



Securing the Koala in the wild in NSW for 100 years

Saving Our Species Iconic Koala Project 2017-21



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The iconic koala

The Saving our Species Iconic Koala Project aims to secure the koala in the wild in NSW for 100 years by:

- reducing critical threats to the species
- ensuring adequate protection, management and restoration of koala habitat
- maintaining healthy breeding populations of koalas throughout their current range.

Between 2017 and 2021, the Saving our Species (SoS) Iconic Koala Project will coordinate koala conservation actions across NSW and provide seed funding for priority actions.

Input from experts and the community is being combined with scientific analysis to identify those conservation actions likely to have the most significant outcomes.

How can people get involved?

The NSW Government recognises the important contributions made by individuals and communities who have been involved in koala conservation and management for many decades.

Visit the threatened species page (www.environment.nsw.gov.au/threatenedspecies) to:

- learn more about threatened species
- search for threatened species or projects in your local area
- tell us more about the projects you or your group are doing
- subscribe to regular newsletters updating you on the program.

If you are already working in threatened species conservation, share information on your activities and track the progress of your project on the website (www.environment.nsw.gov.au/savingourspecies/GetInvolved.htm).

Public submissions

Between December 2016 and March 2017, the Office of Environment and Heritage (OEH) invited the community to provide feedback on proposed amendments to the existing Priorities Action Statement (PAS) for the koala. The PAS outlines the strategies for recovery and threat abatement for threatened species, populations and ecological communities. The proposed amendment to the PAS was drafted in 2016 in the form of an action toolbox.

On 15 August 2017, having considered public submissions, the Chief Executive of OEH approved the SoS Iconic Koala Project action toolbox as an amendment to the PAS.

The action toolbox will inform the development of the SoS Iconic Koala Project from 2017–21 to maximise the long-term security of koalas in nature as per section 4.35 of the *Biodiversity Conservation Act 2016*.

Action toolbox – addressing critical threats to the koala

The following actions may help guide koala conservation across NSW by land managers, community members and government organisations. These actions are designed to address critical threats to koalas across the landscape from local to regional to state-wide scales, prioritising actions that deliver conservation on the ground. Included in the toolbox are actions to address key knowledge gaps and better engage the community in koala conservation.

Threat	Action Description	Scale
Loss, modification and fragmentation of habitat	In areas with resident koalas, and in recognised corridors between koala habitats, undertake projects to improve the quality of existing habitat or create new areas of koala habitat. Projects should include resources for long-term monitoring and on-going management.	Site
	In areas with resident koalas, promote habitat security through permanent protection such as voluntary private land conservation agreements.	Site
Vehicle strike	In association with Roads and Maritime Services and local councils, identify koala vehicle strike blackspots along roads. Support relevant road managers to install proven and site-specific mitigation measures such as exclusion fencing and road underpasses.	Site
	Work with relevant road managers to incorporate koala exclusion fencing and road crossings as part of new road construction projects, including provision of monitoring and on-going maintenance.	Site
Predation by domestic or roaming dogs	Work with local councils and other land managers to identify priority areas where dog attacks on koalas occur. Raise community awareness and provide targeted mitigation measures to reduce the incidence of dog attacks on koalas.	Area
Intense prescribed burns or wildfires that scorch or burn the tree canopy	In association with relevant fire authorities and land managers, ensure that koala populations and habitat areas are identified as assets for protection in fire planning tools. Develop Koala Fire Management Risk Plans with the Rural Fire Service, local councils and other land managers to identify fire management protocols that minimise impacts on koalas and their habitat.	Area
Koala disease	In association with relevant research groups, improve the understanding of: <ul style="list-style-type: none"> koala disease impacts across the state disease-related population dynamics and mortality koala disease management and treatment. Formalise a protocol for collection, analysis and reporting of samples for analysis of koala disease.	State
Heat stress through drought and heatwaves	Support carer and vet networks in areas experiencing heatwaves and drought, to better care and manage koala health and welfare during extreme weather conditions.	Area, State
	Trial usage and on-going feasibility of artificial water sources in areas prone to heatwaves and drought.	Site
	Identify priority areas to restore and manage refuge habitat and increase habitat connectivity in areas prone to heatwaves and drought.	Area
Human-induced climate change	Undertake research into likely impacts from climate change on koalas and their habitat, and use this information to prioritise actions and investment to mitigate impacts and adapt to changing conditions.	Area, State

Issue	Action Description	Scale
Inadequate support for fauna rehabilitation	Work with koala rehabilitation groups and local vets to coordinate training, provision of materials, and promotion of state-wide protocols including for rehabilitation, genetic profiling, record-keeping, koala release and monitoring.	State
Lack of knowledge (poor understanding of population distribution and trend)	Determine resident koala population hubs across the state through standardised methods, including an assessment of threats and priorities for management.	State
	Undertake monitoring to determine change in koala populations and distribution through time.	Site, Area
	Conduct koala habitat studies and mapping using standardised methods and contribute data to state-wide maps.	Site, Area
	Contribute reporting, survey and monitoring information to NSW BioNet and the Saving our Species database.	State
	Develop a protocol for genetic sampling and a databank to store and share information on koala genetic variability across the state.	State
Lack of knowledge (poor understanding of sources of trauma and mortality)	Engage with koala rehabilitation groups and other information sources to better understand the causes of koala trauma and mortality. Collate and map the results.	State
Lack of knowledge (poor understanding of animal movements and use of habitat)	Undertake research in targeted locations to determine koala use of habitat, presence/absence, home ranges, feed and shelter tree preferences and movement corridors including site based methods such as GPS collars and mark-recapture techniques.	Area
Community engagement in koala conservation	Promote better engagement with landholders and the broader community in koala conservation actions across the state. Include communication strategies, citizen science, volunteers, on-ground conservation actions, awareness programs, and landholder engagement.	Site, Area, State

Saving the koala

A wide range of conservation projects is being supported by the Iconic Koala Project in 2017–18. These projects align with the action toolbox and are designed to inform future koala conservation actions through a combination of threat mitigation, research, monitoring and community engagement. Importantly, the Iconic Koala Project is helping to better connect and report on koala initiatives across the state, improving our ability to use collaborative and evidence-based actions to secure koalas in the wild.

Priority investments for the SoS Iconic Koala Project have been determined for 2017–18.

Projects include:

- Restoring habitat connectivity for koalas in Campbelltown.
- Ensuring fire management maximises protection of human assets and koala habitat in Port Stephens.

- Mapping koala habitat and corridors for use in planning and assessment in Wollondilly Shire.
- Developing a statewide profile of koala disease.
- Monitoring koala use of artificial water sources in areas prone to heat stress in Gunnedah.
- Radio-tracking koalas to improve understanding of koala movements and habitat use in Armidale.
- Reducing dog attacks on koalas in the Tweed, Byron, Lismore and Ballina areas.
- Fire simulation modelling to protect human and koala assets in Southern Tablelands.
- Further spatial analysis, identifying areas of regional and local koala significance for future prioritisation of conservation actions.

Project details will be regularly updated on the [SoS database](#) as a public register of actions and investments.

Target outcomes for 2021

The SoS Iconic Koala Project has set ambitious target outcomes for 2021.

Threat	2021 Targets
Loss, modification and fragmentation of habitat	<ul style="list-style-type: none"> In areas of known koala significance: <ul style="list-style-type: none"> Existing degraded koala habitat restored and better connected. New koala habitat established and maintained. Permanent landholder agreements established for private land containing occupied koala habitat.
Vehicle strike	<ul style="list-style-type: none"> Best-practice techniques addressing vehicle strike have been determined and are being implemented by Roads and Maritime Services and local governments.
Predation by domestic or roaming dogs	<ul style="list-style-type: none"> Targeted community engagement programs to mitigate dog attack are in place in all local government areas where dog attack is a critical threat.
Intense prescribed burns or wildfires that scorch or burn the tree canopy	<ul style="list-style-type: none"> Local council and regional bushfire risk management fire plans containing specific provisions for koalas are in place in all areas of regional koala significance. Agencies undertaking prescribed burning are minimising the impacts of fire on koalas by using fire plans with specific koala provisions and referring to the latest koala occupancy and habitat data.
Koala Disease	<ul style="list-style-type: none"> A statewide protocol for collection, analysis and reporting of samples for both disease and baseline genetic information is developed and operational. A disease profile for NSW koalas is improving our understanding of and response to koala disease.
Heat stress through drought and heatwaves	<ul style="list-style-type: none"> The effectiveness of artificial water sources for koalas in areas prone to heat stress has been quantified and management actions implemented. Likely refuge habitat has been identified across NSW, and targeted restoration and management actions have led to improved refuge condition and connectivity.
Human-induced climate change	<ul style="list-style-type: none"> Areas of known koala significance likely to be impacted by climate change have been identified using climate models and other landscape values analysis, allowing for targeted management actions.
Issue	2021 Targets
Inadequate support for fauna rehabilitation	<ul style="list-style-type: none"> A statewide training program for koala carers is providing standardised guidance on clinical practice, genetic sampling, disease assessment and data management for all koala care organisations
Lack of knowledge (poor understanding of sources of trauma and mortality)	<ul style="list-style-type: none"> Threat data and hotspot maps are used to prioritise mitigation actions across identified koala hubs.
Lack of knowledge (poor understanding of population distribution and trend)	<ul style="list-style-type: none"> Standardised protocols for koala survey have been developed and adopted by relevant agencies and contractors. Data are routinely uploaded into the NSW BioNet database. There is high confidence in koala population distribution and trend across the species' range in NSW.
Lack of knowledge (poor understanding of range and habitat)	<ul style="list-style-type: none"> GPS collaring and radio tracking surveys have been completed in select locations across the state to improve knowledge of koala movements and habitat usage in these areas.
Community engagement in koala conservation	<ul style="list-style-type: none"> Community volunteers are actively participating in koala conservation activities across NSW. A koala citizen science community of practice is facilitating community involvement in collecting koala data. A community koala web portal is providing centralised information about engagement opportunities and awareness programs for koala conservation. Field days involving community members have led to increased habitat management and threat mitigation. Private landholders are actively conserving koala habitat on their properties and allowing access for surveys.

Funding Priorities 2017–21

The five-year budget for the SoS Iconic Koala Project 2017–21 is \$4 million (\$800,000 per year).

The project will prioritise those actions that can effectively reduce koala injury and mortality in areas of significant koala occupation.

Investment Area	Priority for investment
Loss, modification and fragmentation of habitat	High
Predation by domestic or roaming dogs	High
Intense prescribed burns or wildfires that scorch or burn the tree canopy	High
Inadequate support for fauna rehabilitation	High
Community engagement in koala conservation	High
Ongoing analysis to inform effective conservation	High
Lack of knowledge (poor understanding of population distribution and trend)	High
Koala disease	Medium
Heat stress through drought and heatwaves	Medium
Vehicle strike	Medium
Human-induced climate change	Low
Lack of knowledge (poor understanding of animal movements and use of habitat)	Low
Lack of knowledge (poor understanding of sources of trauma and mortality)	Low



Identifying significant koala areas

Effective koala conservation requires a consistent, state-wide method of identifying areas that are important for koalas at regional and local scales.

These areas can help to target detailed analysis of habitat values and threats to koalas. This in turn can inform priorities for koala conservation action and investment.

The database of koala records across NSW has been analysed to identify areas known to be significant for koalas at regional and local scales. This analysis provides information about the likelihood that koalas occupy that area (occupancy) and whether or not the area has supported koalas for more than one koala generation (generational persistence). Our understanding of areas of koala significance will improve as more records of koalas are collected.

Identification of Areas of Koala Significance at the Regional Scale

Areas of Regional Koala Significance (ARKS) have been mapped across NSW using an analysis of koala observation densities. The method incorporates estimates of koalas' home ranges and their ability to move across the landscape, and excludes areas of non-habitat.

Areas of Regional Koala Significance help to identify areas across NSW where there is knowledge of significant koala occupancy, and where broad scale conservation actions should be targeted. For example, restoration programs to restore connectivity between patches of koala habitat could be informed by ARKS.

The analysis is limited by current knowledge of koalas in some areas. The absence of an Area of Regional Koala Significance may be the result of low survey effort, poor knowledge and few records in an area rather than the absence of koalas.

Identification of Areas of Koala Significance at the Local Scale

Areas of Local Koala Significance (ALKS) are still being developed, using similar spatial analysis methods to the identification of Areas of Regional Koala Significance.

Areas of Local Koala Significance will help to identify clusters of resident koalas that are likely to be important populations at the local scale.

Further detailed assessment of landscape values and critical threats to koalas will improve our ability

to implement the most effective conservation actions.

As of June 2017, the analysis has produced a series of outputs that can guide SoS investment in koala conservation. It will be important to refine this analysis with region-specific information and expertise to ensure it is as accurate as possible. This will be a priority for investment in 2017-18.

How does Saving our Species work with other initiatives?

The Saving our Species Iconic Koala Project will complement the efforts of all those involved in koala conservation across NSW.

It will also be a key initiative in support of a whole-of-government koala strategy, to be developed by early 2018.

For more information about the Chief Scientist and Engineer's report to the Minister for the Environment recommending the development of a whole-of-government koala strategy, visit the website (www.environment.nsw.gov.au/animals/nsw-koala-strategy.htm).

Find out more about threatened species at: www.environment.nsw.gov.au/sos