

Defence Cultana Expansion Area (CEA) Environmental reporting: MLDP Reporting year 2

Report type	Year 2 (2nd 5th year period)
Reporting year	2018 (July) to 2021 (June) (3 year period)
Report collation	Dept of Defence, SA Environment & Sustainability Team
Report date	28/10/2021

This report has been prepared to fulfill environmental reporting requirements by the Department of Defence (Lessee) as specified in the Miscellaneous Lease for Defence Purposes (MLDP) No. 53500 (20th June 2014). The MLDP requires a report be provided in writing to the Minister in relation to its performance against the Environmental Management Framework every second and fourth year within every five (5) year period. Department of Defence has developed an Environmental Management Framework and this report represents the second year report within the second five (5) year period against the Cultana Environmental Management System: (2) Environmental Management Plan (EMP) (2015). The EMP includes a Sustainability, Monitoring and Reporting Plan (SMRP) (Section 10) and indicates that SMRP reporting combines monitoring and reporting of all such key sustainability measures into a single snapshot of how Cultana is performing against standards and thresholds established in the EMP. The table below captures this required information.

Reporting theme	Reporing sub-theme	Reporting criteria	Defence Respose	Information Source
1. Soils				
a. Erosion		Number of new erosion sites from Defence activities	Defence has commissioned Erosion and Sediment Survey Report (AECOM, May 2019) and also Satellite Imagery Assessment to Monitor Land Response to Training (GHD, July 2020). The former report identifies erosion around infrastructure built as part of the Cultana Redevelopment project. Since this time rehabilitation with native vegetation has been undertaken and shown to be very successful. The remaining erosion problem areas are currently in planning for rectification works. The latter report identified 290 ha of Human-made (by Defence) bare earth. Approximately 140 ha of 290 ha are required vehicle transport routes, enabling access to new training areas, Ambulance exchange points and also function as part of the fire trail network. Planning and implementation to improve these roads is underway to reduce erosion and ensure vehicles keep to roads/formed tracks such that impacts to the environment are minimised. Additional areas identified as bare earth included 32 ha of former farm dams that have recently been rehabilitated. The latter report will be used by Defence to inform land management requirements for areas that have deteriorated through Defence activity, causing erosion.	Defence incident management system and EMOS LM reporting Erosion and Sediment Survey Report (AECOM, May 2019) Satellite Imagery Assessment to Monitor Land Response to Training (GHD, July 2020)
b. Rehabilitation		Number of rehabilitation site works undertaken	18 priority dams (32 ha) were closed and were under rehabilitation during the reporting period. 73 additional dams are pending further rehabilitation.	Dam closure report and EMOS rehabilitation reporting.
2. Biodiversity				
a. Vegetation	Density (Saltbush, Bluebush and perennial shrubs)	Number of threshold exceptions based on Jessup transects	16 Jessup transects exceeded upper Bluebush threshold (mean density) in 2021. 10 Jessup transects exceeded upper Saltbush threshold (mean density) in 2021. 22 Jessup transects exceeded upper Perennial shrub threshold (mean density) in 2021. These breaches of thresholds do no require any vegetation management, rather the thresholds within the Cultana EMP should be reviewed.	Photopoint Monitoring and Jessup Transects - Cultana Training Area 2021 (AECOM, May 2021)
	Cover	Number of threshold exceptions based on reactive step-point transects	No step-point transect data collected during this reporting period. There was no identified need to establish specific step-point transects in addition to current monitoring (including Jessup survey and aerial imagery analysis). This reflects the relatively low use of the training area during this reporting period.	Nil
		Number of temporary area closures (TACs)	Two (2) TACs currently in place within the CEA. These are for weed management outcomes (Carrion Flower). Other TACs have been recently released following a review by Defence (L. Rosser, 2021). Other TACs in place are permanent (Environmental Offset in Sector R) or relate to numerous heritage sites (cultural and historic).	TASO RA map
		Number of rest areas	Nil rest areas currently in place within the CEA.	TASO RA map
	Condition	Change in juvenile : adult ratio on Jessup transects	Results of Juvenile to Adult ratio data in 2021 were similar to that in 2015/16, with results showing large variation between the ratio of juveniles to adults. In 2021 all but 2 sites were below the lower threshold ratio, indicating fewer juveniles were present compared with adults.	Photopoint Monitoring and Jessup Transects - Cultana Training Area 2021 (AECOM, May 2021)
	Condition	Number of sites recorded with low shooting on mature plans (greater than 30cm above ground)	In 2021 eight (8) Jessup transect sites were recorded as having low shooting on at least one of the target plant species.	Photopoint Monitoring and Jessup Transects - Cultana Training Area 2021 (AECOM, May 2021)

	Condition	Number of sites recorded with recruitment	In 2021 20 out of 30 Jessup transects were recorded with plant recruitment, with plant recruitment ranging from 0 to 151 juveniles from varying species. Most common juveniles were Atriplex vesicaria and Ptilotus obovatus. In 2021 numerous perennial plant species were recorded as fruiting at multiple sites.	Photopoint Monitoring and Jessup Transects - Cultana Training Area 2021 (AECOM, May 2021)
	Sandalwood	Change in key sandalwood population	No recruitment data collected during this reporting period. None of the Jessup transects monitored are located within the main Sandalwood population. Additional transects would need to be established to monitor this in the future.	Nil
b. Protection of biodiversity		Number of incidents involving damage to flora and fauna	Nil incidents related to flora and fauna damage notified during the reporting period.	Defence incident management system

3. Biosecurity and Over Abundant native Species (BONS)

a. Pest animals				
	Goats	Number of goats removed	1602 goats removed during the reporting period. Of this total: 451 were removed July to December 2018 476 were removed in 2019 371 were removed in 2020 304 were removed Jan to Jun 2021	Feral Animal Control Reports FY18/19 to FY20/21
		Population distribution change over 3 year reporting period	Goat removal data indicate that goats were removed from 15 different locations. These current data do not allow for an understanding of change in population distribution, rather they demonstrate effort to remove goats from the site.	Feral Animal Control Reports FY18/19 to FY20/21
		Number of goat incursion events at Gilmore well	422 goats removed at/near this site during the reporting period. Of this total: 120 goats were removed at/near this site July to December 2018 45 goats were removed at/near this site in 2019 113 goats were removed at/near this site in 2020 144 goats were removed at/near this site Jan to Jun 2021	Feral Animal Survey Reports FY18/19 to FY20/21
		Number of goat incursion events at water points	160 goats removed from waterpoints. Of this total: 125 goats have been removed from Centenary Dam in Feb 2021 35 goats have been removed from Yanaby Dam in Feb 2021	Feral Animal Survey Reports FY18/19 to FY20/21
	Rabbits	Population distribution change over 3 reporting period	No change detected in the disprubition of rabbits. Annual monitoring has determined that rabbit numbers have been low through the reporting period and hence no	Feral Animal Survey Reports FY18/19 to FY20/21
b. Weeds				
	Carrion flower	Number / size of new infestations and infestation treated	Nil new carrion flower infestations (0 ha) identified and 16 infestations treated (382.82 ha) over this reporting period.	Weed Distribution Surveys and Specific Control Reports CUTA Carrion Control May 2021 (Creation Care)
	African Boxthorn	Number / size of new infestations and infestation treated	Nil new african boxthorn infestations (0 ha) identified and 0 infestations (0 ha) treated over the reporting period.	Weed Distribution Surveys and Specific Control Reports
	Opuntiod Cacti	Number / size of new infestations and infestation treated	Three (3) new opuntiod cacti infestations (0.3 ha) identified and three (3) infestations (0.3 ha) treated over the reporting period.	Weed Distribution Surveys and Specific Control Reports
	Prickly Acacia	Number / size of new infestations and infestation treated	Nil new prickly acacia infestations (0 ha) identified and 0 infestations (0 ha) treated over the reporting period.	Weed Distribution Surveys and Specific Control Reports
	Athel pine	Number / size of new infestations and infestation treated	Nil new athel pine infestations (0 ha) identified and nil infestations (0 ha) treated over the reporting period.	Weed Distribution Surveys and Specific Control Reports
	Buffel grass	Number / size of new infestations and infestation treated	Nil new buffel grass (0 ha) identified and nil infestations (0 ha) treated over the reporting period.	Weed Distribution Surveys and Specific Control Reports
c. Over abundant native animals	Native animals			
	Kangaroos	Number of kangaroo's lethally controlled	July 2018 - June 2019: 641 kangaroos July 2019 - June 2020: 1183 kangaroos July 2020 - June 2021: 1331 kangaroos Lethal control of Kangaroos did not exceed limits recommended via DEW aerial transect density during the reporting period.	DEW kangaroo aerial density reports FY18/19 to FY20/21. kangaroo control reports FY18/19 to FY20/21.

4. Bushfire

	Modification of vegetation through repeated burning	Area of site burnt more than once in past five years (July 2016 to June 2021)	Nil sites were burnt more than once in the 5 year reporting period (0 ha).	TAMIS
		Area of site burnt at least once in this 5 year period and the previous 5 years period	Three (3) sites were burnt (50ha in total in Sector O) during both reporting periods.	TASMIS
	Fire frequency and size	Number of fires	Three (3) fires were notified during the reporting period.	TASMIS
		Number of fires greater than 100ha	Nil fires greater than 100ha were notified during the reporting period.	TASMIS

5. Pollution

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a. Noise and vibration		Number of Defence activity noise / vibration complaints received	Nil complaints received during the reporting period.	DOTAM and Defence incident management system
		Threshold exceptions and actions	Nil.	DOTAM and Defence incident management system
		Number of cases of verified structural damage / other impacts from Defence activity noise / vibration	Nil verified cases known during the reporting period.	DOTAM and Defence incident management system
b. Light		Number of Defence activity light pollution complaints received	Nil complaints received during the reporting period.	DOTAM and Defence incident management system
		Threshold exceptions and actions	Nil.	DOTAM and Defence incident management system
c. Dust		Number of Defence activity dust complaints received that had civilian health impacts	Nil complaints received during the reporting period.	DOTAM and Defence incident management system
		Number of Defence activity dust complaints received where dust obscured Highway	Nil complaints received during the reporting period.	DOTAM and Defence incident management system
		Threshold exceptions and actions	Nil.	DOTAM and Defence incident management system
d. Pollution prevention		Number of incident reports involving discharge to the environment	1. Diesel Spill (Minor) to surrounding soil - Caused by pierced diesel tank on skid steer. Spill cleaned up. April 2021.	DOTAM and Defence incident management system
6. Water				
a. water quality		Change in water quality at monitoring sites	Nil water quality monitoring data collected during the reporting period. Defence has undertaken a contamination assessment at Cultana (AECOM, 2020) and found that there were no contaminants of potential concern at elevated levels where Defence is utilising the CEA. Watercourses within the CEA are typically dry, flowing only intermittently. Given the location of potential pollutants and that of main creek lines throughout the site, it has been assessed that the risk of pollution to water quality does not warrant current water quality monitoring (AECOM, 2021).	Stage 2 Detailed Site Investigation, Cultana training Areas, Aug - Sept 2019. (AECOM, 2020). Addendum to Routine Water Quality Monitoring Plan, SA Defence Estate. Annual Review 2021. (AECOM, 2021).
		Change in water quality at sensitive receptor	Nil water quality monitoring data collected during this reporting period.	
b. Discharge		Number of notified occurrence of discharge to aquatic or marine system	Nil notified occurrences of discharge during the reporting period.	Defence incident management system
7. Heritage				
a. Damage		Number of known aboriginal sites damaged during the reporting period	Nil notified occurrences of site damage during the reporting period.	Defence incident management system