



Offset Reconciliation Statement Summary

January 2017 – December 2017

27 April 2018



Australia Pacific LNG Pty Limited (Australia Pacific LNG) is progressing towards the successful delivery of the Queensland Government approved Australia Pacific LNG Environmental Offset Strategy (Offset Strategy; Q-LNG01-15-EA-0021). The Offset Strategy compensates for unavoidable, significant residual impacts on environmental values as result of the multibillion dollar, world-class Coal Seam Gas (CSG) to Liquefied Natural Gas (LNG) export project in Queensland (the Project).

The fifth annual reconciliation statement provides an update on Australia Pacific LNG's extensive offsets portfolio and details progress made over the 2017 reporting period. A reconciliation of the Project's actual impacts on environmental values from Project commencement to December 2017 against direct and indirect offsets is provided by the data. The statement also provides a summary of the status of each direct offset site, indirect offset activity and progress to date (current at time of preparation to align with the April anniversary date of approval of the Offset Strategy).

The Australia Pacific LNG offset program has continued to produce ecologically beneficial direct and indirect offset outcomes. Over the last reporting period further progress has been made with key milestones and activities achieved including:

- On-ground management and monitoring undertaken on the Dukes Plain offset in accordance with the approved *Dukes Plain Offset and Rehabilitation Area Management Plan* (Q-LNG01-15-MP-8514) with 2017 highlights including a hazard reduction burn.
- The Colamba offset is being managed and monitored on-ground in accordance with the approved *Colamba Offset Area Management Plan* (Q-LNG01-15-MP-1123), with the fencing off of the offset area started in 2017 as well as the wetland weed control.
- A bushfire emergency response day with waterbomber and helicopter was organised by Origin on the Colamba property in November 2017.
- The Inverness offset has continued to be managed and monitored successfully in accordance with the approved *Inverness Offset Area Management Plan* (Q-LNG01-15-MP-0544) and the *Cycas megacarpa Management and Translocation Plan* (Q-LNG01-15-MP-0118).
- An additional 2,014 propagated *Cycas megacarpa* were planted at the Inverness offset in May 2017.
- The planted *Acacia pedleyi* at the Inverness offset are now being monitored and maintained, with another planting to be undertaken in 2018.
- Ongoing monitoring and maintenance is being undertaken at the Pinehurst and Rockwood offsets.
- Ongoing monitoring and maintenance is being undertaken of the *Cadellia pentastylis* Origin collaborated with Santos GLNG on at the Santos offset property, Bottle Tree.
- The transfer of the freehold lots to the Queensland Government to legally secure the Monte Christo offset continues to be progressed.

Appendix A: This table provides a summary of the Australia Pacific LNG project’s reconciled disturbance and offsets for the 2017 period (detailed in the Environmental Offset Reconciliation Statement 2017) and is to be uploaded to the Australia Pacific LNG website as per the Coordinator-General’s Report Appendix 1, Part 1, Condition 5, 3) (h).

Environmental value requiring offset				Disturbance (to date)	Offset multiplier/condition ¹	Offset requirement (to date; grouped by offset value)	Offset proposed/provided ²	Offset on track ³	Surplus offset identified ⁴
Value	Status		Unit						
	Cth ⁵	State ⁶							
World Heritage values									
Great Barrier Reef World Heritage Area	World Heritage	-	ha	266.10 (230.60 LNG Facility; 35.50 Narrows Crossing)	5 (LNG Facility); 1 (Narrows Crossing) + Indirect offset	1,188.50 + indirect offset	Monte Christo (1/3 share) - 1,187.37; Removal of threatening processes (1/3 share) - 6,684.00 CIEMP offset (1/4 share) - 730.50 Indirect offset: \$200,000/year + \$100,000/LNG train/year	Yes	Yes
Threatened ecological communities									
Brigalow TEC	E	-	ha	37.53	Condition - 1000.20 (30% remnant, 70% HVR & regrowth)	375.26	Dukes Plain - 1000.20 (300.06 remnant, 311.19 mature regrowth, 388.95 regrowth) ⁷	Yes	-
Semi-evergreen vine thicket (SEVT) TEC	E	-	ha	1.86	Condition - 41.36	14.85	Dukes Plain - 41.36 ⁸	Yes	-
Brigalow and SEVT rehabilitation area offset	E	-	ha	-	Condition - 1,209.67	1,209.67	Dukes Plain - 300.54 Brigalow, 528.84 SEVT	Yes	-

¹ Offset multipliers derived from State Government approved Offset Strategy and offset conditions prescribed by Australian Government approval conditions, with following exceptions: offset multiplier for impacts on near threatened flora species was revised from 3 (as stated in the Offset Strategy) to 1 (like-for-like through rehabilitation of impact sites) by Queensland Department of Environment and Heritage Protection (EHP; letter dated 4 December 2012); all offset requirements for flora species reclassified to least concern have been waived by EHP (letter dated 8 September 2014).

² Monte Christo and CIEMP offset areas approved in the Monte Christo Offset Proposal (8 August 2013) represent Australia Pacific LNG’s share of the offset (1/3 and 1/4 respectively). Those areas on Monte Christo and CIEMP that have been used to draw down on to acquit additional fauna habitat offset requirements represent Origin’s 10% entitlement to the Australia Pacific LNG share (except for squatter pigeon and glossy black cockatoo). Dukes Plain, Colamba and Inverness offset areas are as per respective approved offset area management plans.

³ Based on offset requirements to date presented in the 2017 reconciliation statement, current progress on verifying environmental values, developing management plans and legally securing offsets.

⁴ Based on offset requirements to date presented in the 2017 reconciliation statement, consequently surplus values on direct offset sites will be used as advanced offsets to draw down on to acquit future Project offset requirements.

⁵ Commonwealth status is based on *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) - Endangered (E), Vulnerable (V), Migratory, Marine, Migratory / Marine (M/M) or Cetacean.

⁶ State status is based on various Acts depending on the environmental value. Regional Ecosystems (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).

⁷ Separate to Brigalow component of the Rehabilitation Area Offset on Dukes Plain.

⁸ Separate to SEVT component of the Rehabilitation Area Offset on Dukes Plain.

Environmental value requiring offset				Disturbance (to date)	Offset multiplier/ condition ¹	Offset requirement (to date; grouped by offset value)	Offset proposed/provided ²	Offset on track ³	Surplus offset identified ⁴
Value	Status		Unit						
	Cth ⁵	State ⁶							
							Colamba - 282.70 Brigalow Total - 1,112.08 ha ⁹		
Endangered remnant and regrowth REs									
BVG 17a	-	E	ha	2.22 (remnant) + 10.10 (regrowth)	2	4.45 (remnant) + 20.20 (regrowth)	Surplus of concern remnant and regrowth BVG 17a on Dukes Plain	Yes	-
BVG 25a	-	E	ha	35.62 (remnant) + 30.47 (regrowth)	2	71.25 (remnant) + 60.95 (regrowth)	Dukes Plain - 1,300.77 (387.83 remnant, 912.94 regrowth) Colamba - 263.27 (141.38 remnant, 121.89 regrowth)	Yes	Yes
BVG 7a	-	E	ha	0.24 (remnant)	2	0.48 (remnant)	Surplus of concern remnant and regrowth BVG 7a on Dukes Plain	Yes	-
Unknown endangered regrowth	-	E	ha	5.53	2	11.06 (regrowth)	Surplus endangered remnant and regrowth BVG 25a on Dukes Plain and Colamba	Yes	-
Of concern remnant and regrowth REs									
BVG 13c - South East Queensland bioregion	-	OC	ha	42.37 (remnant)	2	84.74 (remnant)	Monte Christo (1/3 share) - 29.91; Removal of threatening processes (1/3 share) - 200.00; CIEMP offset (1/4 share) - 10.49	Yes	Yes
BVG 13c - Brigalow Belt bioregion		OC	ha	2.79 (regrowth)	2	5.59 (regrowth)	Surplus of concern remnant and regrowth BVG 25a, 7a, 16c 17a on Dukes Plain	Yes	-
BVG 16c - Brigalow Belt bioregion	-	OC	ha	8.71 (remnant) + 1.76 (regrowth)	2	17.42 (remnant) + 3.52 (regrowth)	Dukes Plain - 60.70 (60.20 remnant; 0.50 regrowth)	Yes	Yes
BVG 16c - South East Queensland bioregion	-	OC	ha	28.22 (remnant)	2	56.44 (remnant)	Monte Christo (1/3 share) - 6.80; Removal of threatening processes (1/3 share) - 73.33 CIEMP offset (1/4 share) - 39.59	Yes	Yes
BVG 17a	-	OC	ha	32.44 (remnant) + 11.81 (regrowth)	2	64.86 (remnant) + 23.62 (regrowth)	Dukes Plain - 246.56 (166.20 remnant, 80.36 regrowth)	Yes	Yes

⁹ The Rehabilitation Area Offset shortfall of 97.59 ha will be addressed in conjunction with additional offsets for the Project as acknowledged by Department of Environment and Energy in letter dated 19 February 2016.
APLNG - HSE - 0007575

Environmental value requiring offset				Disturbance (to date)	Offset multiplier/ condition ¹	Offset requirement (to date; grouped by offset value)	Offset proposed/provided ²	Offset on track ³	Surplus offset identified ⁴
Value	Status		Unit						
	Cth ⁵	State ⁶							
BVG 17b	-	OC	ha	-	2	-	No disturbance to date	N/A	-
BVG 25a	-	OC	ha	10.11 (remnant) + 0.51 (regrowth)	2	20.22 (remnant) + 1.02 (regrowth)	Dukes Plain - 1,300.77 (387.83 remnant, 912.94 regrowth)	Yes	Yes
BVG 7a	-	OC	ha	1.89 (remnant) + 0.12 (regrowth)	2	3.78 (remnant) + 0.24 (regrowth)	Dukes Plain - 570.10 (225.80 remnant, 344.30 regrowth)	Yes	Yes
Unknown of concern regrowth	-	OC	ha	17.23	2	34.46 (regrowth)	Surplus of concern remnant and regrowth BVG 16c, 17a, 25a, 7a on Dukes Plain	Yes	-

Threshold REs									
Threshold RE 11.5.5 (remnant and regrowth)	-	LC	ha	112.57 (remnant) + 1.69 (regrowth)	Indirect offset	Indirect offset	Indirect offset: Threshold REs	Yes	-
Marine Habitat									
Mangroves	-	Fisheries	ha	5.79	1	81.74	Monte Christo (1/3 share) - 103.88; Removal of threatening processes (1/3 share) - 1,483.18 CIEMP offset (1/4 share) - 15.07	Yes	Yes
Saltpan	-	Fisheries	ha	38.74	1				
Marine environments containing seagrass	-	Fisheries	ha	15.89	1				
Sub-tidal areas (bare substrate)	-	Fisheries	ha	21.32	1				
Wetlands									
Referrable Wetlands - refer to Table 2 for definitions used.	-	Wetland	ha	8.41	1	8.41	Colamba - 81.10 palustrine wetland and gilgai surrounding wetland	Yes	Yes
Watercourses									

Watercourse crossings (stream order 3 and above) - Fitzroy catchment & Murray Darling Downs	-	Fisheries	# crossings	139	Indirect offset	Indirect offset	Indirect offset: Removal of waterway barrier works	Yes	-
Shorebirds (shorebird habitat)									
Eastern curlew (<i>Numenius madagascariensis</i>)	CE, M/M	E	ha	39.02	2	78.04	Monte Christo (1/3 share) - 103.88; Removal of threatening processes (1/3 share) - 1,483.18; CIEMP offset (1/4 share) - 15.07	Yes	Yes
Whimbrel (<i>Numenius phaeopus</i>)	Migratory	SLC	Ha						
Red-necked Stint (<i>Calidris ruficollis</i>)	Migratory	SLC	Ha						
Beach stone-curlew (<i>Esacus magnirostris</i>)	Marine	V	Ha						
Fauna in seagrass habitat									
Dugong (<i>Dugong dugon</i>)	Migratory	V	ha	15.89	2	31.78	Indirect offsets \$150k: Long-term marine turtle monitoring program Research undertaken through GISERA	Yes	Yes
Green turtles (<i>Chelonia mydas</i>)	V	V	Ha						
Australian snubfin dolphin (<i>Orcaella heinsohni</i>)	Migratory	NT	Ha						
Fauna in bare substrate									
Loggerhead turtles (<i>Caretta caretta</i>)	E	E	ha	21.32	2 + Indirect offset	42.64			
Indo-Pacific humpback dolphin (<i>Sousa chinensis</i>)	Migratory	NT	Ha						
Bottlenose dolphin (<i>Tursiops aduncus</i>)	Cetacean		Ha						
Other fauna									
Death adder (<i>Acanthophis antarcticus</i>)	-	V	ha	122.78	2	245.56	Dukes Plain - 1,193.80	Yes	Yes

Dunmall's snake (<i>Furina dunmalli</i>)	V	V	ha	67.76	2	135.52	Dukes Plain - 2,568.60	Yes	Yes
Golden-tailed gecko (<i>Strophurus taenicauda</i>) - incl. EH (VM Act)	-	NT	ha	364.87 (incl. EH 0.28)	2	729.74 (incl. EH 0.56)	Dukes Plain - 2,568.60; confirmed presence	Yes	Yes
Grey snake (<i>Hemiaspis damelii</i>)	-	E	ha	22.71	2	45.42	Colamba - 411; confirmed presence	Yes	Yes
Woma (<i>Aspidites ramsayi</i>) - incl. EH (VM Act)	-	NT	ha	206.65	2	413.30 (no EH disturbed to date)	Colamba- potential habitat	Yes	-
Yakka skink (<i>Egernia rugosa</i>)	V	V	ha	72.47	2	144.94	Dukes Plain 2,568.60	Yes	Yes
Pale imperial hairstreak (<i>Jalmenus eubulus</i>) - incl. EH (VM Act)	-	V	ha	159.32	2	318.64 (no EH disturbed to date)	Dukes Plain - 951.30 Colamba - 32.10	Yes	Yes
Eastern osprey (<i>Pandion cristatus</i>)	Marine, Migratory	SLC	ha	1.51	2	3.02	Monte Christo (Origin entitlement 10% of 1/3 share) - 14.98; Removal of threatening processes (Origin entitlement 10% of 1/3 share) - 56.68 CIEMP offset (Origin entitlement 10% of 1/4 share) - 12.58	Yes	Yes
Glossy-black cockatoo (<i>Calyptorhynchus lathami</i>)	-	V	ha	117.32	2	234.46	Monte Christo (Origin entitlement 10% of 1/3 share) - 105.85 + additional 128.61 (part of Conoco Phillips 30% entitlement); Removal of threatening processes (Origin entitlement 10% of 1/3 share) - 266.67 Colamba - Confirmed presence	Yes	Yes
Rainbow bee-eater (<i>Merops ornatus</i>)	Marine	-	ha	58.05	2	116.10	Monte Christo (Origin entitlement 10% of 1/3 share) - 118.73; Removal of threatening processes (Origin entitlement 10% of 1/3 share) - 668.40 CIEMP offset (Origin entitlement 10% of 1/4 share) - 73.30	Yes	Yes
Red goshawk (<i>Erythrorhynchus radiatus</i>)	V	E	ha	6.34	2	12.68	Monte Christo (Origin entitlement 10% of 1/3 share) - 118.73; Removal of threatening processes (Origin entitlement 10% of 1/3 share) - 668.4 CIEMP offset (Origin entitlement 10% of 1/4 share) - 73.30	Yes	Yes
Rufous fantail (<i>Rhipidura rufifrons</i>)	Marine, Migratory	SLC	ha	2.23	2	4.46	Monte Christo (Origin entitlement 10% of 1/3 share) - 105.85; Removal of threatening processes (Origin entitlement 10% of 1/3 share) - 668.4	Yes	Yes

							share) - 462.19 CIEMP offset (Origin entitlement 10% of 1/4 share) - 68.69		
Satin flycatcher (<i>Myiagra cyanoleuca</i>)	Marine, Migratory	SLC	ha	1.05	2	2.10	Monte Christo (Origin entitlement 10% of 1/3 share) - 108.35; Removal of threatening processes (Origin entitlement 10% of 1/3 share) - 586.44 CIEMP offset (Origin entitlement 10% of 1/4 share) - 71.79	Yes	Yes
Squatter pigeon (<i>Geophaps scripta scripta</i>) - - incl. EH (VM Act)	V	V	ha	110.11 (incl. EH 6.73)	2	220.22 (incl. EH 13.46)	Monte Christo (Origin entitlement 10% of 1/3 share) - 108.35 + additional 111.87 (part of Conoco Phillips 30% entitlement); Removal of threatening processes (Origin entitlement 10% of 1/3 share) - 586.435 CIEMP offset (Origin entitlement 10% of 1/4 share) - 71.791	Yes	Yes
White-bellied sea eagle (<i>Haliaeetus leucogaster</i>)	Marine	-	ha	1.51	2	3.02	Monte Christo (Origin entitlement 10% of 1/3 share) - 14.982; Removal of threatening processes (Origin entitlement 10% of 1/3 share) - 56.678 CIEMP offset (Origin entitlement 10% of 1/4 share) - 12.583	Yes	Yes
Coastal sheathtail Bat (<i>Taphozous australis</i>) - EH (VM Act)	-	√NT	ha	4.48	2	8.96	Monte Christo (Origin entitlement 10% of 1/3 share) - 25.354; Removal of threatening processes (Origin entitlement 10% of 1/3 share) - 155.667 CIEMP offset (Origin entitlement 10% of 1/4 share) - 13.873	Yes	Yes
Koala (<i>Phascolarctos cinereus</i>) - incl. EH (VM Act)	V	V	ha	28.11	2	56.22 (incl. EH 56.22) ¹⁰	Monte Christo (Origin entitlement 10% of 1/3 share) - 399.11; Removal of threatening processes (Origin entitlement 10% of 1/3 share) - 833.33	Yes	Yes
Large-eared pied bat (<i>Chalinolobus dwyeri</i>) - incl. EH (VM Act)	V	V	ha	42.17	2	84.34 (no EH disturbed to date)	Dukes Plain - 2,988	Yes	Yes
South-eastern long-eared bat (<i>Nyctophilus corbeni</i>)	V	V	ha	99.10 (incl. EH 3.05)	2	198.20 (incl. EH 6.10)	Dukes Plain - 2,956.90	Yes	Yes
Water mouse (<i>Xeromys myoides</i>)	V	V	ha	35.50	2	54.20	Monte Christo (1/3 share) - 167.51; Removal of threatening processes (1/3 share)- 2,731.35 CIEMP offset (1/4 share) - 18.11	Yes	Yes

¹⁰ 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).

Murray cod (<i>Maccullochella peelii</i>)	V	-	# crossings	12	Indirect offset	Indirect offset	Indirect offset: Removal of waterway barrier works	Yes	-
Fitzroy River turtle (<i>Rheodytes leukops</i>)	V	V	# crossings	4	Indirect offset	Indirect offset	Indirect offset: Fitzroy River Turtle nest protection	Yes	-
Flora									
<i>Acacia pedleyi</i> (Pedley's wattle) - incl. EH (VM Act)	-	V	ha/# plants	2,300 plants (12.75 ha EH)	3.5 (2 EH)	8,050 plants (incl. 24.5 ha EH)	Inverness - capacity for 8,050 plants (5,977 plants currently established, incl. 25.5 ha EH)	Yes	-
<i>Cadellia pentasyllis</i> (ooline)	V	V	# plants	1 plant	3.5	4 plants (rounded up)	10 plants (allowing for contingency) established in collaboration with Santos at their Bottle Tree property, Arcadia Valley	Yes	-
<i>Cycas megacarpa</i> (Large-fruited zamia) - incl. EH (VM Act)	E	E	ha/# plants	292 plants (12.37 ha EH)	6 (2 EH)	1,800 plants (min. 141 ha) ¹¹ (incl. 24.7 ha EH)	Inverness - Capacity for 1,800 plants (2,508 plants currently established within 192.7 ha offset area secured; incl. 24.7 ha EH)	Yes	-
<i>Micromyrtus carinata</i> (Gurulmundi heath-myrtle) - EH (VM Act)	-	E	ha	-	2 EH	-	No disturbance to date	N/A	-
<i>Homopholis belsonii</i> (Belson's panic) - EH (VM Act)	V	E	ha	1.77 ha EH applied for in clearing permit	2 EH	3.54	Pre-clearance surveys undertaken confirmed no <i>H. belsonii</i> or <i>P. minutiflorum</i> individuals were disturbed during clearing activities therefore no offsets required	N/A	-
<i>Polianthion minutiflorum</i> - EH (VM Act)	V	V	ha	1.68 ha EH applied for in clearing permit	2 EH	3.36			

¹¹ Australia Pacific LNG will provide 1,800 *C. megacarpa* individuals and an offset site of at least 141 ha in accordance with Commonwealth approval EPBC 2009/4976, more individuals have been planted (and more offset area secured) to allow for a 30% mortality rate.