

CLARENCE CORRECTIONAL CENTRE



AIR QUALITY ENVIRONMENTAL CONTROL PLAN

DOCUMENT NO: JHG-NGCC-PLN-AQMP-021

Recommend Documents to be Read in Conjunction

This management procedure should be read in conjunction with the Environmental Management Plan (JHG-NGCC-PLN-EMP-005), Soil & Water ECP (JHG-NGCC-PLN-SWMP-23) and the Construction Noise and Vibration Management Plan (JHG-NGCC-PLN-NVMP-025).

Distribution

There are no restrictions on the distribution or circulation of this ECP within John Holland.

Revisions

Draft issues of this document shall be identified as Revision A, B, C etc. Upon initial issue (generally Contract Award) this shall be changed to a sequential number commencing at Revision 0. Revision numbers shall commence at Rev. 1, 2 etc.

DATE	REV	DETAILS	SECTION	PREPARED	REVIEWED	APPROVED
20/04/2017	A	Draft for Construction	All	A Harrington	J Braham	
09/06/2017	0	Issued for Construction	All	T Doyle	M Turner	D Magick
24/10/18	1	Annual review update	All	T Doyle	M Turner	P Cassel



1.0 Scope

This Environmental Control Plan is applicable to all construction phase works associated with the Clarence Correctional Centre project (John Holland and subcontractors).

2.0 Objectives

The objectives of this Air Quality Environmental Control Plan are to

- Minimise dust generation and any other potential air quality impacts as a result of construction activities;
- Implement proactive measures to mitigate impacts at the source, path and receptor to minimise complaints from sensitive receivers;
- Identify and where possible, minimise greenhouse gas (GHG) emissions resulting from construction activities;
- Record and report National Greenhouse and Energy Reporting (NGER) data associated with the project;
- Manage potential air quality issues so they are identified and controlled to meet legislative requirements;
- Trees not approved for removal are to be protected at all times during construction.

3.0 Project Details:

3.1 Performance Criteria:

1. No validated complaints as a result of airborne dust, odour or other contaminants, and impact to air quality.
2. No damage to trees located within the site, marked for protection / retention during construction works.
3. Corrective action in response to any complaint occurs within 48 hours following the receipt of a complaint.
4. NGER data from all material subcontractors and site operations is collected and recorded.
5. NGER subcontractor data refusals collected and recorded.

3.2 Air Quality Criteria:**

Pollutant	Annual Concentration		Source
Deposited Dust *	2g / m ² / month ^^	4g / m ² / month ^	NERDCC (1998)

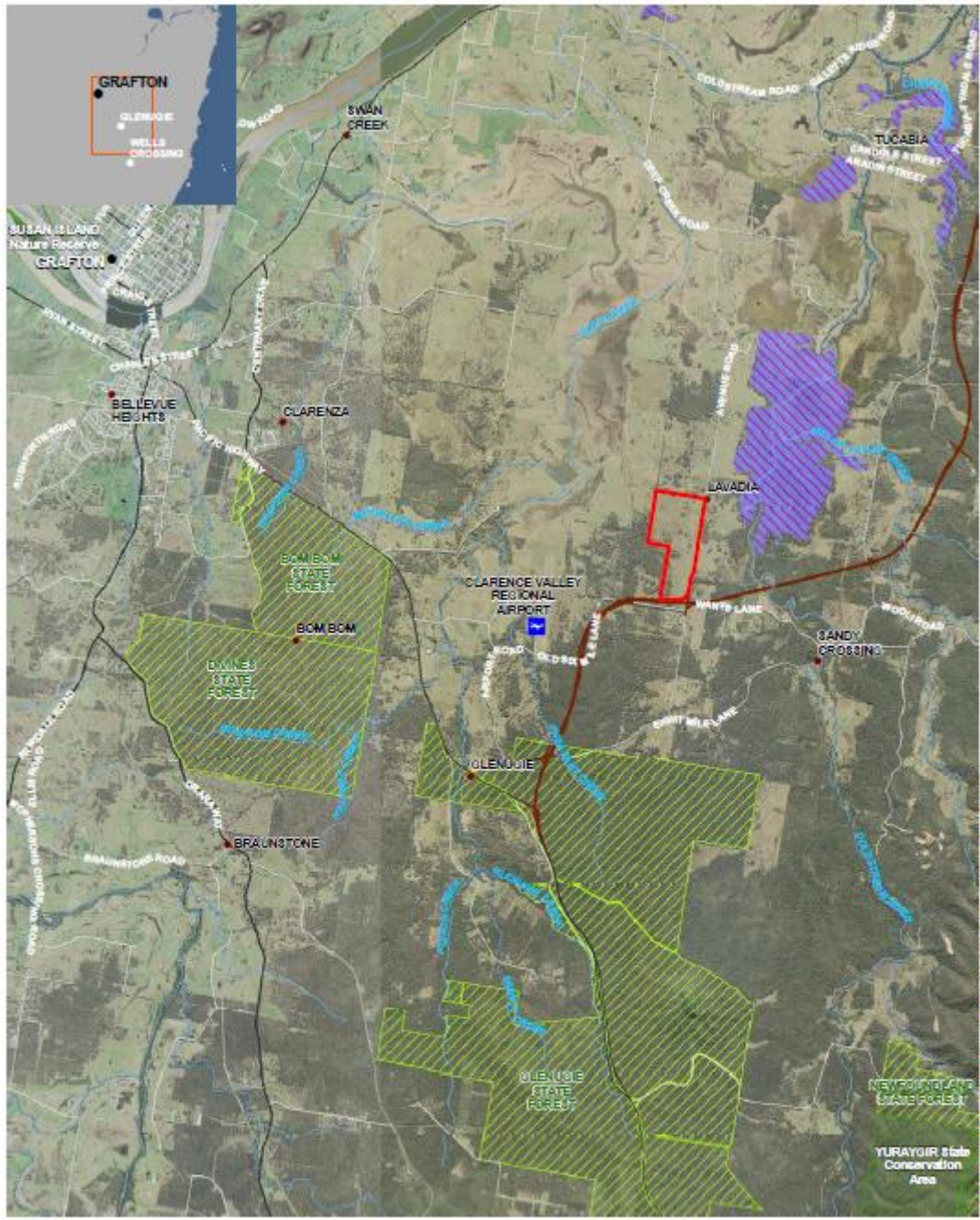
**Adapted from DECCW guideline; Approved Methods for the Modelling and Assessment of Air Pollutants in NSW (DECCW 2005)

*Dust is assessed as insoluble solids as defined by AS/NZS 3580.10.1:2016 Methods for Sampling and Analysis of Ambient Air – determination of particulate matter – deposited matter – gravimetric method

^^Maximum increase in deposited dust level

^Maximum total deposited dust level

3.2 Project Location & Sensitive Receiver Maps



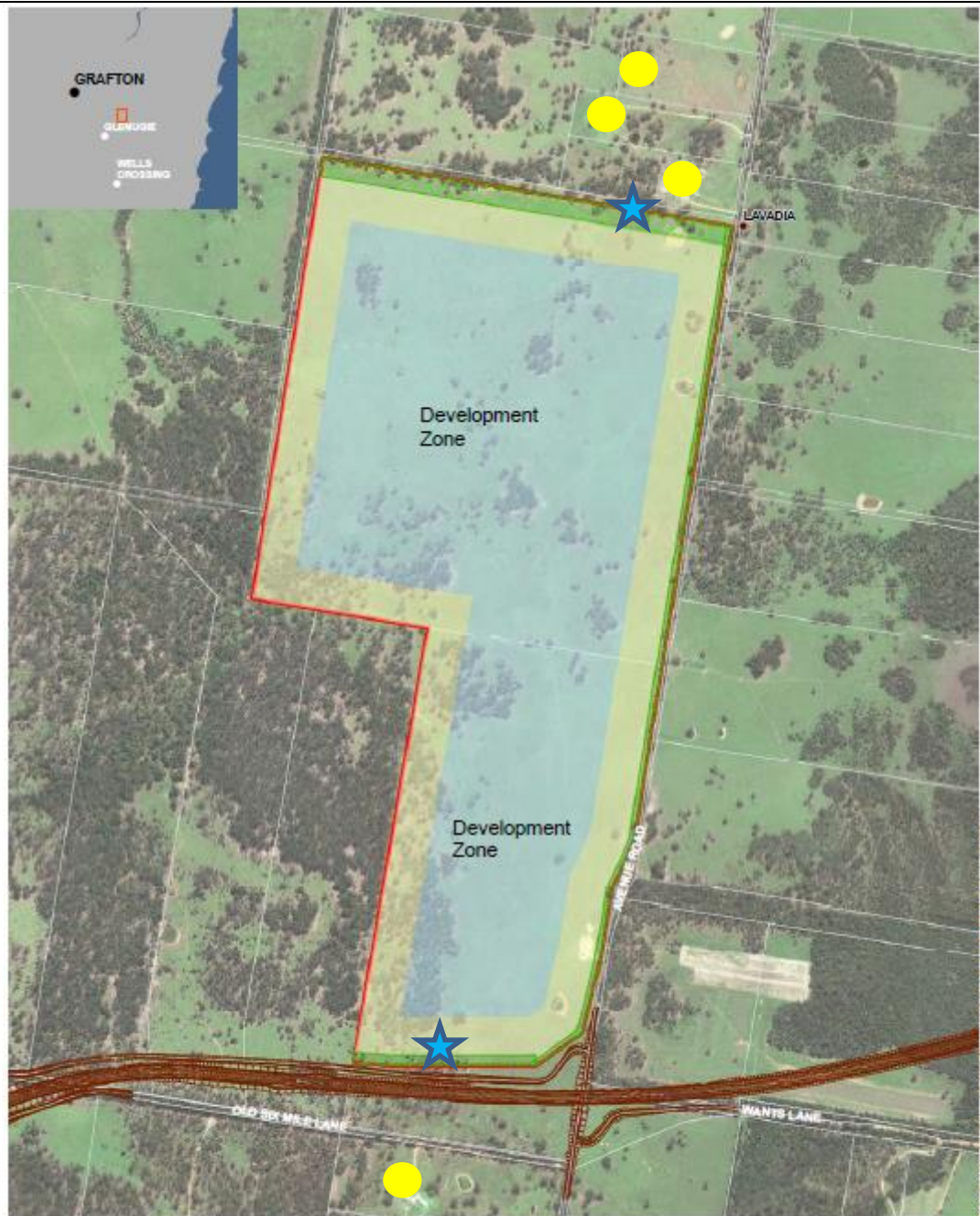
Legend

- The Project
- Grafton Bypass (proposed)
- SEPP 14 Wetlands
- National Park Reserves
- State Forests



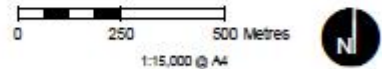
Figure 1-1 | Regional Locality

Data sources
 Jacobs 2015
 LPI 2015
 NSW DPE 2015
 RMS 2013 (W2B Alliance)



Legend

- The Project
- Landscaping zone
- Dust deposition gauge location
- Asset Protection Zone
- Development Zone
- Grafton Bypass (proposed)
- Sensitive receiver location



Data sources
 Jacobs 2015
 LPI 2015
 NSW DPE 2015
 RMS 2013 (W2B Alliance)

Figure 1-3 | The Project



4.0 References

4.1 Legislation and Guidance Documentation

Federal Legislation	State legislation	Local Government Laws	Standards / Codes	Other Documentation
1. National Greenhouse and Energy Report Act 2007 2. National Greenhouse and Energy Reporting Regulation 2008.	1. Protection of the Environment Operations Act 1997 (NSW) 2. Protection of the Environment Operations (Clean Air) Regulations 2010 (NSW) 3. National Environment Protection (Ambient Air Quality) Measure (Ambient Air Quality NEPM, 2016).	n/a.	1. AS/NZS 3580.1.1:2007 Methods for Sampling and Analysis of ambient air – guide to siting air monitoring equipment 2. Approved Methods for the Sampling and Analysis of Air Pollutants (January 2007) 3. Approved Methods for the Modelling and Assessment of Air Pollutants in New South Wales (2016) 4. Australian Standard AS 4282 (INT) – Control of Obtrusive Effects of Outdoor Lighting. 5. Australian Standard 4970 Protection of Trees on Development Sites.	1. Construction Environmental Management Plan (EMP) 2. Soil and Water ECP 3. Construction Noise and Vibration Management Plan 4. Site Environment Plan (SEP) 5. JH Safety Quality and Environment Risk Management Procedure 6. NGCC Environmental Impact Assessment (Concept Design and Stage 1) prepared by INSW dated August 2016 7. State Significant Development approval, SSD_7413 8. Preliminary Construction Environmental Management Plan prepared by Jacobs dated August 2016.

4.2 Definitions & Abbreviations:

<ul style="list-style-type: none"> • INSW – Infrastructure New South Wales • Northern Pathways – Project Co (Client) • JH – John Holland • PD – Project Director • SM – Site Manager / Super Intendant • FM – Foreman / Supervisor • PER – Project Environmental Representative • WRA – Workplace Risk Assessment 	<ul style="list-style-type: none"> • AMS – Activity Method Statement • TRA – Task Risk Assessment • SEP – Site Environmental Plan • EMP – Environmental Management Plan • ECP – Environmental Control Plan • EPA – Environmental Protection Authority • OEHL – Office of Environment and Heritage
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5.0 Air Quality & Visual Amenity Management			
5.1 Actions			
	General	Staff Responsible	When
	During the project, all reasonable and feasible measures will be implemented to minimise dust generation.	All Staff	At all times
	Design haul roads to minimise the need for reversing and unnecessary movement onsite.	PM / SM	At site set up
	All construction personnel to be made aware of potential air quality and visual amenity problems and relevant techniques to minimise adverse effects at site induction.	PER	At induction
	Burning of materials and/or rubbish is not permitted on site.	All Staff	At all times
	Maximise distances from residences / sensitive receivers where possible.	PM / SM	At all times
	Plant and Equipment	Staff Responsible	When
	All plant and equipment to undergo a Plant Hazard Assessment (PHA's) prior to gaining access to the site.	SM / FM	At all times
	Plant and equipment is to be regularly inspected and maintained to ensure it is running optimally. Use Pre-start Checks and Log Books as appropriate to record and determine suitability of inspection and maintenance.	SM / FM	At all times
	Unless otherwise specified or approved by the appropriate authority, plant and equipment shall not be started up or left operating during audible working hours unnecessarily.	SM / FM	At all times
	Haulage and delivery vehicles shall be confined to designated roadways within the works area. <ul style="list-style-type: none"> All loads to be covered during haulage off site. All vehicles including trailers shall be fitted with an effective seal on their tailgate. 	FM	At all times
	All plant and equipment (including trucks) are to minimise the amount of idling and shall be turned off (or throttled down if appropriate) when not in use.	FM	At all times
	Dust Control Measures	Staff Responsible	When
	A stabilised site entry / egress point shall be established for the duration of the works.	SM / PER	At all times
	Public roads adjacent to site entry / egress to be kept free of soil or mud build up as a result of construction. Road surfaces shall be cleaned as appropriate for the road conditions.	FM / PER	At all times
	Airborne dust to be kept to a minimum through the use of dust suppression as appropriate, including but not limited to; <ul style="list-style-type: none"> Wetting of stockpiles; Targeted dust suppression/wetting for specific activities. (e.g. loading of trucks, excavation). 	FM / PER	At all times



	Should they be established onsite, long term stockpiles (storage greater than 10 days) shall be stabilised or covered. Suitability of coverings shall be assessed on a case by case basis taking into consideration the material stockpiled and the intended duration.	FM / PER	At all times
	Minimise disturbance to surfaces at risk from wind erosion: <ul style="list-style-type: none"> • Avoid / cease activities likely to produce dust during hot / windy conditions (visual determination based on intended activity); • Maintain landscaped areas to avoid or minimize areas of exposed soil; • Wet down or cover exposed areas. 	SM / FM	At all times
	Temporary construction fence shall be erected on the boundaries.	PM / SM	Before construction activities
	Sealing and/or re-vegetation of disturbed areas to occur as soon as possible after completion of construction works.	PM / SM	Following construction activities
	Where practical, vegetation planting shall be completed as soon as possible to reduce the visual impact of the construction works and minimise dust and erosion. Any vegetation planted will comply with the approved species as specified by the Client.	PM / SM	As soon as possible following completion of works.
	National Greenhouse and Energy Reporting (NGER)	Staff Responsible	When
	All subcontractors shall provide to JH their monthly energy, fuel and waste data (accompanied by dockets / receipts as evidence of actual volumes / quantities) in accordance with the requirements specified in their subcontract agreements.	All subcontractors	Monthly
	All JH and Subcontractor NGER records to be obtained monthly and entered into the Lotus Notes Project Pack.	Project Administrator / PER	Monthly
	Odour	Staff Responsible	When
	The project will ensure that the carrying out of works does not cause or permit the emission of offensive odours from the site, as defined under Section 129 of the POEO Act.	All Staff	At all times
5.2 Monitoring			
No	Monitoring Required	Staff Responsible	When
	Public roads adjacent to site access / egress points shall be inspected daily for soil or mud build-up as a result of construction activities. Surfaces shall be cleaned as appropriate for the road conditions.	FM / PER	Daily
	Any excessive air quality or visual amenity issues shall be recorded on the Enviro Inspection Checklist. Informal daily observations to be recorded in site diaries – including consideration of weather conditions and certain activities with a high dust generation potential.	FM / PER	Weekly



	Dust deposition gauges shall be mounted along the site boundary at locations relevant to the Projects nearest sensitive receivers. These locations are identified in sections 3.2 of the ECP. These dust deposition gauges will be installed a minimum one (1) month prior to commencement of work to determine baseline dust levels for the project, prior to the commencement of construction activities.	SM / PER	As specified in Section 3.2 of this ECP
	Dust monitoring samples shall be retrieved monthly, with the samples sent to a NATA accredited lab for analysis and reporting.	PER	Monthly
	Should complaints be received, appropriate monitoring will be undertaken at a location relevant to the nearest sensitive receiver.	PER	Following receipt of a complaint

5.3 Reporting			
No	Reporting Required	Staff Responsible	When
	Details of field observations shall be reported via the Enviro Inspection Checklist, and communicated to all staff during pre-starts, toolbox and team meetings..	PER	All times
	All complaints / incidents regarding air quality and visual amenity shall be reported immediately to the PER.	All staff	Following incident/complaint
	The Project Director shall be notified immediately of all incidents and valid complaints. Relevant JH procedures for incidents and complaints handling reporting shall be followed.	PER	Following receipt of incident/complaint
	JH Operations HSE Team is to be immediately informed of any incident that has caused or is likely to cause material harm to the environment and will advise on the notification of relevant regulators and stakeholders (<i>As required by the Protection of the Environment Operations Act 1997</i>).	PD / PER	Following incident
	The JH Project Director shall notify the client of all significant incidents and valid complaints, verbally within 2 hours, and in writing within 24 hours.	PD	Verbally within 2 hours, and in writing within 24 hours
	A summary of monitoring results is to be provided monthly to the Project Director.	PD / PER	Monthly
	A summary of monitoring results is to be provided monthly to the client.	PD / PER	Monthly
	A summary of incidents and valid complaints shall be provided monthly to the client and include the actions that were taken to address the complaint.	PD / PER	Monthly
	In accordance with the Project Approval (SSD_7413), condition C9, JH shall make available to the public on its website, regular reporting on the environmental performance of the development, in accordance with the reporting arrangements in any plans approved under the conditions of the consent. The information shall be kept up to date.	PD	Throughout construction
	Capture and report NGER data on a monthly basis using the JH Subcontract Energy, Water and Waste Report (JH-FRM-ENV-002-01).	PER	Monthly

6.0 Suggested Corrective Actions	
Example	Suggested Corrective Action
Community query / complaint on dust levels	<ul style="list-style-type: none"> Investigate the complaint. Consulting with supervisors, operators, project engineers, construction manager.



	<ul style="list-style-type: none">• Visually monitor the site if the activity is still occurring.• Implement appropriate management and mitigation measures.• Summary of investigation and mitigation measures to be submitted to the Client.
Exceedence of air quality criteria	<ul style="list-style-type: none">• Where there is clearly a visual exceedence and impact of dust, cease dust generating activities. If exceedence is identified through dust reporting results, PER to inform SM.• SM / PER to determine the source of dust, stop work if necessary, identify appropriate alternative(s) and implement controls and/or mitigation measures.• Monitor the site visually and/or through reporting results to establish if the controls and/or mitigation measures are effective.• Where appropriate, exceedence and remediation methods implemented to be communicated to project team and wider work force.• Summary of exceedences to be submitted to the Client.