



Defence Training Facilities, Greenbank Training Area, QLD (EPBC 2011/5896)

Annual Environmental Offset Strategy Performance Report July 2026



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Background

In 2012 the construction and operation of Defence training facilities at Greenbank Training Area (GBTA) Queensland, was approved under the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act, EPBC no 2011/5896).

Condition two of the approval required Defence to prepare and submit an [Environmental Offset Strategy](#) to identify measures to compensate for residual adverse environmental impacts. The Offset Strategy was submitted to the then Department of the Environment on 31 October 2018, and approved on 10 December 2018.

Condition three of the approval requires Defence to prepare an annual Performance Report on progress against the Offset Strategy. The Offset Strategy is being implemented over a ten year period from January 2019 to December 2028. The first Performance Report was submitted on 15 May 2020 and included progress over the initial 15 month delivery period. Subsequent performance reports have been submitted annually.

This is the seventh Performance Report against the Environmental Offset Strategy.

All Environmental Offset Strategy Performance Reports for GBTA are published and available on the Defence Environmental Compliance website at: [Construction of Defence training facilities](#).

Summary of outcomes for the reporting period

The offset area continues to be managed in accordance with the outcomes identified in the Offset Strategy. Key outcomes for this reporting period include:

- Implementation and closure of all recommendations from the previously reported internal Defence audit undertaken in year 4 of the offset.
- Establishment of the GBTA Research Partnership with the University of the Sunshine Coast (USC) in December 2025 to deliver activities 4, 7 and 8 of the Offset Strategy.
- Commencement of a koala drone survey and scat collection program at GBTA and surrounding areas to assist in understanding koala distribution and connectivity across the Flinders-Karawtha corridor.
- Continuation of ongoing pest and weeds programs under the Defence general land management program.
- Completion of the annual BioCondition and fauna monitoring

The summary of progress below provides further information on the delivery of the Offset Strategy activities (**Table 1**) and detailed information on the individual program activities for the reporting period.

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Summary of progress

Table 1. Actions against Offset Strategy activities and targets between May 2025 and June 2026.

Activity	Description of proposed works	Key Performance Indicator	Timeframe for completion
1. Formally identify offset area and update administrative arrangements to protect the offset area	1.1 Confirm offset location on and seek endorsement from Assistant Secretary Estate Plans (ASEP) in Defence.	Site Selection brief signed by ASEP Achieved through equivalent process of endorsement.	Completed December 2018 Reported 2020
	1.2 Update Range Standing Orders	Training Area Standing Orders updated to reflect offset area.	Completed March 2019 Reported 2023
	1.3 Offset area and management requirements uploaded to Garrison and Estate Management System (GEMS).	Environmental Offset Environmental Factors (EFRs) created in GEMS for Training Areas TA1b, TA2 and Oxley Creek northern exit corridor.	Completed March 2019 Reported 2020
2. Establish Oxley Creek management framework	2.1 Identification of immediate high value revegetation and weed management works with Oxley Creek Catchment Management Association.	Minuted outcomes from on-site meeting provided advice to Defence on practical measures that could be put in place to ensure integration of Oxley Creek northern exit corridor works to contribute to downstream master planning and whole-of- catchment strategies for weed and waterway improvements.	Completed December 2018 Reported 2020
	2.2 Collaboratively determine GBTA Oxley Creek management thresholds with Oxley Creek Catchment Authority (OCCA) and GBTA Environmental Advisory Committee (EAC).	Minuted acceptance by EAC of core actions and thresholds with respect to environmental improvements of Oxley Creek northern exit corridor (e.g. weed density, established native replacement vegetation). Monitoring facilities and baseline data uploaded to GEMS. Target thresholds for key taxa (if appropriate) identified and recorded against monitoring facilities in GEMS.	Completed December 2019 Reported 2020
3. Baseline surveys	3.1 Undertake baseline BioCondition assessment.	Monitoring facilities and monitoring data uploaded to GEMS.	Completed May 2025

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Activity	Description of proposed works	Key Performance Indicator	Timeframe for completion
	3.2 Undertake baseline survey of fauna using live trapping, cameras, sound recorders, secondary evidence, and direct observation.	Environmental factor records entered or updated in GEMS.	Completed 2020 Follow Up survey completed in 2025.
	3.3 Undertake baseline fauna crossing assessments in TA2, Sandy Creek, and Oxley Creek northern exit corridor.	Monitoring facilities and baseline data uploaded to GEMS.	Initially completed 2020 Reported 2021 Initial data collection was deemed insufficient during the initial internal audit. Further data to be collected by the research partnership in 2026.
4. Establish monitoring program	4.1 Establish long-term remote camera and sound monitoring program, ideally in collaboration with Wildlife Preservation Society of QLD at a subset of baseline survey locations.	Agreement in place with WPSQ to integrated community-based monitoring. Monitoring facilities and data uploaded to GEMS. Target thresholds for key taxa (if appropriate) identified and recorded against monitoring facilities in GEMS.	In Delivery - To be delivered within the scope of the GBTA Research Partnership, which commenced in Dec 2025. Initial monitoring completed in May/June 2026. <i>Expected completion Q3 2026</i>
	4.2 Establish long-term BioCondition monitoring plots at a sub-set of baseline assessment locations that exhibit current deficiencies against target benchmark conditions.	Agreement in place with WPSQ to integrated community-based monitoring Monitoring facilities and data uploaded to GEMS Target thresholds for key taxa (if appropriate) identified and recorded against monitoring facilities in GEMS.	In Delivery - To be delivered within the scope of the GBTA Research Partnership which commenced in Dec 2025. Long term monitoring points were established in 2025.
	4.3 Establish nest box monitoring program	Monitoring facilities and monitoring data uploaded to GEMS.	Completed - Nest boxes installed December 2022. Monitoring ongoing.
	4.4 Conduct annual monitoring activities in accordance with finalised arrangements.	Monitoring data uploaded to GEMS within 28 days of completion of annual surveys.	Ongoing (Annually until) December 2028

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Activity	Description of proposed works	Key Performance Indicator	Timeframe for completion
5. Weed eradication and suppression program	5.1 All weeds within offset area identified and treated to the minimum standard required by Queensland weed and pest animal strategy (2016-2020), and all occurrences of class 2 weeds identified and removed.	Any "Eradication" or "Containment: Area A" weeds identified within the offset area treated. Individual monitoring facilities created for each occurrence and target thresholds of "0" individuals recorded against each facility in GEMS.	Ongoing from December 2019
	5.2 Eradication or continuous suppression to less than 5% of baseline levels of all class 2 weeds and WONS in the offset area.	Monitoring program yields no records of class 2 weed species.	Ongoing
	5.3 Continuously suppress class 3 weeds to less than 10% of their baseline levels.	No threshold breaches recorded by monitoring program.	Ongoing
6. Vertebrate pest management program	6.1 Continue current site-wide pest management	Camera monitoring program and fauna movement structures research have reduction in detection rate of introduced predators, or no increase from a zero-detection baseline.	Ongoing
	6.2 Reactively treat detections of dogs, cats, foxes into offset area noted by monitoring or research programs.	Camera monitoring program and fauna movement structures research have reduction in detection rate of introduced predators, or no increase from a zero-detection baseline.	Ongoing
	6.3 Reactively treat any incursions of pigs and deer into GBTA.	Monitoring detects no presence or damage to habitat quality caused by pigs or deer.	Ongoing
7. Other habitat improvement measures	7.1 Increase coarse woody debris in TA2 through opportunistic distribution of material sourced from tree management and other works on site.	BioCondition monitoring records 10% increase in coarse woody debris length over baseline.	Ongoing
	7.2 Opportunistically increase ground shelter in TA2 and TA1b by ensuring coarse woody debris includes, or is supplemented with, hollow timber or other shelter, or is arranged to provide areas of cover.	Annual reporting documents activity has been undertaken. Photographs uploaded against BioCondition monitoring facilities in GEMS.	Ongoing
	7.3 Fine-scale ecological burning with spot ignitions to achieve mosaic targets set down in RE fire management guidelines and to support achievement of BioCondition sub-canopy layer targets.	Fire history reflects burn prescriptions in QLD Government Regional Ecosystem Fire Management Guidelines.	Ongoing

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Activity	Description of proposed works	Key Performance Indicator	Timeframe for completion
	7.4 Supplementation of nesting hollows.	Monitoring of nest box use indicates uptake by native species.	Completed December 2023
	7.5 Potential localised erosion issues documented.	Notable erosion recorded in GEMS as EFRs.	Completed 2022 All Notable erosion has been recorded. No additional notable erosion sites have been identified in the offset area.
	7.6 Monitoring of localised erosion.	Monitoring facilities recorded in GEMS for all erosion EFRs. Vegetation cover and feature size thresholds defined for all erosion features in GEMS based on no increase in size, and maintaining or increasing current vegetation cover.	Ongoing Monitoring for erosion has been ongoing. No new areas of localised erosion have been encountered. Regular monitoring will continue for early detection. As standard practice, restrictions are in place for Defence personnel and off-road driving is prohibited.
	7.7 Remediation of localised erosion features that are not stabilised	Monitoring data indicates vegetation and size thresholds have not been exceeded.	Ongoing Monitoring for erosion has been ongoing. No new areas of localised erosion have been encountered. Regular monitoring will continue for early detection
8. Fauna movement measures	8.1 Increase fence permeability for ground-dwelling fauna and koalas in TA2 and Oxley Creek northern exit corridor.	Fauna gates and other measures in place. Monitoring data indicates increased fauna movement.	In Delivery – The GBTA research partnership commenced in Dec 2025. Initial data has been collected in June 2026. Monitoring and data collection will continue twice annually until Q4 2028

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Activity	Description of proposed works	Key Performance Indicator	Timeframe for completion
	8.2 Selective adjustments to fauna movement structures based on research program.	(if possible) Monitoring indicates increased movement by koalas and quolls.	In Delivery - The GBTA research partnership commenced in Dec 2025. Initial data has been collected in May/June 2026. Monitoring and data collection will continue twice annually until Q4 2028 after which a final research report will be supplied as per the contract terms. Annual reporting will be used to inform habitat movement features throughout the length of the partnership and Defence will be guided by this data as to what is the most effective and beneficial action to undertake to ensure fauna connectivity.
	8.3 Establish a Research partnership to: • Increase fence permeability for ground-dwelling fauna and koalas in TA2 and Oxley Creek northern exit corridor. • Establish effectiveness of fauna movement structures under Centenary Highway in maintaining connectivity of TA1a and TA1b. • If relevant, suggest collaborative enhancements to Qld Transport and Main Roads and improve supporting habitat features around fauna crossings.	Research paper or report available.	In Delivery – The GBTA research partnership commenced in Dec 2025. Final report is expected Q4 2028
	8.4 Conduct annual monitoring	Annual monitoring data uploaded to GEMS	Ongoing – the GBTA partnership will continue to deliver fauna monitoring in collaboration with WPSQ and data is uploaded to GEMS upon acceptance of monitoring report.

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Activity 1 – Formally identify and protect the offset area

Completed as previously reported.

Activity 2 – Establish Oxley Creek Management Framework

Completed as previously reported.

Activity 3 – Baseline surveys and independent assessment

As previously reported, further baseline monitoring was completed in May 2025.

Activity 3.3 is being completed as part of the research partnership with USC. As part of the contract negotiation, USC proposed an innovative methodology to meet offset delivery priorities to monitor fauna movements. While camera monitoring was initially suggested in the offset strategy to determine the connectivity of GBTA with surrounding habitat, the researchers from the university recommended using genetic analysis of koala and quoll scats to assess real world connectivity.

Drone surveys for koalas to assess population and obtain genetic samples are currently underway in GBTA with initial results due early in Q3 2026. These surveys will cover most of GBTA with a heavy focus on areas where previous koala scats have been identified and collected (refer to activity 7).

To assess connectivity, drone surveys and scat collection have been conducted in areas surrounding GBTA including Karawatha Forest Park, Moggill Conservation Park, Parkinson Bushlands and Tingalpa Reservoir, Hillview Drive Reserve/Kholo Rd Park, Peak Crossing and Redbank Rifle Range. To date, a total of 82 koalas were located across these areas and 77 genetic (scat) samples collected.

The analysis is ongoing, but collecting genetic data from a broad collection range will provide a more precise assessment of fauna movement and the permeability of GBTA than could be achieved with a camera monitoring program. If the populations exhibit a high degree of connectivity, this would be evident in the genetic similarity of the scats found in GBTA and in the broader flinders-Karawatha corridor.

Activity 4 – Establish monitoring program

A key achievement within this reporting period has been the establishment of the research partnership with USC to deliver activities 4, 7 and 8.

The wildlife monitoring program was initiated by Wildlife Preservation Society Queensland (WPSQ), with oversight from USC. This program included camera and acoustic monitoring in May to July 2026. A total of 28 cameras 10 audio recorders were deployed over both areas of the offset for a total of 1112 trap nights. The initial findings are still being analysed, with a report due to be supplied in Q3 2026. Early data provided by WPSQ indicate a healthy fauna assemblage within the offset with many occurrences of macropods, peramelidaes, phascogales, yellow bellied gliders, echidnas, rodents and multiple bird species.

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USC have engaged the specialists from Terrestria to deliver the annual BioCondition assessments at the established monitoring plots. These assessments were conducted in May 2026 to maintain seasonal similarity between the baseline data collected in April 2025. The report found that all assessment units are structurally in good condition with high attribute scores for 'number of large trees', 'tree canopy height', 'tree canopy cover' and 'recruitment to the canopy'. 'Weed cover' is low and 'litter cover' is high and most units support good species diversity in the tree and shrub layers.

Activity 5 – Weed eradication and suppression program

For the reporting period of 2025-2026, a GBTA Weed Action Plan was developed in order to prioritise works on the GBTA. Focus areas included the offset area, as well as perimeter boundaries, tracks/trails, Oxley Creek, and post burn areas. The priority weeds included WONS and QLD restricted weeds such as cat's claw creeper, Chinese celtis, climbing asparagus, Dutchman's pipe, ground asparagus, groundsel bush, lantana, mother of millions, Singapore daisy, and Bolivian coriander.

Weed control was undertaken in two rounds, November 2025 and January 2026. In November, a total of 60 team days were applied for works covering an area of 32 ha, and in January this effort was maintained for 57 team days over an increased area of 95ha. A summary of the weeds targeted and methods of control are provided in **Table 2. Plate 1** and **Plate 2** demonstrate before and after weed control outcomes. Continual weed control works are currently underway (July 2026) and will be included in the next annual Performance Report.

During the annual BioCondition monitoring, all sites reported the non-native vegetation cover was well within the benchmarks for each RE with the highest reported being 0.4% cover.



Plate 1 and Plate 2: Before and after weed control along the Ring Road at GBTA November 2025.

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Table 2: Weed species treated in GBTA during the 2025-2026 reporting period.

Treatment technique	Weed species
Cut, scrape and paint	<u>Woody weeds (trees and shrubs)</u> – lantana, racehorse tree (<i>Tipuana tipu</i>), Easter cassia (<i>Senna pendula</i> var. <i>glabrata</i>), cadaghi (<i>Corymbia torelliana</i>), castor oil (<i>Ricinus communis</i>), yellow bells (<i>Tecoma stans</i>), groundsel bush, Mickey Mouse plant (<i>Ochna serrulata</i>), murraya (<i>Murraya paniculata</i>) and wild tobacco (<i>Solanum mauritianum</i>). <u>Vines</u> - cat's claw creeper (<i>Dolichandra unguis-cati</i>), moth vine (<i>Araujia sericiflora</i>), Dutchman's pipe (<i>Aristolochia elegans</i>), climbing nightshade (<i>Solanum seaforthianum</i>) and corky passionfruit (<i>Passiflora suberosa</i>)
Cut, gouge, paint	Climbing asparagus fern (<i>Asparagus africanus</i>) and velvety tree pear (<i>Opuntia tomentosa</i>).
Spot spray	<u>Small woody weeds</u> – lantana, Mickey Mouse plant, Easter cassia, Chinese burr (<i>Triumfetta rhomboidea</i>) and groundsel bush. <u>Vines</u> – cat's claw creeper, corky passionfruit, white passionfruit (<i>Passiflora subpeltata</i>), Dutchman's pipe and climbing asparagus fern. <u>Groundcovers (herbs/succulents/ferns/creepers)</u> – mother of millions (<i>Bryophyllum delagoense</i>), blue billygoat weed (<i>Ageratum houstonianum</i>), annual ragweed (<i>Ambrosia artemisiifolia</i>), cuphea (<i>Cuphea carthagenensis</i>), dyschoriste (<i>Dyschoriste depressa</i>), Scotch thistle (<i>Cirsium vulgare</i>), Singapore daisy (<i>Sphagneticola trilobata</i>), ground asparagus (<i>Asparagus aethiopicus</i>), cobbler's pegs (<i>Bidens pilosa</i> var. <i>pilosa</i>), praxelis (<i>Praxelis clematidea</i>), thickhead (<i>Crassocephalum crepidioides</i>), Paddy's Lucerne (<i>Sida rhombifolia</i>), blue heliotrope (<i>Heliotropium amplexicaule</i>), cudweed (<i>Gamochaeta americana</i>), milkweed (<i>Euphorbia heterophylla</i>), inch plant (<i>Callisia repens</i>) and rattlepod (<i>Crotalaria lanceolata</i>). <u>Grasses</u> - African love grass (<i>Eragrostis curvula</i>), red Natal grass (<i>Melinis repens</i>), Rhodes grass (<i>Chloris gayana</i>), green panic (<i>Megathyrsus maximus</i> var. <i>pubiglumis</i>), giant rat's tail grass (<i>Sporobolus pyramidalis</i>), rat's tail grass (<i>Sporobolus africanus</i>) and signal grass (<i>Urochloa decumbens</i>).

Activity 6 – Vertebrate pest management program

Vertebrate pest control activities were conducted during May-June 2026. A two week pre control camera monitoring program was followed by a two week foothold trapping program targeting foxes and feral cats. Two foxes were removed. Continual monitoring using thermal cameras are also used to assess feral pest occupation since April 2026.

Outside of the offset area, evidence of environmental impacts caused by a feral pigs were found during the reporting period (late June 2026). This finding was quickly reported and feral pig control works are currently being delivered (July 2026). A supplementary report outlining the findings and control methods will be provided to Defence in Q3 2026.

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Activity 7 – Other habitat improvement measures

Defence is working to responsibly increase the level of woody debris (habitat) in the offset area. The GBTA Training Area Standing Orders (TASO) contain the long-term directives for the operation and management of the training. The GBTA TASO require that woody debris removed from other areas within the training area (e.g. during bushfire hazard reduction activities or through other range exercises) is deposited within the offset area where possible. This activity, when it occurs, is strictly monitored by Defence to ensure there is no overall increase to the bushfire risk in the offset area, the training area, or surrounding properties. Currently, the offset areas sit at a moderate bushfire hazard level. The baseline woody debris load was recorded during the BioCondition survey in 2025, and the 2026 survey highlighted a slight decline in woody debris. Defence will investigate why this decline has occurred and find any opportunities to increase woody debris, where appropriate, for the next reporting period.

In the reporting period, two ecological burns were planned for both offset areas, with another seven burns planned within the broader GBTA. Due to wet weather during the planned burn period, these burns were postponed to occur during next reporting period. These burns are a part of the annual bushfire mitigation works schedule for the greater GBTA area. Whilst these burns are focused on hazard reduction, they also reduce weed ingress along the boundaries of the offset area. Before any burns are conducted, a Burn Implementation Plan is prepared and approved, which includes review by Defence environment and sustainability personnel. Bushfire mitigation works only proceed when conditions are suitable, including to deliver low intensity cool burns that allow fauna movements.

As with previous years, Defence conducted monitoring and control of Red Imported Fire Ants (RIFA) on GBTA as part of broader biosecurity and biodiversity protection. All Defence actions in response to RIFA is guided by the Queensland Department of Agriculture and Fisheries as the lead agency responsible for the National Fire Ant Eradication Program. During these works, koala scat was found at six locations. These locations were mapped and relevant information was provided to the research partners to inform koala population surveys (refer Activity 3).

No new areas of erosion requiring management were identified in the reporting period.

Activity 8 – Fauna movement measures

As reported for Activity 3.3, the GBTA research partnership is in delivery with initial data collected in May and June 2026 both within and outside GBTA. This monitoring will be conducted twice annually and help Defence understand population demographics of koalas, quolls and other ground dwelling fauna. Annual reporting arising from this activity will be used to inform decisions on habitat movement features including any recommended changes to better support fauna connectivity and permeability to surrounding wildlife corridors