

06-10-2016

500-200-ACR-YPN-0003

Rev 0

Yara Pilbara Nitrates 2016 Annual Compliance Report EPBC 2008/4546 February 2015 – February 2016 Technical Ammonium Nitrate Plant

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Document Custodian	Environmental Superintendent, Susan Giles.
Document Approver	Plant Manager, Rob Stevens.



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Declaration of Accuracy

Yara Pilbara Nitrates Pty Ltd (YPN) is pleased to submit this Annual Compliance Report as per condition 3 of the EPBC 2008/4546 Approval Decision (dated 14 September 2011).

In making this declaration, I am aware that sections 490 and 491 of the Environment Protection and Biodiversity Conservation Act 1999 (Cth) (EPBC Act) make it an office in certain circumstances to knowingly provide false or misleading information or documents. The offence is punishable on conviction by imprisonment or a fine, or both. I declare that all the information and documentation supporting this compliance report is true and correct in every particular. I am authorised to bind the approval holder to this declaration and that I have no knowledge of that authorisation being revoked at the time of making this declaration.

Signed

Full Name

Rob Stevens

Position

Plant Manager

Organisation

Yara Pilbara Nitrates Pty Ltd

ABN 33127391422

Date



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1 Introduction

1.1 Purpose

The purpose of the Annual Compliance Report (ACR) is to annually report compliance with all conditions of EPBC 2008/4546 Approval Decision, issued on 14 September 2011, as per Condition 3:

"Condition 3 Within three months of every 12 month anniversary of the commencement of the action, the person taking the action must publish a report on their website addressing compliance with each of the conditions of this approval, including implementation of any management plans and monitoring programs as specified in the conditions. Documentary evidence providing proof of the date of publication and non-compliance with any of the conditions of this approval must be provided to the Department at the same time as the compliance report is published."

This ACR is prepared in accordance with the Annual Compliance Report Guidelines (Commonwealth of Australia, 2014) and is due to be submitted to the Commonwealth Department responsible for administrating the *Environmental Protection & Biodiversity Conservation Act 1999* (EPBC Act) annually by 18 May.

1.2 Scope

This ACR (hereinafter referred as "2016 ACR") applies to the Project being developed by Yara Pilbara Nitrates Pty Ltd (YPN) to construct and operate a Technical Ammonium Nitrate (TAN) production facility (TAN Plant) located on Lot 3017 Within the Burrup Strategic Industrial Area on the Burrup Peninsula, Western Australia. The TAN Plant is located approximately 13 kilometres (km) north-west of Karratha.

Implementation of the proposal is subject to the conditions of EPBC 2008/4546 Approval Decision, as amended. YPN as the Proponent must ensure implementation of EPBC 2008/4546 Approval Decision conditions for the reporting period. The conditions to EPBC 2008/4546 have been varied by two separate variations of conditions of approval made under Section 143 of the EPBC Act:

- Variation to conditions 8(d), 10 and 11, dated 18 December 2013; and
- Variation to condition 10(c)iv, dated 10 February 2014.

The 2016 ACR assesses compliance against the conditions for works carried out during the reporting period 18 February 2015 to 17 February 2016. The 2016 ACR will be submitted to the Commonwealth Department of the Environment and Energy (DEE) by 8 October 2016 (as notified to the DEE in letter dated 21 September 2016). YPN acknowledges that this report is being submitted late. This is the third ACR to be submitted for the TAN Plant.



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1.3 Project Details

The TAN Plant will have a production capacity of 350,000 tonnes per annum (TPA) or 915 tonnes per day (TPD) of Technical Ammonium Nitrate (TAN). The project comprises three major process units, each producing a separate product in the manufacturing process:

- 1. Nitric Acid plant to convert ammonia and atmospheric air into Nitric Acid (NA). The NA unit has a capacity of 760 TPD as 100% weight. The main feedstock, ammonia, shall be delivered from the adjacent ammonia plant.
- Ammonium Nitrate (AN) Solution plant to convert ammonia and NA into AN solution. This AN wet section has a capacity of 965 TPD in balance with nitric acid production capacity.
- 3. TAN plant to convert AN solution into TAN prills (final product). This is a dry section for production of TAN prills (0.7 and 0.8 kg/l density) with a capacity of 915 TPD. Surplus ammonium nitrate solution shall be sold as liquid.

The project also has storage, loading and transport facilities, including an incoming liquid ammonia pipeline, bulk and bagged TAN storage, bulk loading system, bagging unit and truck loading.

1.4 CAR Public Availability

This 2016 ACR is to be placed on the yara.com.au website, or an equivalent website, for the life of the Project. At the time of publication of this 2016 ACR it is publically available at:

http://yara.com.au/about-yara/about-yara-local/yara-pilbara/nitrates/

A URL link to the report uploaded will be sent to the Compliance and Enforcement Branch through the post.approvals@environment.gov.au email address.



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2 Current Status

During the reporting period construction of the Project has substantially progressed. At the end of the reporting period commissioning is about to commence.

Significant milestones achieved during the period include hook up of delivered modules, pre-commissioning of utilities and services and mechanical completion of some of the plant and facilities.

A Commissioning Environmental Management Plan (EMP) has been approved by the Western Australian Department of Environment Regulation (DER) (as a requirement of Works Approval 4701/2010/1) and is in effect along with the Construction EMP. An Operational EMP for the TAN plant has been drafted and submitted to the DEE for review.

Environmental monitoring and reporting has continued during the reporting period, as YPN has commenced transitioning the TAN plant site from the Engineering Procurement Construction (EPC) contractor to YPN operational control. Under the terms of the EPC contract resourcing environmental management and reporting are the responsibility of the contractor. Due to deficiencies in this arrangement Yara Pilbara assumed responsibility for these functions in mid-2016.

During the period YPN continued to financially contribute through the Burrup Rock Art Technical Working Group (BRATWG) to the DER's rock art monitoring program. YPN understands the 2015 monitoring was completed in August 2015 with a report subsequently provided to BRATWG. This monitoring report is yet to be published on the DER website and YPN has not been provided a copy, however draft copies of the report have been made available to third parties.

YPN has a requirement under the TAN plant's EPBC approval (EPBC 2008/4546 Condition 10(d)) to provide the DER-managed monitoring program results to the DEE within two months of the monitoring report being completed. At the time of preparing this 2016 ACR, YPN has not been provided with a copy of the report and therefore has not been able to submit the report to the Department, the Murujuga Aboriginal Corporation nor publish the report on YPN's website as required by EPBC 2008/4546 Condition 10.

The term of appointment for BRATWG expired on 30 June 2016, with the extension dependent on a review of the outcomes of the rock art monitoring program undertaken by the group. At this stage YPN are unaware of the status of the extension process. Following from contact made with representatives from DER, Yara Pilbara has written to the Minister for the Environment stating that Yara Pilbara supports the continuation of BRATWG in its role of overseeing the Burrup rock art monitoring program to assist in the ongoing protection and preservation of petroglyphs on the Burrup Peninsula. Furthermore Yara Pilbara has requested membership to BRATWG.

Due to the nature of the non-compliance associated with the rock art monitoring work YPN will commence proceedings with the DEE to vary Condition 10 under Section 143 of the EPBC Act.



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3 Compliance

3.1 Statement of Compliance

The results of the assessment of compliance with EPBC2008/4546 approval conditions are shown in Table 1.

A total of 15 items were assessed. The assessment found the following:

- 9 items were found as compliant;
- 3 items were found as not applicable; and
- 3 items was assessed as non-compliant.

Details of the following events which lead to the non-compliant items are contained within Section 3.3:

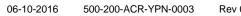
- Non-compliance Condition 3; Failure to prepare and submit the Annual Compliance report by 17 May 2016;
- Non-compliance Condition 10; Inability to submit Heritage Monitoring Report for 2015; and
- Non-compliance Condition 14; Failure to make management plans and monitoring programs publically available.

In preparation of this 2016 ACR YPN has identified some gaps in evidence, specifically with reference to historic correspondence between YPN and various regulators that has been cited as evidence in previous ACRs. Where YPN does not currently have the original or a copy of the evidence, but reference to the evidence has been previously made, the evidence has been flagged as "not sighted". A full list of "not sighted" evidence is provided within Section 6.

In assessing compliance the following definitions have been used:

Designations	Definition
Compliant	'Compliance' is achieved when all the requirements of a condition have been met, including the implementation of management plans or other measures required by those conditions.
Non-compliant	A designation of 'non-compliance' should be given where the requirements of a condition or elements of a condition, including the implementation of management plans and other measures, have not been met.
Not applicable	A designation of 'not applicable ' should be given where the requirements of a condition or elements of a condition fall outside of the scope of the current reporting period. For example a condition which applies to an activity that has not yet commenced





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3.2 EPBC2008/4546 Compliance Table

Table 1 EPBC2008/4546 Compliance Table

Condition Number	Condition	Is the Project compliant with this condition?	Evidence / Comments
1	Within 30 days after the commencement of the action, the person taking the action must advise the Department in writing of the actual date of commencement.	Compliant	Letter sent to SEWPaC on 17 February 2013 (not sighted).
2	The person taking the action must maintain accurate records substantiating all activities associated with or relevant to the conditions of approval, including measures taken to implement the plan(s) and program(s) required by this approval, and make them available upon request to the Department. Such records may be subject to audit by the Department or an independent auditor in accordance with section 458 of the EPBC Act, or used to verify compliance with the conditions of approval. Summaries of audits will be posted on the Department's website. The results of audits may also be publicised through the general media.	Compliant	Documentation is available upon request by the Department.
3	Within three months of every 12 month anniversary of the commencement of the action, the person taking the action must publish a report on their website addressing compliance with each of the conditions of this approval, including implementation of any management plans and monitoring programs as specified in the conditions. Documentary evidence providing proof of the date of publication and non-compliance with any of the conditions of this approval must be provided to the Department at the same time as the compliance report is published.	Non-Compliant	This report "Annual Compliance Report February 2015/February 2016" meets the requirement for the report. The report was not finalized within the required timeframe, that is by 17 May 2016. This was due to non-performance of the TAN Project Engineering, Procurement & Construction project.
4	The person taking the action must ensure that wastewater from the facility meets the requirements set out in Statement 594 for discharges into the Multi User Brine Return Line (MUBRL).	Compliant	Cooling water has been designed and constructed to discharge to the MUBRL. No discharges were made during the reporting period.
5	To ensure the protection of listed threatened species and listed migratory species, the person taking the action must notify the Department of any proposal to apply larvicide or adulticide within the project site (Attachment 1) and develop a management plan for such an application(s). This management plan must be approved by the Minister and include details as to:	Compliant	No mosquito larvicide or adulticide has been applied within the TAN Plant site during the reporting period.
	the chemical make-up to be applied;		
	the areas in which spray will be applied;		
	the timeframe over which spray will be applied;		
	the season in which spray will be applied;		
	potential impacts of the larvicide or adulticide on listed threatened and listed migratory species; and		
	mitigation measures proposed for potential impacts on listed threatened and migratory species.		
	This notification must be provided to the Department in writing at least six (6) months prior to any proposed application. Any proposal to apply larvicide or adulticide within the project site must be undertaken in accordance with the management plan.		
6	To ensure the protection of listed threatened species and listed migratory species, the person taking the action must:	Compliant	Bird deterrent systems were assessed and the preferred option agreed by Department of Parks and Wildlife as appropriate for the site (Attachment 6A).
	a) Employ such structures and apparatus as are necessary and agreed by the Western Australian Department of Environment and Conservation to deter birds from entering the contaminated water pond, clean water pond, and sewage wastewater treatment station evaporation pond, as per Condition 7.1 (Appendix 4) in the Environmental Protection Authority's recommendation report; and		Bird deterrent wires have been installed over contaminated water ponds, clean water ponds, and sewage wastewater treatment evaporation pond, as described in the Bird Deterrent Systems Assessment Report (Attachment 6B). (see also photograph – Attachment 6C)



Condition Number	Condition	Is the Project compliant with this condition?	Evidence / Comments
	b) Ensure these structures and apparatus are in place prior to commissioning.		
7	To ensure the protection of the listed threatened species; listed migratory species and the values of the Dampier Archipelago (including Burrup Peninsula) National Heritage Place, the person taking the action must submit to the Department those management plans containing management actions aimed at reducing impacts upon these relevant matters of national environmental significance, including:	Compliant	Construction Environmental Management Plan (CEMP), Hazardous Material Management Plan (HMMP) and Emergency Response Management Plan (ERMP) were sent to SEWPaC on 22 September 2012 and approved on 22 November 2012 (Attachment 7A).
	a) Construction Environmental Management Plan (CEMP), which must be submitted to the Department at least two (2) months prior to construction and must include, but not be limited to, management measures for the following:		The Aboriginal Heritage Management Plan (AHMP) was approved by SEWPaC on 24 October 2012 (Attachment 7B). During the reporting period the following management plans were implemented:
			Construction Environmental Management Plan (CEMP) including management measures for:
	Air Quality and Dust; Water Quality:		Air Quality and Dust;
	Water Quality; Erosion Control and Storm Water;		Water Quality;
	• Waste;		Erosion Control and Storm Water;
			Waste;
	• Traffic; and		Traffic;
	Blasting (if required). Department Flore (OFMR), reset has submitted to the Reportment of		Additionally, the following management plans were implemented:
	b) Operational Environmental Management Plan (OEMP), must be submitted to the Department at least two (2) months prior to operation and must include, but not be limited to, management measures		Aboriginal Heritage Management Plan;
	for the following:		Hazardous Materials Management Plan; and
	Erosion Control and Storm Water;		Emergency Response Management Plan:
	Water Quality;		
	Air Quality and Dust;		A draft Operational Environmental Management Plan was submitted to DEE for review on
	• Waste;		30 September 2015 (Attachment 7C). The OEMP was not finalised during the reporting period.
	• Traffic; and		
	Blasting (if required).		
	c) Additional management plans, including those covering both construction and operation, must be submitted to the Department at least two (2) months prior to construction, including:		
	Aboriginal Heritage Management Plan;		
	Hazardous Materials Management Plan; and		
	Emergency Response Management Plan.		
	Construction and operation cannot begin until the management plans mentioned above have been approved by the Minister.		
	The contents of these management plans, and any other construction or operation management plans required for the project, must not contain management actions that are inconsistent with these approval conditions or the National Heritage management principles.		
8 Note:	To protect the values of the Dampier Archipelago (including Burrup Peninsula) National Heritage Place, particularly the rock art sites, the person taking the action must ensure that:	Compliant	a) and b) Chain mesh fencing and signs are installed and have been maintained. c) records of personnel on site are tracked.
modified as per variation	a) Chain mesh fencing of at least 2.5 metres in height is installed around the perimeter of the project site prior to construction.		e) YPN is not aware of any impacts to the National Heritage Place resulting from TAN Plant activities or personnel involved in construction or operation of TAN Plant.
variatiOH	b) Signs of at least 1m ² in size are attached to fencing at the entrance to the project site and at no less		



Condition Number	Condition	Is the Project compliant with this condition?	Evidence / Comments
18/12/2013	than 50 metre intervals along the fence. These signs must clearly indicate that no construction and operation staff are permitted to enter areas surrounding the project site that contain manmade structures of a type mentioned in the Dampier Archipelago (including Burrup Peninsula) National Heritage Place Gazette notice and/or engravings and/or standing stones and/or archaeological material associated with any of the afore mentioned items unless their work specifically requires them to do so, and they have received permission from the construction manager and project archaeologist. c) The relevant supervisor records the names of all those required to access areas . Note: 8d) has been deleted as per variation 18/12/2013. e) Any impact the action has on the heritage values of the Dampier Archipelago (including Burrup Peninsula) National Heritage Place must be reported to the Department in writing within 72 hours. Impacts may include (but will not necessarily be limited to) any impacts caused by construction activity; vandalism perpetrated by personnel involved in plant construction or operation; spillage of potentially corrosive materials into the National Heritage Place; impacts from blasting activity.		
9	To protect the National Heritage Place, particularly the rock art sites, the person taking the action must undertake an air quality monitoring program. The air quality monitoring program must:	Compliant	Air quality monitoring equipment has been installed at the three sites and was commissioned in September 2013.
	a) Undertake air quality monitoring at three (3) sites as shown in Attachment 2. These sites being sites previously selected, designed, fenced off and used in the original Western Australian Department of Environment and Conservation (WA DEC)/CSIRO air quality monitoring program.		Each location has been provided with the following equipment: • One ADS Atmospheric Precipitation sampler.
	• Site 5 - Burrup Road site;		• One MIE ADR-1500 particulate matter monitor (PM ₁₀).
	Site 6 - Water tanks site; and		One dust deposition gauge (total solids suspended).
	• Site 7 - Deep Gorge site.		• NH ₃ , NO _x , SO _x diffusion tubes (duplicate collected at each monitoring site).
	The air quality monitoring must be undertaken for a period of not less than 24 months beginning from the commencement of construction. The results of this monitoring will be used to establish baseline data on levels of:		 One tipping rain gauge. Minivol TAS for PM₁₀ at Water Tanks site, in order to compare readings between MIE ADR-1500 and Minivol TAS.
	Ammonia (NH3); Nitrogen Oxides (NOx);		Monitoring has been undertaken as per Condition 9(c) and will be reported to the Department in writing within 12 months of the completion of construction, ie 21 February 2017 (Attachment 9A).
	Sulphur Oxides (SOx); and		
	Total suspended particulates (TSP), including dust at those rock art sites.		
	b) Ensure that the monitoring of air quality at rock art sites is undertaken by a suitably qualified person (Air Quality).		
	c) Ensure air quality readings during the twenty four (24) months of baseline monitoring are taken at least four (4) times in every 12 months.		
	d) Ensure that the baseline data established from the air quality monitoring is reported to the Department in writing within 12 months of the completion of construction or following twenty four (24) months of baseline monitoring (which ever finishes last).		
	The report must include a map clearly showing the location of each rock art site being monitored.		
	e) Ensure air quality monitoring of the rock art monitoring sites (sites 5, 6 and 7) is continued for an additional period of five (5) years, following the establishment of baseline data and once operation has commenced, to record levels of NH3 NOx, SOx and TSP, including dust.		
	f) Report the results of the five (5) years of monitoring following the establishment of baseline, as per		



Condition Number	Condition	Is the Project compliant with this condition?	Evidence / Comments
	condition 9(e) above, to the Department, in writing, within two (2) months of that year's monitoring having been completed.		
10 Note: modified as per variations 18/12/2013 and 10/02/2014	To protect the values of the Dampier Archipelago (including Burrup Peninsula) National Heritage Place, particularly the rock art sites, the person taking the action must participate in monitoring the rock art by: a) Contributing a pro-rata amount annually (in line with that currently utilised by the WA DER, but not exceeding \$15,000/year) for a period of not less than two (2) years from the beginning of construction to DER for the DER-managed colour contrast and spectral mineralogy Monitoring Program (DER-managed Monitoring Program), which is an independent scientific program of monitoring, to detect any changes in patination, including any discolouration, of the surface of the rock art or the surrounding rock surface; b) If the DER-managed Monitoring Program continues after the completion of the two year period referenced in condition 10(a) above, the person taking the action must continue to provide the agreed annual contribution referenced in condition 10(a), for an additional period of five (5) years maximum or until the DER-managed Monitoring Program is concluded (whichever is reached first). c) In addition to the above condition 10(a) and 10(b) requirements, the person taking the action must provide for additional monitoring of rock art sites in a manner that is consistent with the DER-managed Monitoring Program. The monitoring of additional rock art sites must meet the following requirements. Engage a heritage monitor o(other suitably qualified person (Heritage) to survey rock art sites within a wo (2) kilometre radius of the project site, to provide advice on any changes to the appearance, or cultural value, of rock art sites within the examined area The monitoring must be undertaken in a manner that is consistent with and complementary to the monitoring of rock art sites undertaken through the OER- managed Monitoring Program. If agreed by DER the monitoring additional rock art sites may be integrated with the DER managed Monitoring Program, with the person taking the action providing full contribu	Non-compliant	During the period YPN continued to financially contribute through the Burrup Rock Art Technical Working Group (BRATWG) to the Department of Environment Regulation's (DER) rock art monitoring program. On 31 January 2014, YPN and BRATWG agreed to expand the rock art monitoring program within two kilometres of the project site in order to comply with the variation condition received from Federal Government (Department of the Environment). The Heritage Monitoring of six sites within 2 km of YPN's TAN Plant site in the Burrup Peninsula has been measured 2013 and 2014. The engravings and background rocks are measured in situ. Measurement of the annual colour and mineralogical changes utilised two spectrophotometer techniques, the Analytical Spectral Device (ASD) and the BYK colour spectrophotometer YPN have been informed that the 2015 monitoring was completed in August 2015 with a draft report issued to BRATWG. However, this monitoring report has not been published on the DER website nor has YPN been provided a copy; though YPN understand that the draft report has been made available to third parties for review. Consequently, YPN have not been able to submit the report to the Department, the Murrujuga Aboriginal Corporation nor publish the report on YPN's website as required by this condition.
Note:	If the results of the DER-managed Monitoring Program (colour contrast and spectral mineralogy monitoring) or additional monitoring required under condition 10(c) show there is evidence of changes	Not Applicable	YPN has not been notified of any evidence of changes in patination of monitored rock art surfaces.



Condition Number	Condition	Is the Project compliant with this condition?	Evidence / Comments
modified as per variation	in patination, including but not limited to discolouration of the surface of the rock art motif or the surrounding rock surface, including patina, the person taking the action must:		
18/12/2013	a) Upon being notified that evidence of changes in patination of monitored rock art surfaces have been identified, notify the Department within 72 hours in writing of this reported change in the surface of the rock art;		
	b) From the date that changes in patination of the rock art surface/s is reported (the event), continue to provide funds annually in the amount specified in condition 10(b) to the DER-managed Monitoring Program for a period of a further five (5) years (maximum) from the event date;		
	c) Within two (2) months of the date that changes in patination of the rock art surface is reported, provide a management plan to the Minister for approval regarding the reported changes. This Management plan must include.		
	i. a summary of the results of the DER-managed Monitoring Program and the		
	air quality monitoring program required under condition 9 to that date,		
	ii. a detailed description of the changes detected in the surface of the rock art motif (the event);		
	iii. if identifiable, an analysis of the cause or causes of the detected change in the rock art surface. This analysis must be provided by a suitably qualified person from the DER-managed Monitoring Program;		
	iv. details of consultation with a suitably qualified person to determine appropriate mitigation to further protect those rock art sites surrounding the project site from degradation; and		
	v a detailed plan for the continuation, for a further period of five (5) years from the date of the reported event, of the DER-managed Monitoring Program and the air quality monitoring program required under condition 9.		
	If the Minister approves the management plan(s) required under condition 11(c), then the approved plan(s) must be implemented.		
12	If the person taking the action wishes to carry out any activity otherwise than in accordance with the management plan(s) and or monitoring program(s) as specified in the conditions, the person taking the action must submit to the department for the Minister's written approval a revised version of that management plan(s) and or monitoring program(s). The varied activity shall not commence until the Minister has approved the varied management plan(s) and or monitoring program(s) in writing. The Minister will not approve a varied management plan(s) and or monitoring program(s) unless the revised management plan(s) and or monitoring program(s) would result in an equivalent or improved environmental outcome over time. If the Minister approves the revised management plan(s), and or monitoring program(s) that management plan(s) and or monitoring program(s) must be implemented in place of the management plan(s) and or monitoring program(s) originally approved.	Not Applicable	No request to carry out activities otherwise than in accordance with the management plan(s) and monitoring program(s) was submitted to the Minister during the reporting period.
13	If the Federal Minister believes that it is necessary or convenient for the better protection of National Heritage Place, listed threatened species and communities and listed migratory species to do so, the Minister may request that the person taking the action make specified revisions to the management plan(s), monitoring program(s) specified in the conditions and submit the revised management plan(s), monitoring program(s) for the Minister's written approval. The person taking the action must comply with any such request. The revised approved management plan(s), monitoring program(s), must be implemented. Unless the Minister has approved the revised management plan(s), monitoring program(s), then the person taking the action must continue to implement the management plan(s), monitoring program(s) originally approved, as specified in the conditions.	Not applicable	The Minister has made no request during the reporting period.



	Condition Number	Condition	Is the Project compliant with this condition?	Evidence / Comments
	Unless otherwise agreed to in writing by the Minister, the person taking the action must publish all management plan(s) and monitoring program(s) referred to in these conditions of approval on their website. Each management plan(s) and monitoring program(s) must be published on the website within 1 month of being approved.		Not Compliant	YPN is unable to provide evidence of when all management plan(s) and monitoring program(s) were published on the website, yara.com.au. In future, a URL link to the report uploaded will be sent to the Compliance and Enforcement Branch through the post.approvals@environment.gov.au email address.
15		If, at any time after 2 years from the date of this approval, the person taking the action has not substantially commenced the action, then the person taking the action must not substantially commence the action without the written agreement of the Minister.	Compliant	The TAN Plant substantially commenced in 2012, within 2 years of the date of approval.



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3.3 Details of Non-Compliance(s)

3.3.1 Non-compliance – Condition 3

Which EPBC approval condition number was non-compliant?

Condition 3 - Preparation and submission of Annual Compliance Report

Who detected the non-compliance?

YPN

On what date(s) was the non-compliance detected?

17 May 2016

Was the Department notified of the non-compliance and if so, when and how?

Yes. Letter from YPN, Brian Howarth, Subject: EPBC 2008/4546 Annual Compliance Report, dated 21 September 2016

How the non-compliance was/will be corrected.

This 2016 ACR has been prepared to meet Condition 3. It has been submitted to the Department outside of the timeframe required by Condition 3.

Who (the actual person completing the correction) was/is responsible for correcting the non-compliance.

YPN's Health, Environment, Safety and Quality Manager, Brian Howarth.

Date corrective measures were/will be commenced and/or completed or the timeframe for correction.

Preparation of the report commenced in September 2016 and will be completed by 7 October 2016.

What measures have been/will be taken to avoid recurrence

This action was a responsibility of the TAN EPC Contractor. As part of YPN's environmental management system a regulatory reporting schedule has been developed so that tasks associated with preparation and submission of the TAN Plant ACR is conducted in a timely manner to meet the timing requirements of Condition 3.



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3.3.2 Non-compliance – Condition 10

Which EPBC approval condition number was non-compliant?

Condition 10 – Undertake Heritage Monitoring

Who detected the non-compliance?

YPN

On what date(s) was the non-compliance detected?

17 May 2016

Was the Department notified of the non-compliance and if so, when and how?

Yes. Letter from YPN, Brian Howarth, Subject: EPBC 2008/4546 Heritage Monitoring Report, dated 21 September 2016

How the non-compliance was/will be corrected.

YPN has made contact with representatives from DER to ascertain the status of BRATWG and the 2016 Burrup Rock Art Monitoring Report (based on the 2015 monitoring), however, at the date of this ACR, there has been no advice forthcoming.

Who (the actual person completing the correction) was/is responsible for correcting the non-compliance.

YPN's Health, Environment, Safety and Quality Manager, Brian Howarth

Date corrective measures were/will be commenced and/or completed or the timeframe for correction.

Formal written communication with the DER regarding the tenure of BRATWG commenced in September 2016.

What measures have been/will be taken to avoid recurrence

YPN will commence proceedings to vary the condition under Section 143 of the EPBC Act.



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3.3.3 Non-compliance – Condition 14

Which EPBC approval condition number was non-compliant?

Condition 14 – Make plans and programs available on website.

Who detected the non-compliance?

YPN

On what date(s) was the non-compliance detected?

September 2016

Was the Department notified of the non-compliance and if so, when and how?

No.

How the non-compliance was/will be corrected.

The Yara website was updated on 6 October 2016 to include all approved Management Plans and Monitoring Programs.

Who (the actual person completing the correction) was/is responsible for correcting the non-compliance.

YPN's Health, Environment, Safety and Quality Manager, Brian Howarth.

Date corrective measures were/will be commenced and/or completed or the timeframe for correction.

Corrective measures were completed 6 October 2016.

What measures have been/will be taken to avoid recurrence

YPN Document Control now has responsibility for update and maintenance of the documents to be made publically available.



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4 Management Plans

During the reporting period the following management plans were implemented:

- Construction Environmental Management Plan (CEMP) including management measures for:
 - Air Quality and Dust;
 - Water Quality;
 - o Erosion Control and Storm Water;
 - o Waste; and
 - Traffic.
- Aboriginal Heritage Management Plan;
- Hazardous Materials Management Plan; and
- Emergency Response Management Plan:



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5 New Environmental Risks

The construction phase of the TAN Plant was largely completed during the reporting period. During the 2016-2017 reporting period it is expected that the TANPF will move into operational phase and the environmental risks will reflect this. A draft Operations Environmental Management Plan has been developed for the TAN Plant and once approved by the Department this will be implemented to control the environmental risks associated with the facility.

No new environmental risks that were not contemplated in the Project referral and assessment process have been identified.



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6 Attachments

The following documents are attached to this 2016 CAR as evidence of compliance:

- Attachment 6A: Email from DPAW, dated 25 June 2015, providing support for bird deterrent systems assessment and selected technology.
- Attachment 6B: Bird Deterrent Systems Assessment Report.
- Attachment 6C: Photograph of bird deterrent lines across site water pond.
- Attachment 7A: Letter from SEWPAC, dated 22 November 2012, approving CEMP, HMMP and ERMP.
- Attachment 7B: Letter from SEWPAC, dated 24 October 2012, approving AHMP.
- Attachment 7C: Letter to DEE, dated 30 September 2015, submitting draft Operational Environmental Management Plan
- Attachment 9A: DER Letter for Commissioning

The following list of evidence has not been sighted during the preparation of this 2016 ACR, but has been referenced in previous ACR's for the TAN plant:

 Letter to SEWPaC, dated 17th February 2013, advising date of commencement of action EPBC2008/4546.



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Attachment 6A

Email from DPAW, dated 25 June 2015, providing support for bird deterrent systems assessment and selected technology.

Peter French

Subject: FW: Request to get approval of bird deterrents as per condition 7.1 of MS 870 of YARA

PILBARA NITRATE Project

Attachments: 20150618085325416.pdf

From: Corbellini, Michelle [mailto:Michelle.Corbellini@DPaW.wa.gov.au]

Sent: Thursday, June 25, 2015 1:48 PM

To: Rajan Sinha Cc: Wessels, Nigel

Subject: RE: Request to get approval of bird deterrents as per condition 7.1 of MS 870 of YARA PILBARA NITRATE

Project

Hi Rajan

Yara fertiliser Pilbara's proposed methodology appears to align directly with the Department of Parks and Wildlife's (Parks and Wildlife) Pilbara Region advice dated 23 April 2015. Parks and Wildlife has no further comments on the proposed bird deterrent methods.

Kind regards

Michelle Corbellini Environmental Project Coordinator Pilbara Region

Department of Parks and Wildlife

Locked Bag 104, Bentley Delivery Centre, WA, 6983 Ph: (08) 9334 0260 Michelle.Corbellini@DPaW.wa.gov.au





From: Rajan Sinha [mailto:rajan.sinha@yara.com]

Sent: Thursday, 18 June 2015 9:47 AM

To: Corbellini, Michelle **Cc:** Wessels, Nigel

Subject: RE: Request to get approval of bird deterrents as per condition 7.1 of MS 870 of YARA PILBARA NITRATE

Project

Hi Michelle,

Please find the attached document with regards to the information requested under your mail below as per your advice and it is related with overhead wires. Enclosed please see updated Bird Deterrent System Assessment report.

Please feel free to contact me for any further information. Your approval on the above is highly appreciated.

Regards,

Rajan Sinha

Technical Services and Business Development Manager Operations Upstream Production

Mobile: +61 410 840 369 Office: +61891834139 Email: rajan.sinha@yara.com



Yara Pilbara Fertilisers Pty Ltd Lot 564. Village Road Burrup WA 6714 Karratha, Australia www.yara.com







From: Corbellini, Michelle [mailto:Michelle.Corbellini@DPaW.wa.gov.au]

Sent: Thursday, April 23, 2015 2:24 PM

To: Rajan Sinha **Cc:** Wessels, Nigel

Subject: RE: Request to get approval of bird deterrents as per condition 7.1 of MS 870 of YARA PILBARA NITRATE

Project

Hi Rajan

Thank you for providing the Department of Parks and Wildlife (Parks and Wildlife) Pilbara Region with further information regarding Yara Fertilisers proposed bird deterrents at the Technical Ammonium Nitrate Production Facility, on the Burrup Peninsula, approved under Ministerial Statement 870. Ministerial Statement 870 includes the following requirement in relation to deterring birds from entering the contaminated water pond, clean water pond and sewage wastewater treatment station evaporation pond.

7-1 The proponent shall employ such structures and apparatus as are necessary and agreed by the DEC to deter birds from entering the contaminated water pond, clean water pond, and sewage wastewater treatment station evaporation pond.

Parks and Wildlife considers that the proposed deterrent techniques appear to be appropriate, provided that Yara Fertilisers commit to a monitoring program being developed and undertaken, to measure the effectiveness of the deterrent devices on the presence and abundance of bird species over time. If monitoring systems detect no effect of the devices, or a reduction in effectiveness is noted over time then other methods should be considered and implemented.

The preparation and implementation of a monitoring program is highly recommended as the effectiveness of ultrasonic and audio devices is variable, and highly dependent on how they are deployed, and dependent on target species present within the area. The range of sounds able to be detected between species varies markedly and the successfulness of an audio or ultrasonic devices in deterring birds can vary based on the activity that the bird is undertaking. There are concerns about relying solely on audio repellents for birds because they have not been demonstrated to be an effective long term solution. Some species become habituated to the devices over time. An effective deterrent system requires a variety of methods to be successful, whether in combination or in rotation, as well as frequently changing the type, timing and location of the equipment. Other deterrent methods which may be used in combination include, modifying the surface banks to make them less desirable to shorebirds (e.g. covering the banks with rocks to prevent nesting and foraging in the mud), or the installation of non-electrified string lines parallel across

the ponds to prevent birds from landing or entering the water. Trials at BHP's Olympic dam have been successful in using string lines spaced at 5m intervals to deter birds (reducing presence by 99.2%). These additional methods should be considered if monitoring detects that the devices are not effective, or are decreasing in effectiveness over time.

If you have any further queries please do not hesitate to contact me.

Kind regards

Michelle Corbellini

Environmental Project Coordinator

Department of Parks and Wildlife - Pilbara Region

17 Dick Perry Ave, Kensington Locked Bag 104, Bentley Delivery Centre, WA, 6983 Ph: (08) 9334 0260 Michelle.Corbellini@DPaW.wa.gov.au







From: Rajan Sinha [mailto:rajan.sinha@yara.com]

Sent: Monday, 30 March 2015 8:23 PM

To: Corbellini, Michelle **Cc:** Wessels, Nigel

Subject: RE: Request to get approval of bird deterrents as per condition 7.1 of MS 870 of YARA PILBARA NITRATE

Project

Hi Michelle,

Please find the attached document with regards to the information requested under your mail below ref.: "Request to get approval of bird deterrents as per condition 7.1 of MS 870 of YARA PILBARA NITRATE Project", dated on 19/December/2014. We were trying to source out the information from the vendor, and we received the detailed information just recently.

Please feel free to contact me for any further information. Your approval on the above is highly appreciated.

Regards,

Rajan Sinha

Technical Services and Business Development Manager

Operations Upstream Production

Mobile: +61 410 840 369 Office: +61891834139 Email: rajan.sinha@yara.com









From: Corbellini, Michelle [mailto:Michelle.Corbellini@DPaW.wa.gov.au]

Sent: Friday, December 19, 2014 8:20 AM

To: Rajan Sinha Cc: Wessels, Nigel

Subject: RE: Request to get approval of bird deterrents as per condition 7.1 of MS 870 of YARA PILBARA NITRATE

Project

Hi Rajan

Thanks for your email and phone call to discuss yesterday.

I've had one of Parks and Wildlife's fauna experts review the deterrent methods proposed by Yara Pilbara Nitrate. They have requested that a bit more information is provided on how this method is implemented and what other options have been considered by Yara Pilbara Nitrate. If you could please provide the following information this would assist with a timely review of your request:

- State the model of the devices (i.e. brand, model number/series)
- Indicate the number of devices to be installed in total, and the number per pond, indicate the location of the installation on the map
- Indicate how the devices will be applied frequency of use
- Provide information on other deterrent methods/devices which Yara has considered. How were other options assessed to be appropriate or inappropriate in this circumstance? Examples of other methods include noise cannons, physical barriers etc. Were other methods considered to be applied in combination (i.e. more than one method)?
- State the common bird species at this site, which may use these ponds. This is required as it appears that certain species are more sensitive than others to these particular deterrent devices. The use of the device should be justified based on the bird species found in this area.

Please note that our fauna expert and I will be taking leave over the Christmas / New Year period, and therefore based on the supply of the above information we should be able to provide you with a response during January.

If you do have any questions please do not hesitate to give me a call on the number below.

Kind regards,

Michelle Corbellini

Environmental Project Coordinator

Department of Parks and Wildlife - Pilbara Region

17 Dick Perry Ave, Kensington Locked Bag 104, Bentley Delivery Centre, WA, 6983

Ph: (08) 9334 0260

Michelle.Corbellini@DPaW.wa.gov.au







From: Rajan Sinha [mailto:rajan.sinha@yara.com]
Sent: Wednesday, 17 December 2014 11:29 AM

To: Corbellini, Michelle

Cc: Esszig, Fiona; David Hegerty; Jason Roberts; Guillaume Holweck

Subject: Request to get approval of bird deterrents as per condition 7.1 of MS 870 of YARA PILBARA NITRATE Project

Hi Michelle,

Please note that YARA PILBARA NITRATE (YPNPL) is currently constructing a Technical Ammonium Nitrate Plant in Burrup Peninsula. You may get more information about this project in the website www.ypnpl.com.au. Please find the attached letter to get the approval of bird deterrents as per advice from Department of Environment Regulation.

Please feel free to contact me for any further information.

Regards,

Rajan Sinha
Deputy General Manager (TAN Project)
Yara Pilbara
Mobile: +61 410840369
Office: +61 (8) 91834139
rajan.sinha@yara.com

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Lot 564, Village Road, Burrup Peninsula WA 6714 (Locked Bag 5009, Karratha WA 6714) ABN: 33127391422

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Attachment 6B

Bird Deterrent Systems Assessment Report.



Bird Deterrent Systems Assessment Report



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1. INTRODUCTION AND PURPOSE

Yara Pilbara Nitrates Pty Ltd (YPNPL) is developing a Technical Ammonium Nitrate Production Facility (TANPF) with a production capacity of (circa) 350,000 TPA or 915 MTPD of Technical Ammonium Nitrate (TAN).

The TANPF development site is located approximately 13 km northwest of Karratha and 1300 km north of Perth, on the Burrup Peninsula, Western Australia, within the Shire of Roeburne. The site for the TANPF is a 49 Ha area located adjacent to the existing Yara Pilbara Fertilisers Pty Ltd (YPFPL) Ammonia plant. The purpose of this document is to describe the process followed to identify, assess and install the bird control measure at TANPF in order to comply with Condition 870:M7.1 of the Environmental Ministerial Statement (MS) 870:

- "The proponent shall employ such structures and apparatus as are necessary and agreed by the DEC to deter birds from entering the contaminated water pond, clean water pond, and sewage wastewater treatment station evaporation pond".
- "Seek advice from DEC is required".

2. FAUNA BIRDS IDENTIFICATION AT TANPF

2.1 General

The Burrup Peninsula has a rich bird fauna, attributed to its complex topography and consequent diversity of habitats, i.e. Rock Piles, Grasslands, Intertidal, Supratidal, and Mangroves including inter-tidal and marine areas.

One hundred and sixty-eight (186) species are known from either the Burrup or from areas close by (DEC, 2006). Although the peninsula possesses no large permanent fresh-water wetlands, the salt ponds of the Dampier Solar Salt operation and the sheltered waters of the mangroves, creeks and small embankments all provide good localities for episodic visits by many waterbirds (DEC, 2006).

From the 186 species, some of them are considered as Conservation Significant fauna species listed under both the EPBC Act and the WC Act.

2.2 Conservation Significant Bird species

Migratory bird habitats within the Site are considered to occur in association with the saline supra-tidal flat that occurs through the centre of the Site. As this area is likely to be inundated after extreme tides, storm surges or after extended heavy rainfall, it is likely that this area would provide occasional foraging habitat in the period following these events. These species represents protected matters under the EPBC Act. Refer to Table 2-1. In addition to these species a number of migratory species listed under the JAMBA, CAMBA and ROKAMBA conventions have previously been recorded within the Burrup Peninsula or are known for the area (DEC 2006). These species also represents protected matters under the EPBC Act. Refer to Table 2-2.

Conservation Significant fauna species listed under both the WC Act which have a high or medium likelihood of occurrence within the Site are included in Table 2-3.

Table 2-1 EPBC Listed Migratory species - Conservation Significant Bird species which have the potential to occur within the Site

Species Name	Common Name	Habitat Requirements	Habitat Potential of the Site?
Black-winged Stilt	Himantopus himantopus	Migratory bird species are known to rely on	Supratidal flat is likely to provide an occasional foraging resource
Common Greenshank	Tringa nebularia	coastal wetland habitats along western Australia	for migratory bird species



Red-capped Plover	Charadrius ruficapillus	as part of their habitat requirements. The	
Rainbow Bee-eater	Merops ornatus	Supratidal flat located within the site is considered to provide a	
Little eagle	Hieraaetus morphnoides	potential foraging resource	
Common Sandpiper	Actitis Hypoleucos		

Table 2-2 EPBC Listed Migratory species - Conservation Significant Bird species which may potentially frequent the Site

Matters of National Environmer	ntal Significa	ınce – Migra	tory Species	
Species	JAMBA	CAMBA	ROKAMBA	Potential to Occur on Site
Apus pacificus Fork-tailed Swift	1	✓	✓	Site represents potential habitat.
Ardea alba Great Egret, White Egret	✓	✓		Supratidal flat is likely to provide an occasional foraging resource
Ardea ibis Cattle Egret	✓			Supratidal flat is likely to provide an occasional foraging resource
Ardea sacra Eastern reef heron		✓		Supratidal flat is likely to provide an occasional foraging resource
<i>Arenaria interpres interpres</i> Ruddy turnstone	*	✓	✓	Supratidal flat is likely to provide an occasional foraging resource
Calidris acuminata Sharp-tailed sandpiper	✓	1	✓	Supratidal flat is likely to provide an occasional foraging resource
<i>Calidris alba</i> Sanderling	✓	✓	*	Supratidal flat is likely to provide an occasional foraging resource
Calidris canutus rogersi Red knot	✓	√	✓	Supratidal flat is likely to provide an occasional foraging resource
Calidris ferruginea Curlew sandpiper	✓	✓	*	Supratidal flat is likely to provide an occasional foraging resource
Calidris ruficollis Red-necked stint	✓	1	V	Supratidal flat is likely to provide an occasional foraging resource
Calidris subminuta Long-toed stint	✓	1	V	Supratidal flat is likely to provide an occasional foraging resource
Calidris tenuirostris Great knot	✓	✓	✓	Supratidal flat is likely to provide an occasional foraging resource
Charadrius I. leschenaultii Great sand plover	✓	✓	√	Supratidal flat is likely to provide an occasional foraging resource
Charadrius mongolus Lesser sand plover	✓	✓	√	Supratidal flat is likely to provide an occasional foraging resource
Charadrius veredus Oriental Plover, Oriental Dotterel			√	Supratidal flat is likely to provide an occasional foraging resource
Cuculus saturatus optatus Oriental cuckoo	*	√		Site represents potential habitat.
<i>Fregata ariel</i> Lesser frigatebird	✓	√	✓	Site represents potential habitat.
<i>Gallinago stenura</i> Pín-tailed snipe	1	✓	✓	Supratidal flat is likely to provide an occasional foraging resource



Matters of National Environmen	ntal Significa	nce – Migra	iory Species	
Species	JAMBA	CAMBA	ROKAMBA	Potential to Occur on Site
Glareola maldivarum Oriental Pratincole	✓	✓		Site represents potential habitat.
<i>Haliaeetus leucogaster</i> White-bellied sea-eagle		✓		Site represents potential habitat.
<i>Hirundo rustica</i> Barn Swallow		✓	✓	Site represents potential habitat.
Limicola falcinellus Broad-billed sandpiper	✓	✓	✓	Supratidal flat is likely to provide an occasional foraging resource
<i>Limosa lapponica menzbieri</i> Bar-tailed godwit	✓	✓	✓	Supratidal flat is likely to provide an occasional foraging resource
Macronectes giganteus Southern Giant Petrel	1			Supratidal flat is likely to provide an occasional foraging resource
<i>Merops ornatus</i> Rainbow Bee-eater				Recorded on site.
Numenius madagascariensis Eastern curlew	✓	✓	✓	Supratidal flat is likely to provide an occasional foraging resource
<i>Numenius minutus</i> Little curlew	✓		✓	Supratidal flat is likely to provide an occasional foraging resource
Numenius minutus Little Curlew, Little Whimbrel	1	√	✓	Supratidal flat is likely to provide an occasional foraging resource
Numenius phaeopus variegatus Whimbrel	√	√ .	✓	Supratidal flat is likely to provide an occasional foraging resource
Oceanites oceanicus Wilson's storm petrel	√			Supratidal flat is likely to provide an occasional foraging resource
Phalaropus lobatus Red-necked phalarope	1	✓	1	Site represents potential habitat.
Pluvialis squatarola Grey plover	✓	✓	✓	Supratidal flat is likely to provide an occasional foraging resource
Puffinus pacificus Wedge-tailed shearwater	√			Supratidal flat is likely to provide an occasional foraging resource
Sterna anaethetus Bridled tern	1	✓		Supratidal flat is likely to provide an occasional foraging resource
Sterna bengalensis Lesser crested		✓		Supratidal flat is likely to provide an occasional foraging resource
Stema bergii Crested tern	✓			Supratidal flat is likely to provide an occasional foraging resource
Stema caspia Caspian tern		✓		Supratidal flat is likely to provide an occasional foraging resource
Stema hirundo Common tern	√	✓	✓	Supratidal flat is likely to provide an occasional foraging resource
Stema leucoptera White-winged black tern	✓	✓	✓	Supratidal flat is likely to provide an occasional foraging resource
Sula leucogaster plotus Brown booby	✓ .	✓	✓	Supratidal flat is likely to provide an occasional foraging resource
Tringa brevipes Grey-tailed tattler	✓	✓	~	Supratidal flat is likely to provide an occasional foraging resource
Tringa cinerea Terek sandpiper	✓	✓	~	Supratidal flat is likely to provide an occasional foraging resource
Tringa hypoleucos Common sandpiper	✓	✓	✓	Recorded on site.



Matters of National Environmental Significance – Migratory Species				Potential to Occur on Site	
Species	JAMBA	CAMBA	ROKAMBA	Potential to Occur on Site	
Tringa nebularia Common greenshank	✓	✓		Recorded on site	
Tringa stagnatilis Marsh sandpiper	✓	✓		Supratidal flat is likely to provide an occasional foraging resource	

Table 2-3 WC Act Listed Species - Conservation Significant Bird species which have the potential to occur within the Site

Species Name	Common Name	Conservation WC Act	Habitat Requirements	Habitat Potential of the Site?
Falco peregrinus	Peregrine Falcon	S4	Nests on cliffs, crevice or large tree hollow. Occurs in a variety of environments including wetlands, plains and timbered watercourses (Pizzey & Knight 1997).	Site represents potential foraging habitat.
Ardeotis australis	Australian Bustard	P4	Grasslands, open shrublands and open scrublands. Species is relatively common away from settled areas (Pizzey & Knight 1997).	Species not previously recorded within the site or adjacent BNPL site.
Burhinus grallarius	Bush Stonecurlew	P4	Open woodland, coastal scrub and mangrove fringes (Pizzey & Knight 1997).	Species not previously recorded within the site or adjacent BNPL site.
Numenius Madagascariensis	Eastern Curlew	P4	Tidal mudflats, saltmarses and grasslands near water (Pizzey & Knight 1997).	Site represents potential habitat.
Phaps histrionica	Flock Bronzewing	P4	Flooded claypans, watercourses and treeless grassy plains, nest on the ground by low bush or tussock.	Site represents potential habitat.

WC Act Conservation Status:

S1 = Fauna that is rare or likely to become extinct. S4 = Fauna that is in need of special protection.

P1 = Taxa with few, poorly known populations on threatened lands. P4 = Taxa in need of monitoring.



2.3 Bird Survey on TANPF Site

ERM conducted a fauna survey (PER, Annex J) of Site D within the King Bay Hearson Cove Industrial Precinct on the Burrup Peninsula. The bird fauna observed is shown in Table 2-4.

The TANPF and temporary laydown areas had result in the removal of approximately 49 Ha of occasional foraging habitat associated with the supra-tidal flat. Areas of habitat would continue to exist to the south and west of the TANPF.

As such, the TANPF development is supposed to have implied the habitat loss of the migratory species now considered not having the potential to utilize the Site. Refer to the Public Environmental Review (PER).

Table 2-4 Bird Species Observed on Site

Species Name	Common Name		
Birds			
Phaps chalcoptera	Common Bronze-wing Pigeon		
Geopelia cuneata	Diamond Dove		
Grallina cyanoleuca	Magpie Lark		
Coracina novaehollandiae	Black-faced Cuckoo Shrike		
Lichenostomus virescens	Singing Honeyeater		
Larus novaehollandiae	Silver Gull		
Himantopus himantopus	Black-winged Stilt*		
Tringa nebularia	Common Greenshank*		
Charadrius ruficapillus	Red-capped Plover*		
Egretta garzetta	Little Egret		
Sterna caspia	Caspian Tern		
Megalurus timoriensis	Tawny Grassbird		
Hirundo neoxena	Welcome Swallow		
Artamus cinereus	Blackfaced Woodswalow		
Hieraaetus morphnoides	Little Eagle*		
Merops ornatus	Rainbow Bee-eater*		
Egretta novaehollandiae	Whitefaced Heron		
Nycticorax caledonicus	Nankeen Night Heron		
Malurus lamberti	Variegated Fairy-wren		
Actitis Hypoleucos	Common Sandpiper*		

(*): EPBC Listed Migratory species - Conservation Significant Bird species



3. BIRD CONTROL METHODS IDENTIFICATION AND ASSESSMENT

3.1 Identification of Bird Deterrent Methods

The following available methods to deter birds have been identified:

- Physical Bird Control: Wire system, Bird Control Spikes, Bird Spiders, Hydroblast, Netting/Mesh.
- Electrical/Electronic Bid Controls: Audible Bird Control, Non Audible Bird Control Visual Bird Control, electrifier wire.
- Chemical Bird Controls (gels, avicides, fogging agents, etc.).

3.2 Assessment of Bird Deterrent Methods

Generally, all of the methods above listed have limited effectiveness requiring to carry out a decision making process to select a suitable bird deterrent system. Issues of installation and associated costs limit the choices even further. The factors considered when selecting a bird deterrent system for the ponds include the following:

- Bird species (including size, behaviour and habits);
- Bird Control effectiveness.
- · Environmentally safe;
- Installation and Maintenance;
- Number and size of ponds,

A netting system has been discarded as an accurate installation to be effective is very difficult, time consuming and expensive due to size of the contaminated ponds. Because of the big of the ponds (e.g. 3,000 m2), bridges are needed to be able to tension and support the mesh hence this is a huge impact that does not justify the purposes. Netting systems requires a difficult netting clean and maintenance. Chemical control, electrifier wirer and spikes are discarded due to the occupational health and safety regulations restrictions and potential harm to people, fauna and environment.

Sound bird control devices have been discarded due to the noise pollution originated: distress signals are generally very loud, thus disturbing the human inhabitants as well. There is also a possibility of habituation towards the noise. The effects are temporary in that birds may return after the distress signal is turned off. The 'silent' ultrasonic repellents were considered at first instance taking into account the following applications and advantages: effective against most species of birds identified under Table 2-4, eco-friendly ('green'), environmentally safe, non-toxic and non-harmful, easy to install, low clean-up and repair costs and acoustic environment for customers and employees. Nevertheless suppliers have recognised that ultrasonic device as their range and affect is limited outdoors, and are ineffective on many bird types or species become habituated to the devices over time.

Following recommendations from Department of Parks and Wildlife - Pilbara Region, YPNPL has investigated further other methods already implemented as modifying the surface banks to make them less desirable to shorebirds (e.g. covering the banks with rocks to prevent nesting and foraging in the mud), or the installation of non-electrified string lines parallel across the ponds to prevent birds from landing or entering the water. Trials at BHP's Olympic dam have been successful in using string lines hand effectiveness have been investigated by YPNPL. The BHP Billiton Olympic Dam project identified the suspension of parallel overhead wires above the evaporation ponds as a potential option to restrict wildlife interaction with the TRS. To test the effectiveness of this approach a trial was undertaken at a local waterbody. A series of wires/lines 1m above the water surface were installed on it for a period of three weeks, during that time the spacing between the lines was tested at different intervals (5m, 7m and 10m). The trial concluded that lines spaced at 5m intervals are capable of reducing the presence of waterfowl by 99.2%.

In addition, Department of Parks and Wildlife - Pilbara Region recommends that YPNPL should commit to a monitoring program being developed and undertaken, to measure the effectiveness of the deterrent devices on the presence and abundance of bird species over time. If monitoring systems detect no effect of the method (deviations to targets in reducing the number of listed migratory birds lost), or a reduction in effectiveness is noted over time then other methods should be considered and implemented whether in combination or in rotation.



4. NUMBER OF BIRD DETERRENT DEVICES AT TANPF'S

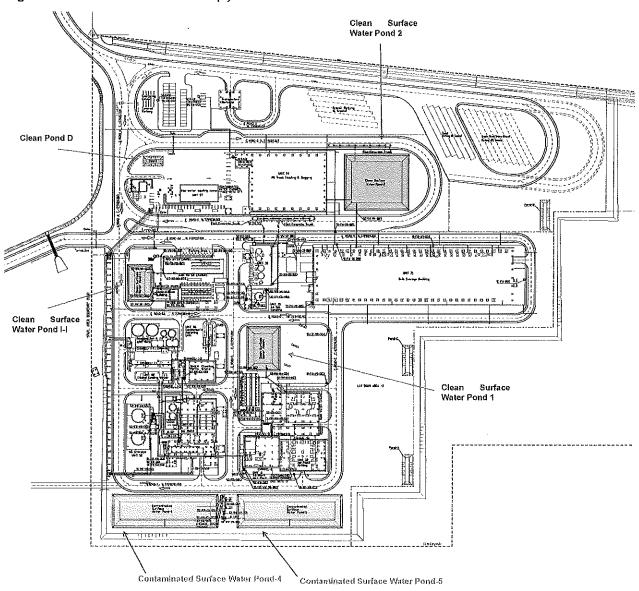
Based on the assessment undertaken under section 3.2 and recommendations made from Department of Parks and Wildlife - Pilbara Region, the methods considered to deter birds method from entering the contaminated water pond, clean water pond and sewerage wastewater treatment station evaporation pond are described in Table 4-1.

Table 4-1 Bird Deterrent Method (s) implemented on Site

·	Civil Drawing	Pond Dimension East-West	Pond Dimension North- South	Pond Surface	Bird Deterrent Method Measures
Clean Pond D	2-300-329-DWG- TRE-2964	20 m	10 m	200 m2	- Parallel overhead wire lines spaced at 5 m and 1 m above water surface - Weekly monitoring program
Clean Surface Water Pond I-I	2-300-329-DWG- TRE-2964	20,8 m	32,8 m	662.4 m2	-Parallel overhead wire lines spaced at 5 m and 1 m above water surface - Weekly monitoring program
Clean Water Surface Pond-1	2-300-329-DWG- TRE-2964	32,9 m	42,35 m	1,393.31 m2	- Parallel overhead wire lines spaced at 5 m and 1 m above water surface - Weekly monitoring program
Clean Water Surface Pond-2	2-300-329-DWG- TRE-2964	60,8 m	51,3 m	3,119.04 m2	- Parallel overhead wire lines spaced at 5 m and 1 m above water surface - Weekly monitoring program
Contaminated Surface Water Pond-4	2-300-329-DWG- TRE-2962	99,8 m	29 m	2,894.2 m2	- Parallel overhead wire lines spaced at 5 m and 1 m above water surface - Weekly monitoring program



Figure 4-1 Bird Deterrent Method (s) Location on Site





WIRE LINE SYSTEM TECHNICAL DETAILS

Stealth

HVAC • Gridwire

HVAC Netting System

HVAC units provide blids with sheller (underneath the units), and a high perch to check out food and other opportunities (on top of the units).

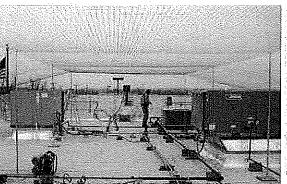
Aboftop units can be difficult to protect. Installers generally screen off the bottoms, and put Daddi Long Legs on the top. The units need to be accessed for maintenance, and building coviners generally don't like holes drilled in their roofs.

Our HVAC protection system offers many unique features:

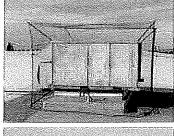
- System protects top and space below the unit
- Corner Stand-off brackets raise net well above unit.
- Brackets keep net away from the sides of the unit as well
- Brackets can usually mount to unit without screws
- Weighted hose secures to roof, no fasteners or holes necessary
- Hose can be lifted up for repair access
- installed using most standard Bird Barrier Items (StealthNet, cable, net-rings, tools etc.)
- Zippers can be installed for smaller access, or as pipes and other obstructions demand

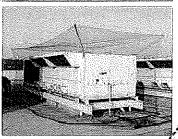
Stand-off Bracket, 241 HV-S024 168770 Stand-off Bracket, 48° HV-5048 NR-WR26 115440 Welghted Hose, 26 ft.

Bird Barrier provides an online NVAC Calculator that will generate a list of the materials you need and the cost for each. www.birdbarrier.com



The telescopic support poles allow netting to be installed securely over the heads of workers and equipment.





Telescoping Support Poles

These poles can be used to build raised netting systems The poles can be used to keep the center cable higher (like a tent), or to raise a whole net system above a flat roof, or a roof covered with HVAC equipment.

The top of the pole has four holes designed to accommodate both perimater net cable and turnbookles. This flexibility allows the pole to accommodate a wide range of possible installations. The bolts half-way-up the poles can be loosened to adjust the poles to the perfect height. By tensioning the cables equally in each direction, the flat base will simply sit in place. Protective neoprene pads insure no damage is done to the roof. Extend poles from 4.5 ft. to 8 ft. Each pole includes one protective pad.

HV-PO4 731748 HV-PAD12 732729 Pole Cable Support, 4'5'-8' Protective Pad

Gridwire®

Gridwire or polyethylene Florescent GridTwine (more visible to birds) can be suspended in various horizontal and vertical patterns to deter large aquatic birds. Grid spacings are site and species specific. You can protect lakes, parking lots, warehouse roofs, etc. from gulls, geese and other large aquatic birds:

TN-R100

GW-WX77

GW-WX96

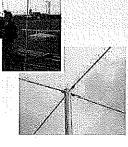
GW-T100

HV-PO4

5/64' Copper Ferrules for Gridwire (100) NG N1160 5/64' Open Copper Ferrules (100) GW-C100 Ratchet Orimping Tool ,77 nm SS Gridwire 600 ft. .98 mm SS Gridwire 600 ft. Flunescent Grid Wine WSS, 1,000 ft Pole Cable Support (see above)









Orange Gridskre villh two strands of SS wire for added longevity.

645108

638178

651434

052272

731743

22 800-503-5444 · www.birdbarrier.com

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Yours sincerely,

Yara Pilbara Nitrates Pty. Ltd.

Rajan Sinha

Technical Services & Business Development Manager



06-10-2016 500-200-ACR-YPN-0003 Rev 0

Attachment 6C

Photograph of bird deterrent lines across site water pond





06-10-2016 500-200-ACR-YPN-0003 Rev 0

Attachment 7A

Letter from SEWPAC, dated 22 November 2012, approving CEMP, HMMP and ERMP.



Our reference: 2012/08279

Contact Officer: Sam Wagstaff

Telephone: (02) 6274 2741 Facsimile: (02) 6274 1878

Email: post.approvals@environment.gov.au

Mr Wolfgang Jovanovic
Director – Corporate and Company Secretary
Yara Pilbara Nitrates Pty Ltd
Level 5, 182 St Georges Terrace
PERTH WA 6000

CC: Rajan Sinha, Deputy General Manager (TAN Project) Yara Pilbara Nitrates

Dear Mr Jovanovic

Burrup Nitrates Technical Ammonium Nitrate Facility (EPBC 2008/4546)

I refer to your request for approval of the Construction Environmental Management Plan (CEMP), Hazardous Materials Management Plan (HMMP) and Emergency Response Management Plan (ERMP), first received on 22 September 2012. As you are aware, these plans are required to be submitted for approval under condition 7(a) and 7(c) of the approval decision dated 14 September 2011.

The revised CEMP (Rev 2) has been reviewed by officers of the department and has been found to meet the requirements of condition 7(a). On this basis, and as delegate of the Minister for Sustainability, Environment, Water, Population and Communities I have decided to approve the Plan. The approved plan must be implemented.

Whilst the CEMP (Rev 2) has been approved, I note that there are some typographical and formatting errors in the document. These errors must be resolved before the CEMP is published online as per condition 14 of the approval decision. Please correspond with Sam Wagstaff to ensure this requirement is satisfactorily fulfilled.

The HMMP (Rev 1) and ERMP (Rev 1) have also been reviewed by officers of the department and have been found to meet the requirements of condition 7(c) in relation to construction activities. On this basis, and as delegate of the Minister, I have decided to approve these Plans. The approved plans must be implemented.

Please note that before commencement of operations (as defined in the approval instrument for EPBC 2008/4546), you will be required to revise the HMMP and ERMP in order to address management of operational activities. These plans must be re-approved prior to commencement of operations.

Following the installation of the chain mesh fencing as per condition 8(a) of the project approval, construction activities may commence in accordance with the approved plans.





If you have any further questions or enquiries, please contact Sam Wagstaff on (02) 6274 2741.

Yours sincerely

S. Craddes

Shane Gaddes

A/g Assistant Secretary

Compliance & Enforcement Branch

Environment Assessment and Compliance Division

22-November 2012

[·] Note: Under s 491 of the Environment Protection and Biodiversity Conservation Act 1999 it is an offence to knowingly provide false and/or misleading information to a departmental officer.



06-10-2016 500-200-ACR-YPN-0003 Rev 0

Attachment 7B

Letter from SEWPAC, dated 24 October 2012, approving AHMP.



Australian Government

Department of Sustainability, Environment, Water, Population and Communities

Our reference: 2012/08279

Contact Officer: Sam Wagstaff

Telephone: (02) 6274 2741 Facsimile: (02) 6274 1878

Email: post.approvals@environment.gov.au

Mr Wolfgang Jovanovic
Director – Corporate and Company Secretary
Burrup Nitrates Pty Ltd
Level 5
182 St Georges Terrace
PERTH WA 6000

cc: Ms Barbara Rees - Kellie Hill Consulting

Dear Mr Jovanovic

Burrup Nitrates ammonium nitrate facility (EPBC 2008/4546)

I refer to your request for approval of the Aboriginal Heritage Management Plan (AHMP) revision 0.5. As you are aware, the AHMP is required to be submitted for approval under condition 7(c) of the approval decision dated 14 September 2011.

The AHMP has been reviewed by officers of the department and has been found to meet the requirements of condition 7(c). On this basis, and as delegate of the Minister for Sustainability, Environment, Water, Population and Communities I have decided to approve the Plan. The approved plan must be implemented.

You should note that under your conditions of approval the AHMP is one of a number of plans that are to be submitted to the Minister for approval. Construction (other than the fence specified in condition 8(a) and operation cannot begin until all of the relevant management plans mentioned in Condition 7 of the approval have been approved by the Minister.

If you have any further questions or enquiries, please contact Sam Wagstaff on (02) 6274 2741.

Yours sincerely

S Gaddes

Shane Gaddes

A/g Assistant Secretary

Compliance & Enforcement Branch

Environment Assessment and Compliance Division

24 October 2012







06-10-2016 500-200-ACR-YPN-0003 Rev 0

Attachment 7C:

Letter to DEE, dated 30 September 2015, submitting draft Operational Environmental Management Plan



Our Reference: 200-200-LET-EPA-0008

30 September 2015

Department of the Environment GPO Box 787 Canberra ACT 2601

Attention: Rochelle Tomkins, Assessment Officer

Dear Rochelle

YARA PILBARA NITRATES PTY LTD Operational Environmental Management Plan

Please find enclosed Yara Pilbara Nitrates Pty Ltd's (YPN) Operational Environmental Management Plan (OEMP) which has been developed by our environmental consultants, Strategen. The submission of this OEMP is in accordance with Condition 7b of Approval (EPBC 2008/4546) granted under the *Environment Protection and Biodiversity Conservation Act* 1999.

A detailed Construction Environmental Management Plan was prepared to manage relevant environmental aspects during construction and commissioning. The purpose of this OEMP is to ensure that YPN's environmental objectives are met during the operational phase of the technical ammonium nitrate (TAN) plant.

YPN's TAN plant will be operated in accordance with an operating licence to be granted under Part V of the Western Australian *Environment Protection Act 1986*. The operating licence will be issued by the Department of Environment Regulation following completion of commissioning under Works Approval (W4701/2010). It is intended that the OEMP be amended following granting of the operating licence to allow the incorporation of the conditions of the licence issued.



If you have any concerns, comments or queries with respect to the OEMP, please do not hesitate to contact either the undersigned on 08 9183 4112 or brian.howarth@yara.com or alternatively, Susan Giles the Environmental Superintendent on 08 9183 4167 or susan.giles@yara.com.

Yours sincerely

HESQ Manager

Yara Pilbara Nitrates Pty Ltd

C.C.

Hugh Lance

Officer

Office of Environmental Protection Authority

The Atrium

168 St Georges Terrace

Perth WA 6000



06-10-2016 500-200-ACR-YPN-0003 Rev 0

Attachment 9A

DER Letter for Commissioning

VARA

BURRUP TAN PROJECT TEAM

То

Fiona Roser (nee Esszig)
Senior Licensing Officer
Industry Regulation – Process Sector (Non-Metro)
Department of Environment Regulation
Lot 3 Mardie/Anderson Roads
PO Box 835
KARRATHA WA 6714

Date: 15/02/2016

Attn: Fiona Roser

Senior Licensing Officer

Subject: Notification to DER as per condition 5.2.1 of the Works Approval requires the commencement of commissioning

Dear Fiona,

Please refer to conditions of the granted Works Approval W4701/2010/1, under the Environmental Protection Act 1986.

With reference to condition 5.2.1 The Works Approval Holder, hereby notifies the Director in accordance with the notification requirements of table 5.2.1 of the Works Approval that commissioning is planned to start 22nd February 2016.

The Works Approval Holder certifies that commissioning will be undertaken in accordance with the commissioning plan approved under conditions in table 4.1.1 of the Works Approval.

We are sending further clarifications regarding the above as requested.

Please contact me if further clarification is required.

Yours sincerely,

Rajan Sinha

Technical Services & Business Development Manager

Yara Pilbara Nitrates Pty. Ltd.

Reselo