

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

Report type	year 4 (1st 4th year period)
Reporting year	2016 (July) to 2018 (to June) (2 year period)
Report collation	Dept of Defence, SA Environment & Sustainability Team
Report date	15/10/2018

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	Photopoint monitoring by AECOM (2016) of 97 photopoint sites documented 'Soil erosion status' as part of a Site Condition Estimate. 39 sites were rated Excellent, 52 were rated Good, four (4) were Fair and two (2) were Poor. In addition, 'Erosion' at the 97 photopoints was documented as 32 sites with 'No erosion', 51 sites showed 'Slight erosion' (predominantly natural from wind), 10 showed 'Minor erosion' and four (4) showed 'Moderate erosion'. At this time is was considered difficult to determine from this data whether Defence land use is causing trends in data (AECOM, 2016). However, trends showed a clear improvement in the condition of all photopoint sites, likely indicative of destocking the area.	Defence incident management system and EMOS LM reporting.  Photopoint Monitoring Cultana Training Area Expansion, April 2016 (AECOM, 2017)
b. Rehabilitation		Number of rehabilitation site works undertaken	Nil priority dams (0 ha) were closed or were under rehabilitation during the reporting period. 91 dams are pending rehabilitation. Planning is underway to rehabilitate/decommission farm dams across Cultana in a staged approach, to be delivered in three prioritised stages. 91 dams have been assessed by AECOM in 2017, with Priority 1 dams to be decommissioned according to specifications prepared by AECOM (2018). The Project to deliver these works was released in August 2017.	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	42 transects triggered Bluebush density thresholds. 10 transects triggered Saltbush density thresholds. 59 transects triggered perennial shrubs thresholds. In majority of all cases thresholds were triggered as transects had an increase in shrubs. It has been recommended that the thresholds set in the EMP are reviewed.	Jessup survey Photopoint Monitoring Cultana Training Area Expansion, April 2016 (AECOM, 2017)
	Cover	Number of threshold exceptions based on reactive step-point transects	No step-point transect data collected during this reporting period.	Nil
		Number of temporary area closures (TACs)	Seven (7) TACs currently in place within the CEA, based on regeneration, conservation or weed management requirements. This does not include TACs that are permanent environmental offset areas or heritage areas.	TASO RA map
		Number of rest areas	Nil rest areas currently in place within the CEA. Rather these have been captured as TACs, and included above.	TASO RA map
	Condition	Change in juvenile : adult ratio (from Jessup transects)	Juvenile to Adult ratio was assessed in 2016 (AECOM, 2017), indicating large variation in the ratio across transects, from sites where few juveniles were recorded to sites where young recruits outnumbered adults. It was determined that few conclusions could be drawn (AECOM, 2017).	Jessup survey Photopoint Monitoring Cultana Training Area Expansion, April 2016 (AECOM, 2017)
	Condition	Number of sites recorded with low shooting on mature plans (greater than 30cm above ground)	No low shooting on mature plants data collected during this reporting period (AECOM, 2017).	Photopoint Monitoring Cultana Training Area Expansion, April 2016 (AECOM, 2017)
	Condition	Number of sites recorded with recruitment of key species	No recruitment data collected during this reporting period (AECOM, 2017).	Photopoint Monitoring Cultana Training Area Expansion, April 2016 (AECOM, 2017)
	Sandalwood	Change in key sandalwood population	No recruitment data collected during this reporting period (AECOM, 2017).	Photopoint Monitoring Cultana Training Area Expansion, April 2016 (AECOM, 2017)

<b>b. Protection of biodiversity</b>		<b>Number of incidents involving damage in flora and fauna</b>	Nil incidents related to flora and fauna damage notified during the reporting period.	Defence incident management system
<b>3. Biosecurity and Over Abundant native Species (BONS)</b>				
<b>a. Pest animals</b>				
	<b>Goats</b>	<b>Number of goats removed</b>	1609 goats removed during the reporting period.	Feral Animal Control Reports FY16/17 to FY17/18
		<b>population distribution change over 2 year reporting period</b>	No change in site goat population distribution as no new locations identified (total 5 locations) and regular control taking place.	Feral Animal Control Reports FY16/17 to FY17/18
		<b>Number of goat incursion events at Gilmore well</b>	691 goats were removed during the reporting period, spread across the reporting period with removals occurring on 10 different occasions.	Feral Animal Survey Reports FY16/17 to FY17/18
		<b>Number of goat incursion events at water points</b>	861 goats were removed during the reporting period, spread across the reporting period with removals occurring on 11 different occasions. Of this total: 691 were removed from Gilmore Well 170 were removed from Darling Dam	Feral Animal Survey Reports FY16/17 to FY17/18
	<b>Rabbits</b>	<b>population distribution change over 3 reporting period</b>	No change in site rabbit population distribution as no new locations identified.	Feral Animal Survey Reports FY16/17 to FY17/18
<b>b. Weeds</b>				
	<b>Carrion flower</b>	<b>Number / size of new infestations and infestation treated</b>	Two (2) new carrion flower infestations (extent yet to be calculated) identified and nil infestations treated (0 ha) over this reporting period. A total of 10 known populations recorded and total extent of infestations at least 47.95 ha in 2016. Extent has been shown to fluctuate over time and currently unable to be conclusively explained. (AECOM, 2017)	Weed Distribution Surveys and Specific Control Reports Carrion Flower Survey Cultana Training Area - East (AECOM, 2017).
	<b>African Boxthorn</b>	<b>Number / size of new infestations and infestation treated</b>	Nil new African boxthorn infestations (0 ha) identified and nil infestations (0 ha) treated over the reporting period.	Weed Distribution Surveys and Specific Control Reports
	<b>Opuntiod cacti</b>	<b>Number / size of new infestations and infestation treated</b>	Nil new opuntiod cacti infestations (0 ha) identified and nil infestations (0 ha) treated over the reporting period.	Weed Distribution Surveys and Specific Control Reports
	<b>Prickly Acacia</b>	<b>Number / size of new infestations and infestation treated</b>	Nil new prickly acacia infestations (0 ha) identified and nil infestations (0 ha) treated over the reporting period.	Weed Distribution Surveys and Specific Control Reports
	<b>Athel pine</b>	<b>Number / size of new infestations and infestation treated</b>	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
	<b>Buffel grass</b>	<b>Number / size of new infestations and infestation treated</b>	Nil new buffel grass (0 ha) identified and nil infestations (0 ha) treated over the reporting period.	Weed Distribution Surveys and Specific Control Reports
<b>c. Over abundant native animals</b>	<b>Native animals</b>			
	<b>Kangaroo</b>	<b>Number of kangaroos lethally controlled</b>	Lethal control actions did not exceed DEW aerial transect density during the reporting period. Data on total numbers of kangaroos controlled to be obtained from the Kangaroo Management Officer (DEW).	DEW kangaroo aerial density reports FY16/17 to FY17/18. Kangaroo control reports FY16/17 to FY17/18.
<b>4. Bushfire</b>				
	<b>Modification of vegetation through repeated burning</b>	<b>Area of site burnt more than once in past five years (Jul 2013 to Jun 2018)</b>	One (1) site (DFSW Range, Sector B) was burnt more than once in the 5-year reporting period. This site was burnt five (5) times. Fire size ranged from 1ha, 200ha, 200ha, 600ha, 200h over the period .	
		<b>Area of site burnt at least once in this 5 year period and the previous 5 years period</b>	One (1) site was burnt (200 ha) during both reporting periods in Sector F.	TASMIS
	<b>Fire frequency and size</b>	<b>Number of fires reported</b>	Six (6) fires were notified during the reporting period.	TASMIS
		<b>Number of fires greater than 100ha</b>	Five (5) fires greater than 100ha were notified during the reporting period.	TASMIS
<b>5. Pollution</b>				
<b>a. Noise and vibration</b>		<b>Number of Defence activity noise / vibration complaints received</b>	Nil complaints received during the reporting period.	DOTAM and Defence incident management system
		<b>Threshold exceptions and actions</b>	Nil.	DOTAM and Defence incident management system
		<b>Number of cases of verified structural damage / other impacts from Defence activity noise / vibration</b>	Nil verified cases known during the reporting period.	DOTAM and Defence incident management system

<b>b. Light</b>		<b>Number of Defence activity light pollution complaints received</b>	Nil complaints received during the reporting period.	DOTAM and Defence incident management system
		<b>Threshold exceptions and actions</b>	Nil.	DOTAM and Defence incident management system
<b>c. Dust</b>		<b>Number of Defence activity dust complaints received that had civilian health impacts</b>	Nil complaints received during the reporting period.	DOTAM and Defence incident management system
		<b>Number of Defence activity dust complaints received where dust obscured Highway</b>	Nil complaints received during the reporting period.	DOTAM and Defence incident management system
		<b>Threshold exceptions and actions</b>	Nil.	DOTAM and Defence incident management system
<b>d. Pollution prevention</b>		<b>Number of incident reports involving discharge to the environment</b>	Nil.	DOTAM and Defence incident management system

6. water

<b>a. Water quality</b>		<b>Change in water quality at monitoring</b>	Nil water quality monitoring data collected during the reporting period.	water quality monitoring report
		<b>Change in water quality at sensitive receptor</b>	Nil water quality monitoring data collected during this reporting period.	water quality monitoring report
<b>b. Discharge</b>		<b>Number of notified occurrence of discharge to aquatic or marine system</b>	Nil notified occurrences of discharge during the reporting period.	Defence incident management system

7. Heritage

<b>a. Damage</b>		<b>Number of known aboriginal sites damaged during the reporting period</b>	Nil notified occurrences of site damage during the reporting period.	Defence incident management system
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