occupied by koalas?”
 - Record koala activity using SAT survey methodology.
 - Compare koala activity level (%) and koala occupancy (presence/ absence) at sites over the last 10 years (2011 - 2021).
- 5
- Interpret results and what they mean for Byron’s koala conservation.
 - Share results with stakeholders and project partners to enable better management of koala conservation in the Northern Rivers region.

10 Spot Analysis Technique (SAT) surveys were conducted between March and November 2021 by Council and contract ecologists to assess koala activity and koala occupancy at each site. The SAT methodology is designed to ensure a standard, efficient and repeatable survey across Australia. At each site, surveys involve a 2-minute person search for koala scat around 30 trees (1m from base of trees with a diameter at breast height of >100mm) radiating out from a centre tree. Koala scat is used to confirm presence/absence of koalas at each site, and can determine their activity level.

15 63 survey sites were identified during the original 2011 surveys, located on Council land, nature reserve, and private tenure. 58 of these sites were surveyed in 2021 (Fig.2).

There were no incidental recordings of koalas present during the SAT surveys.

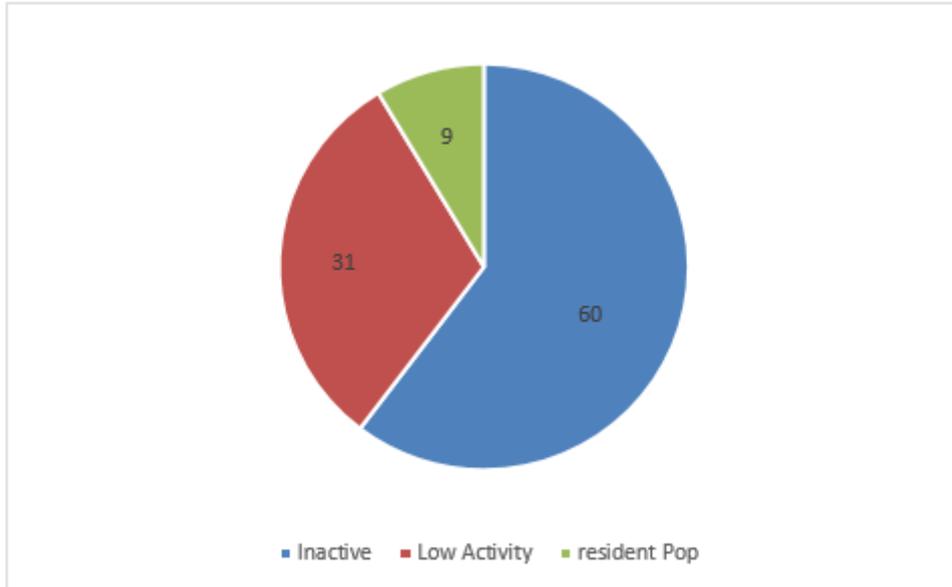


Figure 3. 2021 Koala Activity results.

5 2011 – 2021 Comparison of Koala Activity Over 10 Years

Over the last 10 years, koala activity levels in the Byron Coast have changed. Koala activity of resident/breeding populations decreased (from 16% to 9%; Fig 4). Although, the number of inactive sites improved (from 71% to 60%).

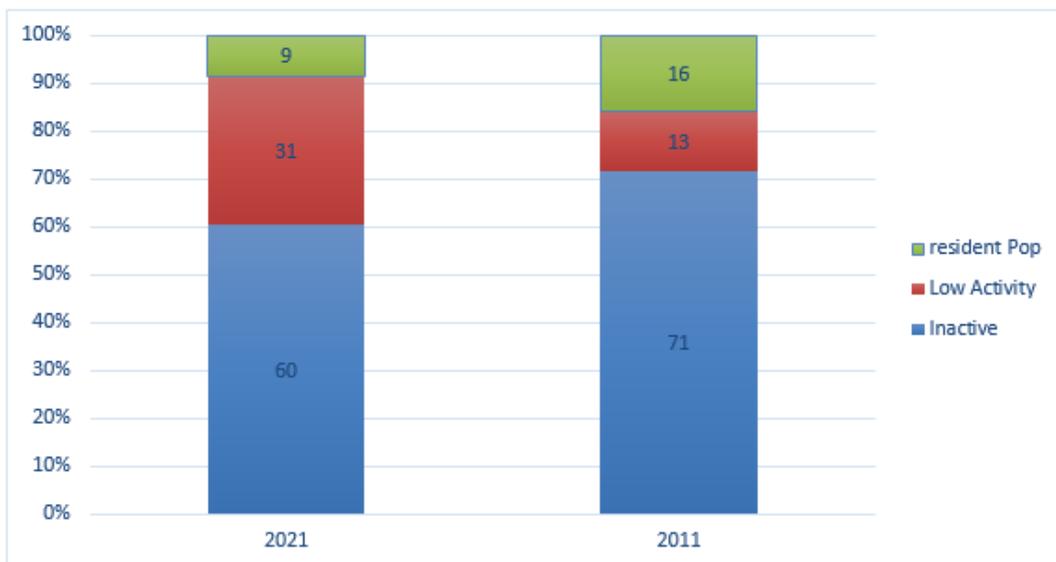


Figure 4. Results comparison of koala activity over 10 years on the Byron Coast, between 2011 and 2021.

2011 – 2021 Comparison of Koala Occupancy Over 10 Years

- 5 53 (out of 63 total) sites could be compared for koala occupancy (presence/absence) across all 3 survey periods (Fig.5). 85% (N=11) of sites north of the Brunswick River had no koala activity recorded over the last 10 years. Five sites recorded koala activity persistence over the last 10 years (between Brunswick Heads and Byron). Most sites (N=28) recorded no change from previous surveys.
- 10 Nine sites were active for koalas in 2021 and were not in 2011 and 2016. The majority (N=7) of uptake sites were found between Byron Bay and Broken Head. Five sites were active for koalas in 2011 and 2016 and were not active in 2021. Four out of five of these reduction sites were between Tyagarah, Mullumbimby and Brunswick Heads.

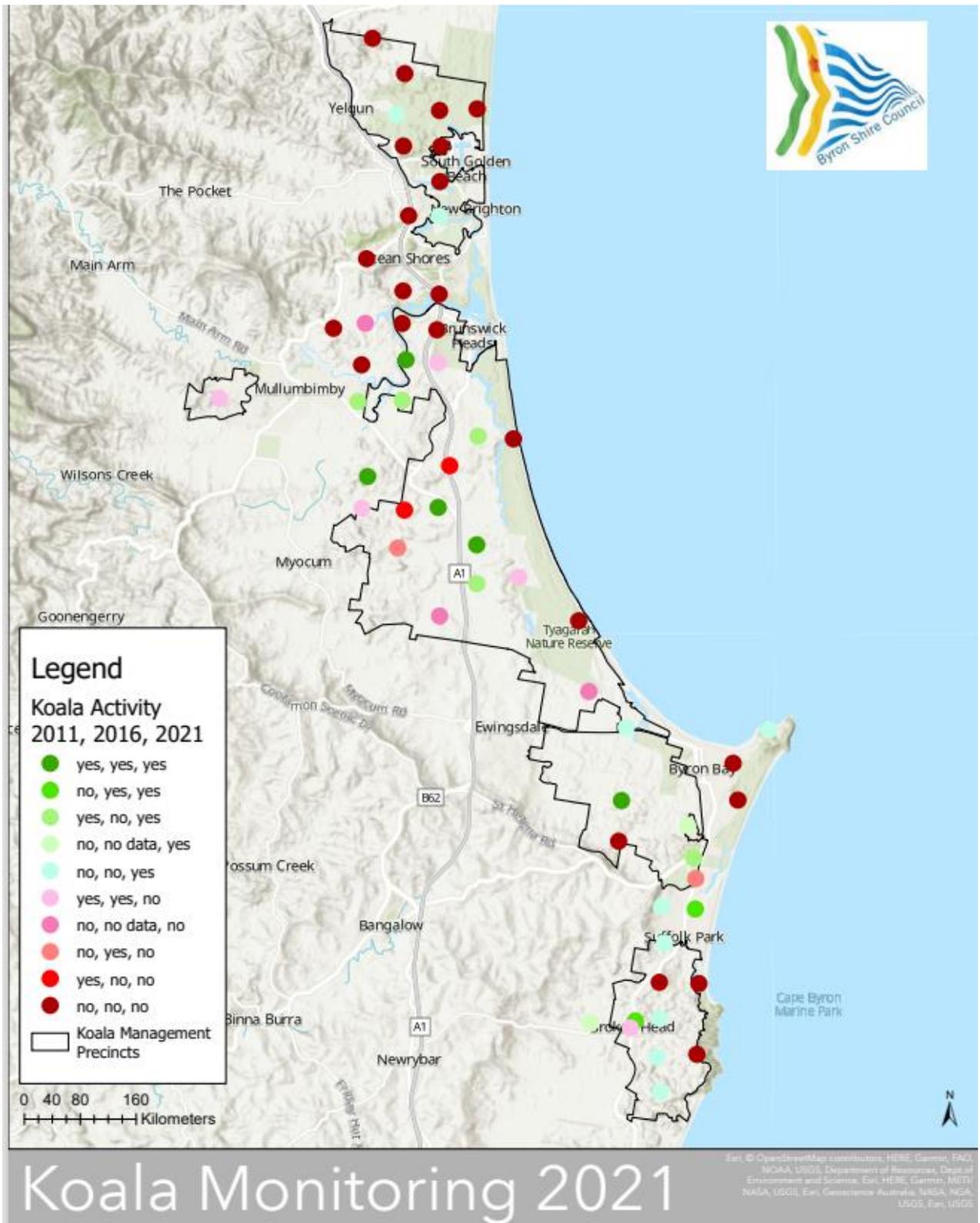


Figure 5. Results comparison of koala occupancy (presence/absence) over the last 10 years of surveys in the Byron Coast; in 2011, 2016 and 2021. Yes= presence, No = absence/ not recorded.

Discussion and Next Steps

5 The 2021 study indicates that Koalas are still active along the Byron Coast. Whilst the number of sites with breeding/resident populations shows a decline, there were more active sites recorded than previously. This could be due to a more transient population, a smaller population size, or an increase in available habitat, none of which can be verified by the data collected in this survey. The 2021 surveys reflect previous surveys in that koala activity remains the highest in the southern KMA between Brunswick Heads and Broken Head, with the highest activity being recorded at a site at Skinner's Shoot near Byron Bay.

10 It is important to note that the SAT survey results represent a snapshot in time – koalas move across the landscape and, where absence from a survey site is recorded, koalas may occur at or near to that site at other times of year. SAT surveys become increasingly useful when they are repeated regularly over a period of years, allowing us to build up a picture of trends in koala activity over time.

15 The 2021 surveys were conducted during a particularly wet year, resulting in decreased accessibility to sites (some were partially waterlogged), decreased visibility, and increased rate of scat decomposition (in dry conditions koala scats can persist in the landscape for weeks or even months, but they disintegrate rapidly in rainy weather).

20 Council's biodiversity team are working closely with the NSW Government to review the data and to use this data to direct future management of koalas in Byron Shire. Staff from the DPE Science, Economics and Insights Division will be following up with a rigorous analysis of the Byron Shire data to identify key trends and help determine how the monitoring program should progress.

25 We are now working with DPE to develop a more frequent (2-3 year) monitoring program which will enable us to identify trends in shorter timeframe, to guide effective management interventions. For the next iteration of monitoring, we are proposing to expand the methodology to include use of song meters as well as SAT. In the past decade use of song meters has become increasingly cost effective, and these have the advantage of covering a larger spatial area (around 200m). Song meters need to be deployed during the koala breeding season as they pick up calling male koalas, and they are likely to
30 complement the SAT surveys in many of our swampy, poor visibility survey sites.

For the next round of surveys, we are also looking at increasing the study area to include some koala habitat planting sites, so that we can measure the effectiveness of replanting and restoration in creating additional koala habitat.

35

Strategic Considerations

Community Strategic Plan and Operational Plan

CSP Objective	CSP Strategy	DP Action	Code	OP Activity
3: Nurtured Environment We nurture and enhance the natural environment	3.1: Partner to nurture and enhance our biodiversity, ecosystems, and ecology	3.1.1: Native species - Use best practice land management to improve ecological resilience and reduce threats to biodiversity	3.1.1.9	Seek funding to implement the Biodiversity Conservation Strategy, Coastal Koala Plan of Management and Flying Fox Camp Management Plan.
3: Nurtured Environment We nurture and enhance the natural environment	3.1: Partner to nurture and enhance our biodiversity, ecosystems, and ecology	3.1.1: Native species - Use best practice land management to improve ecological resilience and reduce threats to biodiversity	3.1.1.4	Partner with Northern Rivers Regional Koala Partnership to deliver Regional Koala Activity Study.
3: Nurtured Environment We nurture and enhance the natural environment	3.1: Partner to nurture and enhance our biodiversity, ecosystems, and ecology	3.1.1: Native species - Use best practice land management to improve ecological resilience and reduce threats to biodiversity	3.1.1.2	Engage with the community regarding mitigating threats to koalas.
3: Nurtured Environment We nurture and enhance the natural environment	3.1: Partner to nurture and enhance our biodiversity, ecosystems, and ecology	3.1.3: Habitat restoration - Restore degraded areas that provide high	3.1.3.3	Implement 2022 Koala Habitat Restoration Project.

BYRON SHIRE COUNCIL

STAFF REPORTS - SUSTAINABLE ENVIRONMENT AND ECONOMY

4.3

		environmental or community value		
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Recent Resolutions

n/a

Legal/Statutory/Policy Considerations

5 n/a

Financial Considerations

This work was funded by a NSW government grant.

Consultation and Engagement

n/a.

10

**Report No. 4.4 Byron Wetlands and Vallances Road
Avifauna Survey 2021**

Directorate: Sustainable Environment and Economy

Report Author: Lizabeth Caddick, Biodiversity Officer

5 **File No:** I2022/1178

Summary:

This report was deferred from 19 May Biodiversity Advisory Committee meeting.

10 Byron Bird Buddies are contracted by Council to conduct regular monitoring of the avifauna (birds) inhabiting Council managed utilities sites at West Byron STP Wetlands and Vallances Rd STP, Mullumbimby. The 2021 report is presented here.

RECOMMENDATION:

15 **That the Biodiversity Advisory Committee notes the Byron Bird Buddies Avifauna report at Attachment 1 (E2022/36650).**

Attachments:

20 1 Byron Bird Buddies summary report Byron Wetlands and Vallances Road Avifauna 2021, E2022/36650 

Report

Byron Bird Buddies (BBB) is a not-for-profit organisation that undertakes community avifauna education, monitoring and conservation activities within Byron Shire and extends the education program into surrounding shires as required.

- 5 Byron Bird Buddies (BBB) have supplied Byron Shire Council (BSC) with avifauna monitoring reports since 2008. This 2021 Summary Report continues to document the results of monitoring the avifauna populations at Byron Wetlands (Byron Bay) and Vallances Road STP (Mullumbimby) so as to observe the trends in bird diversity and populations at both sites. Key objectives of the monitoring include:
- 10
- To identify all known bird species utilising the study sites
 - To count waterbird and shorebird numbers
 - To identify avifauna species in the NSW Threatened Species conservation Act (1995)
 - To identify shorebirds covered by International Agreements, such as the JAMBA, CAMBA & ROKAMBA agreement with Japan, China & Korea
- 15
- To identify breeding activity.

The construction of the West Byron Sewage Treatment Plant (STP) commenced in 2001. Prior to construction, the site was typically low lying coastal plain comprising paperbark swamp forests, sedge and fern lands. The wetlands now comprise a number of settling ponds with one pond (Cell H) set aside specifically for threatened avifauna species, migratory waders and regionally significant species. Byron Shire Council purchased land at Vallances Road in 2006 for the development of the Mullumbimby Sewage Treatment Plant. Since purchase, BSC have extensively re-vegetated the site with native plant species and regular weed management is being undertaken.

20

25 Results

Byron Wetlands

A total of 122 bird species were identified between 09/02/2021 & 07/12/2021. This is 38 species fewer than the year 2020 and 45 species fewer than 2019. Three threatened species were recorded from a total of 23 recorded for the site.

- 30 Reasons for the decline in bird numbers over this reporting period are likely to be a complex interaction of several factors. Lower water bird numbers were also recorded at neighbouring wildlife sanctuary, Seapeace, and the high rainfall this year may have contributed to this – with many birds moving to breed in inland areas that aren't always in suitable environmental condition. Water levels in all ponds have also been too high for shorebirds to feed. The 2019 drought and fire may also have had an impact on local bird numbers, as may significant water weed cover, which is currently being managed by Utilities staff. Ongoing monitoring is critical to identify any key trends and issues.
- 35

Vallances Road

5 A total of 132 bird species were identified between 11/01/2021 & 17/11/2021. This is 17 species more than the year 2020, and 13 species more than 2019. This is the greatest number of avifauna species recorded at the site since 2007. Three new species recorded this year include the Painted Button Quail, Yellow-billed Spoonbill and Yellow-rumped Thornbill. Four threatened species were recorded from a total of 12 known for the site.

Next steps

10 Byron Bird Buddies meet annually with Utilities and Biodiversity staff to discuss issues relating to the management of these sites. Council is currently developing an Operational Environmental Management Plan for West Byron Wetlands and will be carrying out further ecological studies and consulting with BBB as development of this plan progresses.

Strategic Considerations

Community Strategic Plan and Operational Plan

CSP Objective	CSP Strategy	DP Action	Code	OP Activity
Community Objective 3: We protect and enhance our natural environment	Partner to protect and enhance our biodiversity, ecosystems and ecology	Protect and enhance our natural environment and biodiversity	3.1.1.1	Implement the Biodiversity Conservation Strategy
Community Objective 3: We protect and enhance our natural environment	Strive to become a sustainable community	Support community environmental and sustainability projects	3.2.2.2	Participate in regional sustainability and environmental working groups and initiatives.
Community Objective 1: We have infrastructure, transport and services which meet our expectations	1.5: Provide continuous urban water and sewerage services within the Shire	1.5.6: Protect and enhance our natural environment and biodiversity	1.5.6.5	Develop Environmental Management System for Utilities Department

Recent Resolutions

- N/A

Legal/Statutory/Policy Considerations

N/A

5 Financial Considerations

N/A

Consultation and Engagement

N/A