



Offset Reconciliation Statement Summary

November 2014- November 2015

22 December 2015



ConocoPhillips



Australia Pacific LNG Pty Limited (Australia Pacific LNG) is continuing to deliver environmental offsets to compensate for significant, residual, unavoidable impacts on environmental values resulting from its multibillion dollar, world-class Coal Seam Gas (CSG) to Liquefied Natural Gas (LNG) export project in Queensland (the Project). Offsets are required for impacts on environmental values including Great Barrier Reef World Heritage values, threatened ecological communities, endangered and of concern remnant and regrowth vegetation, marine habitat, wetlands, watercourses, threatened flora species and habitat for threatened fauna species.

To date Australia Pacific LNG has developed a portfolio of direct land based offsets (upon which planting and land management activities have commenced) and indirect offset solutions, in accordance with the Queensland Government approved Australia Pacific LNG Environmental Offset Strategy.

This summary of the annual Environmental Offset Reconciliation Statement (Q-LNG01-15-RP-1764) details progress made over the 2014-2015 reporting year (November 2014 to November 2015). It also provides a reconciliation of offsets against actual disturbance in accordance with the Queensland Coordinator-General's approval condition Appendix 1, Part 1, Condition 5(3g, h, i and j). This is the third reconciliation statement to be submitted to the Coordinator-General, Queensland Department of Environment and Heritage Protection and the Australian Government Department of the Environment.

Australia Pacific LNG has made substantial progress on its offsets over the 2014-2015 reporting year including:

- Further to the cattle grazing rights being relinquished to the Queensland Government the transfer of freehold allotments is being negotiated as part of a revision of the Curtis Island Environmental Management Precinct Contribution and Maintenance Deed. This deed provides funding for the management of the Monte Christo property and offset proposal
- The leasehold interests over the Dukes Plain property were secured in November 2013. Work continues to legally protect the offset area as a Nature Refuge and in principle support has been gained from the Queensland Government to ideally transition the offset area to National Park. On-ground management of the dedicated offset and rehabilitation areas has commenced. The Dukes Plain Offset and Rehabilitation Area Management Plan was submitted to the Australian Government in December 2014 and the Queensland Government in March 2015. It informs ongoing management of the offset and rehabilitation areas. An identified Natural Grasslands TEC (containing Brigalow and previously considered to be a Brigalow community) is proposed to acquit part of the rehabilitation area requirement. It is considered to be an important ecological area that contributes to the connectivity value of Dukes Plain. This suggestion is currently under review by DotE.
- Origin, on behalf of Australia Pacific LNG, signed an offset agreement with the landowner of the Inverness property to establish a 200 ha

offset area for threatened flora species *Cycas megacarpa* and *Acacia pedleyi*. In July 2015, 309 propagated cycads were planted at the site adding to those translocated the previous year. Approximately 2,000 propagated *C. megacarpa* individuals are currently being stored at a nursery prior to planting at the Inverness offset area. Ongoing propagation/planting will take into account a 30% mortality rate over the life of the program to ensure a minimum of 1,800 *C. megacarpa* are successfully established at the offset area. Of the 261 translocated in 2014, 249 were alive at the end of 2015 as were 100% of the 309 planted in 2015.

- Monitoring of the *Rutidosus lanata* planted at Pinehurst occurred on three occasions. The numbers of plants located were 15 in November 2014, 134 in January 2015 and 29 in September 2015. At Rockwood monitoring of the 1600 plants translocated in September 2014 found 545 plants in January 2015, and 626 in September 2015. Some natural recruitment was observed at Pinehurst. Alternatives to improve success in growth of *Rutidosus* are being examined along with gathering data to potentially re-list the species. Given *Eleocharis blakeana* is "Least Concern" no specific management or monitoring will be undertaken for this species. A total of 64 *Acacia wardellii* were planted at Rockwood in September 2015. Because its listing is "Near Threatened" and Origin has requested that permit offset obligations be addressed through like for like rehabilitation means that no management plan is being developed.
- An agreement was signed with the Colamba landowner in September 2015 to legally secure an Offset for Brigalow and a wetland. Field surveys confirmed the presence of Brigalow TEC, a palustrine wetland and habitat for the grey snake and rough-collared frog. The offset is to be protected through a Voluntary Declaration under the Vegetation Management Act.

Australia Pacific LNG is continuing to make progress on indirect offset activities. Biodiversity and marine research projects are well underway through the Gas Industry Social & Environmental Research Alliance (GISERA). Projects moving closer to completion in November 2015 are; Priority Threat Identification for Imperilled Species of the Brigalow Belt, Understanding fire ecology of grassy woodlands, An integrated Study of the Gladstone marine system, Ensuring a path to biodiversity offset success through genetic studies of *Rutidosus lanata*, Examining habitat selection and means of long term persistence of two species.

Australia Pacific LNG has provided financial contributions toward.

- A long term turtle management plan elements of which are being established through LNG proponent co-operation
- Further water mouse surveys were completed in 2015 but no mice were recorded
- A fishway at the Condamine weir was completed in late 2015. Initial evidence is that the structure is being used by fish.

- Contribution was again made to the Fitzroy River Turtle nest protection project undertaken in late 2015.

Over the last reporting year substantial progress has been in the extensive portfolio of direct and indirect offsets to compensate for significant, residual, unavoidable Project impacts on environmental values.

Planned progress over the next 12 months includes:

- Finalising the legal protection of the Dukes Plain, and Colamba offset areas.
- Refining the reconciliation of remaining Project offset requirements.
- Planning and implementing management of existing offset locations.
- Considering effective and ecologically beneficial approaches to compensating for significant, residual impacts on threatened fauna habitat.
- Resolving the acquittal of ooline and determining the way forward with *Rutidosus lanata*

Following completion of legal protection of direct land based offsets identified as part of Australia Pacific LNG's portfolio, on ground offset implementation and management will be conducted in accordance with offset area management plans for each site. Substantial funds have been allocated for each direct offset for management of the life of each offset.

Origin continues to work towards quantifying remaining Project offset requirements and providing appropriate offset solutions, direct or indirect, to compensate for impacts on environmental values and achieving beneficial ecological outcomes for the environment.

Table 1: Summary of predicted and actual impacts on environmental values and corresponding offset requirements

Environmental value requiring offset					Predicted offset requirement ¹	Offset requirement to date	Offset requirement (to date) – grouped by offset value
Value	Detail	Status	Unit				
		Cth ²	State ³				
Great Barrier Reef World Heritage Area		World Heritage	-	ha	1,153 + indirect offset	1188.5 + indirect offset ⁴	1188.5 + indirect offset
Brigalow TEC		E	-	ha	1000.2	324.27	324.27 (30% remnant, 70% HVR & regrowth)
Semi-evergreen vine thicket TEC		E	-	ha	41.36	14.72	14.72
Brigalow and SEVT Rehabilitation Area offset		E	-	ha	1,209.67 (incl. remnant and/or HVR)	1,209.67	1,209.67 (incl. remnant and/or HVR)
BVG 17a	11.4.12	-	E	ha	6.6	0.30	0.62
	11.12.17	-	E	ha	-	0.32	
BVG 25a	11.12.21	-	E	ha	0.02	-	53.52
	11.3.1	-	E	ha	11.3	0.86	
	11.4.3	-	E	ha	33.1	7.34	
	11.4.7	-	E	ha	3.4	-	
	11.4.10	-	E	ha	-	2.16	
	11.9.5	-	E	ha	126.4	43.16	
	11.9.6	-	E	ha	0.1	-	
BVG 7a	11.11.18	-	E	ha	-	0.48	0.48
BVG 17a	11.12.17	-	E	ha	9.2	4.04	9.00
	11.4.12	-	E	ha	2.2	4.96	
BVG 25a	11.12.21	-	E	ha	0	-	45.70
	11.4.3	-	E	ha	1.9	13.54	
	11.4.10	-	E	ha	-	1.44	
	11.9.1	-	E	ha	2.1	-	
	11.9.5	-	E	ha	12.5	30.72	
BVG 7a	11.11.18	-	E	ha	0.6	-	-
Unknown	Unknown	-	E	ha	-	10.80	10.80
BVG 13c – SEQ bioregion	12.11.14	-	OC	ha	84.6	85.32	85.32
BVG 16c – Brigalow Belt bioregion	11.3.3	-	OC	ha	2.7	0.68	15.62
	11.3.4	-	OC	ha	31.5	14.94	
BVG 16c – SEQ bioregion	12.3.11	-	OC	ha	56.4	56.44	56.44
BVG 17a	11.3.2	-	OC	ha	171.1	41.82	57.98
	11.5.13	-	OC	ha	-	1.38	
	11.9.7	-	OC	ha	14.7	13.38	
	11.9.7a	-	OC	ha	-	1.40	
BVG 17b	11.11.10	-	OC	ha	1	-	-
BVG 25a	11.3.17	-	OC	ha	39.6	0.08	11.18
	11.9.10	-	OC	ha	16.9	11.10	
BVG 7a	11.9.4	-	OC	ha	0.8	3.20	3.74
	11.9.4a	-	OC	ha	6.8	-	
	11.9.4b	-	OC	ha	1.9	-	
	11.10.8	-	OC	ha	-	0.54	
BVG 16c	11.3.3	-	OC	ha	1.3	2.46	3.08
	11.3.4	-	OC	ha	38.2	0.62	
BVG 17a	11.3.2	-	OC	ha	13.9	9.50	22.98
	11.9.7	-	OC	ha	20.9	13.48	
BVG 25a	11.9.10	-	OC	ha	4.1	0.62	0.62
BVG 7a	11.9.4	-	OC	ha	-	0.24	0.24
	11.9.4a	-	OC	ha	2.9	-	
BVG 13c	11.9.9b	-	OC	ha	-	5.58	5.58
Unknown	Unknown	-	OC	ha	-	33.64	33.64
Threshold RE 11.5.5 (remnant)	11.5.5	-	LC (threshold)	ha	Indirect offset	-	Indirect offset
Threshold RE 11.5.5	11.5.5	-	LC	ha	Indirect offset	-	Indirect offset

¹ Offset strategy & Federal Approval conditions

² Commonwealth status is based on the EPBC Act – Endangered (E), Vulnerable (V), Migratory, Marine, Migratory / Marine (M/M) or Cetacean.

³ State status is based on various Acts depending on the environmental value. REs are based on the conservation status listed under the *Vegetation Management Act 1999* – Endangered (E), Of Concern (OC), Least concern (LC); Marine habitat values are protected under the *Fisheries Act 1994*; fauna and flora are listed under the *Nature Conservation Act 1992* – Endangered (E), Vulnerable (V), Near Threatened (NT) and Special Least Concern (SLC).

⁴ World Heritage impacts for the Pipeline component of the Project were not outlined in the Offset Strategy.

Environmental value requiring offset					Predicted offset requirement ¹	Offset requirement to date	Offset requirement (to date) – grouped by offset value
Value	Detail	Status		Unit			
		Cth ²	State ³				
(regrowth)			(threshold)				
Mangroves	(includes RE 11.1.4, 12.1.3)	-	Fisheries	ha	6.14	6.49	
Saltpan	(includes RE 11.1.2, 12.1.2)	-	Fisheries	ha	39.01 (plus 75.78 ha replacement for seagrass and sub-tidal)	39.02	82.72
Marine environments containing seagrass		-	Fisheries	ha	-	15.89	
Sub-tidal areas (bare substrate)		-	Fisheries	ha	-	21.32	
Referrable Wetlands – refer to Table 2 for definitions used. Wetlands of High and General Ecological Significance		-	-	ha	102.08	3.71	3.71
Watercourse crossings (stream order 3 and above) – Fitzroy catchment & Murray Darling Downs		-	Fisheries	# crossings	Indirect offset	-	Indirect offset
Eastern curlew (<i>Numenius madagascariensis</i>)		CE, M/M	V	ha	78.02	78.04	
Whimbrel (<i>Numenius phaeopus</i>)		Migratory	SLC	ha	78.02	-	78.04
Red-necked Stint (<i>Calidris ruficollis</i>)		Migratory	SLC	ha	78.02	-	
Beach stone-curlew (<i>Esacus magnirostris</i>)		Marine	V	ha	78.02	78.04	
Dugong (<i>Dugong dugon</i>)		Migratory	V	ha	31.78	31.78	
Green turtles (<i>Chelonia mydas</i>)		V	V	ha	31.78	31.78	
The Australian snubfin dolphin (<i>Orcaella heinsohni</i>)			NT	ha	31.78	31.78	31.78
Loggerhead turtles (<i>Caretta caretta</i>)		E	E	ha	44 + indirect offset \$150k (Long term Marine Turtle Management Plan)	42.64	42.64
Indo-Pacific humpback dolphin (<i>Sousa chinensis</i>)		Migratory	NT	ha	44	42.64	
Bottlenose dolphin (<i>Tursiops aduncus</i>)		-	NT	ha	44	42.64	
Brigalow scaly-foot (<i>Paradelma orientalis</i>)		✓	V	ha	1,548.44	359.40	359.40 (incl. EH offset currently 19.78 ha)
	Essential habitat (VM Act)	-	V	ha	60.14	19.78	
Death adder (<i>Acanthophis antarcticus</i>)		-	V	ha	476	245.56	245.56
Dunmall's snake (<i>Furina dunmali</i>)		V	V	ha	524.98	135.52	135.52
Golden-tailed gecko (<i>Strophurus taenicauda</i>)		-	NT	ha	1,458	729.74	729.74 (incl. EH offset currently 0.56 ha)
	Essential habitat (VM Act)	-	NT	ha	58.62	0.56	
Grey snake (<i>Hemiaspis damelii</i>)		-	E	ha	86	45.42	45.42
Woma (<i>Aspidites ramsayi</i>)		-	NT	ha	632	413.30	413.30 (incl. EH if disturbed in the future)
	Essential habitat (VM Act)	-	NT	ha	0	-	
Yakka skink (<i>Egernia rugosa</i>)		V	V	ha	146.88	144.94	144.94
Pale imperial hairstreak (<i>Jalmenus eubulus</i>)		-	V	ha	47.02	318.64	318.64 (incl. EH if disturbed in the future)
	Essential habitat (VM Act)	-	V	ha	1.72	-	
Rough frog (<i>Cyclorura verrucosa</i>)		-	NT-LC	ha	82.34	338.62	338.62
Eastern osprey (<i>Pandion cristatus</i>)		M/M	-	ha	-	3.02	3.02
Glossy-black cockatoo (<i>Calyptorhynchus</i>)	Brigalow habitat; Habitat	-	V	ha	44	234.46	234.46

Environmental value requiring offset					Predicted offset requirement ¹	Offset requirement to date	Offset requirement (to date) – grouped by offset value
Value	Detail	Status		Unit			
		Cth ²	State ³				
<i>lathamii</i>)	with feed trees						
Rainbow bee-eater (<i>Merops ornatus</i>)		M/M	-	ha		116.10	116.10
Red goshawk (<i>Erythrotriorchis radiatus</i>)		V	E	ha	-	12.68	12.68
Rufous fantail (<i>Rhipidura rufifrons</i>)		M/M	-	ha	-	4.46	4.46
Satin flycatcher (<i>Myiagra cyanoleuca</i>)		M/M	-	ha	-	2.10	2.10
Squatter pigeon (<i>Geophaps scripta scripta</i>)		V	V	ha	-	220.22	220.22 (incl. EH offset currently 13.46 ha)
	Essential habitat (VM Act)	-	V	ha	-	13.46	
White-bellied sea eagle (<i>Haliaeetus leucogaster</i>)		M/M	-	ha	-	3.02	3.02
White-throated needletail (<i>Hirundapus caudacutus</i>) ⁵		M/M	-	ha	-	No significant, residual impact proposed	
Coastal sheath-tail Bat (<i>Taphozous australis</i>)	Essential habitat (VM Act)	-	√-NT	ha	18.7	8.96	8.96
Koala (<i>Phascolarctos cinereus</i>)		V	V	ha	-	56.22	56.22 (incl. 56.22 ha offset for impact on species essential habitat) ⁶
	Essential habitat (VM Act)	-	V	ha	56.22	56.22	
Large-eared pied bat (<i>Chalinolobus dwyeri</i>)		V	V	ha	-	84.34	84.34 (incl. EH if disturbed in the future)
	Essential habitat (VM Act)		V	ha	4.2	-	
Northern quoll (<i>Dasyurus hallucatus</i>) ⁷		E	-	ha	-	No significant, residual impact proposed	
South-eastern long-eared bat (<i>Nyctophilus corbeni</i>)		V	V	ha	-	198.20	198.20 (incl. EH offset 6.10 ha)
	Essential habitat (VM Act)		V	ha	2.27	6.10	
Water mouse (<i>Xeromys myoides</i>)		V	V	ha	33.6	37.40	37.40
Murray cod (<i>Maccullochella peelii</i>)	# water crossings of potential habitat	V	-	# crossings	-	Indirect offset	Indirect offset
Fitzroy River turtle (<i>Rheodytes leukops</i>)	# water crossings of potential habitat	V	V	# crossings	-	Indirect offset	Indirect offset
<i>Acacia pedleyi</i> (Pedley's wattle)			V	ha/# plants	24.5 ha	8,050 plants	8,050 plants (will incl. EH offset currently 25.49)
	Essential habitat (VM Act)		V	ha	28.84	25.49	
<i>Acacia chinchillensis</i> (Chinchilla wattle)	Essential habitat (VM Act)		V	ha	30.36	-	-
<i>Acacia tenuinervis</i> (scrub wattle) ⁸			LC	# plants	-	-	No offset required
<i>Acacia wardellii</i> (Thomby Range wattle)		-	√ NT	# plants	-	577 plants	577 plants
<i>Cadellia pentasyllis</i> (ooline)		V	V	# plants	To be offset if impacted	3.5 plants	4 plants
<i>Cycas megacarpa</i> (Large-fruited zamia)		E	E	# plants	141 (Up to 2,340 individuals)	1752 plants	1,800 plants ⁹ (min. size 141 ha; will incl. EH offset – currently 24.75 ha)
	Essential habitat (VM Act)	-	E	ha	30	24.75	
<i>Desmodium</i>	Essential habitat	-	LC	ha	1.02	-	-

⁵ Based on the species very general habitat requirements and large distribution range, it is unlikely that the Project will have a significant, residual impact on potential habitat for white throated needle tail.

⁶ The koala (combined populations of Queensland, New South Wales and the Australia Capital Territory) was listed as vulnerable under the EPBC Act on 27 April 2012 and vulnerable under the NC Act in June 2015. These listings occurred after the Queensland and Australian Governments approved the Project, and therefore offsets are not required for impacts on this species in the Brigalow Belt bioregion. Note that the Koala in South East Queensland bioregion was listed as vulnerable under the NC Act at the time the Project was approved, and therefore offsets are required for impacts on this species in the South East Queensland bioregion (i.e. resulting from the LNG facility, and a small section of the main pipeline).

⁷ As per the Gas field Threatened Fauna Management Plan, the northern quoll was no longer expected occur in the Project area, it is unlikely that the Project will have a significant, residual impact on potential habitat for northern quoll.

⁸ *A. tenuinervis* was reclassified as least concern on 8 May 2014. An offset is no longer required for this species in accordance with a letter from Director-General EHP, 8 September.

⁹ Australia Pacific LNG will provide 1,800 *C. megacarpa* individuals in accordance with Federal approval EPBC2009/4976, which states that the offset should contain no less than 1,800 translocated and propagated individuals.

Environmental value requiring offset					Predicted offset requirement ¹	Offset requirement to date	Offset requirement (to date) – grouped by offset value
Value	Detail	Status		Unit			
		Cth ²	State ³				
<i>macrocarpum</i> (Large-podded trefoil)	(VM Act)						
<i>Eleocharis blakeana</i> (Blake's spikerush) ¹⁰	Offsets required at 3:1 ratio prior to 4 Dec 2012	-	LC	# plants	-	31,509 plants (offset requirement prior to 4-Dec-12)	31,509 plants ¹¹
	No offset required	-	LC	# plants	-	-	No offset/rehab required
<i>Gonocarpus urceolatus</i> (raspweed) ¹²	No offset required	-	LC	# plants	-	-	No offset/rehab required
	Essential habitat (VM Act)	-	LC	ha	39.34	-	
<i>Graptophyllum excelsum</i> (scarlet fuchsia)	Essential habitat (VM Act)	-	NT	ha	2.84	-	-
<i>Micromyrtus carinata</i> (Gurulmundi heath-myrtle)	Essential habitat (VM Act)	-	E	ha	12.48	-	-
<i>Rutidosia lanata</i> (red-soil woolly wrinklewort) ¹³		-	V	# plants	-	6,101 + 24.71 ha	168,521 plants + 24.71 ha (will incl. EH offset – currently 6.55 ha)
		-	E	# plants	-	162,420 plants	
	Essential habitat (VM Act)	-	E	ha	-	6.55	
<i>Homopholis belsonii</i> (Belson's panic)	Essential habitat (VM Act)	V	E	ha	-	3.54	Pre-clearance surveys undertaken confirmed no individuals were disturbed during clearing activities therefore no offset will be provided for these species at this time
<i>Polianthion minutiflorum</i>	Essential habitat (VM Act)	V	V	ha	-	3.36	
<i>Philotheca sporadica</i> (Kogan waxflower)	Essential habitat (VM Act)	-	V	ha	29.54	3.04	

¹⁰ *E. blakeana* was reclassified from near threatened to least concern on 8 May 2014. Offset requirements for impacts to near threatened plants were revised by EHP on 4 December 2012 (letter from Director-General of EHP) from a 3:1 multiplier to like-for-like (1:1) rehabilitation at the impact site. On 8 September EHP waived all outstanding offset requirements for *E. blakeana*, therefore an offset or rehabilitation is no longer required for the species.

¹¹ *E. blakeana* offset requirement prior to 4 December 2012 is currently acquit on the legally secured Pinehurst offset area. The offset area is currently being managed in accordance with the offset area management plan under a requirement of the Voluntary Declaration; however, as there is no longer a Queensland Government requirement to offset this species, a request to remove current offset obligations on the Pinehurst offset area may be negotiated.

¹² *G. urceolatus* was reclassified as least concern on 26 July 2012. An offset is no longer required for this species in accordance with a letter from Director-General EHP, 8 September 2014.

¹³ *R. lanata* was reclassified as vulnerable on 8 May 2014. Where offsets are deemed to be required for any clearing permits issued after this date, they will be based on an offset ratio of 3.5:1 for vulnerable plants in accordance with the Offset Strategy.