



Works Approval Number	W6112/2017/1
Works Approval Holder	BGC Contracting Pty Ltd & Laing O'Rourke Australia Construction Pty Ltd Trading As Great Northern Connect Joint Venture
Registered business address	Great Northern Connect Joint Venture Level 1 2 Metal Circuit MALAGA WA 6090
File Number	DER2017/002119
Duration	29/01/2018 to 29/01/2019
Date of issue	29/01/2018
Prescribed Premises	Category 12: Screening etc. of material
Premises	Sand Extraction and Screening Area B Lot 12848 on Plan 21245 ELLENBROOK WA 6069 As defined by the coordinates in Schedule 1

This Works Approval is granted to the Works Approval Holder, subject to the following conditions, on 29 January 2018, by:

Date signed: 29 January 2018

Timothy Gentle
MANAGER LICENSING (RESOURCE INDUSTRIES)

an officer delegated under section 20 of the *Environmental Protection Act 1986* (WA)

Explanatory notes

These explanatory notes do not form part of this Works Approval.

Defined terms

Definition of terms used in this Works Approval can be found at the start of this Works Approval. Terms which are defined have the first letter of each word capitalised throughout this Works Approval.

Department of Water and Environmental Regulation

The Department of Water and Environmental Regulation (DWER) is established under section 35 of the *Public Sector Management Act 1994* and designated as responsible for the administration of Part V, Division 3 of the *Environmental Protection Act 1986* (WA) (EP Act). The Department also monitors and audits compliance with licences and works approvals, takes enforcement action and develops and implements licensing and industry regulation policy.

Works Approval

Section 52 of the EP Act provides that an occupier of any premises commits an offence if any work is undertaken on, or in relation to, the premises which causes the premises to become, or to become capable of being, Prescribed Premises, except in accordance with a works approval.

Section 56 of the EP Act provides that an occupier of Prescribed Premises commits an offence if Emissions are caused or increased or permitted to be caused or increased, or Waste, noise, odour or electromagnetic radiation is altered or permitted to be altered from Prescribed Premises, except in accordance with a works approval or licence.

Categories of Prescribed Premises are defined in Schedule 1 of the *Environment Protection Regulations 1987* (WA) (EP Regulations).

This Works Approval does not authorise any activity which may be a breach of the requirements of another statutory authority including, but not limited to, the following:

- conditions imposed by the Minister for Environment under Part IV of the EP Act;
- conditions imposed by DWER for the clearing of native vegetation under Part V, Division 2 of the EP Act;
- any requirements under the *Waste Avoidance and Resource Recovery Act 2007*;
- any requirements under the *Environmental Protection (Controlled Waste) Regulations 2004*; and
- any other requirements specified through State legislation.

It is the responsibility of the Works Approval Holder to ensure that any action or activity referred to in this Works Approval is permitted by, and is carried out in compliance with, statutory requirements.

The Works Approval Holder must comply with the Works Approval. Contravening a Works Approval Condition is an offence under s.55 of the EP Act.

Responsibilities of Works Approval Holder

Separate to the requirements of this Works Approval, general obligations of Works Approval Holders are set out in the EP Act and the regulations made under the EP Act. For example, the Works Approval Holder must comply with the following provisions of the EP Act:

- the duties of an occupier under s.61; and

- restrictions on making certain changes to Prescribed Premises unless the changes are in accordance with a Works Approval, Licence, closure notice or environmental protection notice (s.53).

Strict penalties apply for offences under the EP Act.

Reporting of incidents

The Works Approval Holder has a duty to report to the Department all Discharges of Waste that have caused or are likely to cause Pollution, Material Environmental Harm or Serious Environmental Harm, in accordance with s.72 of the EP Act.

Offences and defences

The EP Act and its regulations set out a number of offences including:

- Offence of emitting an Unreasonable Emission from any Premises under s.49.
- Offence of causing Pollution under s.49.
- Offence of dumping Waste under s.49A.
- Offence of discharging Waste in circumstances likely to cause Pollution under s.50.
- Offence of causing Serious Environmental Harm (s.50A) or Material Environmental Harm (s.50B).
- Offence of causing Emissions which do not comply with prescribed standards (s.51).
- Offences relating to Emissions or Discharges under regulations prescribed under the EP Act, including materials discharged under the *Environmental Protection (Unauthorised Discharges) Regulations 2004 (WA)*.
- Offences relating to noise under the *Environmental Protection (Noise) Regulations 1997 (WA)*.

Section 53 of the EP Act provides that a Works Approval Holder commits an offence if Emissions are caused, or altered, from a Prescribed Premises unless done in accordance with a Works Approval, Licence or the requirements of a closure notice or an environmental protection notice.

Defences to certain offences may be available to a Works Approval Holder and these are set out in the EP Act. Section 74A(b)(iii) provides that it is a defence to an offence for causing Pollution, in respect of an Emission, or for causing Serious Environmental Harm or Material Environmental Harm, or for discharging or abandoning Waste in water to which the public has access, if the Works Approval Holder can prove that an Emission or Discharge occurred in accordance with a Works Approval.

This Works Approval specifies the Emissions and Discharges, and the limits and Conditions which must be satisfied in respect of specified Emissions and Discharges, in order for the defence to offence provision to be available.

Authorised Emissions and Discharges

The specified and general Emissions and Discharges from the Works authorised through this Works Approval are authorised to be conducted in accordance with the Conditions of this Works Approval.

Amendment of Works Approval

The Works Approval Holder can apply to amend the Conditions of this Works Approval under s.59 of the EP Act. An application form for this purpose is available from DWER.

The CEO may also amend the Conditions of this Works Approval at any time on the initiative

of the CEO without an application being made.

[Duration of Works Approval](#)

The Works Approval will remain in force for the duration set out on the first page of this Works Approval or until it is surrendered, suspended or revoked in accordance with s.59A of the EP Act.

[Suspension or revocation](#)

The CEO may suspend or revoke this Works Approval in accordance with s.59A of the EP Act.

Definitions and interpretation

Definitions

In this Works Approval, the terms in Table 1 have the meanings defined.

Table 1: Definitions

Term	Definition
Books	has the same meaning given to that term under the EP Act.
CEO	means Chief Executive Officer. CEO for the purposes of notification means: Director General Department Administering the <i>Environmental Protection Act 1986</i> Locked Bag 33 Cloisters Square PERTH WA 6850 info-der@dwer.wa.gov.au
Commissioning	means the process of operation and testing that verifies the works and all relevant systems, plant, machinery and equipment have been installed and are performing in accordance with the design specification set out in the works approval application.
Condition	means a condition to which this Works Approval is subject under s.62 of the EP Act.
Department	means the department established under section 35 of the <i>Public Sector Management Act 1994</i> and designated as responsible for the administration of Part V, Division 3 of the EP Act.
Department Request	means a request for Books or other sources of information to be produced, made by an Inspector or the CEO to the Works Approval Holder in writing and sent to the Works Approval's address for notifications, as described at the front of this Works Approval, in relation to: (a) compliance with the EP Act or this Works Approval; (b) the Books or other sources of information maintained in accordance with this Works Approval; or (c) the Books or other sources of information relating to Emissions from the Premises.
Discharge	has the same meaning given to that term under the EP Act.
DWER	Department of Water and Environmental Regulation.
Emission	has the same meaning given to that term under the EP Act.
Environmental Harm	has the same meaning given to that term under the EP Act.
EP Act	means the <i>Environmental Protection Act 1986</i> (WA).

EP Regulations	means the <i>Environmental Protection Regulations 1987</i> (WA).
Implementation Agreement or Decision	has the same meaning given to that term under the EP Act.
Inspector	means an inspector appointed by the CEO in accordance with s.88 of the EP Act.
Material Environmental Harm	has the same meaning given to that term under the EP Act.
Pollution	has the same meaning given to that term under the EP Act.
Premises	refers to the premises to which this Works Approval applies, as specified at the front of this Works Approval and as shown on the map in Schedule 1 to this Works Approval.
Prescribed Premises	has the same meaning given to that term under the EP Act.
Reportable Event	means an exceedance above the target limit specified in Column 4 of Table 6, in Schedule 3.
Serious Environmental Harm	has the same meaning given to that term under the EP Act.
Unreasonable Emission	has the same meaning given to that term under the EP Act.
Waste	has the same meaning given to that term under the EP Act.
Works	refers to the Works described in Schedule 2, at the locations shown in Schedule 1 of this Works Approval to be carried out at the Premises, subject to the Conditions.
Works Approval	refers to this document, which evidences the grant of the works approval by the CEO under s.54 of the EP Act, subject to the Conditions.
Works Approval Holder	refers to the occupier of the Premises being the person to whom this Works Approval has been granted, as specified at the front of this Works Approval.

Interpretation

In this Works Approval:

- (a) the words ‘including’, ‘includes’ and ‘include’ will be read as if followed by the words ‘without limitation’;
- (b) where any word or phrase is given a defined meaning, any other part of speech or other grammatical form of that word or phrase has a corresponding meaning;

- (c) where tables are used in a Condition, each row in a table constitutes a separate Condition;
- (d) any reference to an Australian or other standard, guideline or code of practice in this Works Approval means the version of the standard, guideline or code of practice in force at the time of granting of this Works Approval and includes any amendments to the standard, guideline or code of practice which may occur from time to time during the course of the Works Approval; and
- (e) unless specified otherwise, any reference to a section of an Act refers to that section of the EP Act.

Conditions

Infrastructure and equipment

1. The Works Approval Holder must install and undertake the Works for the infrastructure and equipment:
 - (a) specified in Column 1;
 - (b) to the requirements specified in Column 2;of Table 2 below.

Table 2: Infrastructure and equipment requirements table

Column 1	Column 2
Infrastructure/Equipment	Requirements (design and construction)
Mobile screening and conveyor stacking infrastructure: (Terex® Finlay 683 self-contained screening unit or equivalent)	Install screening and stacking infrastructure as per manufacturer's requirements.

Construction Compliance and Commissioning

2. Within 30 days of the installation of the screening and stacking infrastructure (as specified in Table 2) at the first location as shown in the premises map (Schedule 1) the Works Approval Holder must provide to the CEO written confirmation (including photographic evidence) that the screening and stacking equipment is of the type specified and has been installed as per manufacturer's requirements.
3. The compliance document specified in Condition 2 must be signed by a person authorised to represent the Works Approval Holder and contain the printed name and position of that person within the organisation.
4. Upon completion of the works specified in Column 1 of Table 2, the Works Approval Holder shall commission the Works specified in Column 1 of Table 2 for a period not exceeding 3 months.

Emissions

5. The Works Approval Holder must not cause any Emissions from the Works authorised through this Works Approval except for specified Emissions and general Emissions described in Column 1 of Table 3, subject to the exclusions, limitations or requirements specified in Column 2, of Table 3.

Table 3: Authorised Emissions table

Column 1	Column 2
Emission type	Exclusions/Limitations/Requirements
General Emissions (excluding Specified Emissions)	

Column 1	Column 2
Emission type	Exclusions/Limitations/Requirements
Emissions which arise from undertaking the Works set out in Schedule 2.	<p>Emissions excluded from General Emissions are:</p> <ul style="list-style-type: none"> • Unreasonable Emissions; or • Emissions that result in, or are likely to result in, Pollution, Material Environmental Harm or Serious Environmental Harm; or • Discharges of Waste in circumstances likely to cause Pollution; or • Emissions that result, or are likely to result in, the Discharge or abandonment of Waste in water to which the public has access; or • Emissions or Discharges which do not comply with an Approved Policy; or • Emissions or Discharges which do not comply with prescribed standard; or • Emissions or Discharges which do not comply with the conditions in an Implementation Agreement or Decision; or • Emissions or Discharges the subject of offences under regulations prescribed under the EP Act, including materials discharged under the <i>Environmental Protection (Unauthorised Discharges) Regulations 2004</i>.

Record-keeping

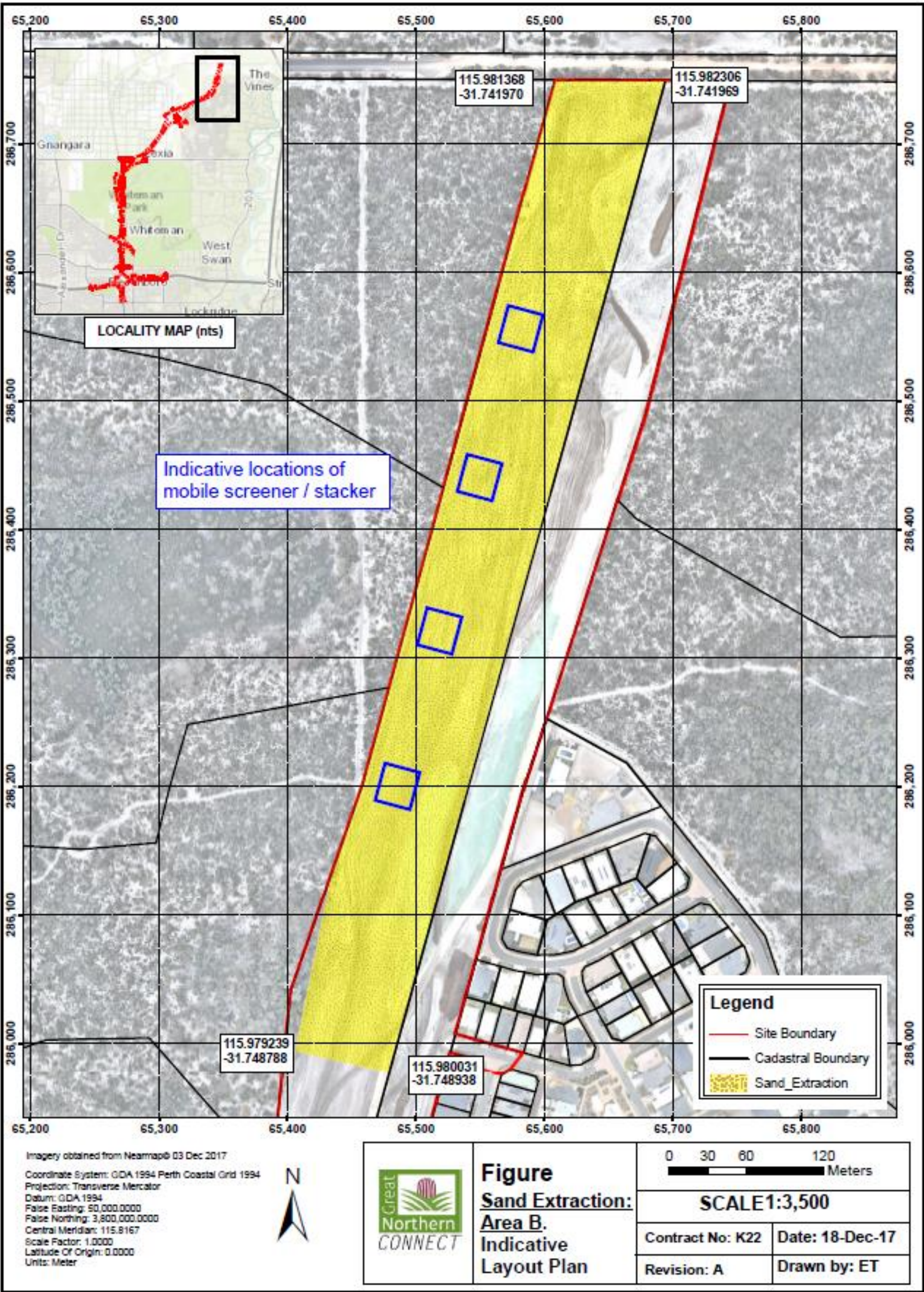
6. The Works Approval Holder must maintain accurate Books including information, reports and data in relation to the Works and the Books must:
- be legible;
 - if amended, be amended in such a ways that the original and subsequent amendments remain legible or are capable of retrieval;
 - be retained for at least 3 years from the date the Books were made;
 - be available to be produced to an Inspector or the CEO.

7. The Works Approval Holder must comply with a Department Request within 14 days from the date of the Department Request or such other period as agreed to by the Inspector or the CEO.

Schedule 1: Maps

Premises map

The Premises is shown in the map below. The yellow filled area depicts the prescribed premises.



Schedule 2: Works

At the time of assessment, Emissions and Discharges from the Works listed in Table 4 were considered in the determination of the risk and related Conditions for the Works Approval.

Table 4: Authorised Works

Works	Specifications/Drawings
Installation of mobile sand screening and stacking circuit	To be installed and operated as per locations indicated in Schedule 1



Application for Works Approval

Division 3, Part V *Environmental Protection Act 1986*

Works Approval Number W6112/2017/1

Applicant BGC Contracting Pty Ltd & Laing O'Rourke Australia
Construction Pty Ltd Trading As Great Northern Connect Joint
Venture

File Number DER2017/002119

Premises Sand Extraction and Screening Area B

Lot 12848 on Plan 21245

ELLENBROOK WA 6069

As defined by the coordinates in Schedule 1 of the Works
Approval

Date of Report 29 January 2018

Status of Report Final

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1. Definitions of terms and acronyms

In this Decision Report, the terms in Table 1 have the meanings defined.

Table 1: Definitions

Term	Definition
AHD	Australian Height Datum
Applicant	BGC Contracting Pty Ltd & Laing O'Rourke Australia Construction Pty Ltd Trading As Great Northern Connect Joint Venture
Category/ Categories/ Cat.	Categories of Prescribed Premises as set out in Schedule 1 of the EP Regulations
Decision Report	refers to this document.
Delegated Officer	an officer under section 20 of the EP Act.
Department	means the department established under section 35 of the <i>Public Sector Management Act 1994</i> and designated as responsible for the administration of Part V, Division 3 of the EP Act.
DWER	Department of Water and Environmental Regulation As of 1 July 2017, the Department of Environment Regulation (DER), the Office of the Environmental Protection Authority (OEPA) and the Department of Water (DoW) amalgamated to form the Department of Water and Environmental Regulation (DWER). DWER was established under section 35 of the <i>Public Sector Management Act 1994</i> and is responsible for the administration of the <i>Environmental Protection Act 1986</i> along with other legislation.
EP Act	<i>Environmental Protection Act 1986 (WA)</i>
EPBC Act	<i>Environment Protection and Biodiversity Conservation Act 1999 (Cth)</i>
EP Regulations	<i>Environmental Protection Regulations 1987 (WA)</i>
m ³	cubic metres
Prescribed Premises	has the same meaning given to that term under the EP Act.
Premises	refers to the premises to which this Decision Report applies, as specified at the front of this Decision Report
Risk Event	As described in <i>Guidance Statement: Risk Assessment</i>

2. Purpose and scope of assessment

On 8 December 2017, BGC Contracting Pty Ltd and Laing O'Rourke Australia Construction Pty Ltd, trading as Great Northern Connect Joint Venture, (the Applicant) submitted an Application (GNC 2017a) for Works Approval for a Prescribed Premises (Category 12 Screening of sand material) at Lot 12848 on Plan 21245 Ellenbrook, as part of works required for the Northern Link Central Section (NLCS) Project.

The NLCS Project forms part of the Perth-Darwin National Highway, currently under construction by Main Roads Western Australia and various contractors to reduce congestion and travel times between Morley and Muchea. The NLCS Project extends north from the intersection of Tonkin Highway and Reid Highway in Malaga through Whiteman Park to Gnangara Road, Lexia. The highway then deviates north-east through Gnangara-Moore River State Forest and borders the north-west of Ellenbrook, before proceeding in a generally northern orientation to Maralla Road north of Ellenbrook.

In the northern section of the NLCS, the road alignment traverses two areas that require significant cut (removal of sand) in order to maintain appropriate road grades.

As the sand to be removed represents a significant material resource, the Applicant, who is contracted by Main Roads to deliver the NLCS, is proposing (GNC 2017a and b) to install mobile sand screening plant at four locations along a small section of the NLCS to screen the sand for use in the road construction activities (manufacture of concrete, concrete noisewalls, asphalt and brickpavers etc.).

This Decision Report includes an assessment of potential environmental and public health impacts associated with construction and operation of the proposed sand screening works.

2.1 Application details

Table 2 lists the documents submitted during the assessment process.

Table 2: Documents and information submitted during the assessment process

Document/information description	Date received
Application Form: Category 12 Works Approval including: <ul style="list-style-type: none">• Attachment 1: Applicant Details;• Attachment 2: Premises Mapping;• Attachment 3: Proposed Activities;• Attachment 4: Other Approvals;• Attachment 7: Siting and Location;• Attachment 8: Other Relevant Information;• Attachment 9: Calculation of Fees; and• Attachment 10: Confidential Information (Commercial in Confidence)	8 December 2017
Additional Supporting Documentation (Electronic Mail) Subject: <i>Northern Link Central Section - application for works approval / licence - Category 12 Screening proposal - Great Northern Connect JV</i> Details (including attachments): Omission of screening area A from works approval application including updated maps.	18 December 2017
Additional Supporting Documentation (Electronic Mail) Subject: <i>Planning / Development Approval query</i> Details (including attachments): copy of Metro East Joint Development Assessment Panel – City of Swan – DAP Application DA-591/2016 Determination: Various Lots between Tonkin/Reid Highways Intersection and Maralla Road, Muchea Construction of Stage 2 of the Northlink WA Project	18 January 2018

3. Background

Table 3 lists the prescribed premises categories that have been applied for.

Table 3: Prescribed Premises Categories in the Existing Licence

Classification of Premises	Description	Approved Premises production or design capacity or throughput
Category 12	Screening etc. of material: premises (other than premises within category 5 or 8) on which material extracted from the ground is screened, washed, crushed, ground, milled, sized or separated.	411 000 tonnes per year

4. Overview of Premises

4.1 Operational aspects

The Applicant proposes to extract sand from two areas of the NLCS Project works and then screen and stockpile the extracted sand within one section of the NLCS Project area (Sand Extraction and Screening Area B (the Premises)) using mobile screening and stacking plant. The Applicant has advised that the sand screening operations will take approximately 12 months.

The operations and material stockpiling will occur on land within the NLCS road alignment, in areas previously cleared as part of the road construction works.

In summary, the current Application includes:

- Sand to be removed from two areas (Sand Areas A and B) of significant cut within NLCS alignment to maintain appropriate road grades;
- Sand to be screened on site (within Sand Extraction and Screening Area B) at approximately 1,500 tonnes per day and stockpiled using stacker for lot conformance testing;
- Sand to be loaded out using wheeled loaders and transported offsite post compliance verification and testing; and
- Sand to be used by BGC Australia in manufacture of concrete, concrete noisewalls, asphalt and brickpavers, or for additional fill as required for the NLCS project.

The expected quantity of sand to be screened and transported from the premises is:

- Sand Area A: approximately 50,000 m³ of manufacturing sand over approximately 8 weeks; and
- Sand Area B: approximately 300,000 m³ of manufacturing sand over approximately 45 weeks.

The screening operations are to be conducted under contract by Hanson Construction Materials Pty Ltd who operate the adjacent Hanson Silica sand operation at Gaskell Avenue.

4.2 Infrastructure

The infrastructure associated with Sand Extraction and Screening Area B, as it relates to Category 12 Screening activities, is detailed in Table 4 and with reference to the Site Plan (shown in Figure 1 and also Schedule 1 to the Works Approval).

Table 4 lists infrastructure associated with each prescribed premises category.

Table 4: Sand Extraction and Screening Area B Category 12 infrastructure

	Infrastructure	Site Plan Reference
	Prescribed Activity Category 12	
Screening of sand from Sand Extraction Areas A and B within the NLCS		
1	Screening Pads;	Figure 1
2	Stockpile Pads;	Figure 1
3	Screens and Conveyor Stackers: Terex® Finlay 683 self-contained screening unit; Horizontal Deck Screens;	Figure 1
4	Heavy and Light Vehicle Haul Roads; and	Not shown
5	Wheeled Loaders; D8 Dozer; 40 tonne articulated dump truck, Watercart, Haulage B-doubles.	Not shown

4.3 Exclusions to the Premises

It should be noted that the extraction of material from Sand Extraction Area A (as shown in Figure 2) does not form part of the prescribed premises which is delineated in Figure 1. The process of extracting sand (without screening) does not meet the definition of category 12 prescribed premises and as such, is not considered further in this Decision Report.

Sand from Sand Extraction Area A will be removed and transported to Sand Extraction and Screening Area B to be screened and stockpiled for use in the NLCS Project. This Decision Report considers the construction and operation of the proposed sand screening works at Sand Extraction and Screening Area B only.

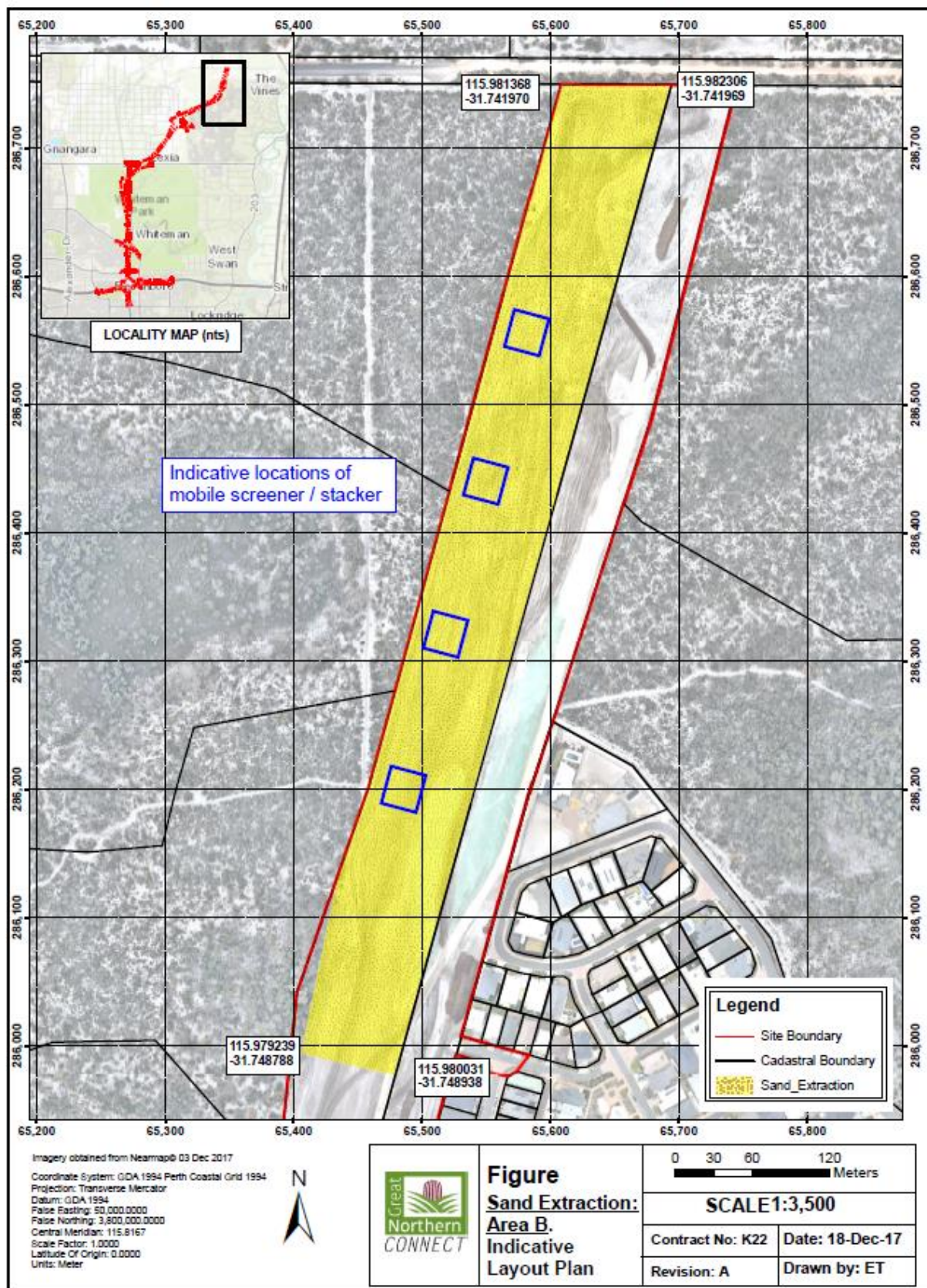


Figure 1: Site layout showing indicative locations of mobile screener / stacker within Sand Extraction and Screening Area B

5. Legislative context

Table 5 summarises approvals relevant to the assessment.

Table 5: Relevant approvals and tenure

Legislation	Number	Subsidiary	Approval
<i>Environment Protection and Biodiversity Conservation Act 1999 (Cth)</i>	Decision Notice: EPBC 2013/7042	Main Roads Western Australia	To develop a new alignment for the Perth-Darwin National Highway, including dual carriage ways, grade separated interchanges at connecting roads, and a reservation for potential future rail, between the Tonkin Highway and Reid Highway junction in the south and the Brand Highway and Great Northern Highway at Muchea in the North, approximately 13 kilometres north-east of Perth CBD.
<i>Rights in Water and Irrigation Act 1914</i>	Groundwater Licence: GWL 200195(1) (expires 24/8/2027)	BGC Contracting Pty Ltd & Laing O'Rourke Australia Construction Pty Ltd	Authorises taking of water (up to 250,000kL per annum) for dust suppression activities and earthworks and construction purposes
<i>Part IV of the EP Act (WA)</i>	Ministerial Statement Number MS 1036	Main Roads Western Australia	The proposal is to construct and operate a dual carriageway highway from the intersection of Tonkin Highway and Reid Highway in Malaga to the intersection of the Great Northern Highway and Brand Highway in Muchea
<i>Planning and Development Act 2005</i>	Development Assessment Panel application: DA-591/2016	Main Roads Western Australia	This application was considered by the Metro East Joint Development Assessment Panel at its meeting held on 4 November 2016, where in accordance with the provisions of the City of Swan Metropolitan Region Scheme, it was resolved to approve the application .

5.1 Part V of the EP Act

5.1.1 Applicable regulations, standards and guidelines

The overarching legislative framework of this assessment is the EP Act and EP Regulations.

The guidance statements which inform this assessment are:

- *Guidance Statement: Regulatory Principles (July 2015)*
- *Guidance Statement: Setting Conditions (October 2015)*
- *Guidance Statement: Land Use Planning (February 2017)*
- *Guidance Statement: Decision Making (February 2017)*

- *Guidance Statement: Risk Assessments (February 2017)*
- *Guidance Statement: Environmental Siting (November 2016)*

5.1.2 Clearing

The areas required for the sand extraction and associated screening and stockpiling of the material have been previously cleared of vegetation as part of NLCS Project works.

With regard to approval to clear native vegetation, the Perth-Darwin National Highway (Swan Valley Section) was subject to Public Environmental Review and approved by the Western Australian Minister for Environment in Ministerial Statement No.1036 on 23rd September 2016, and a decision was made under sections 130(1) and 133 of the EPBC Act 1999 to approve the PDNH (Swan Valley Section), WA (EPBC 2013/7042) on 2nd of December 2016.

6. Location and siting

6.1 Siting context

The proposed premises is located within a portion of Lot 12848 on Plan 21245 in Ellenbrook, currently vested in Main Roads Western Australia as a road reserve.

6.2 Residential and sensitive Premises

The distances to residential and sensitive receptors are detailed in Table 6.

Table 6: Receptors and distance from activity boundary

Sensitive Land Uses	Distance from Prescribed Activity
Residential Premises	The nearest residence is 50m east of the premises boundary and approximately 180m south-southeast of the proposed screening plant

6.3 Specified ecosystems

Specified ecosystems are areas of high conservation value and special significance that may be impacted as a result of activities at or Emissions and Discharges from the Premises. The distances to specified ecosystems are shown in Table 7. Table 7 also identifies the distances to other relevant ecosystem values which do not fit the definition of a specified ecosystem.

The table has also been modified to align with the *Guidance Statement: Environmental Siting* (DER 2016b).

Table 7: Environmental values

Specified ecosystems	Distance from the Premises
Geomorphic Wetlands	There are a number of Geomorphic Wetlands in proximity to the proposed screening premises, the closest being around 63m west of the premises boundary (refer Figure 2).
Bush Forever: Regional open space or proposed regional open space	The premises is bound by regional bushland reserve (Banksia Woodland) to the immediate east and west. These areas have been vested as Class A Nature Reserves and are also identified as Bush Forever sites.
Western Swamp Tortoise Habitat	The nearest Western Swamp Tortoise habitat area is

	around 3.3km northeast of the premises (refer Figure 3)
Threatened Ecological Communities and Priority Ecological Communities	There are a number of Threatened and Priority Ecological Communities (TECS / PECS) in close proximity to the prescribed premises (refer Figure 3). The TEC's and PEC's to be
Biological component	Distance from the Premises
Threatened/Priority Flora	There are a number of Threatened and Priority Flora surrounding the Premises boundary (refer Figure 4)
Threatened/Priority Fauna	The nearest Threatened/Priority Fauna is recorded as having been sighted approximately 30m west of the premises boundary.

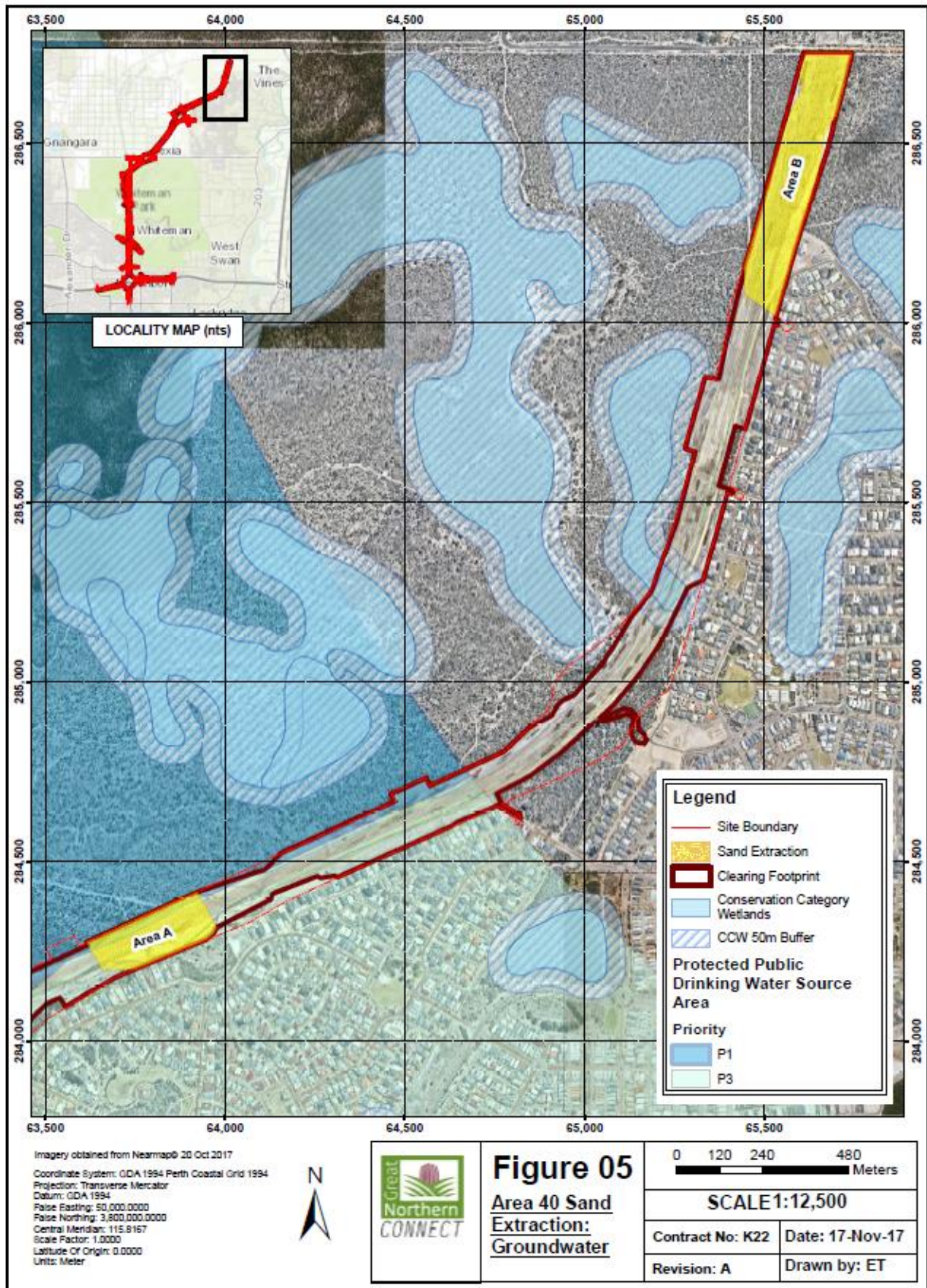


Figure 2: Conservation Category Wetlands adjacent to prescribed premises boundary (Sand Extraction and Screening Area B)

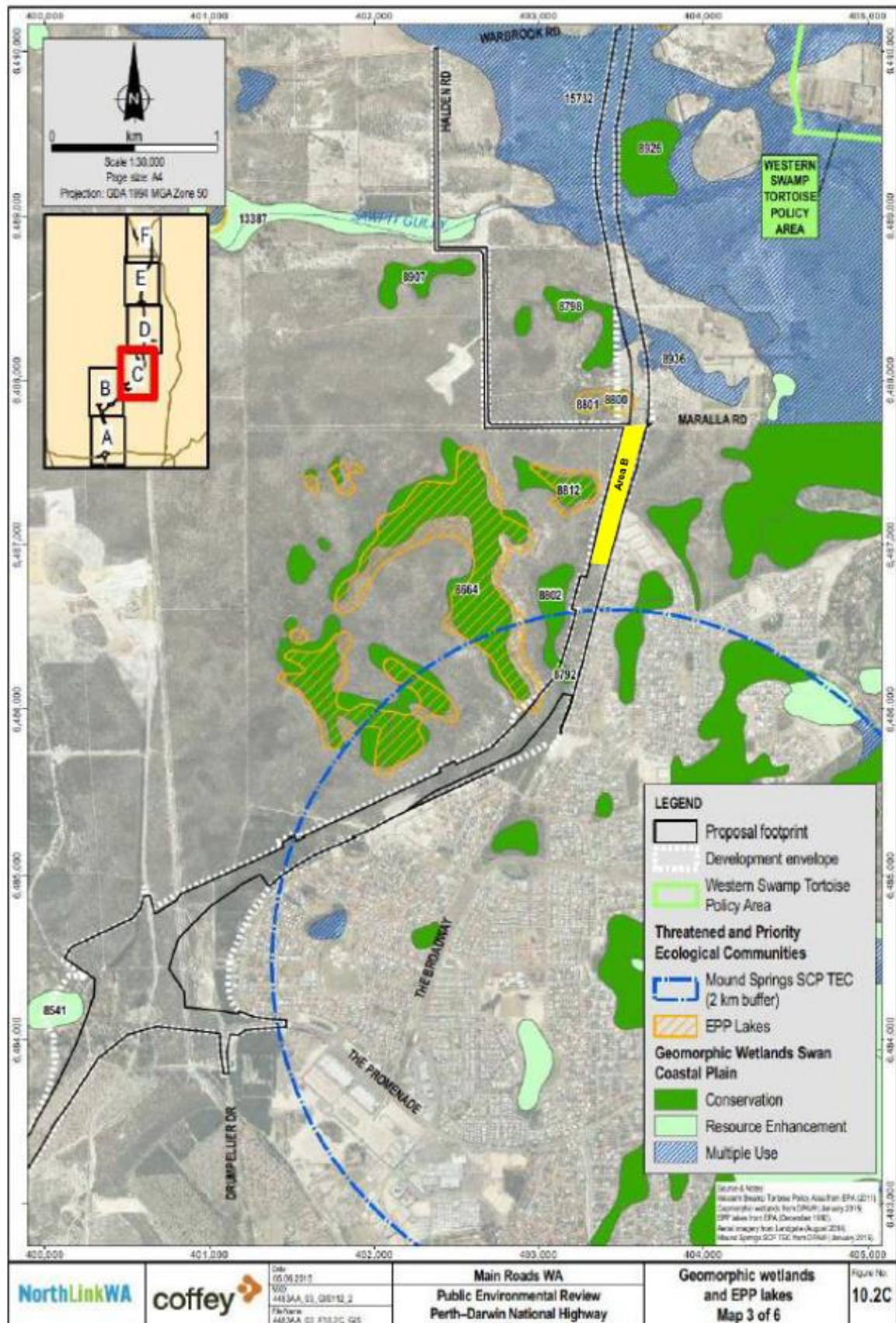


Figure 3: Conservation Category Wetlands, Threatened and Priority Ecological Communities and Western Swamp Tortoise Policy areas adjacent to prescribed premises boundary (Sand Extraction and Screening Area B)

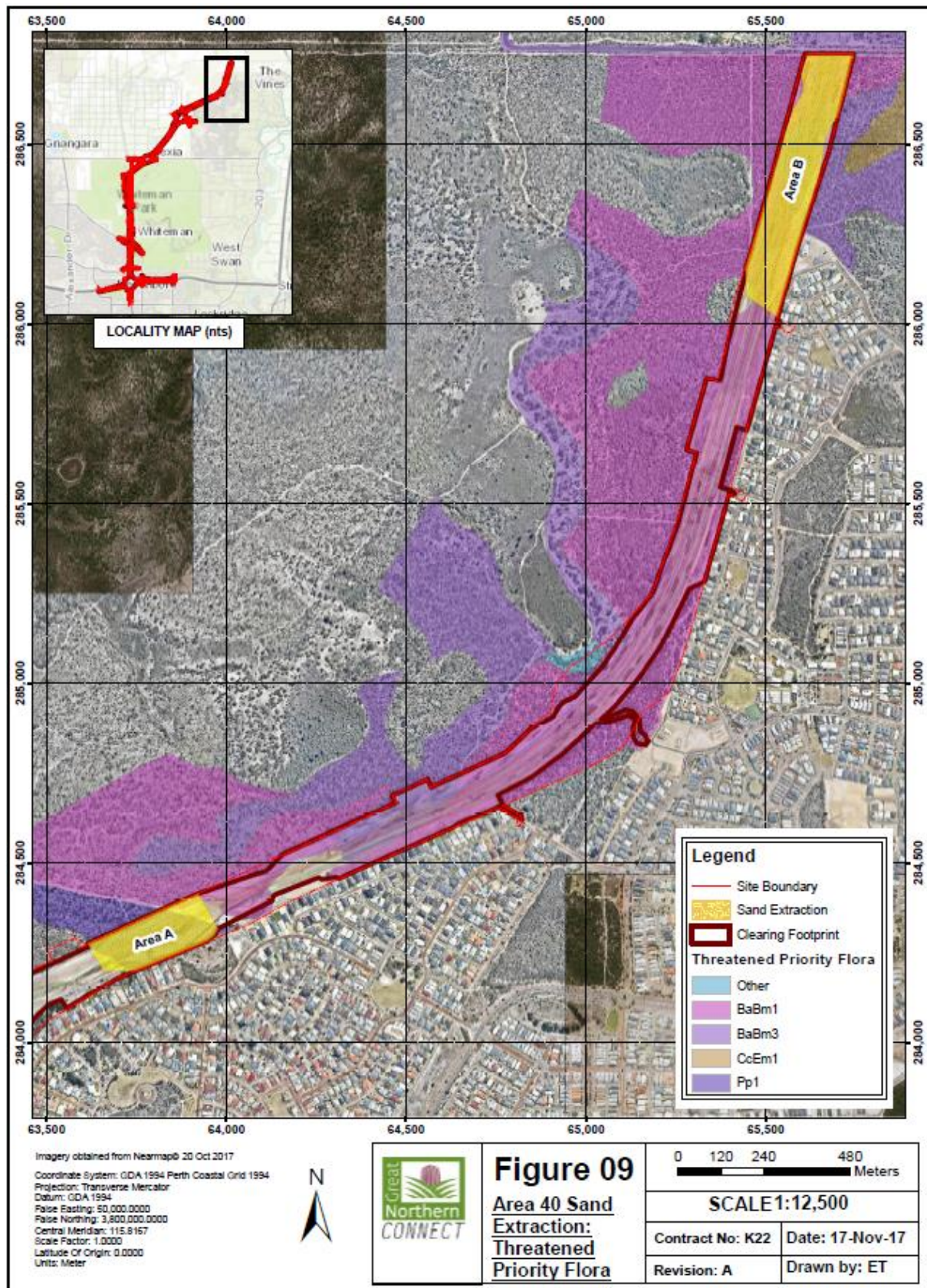


Figure 4: Threatened Priority Flora areas adjacent to prescribed premises boundary (Sand Extraction and Screening Area B)

6.4 Groundwater and water sources

The distances to groundwater and water sources are shown in Table 8.

Table 8: Groundwater and water sources

Groundwater and water sources	Distance from Premises	Environmental value
Public drinking water source areas (PDWSA)	Approximately 1.3 km west and southwest of the premises boundary	Priority 1 PDWSA: Gnangara Underground Water Pollution Control Area There is a significant monitoring bore network associated with the NLCS and in proximity to the prescribed premises which is subject to monthly water quality assessment.
Groundwater	Groundwater encountered at approximately 44 – 47m AHD. Topographic contours around 55 - 60m AHD, therefore, depth to groundwater approximately 8m below ground level (bgl).	Groundwater contours follow the natural topography of the Subject land. The screening operations will not intersect the water table.

6.5 Meteorology

The Applicant has included meteorological information with the works approval Application (GNC 2017a). The Applicant has referred to Bureau of Meteorology (BoM) weather station at Pearce RAAF Research Station (Station No. 009053) to provide average monthly climate statistics for the Upper Swan locality. Average annual rainfall recorded at Upper Swan since 1937 is 651.1 mm (BoM 2016).

Rainfall may occur at any time of year; however, most occurs in winter in association with cold fronts from the southwest. Highest temperatures occur between December and March, with average monthly maximums ranging from 30.3°C in December to 33.5°C in January (BoM 2016). Lowest temperatures occur between June and September, with average monthly minimums ranging from 8.2°C in July and August to 9.4°C in June (BoM 2016).

Winds and the seasonality of rainfall in the Perth region is a factor that influences stormwater, dust control and sediment, and erosion control management strategies. The Perth region experiences strong westerly winds or gales in winter and strong easterly winds and south-westerly sea breezes in summer.

7. Risk assessment

7.1 Determination of emission, pathway and receptor

In undertaking its risk assessment, DWER will identify all potential emissions pathways and potential receptors to establish whether there is a Risk Event which requires detailed risk assessment.

To establish a Risk Event there must be an emission, a receptor which may be exposed to that emission through an identified actual or likely pathway, and a potential adverse effect to the receptor from exposure to that emission. Where there is no actual or likely pathway and/or no receptor, the emission will be screened out and will not be considered as a Risk Event. In addition, where an emission has an actual or likely pathway and a receptor which may be adversely impacted, but that emission is regulated through other mechanisms such as Part IV of the EP Act, that emission will not be risk assessed further and will be screened out through Table 10.

The identification of the sources, pathways and receptors to determine Risk Events are set out in Tables 9 and 10 below.

Table 9. Identification of emissions, pathway and receptors during construction

Risk Events						Continue to detailed risk assessment	Reasoning
Sources/Activities	Potential emissions	Potential receptors	Potential pathway	Potential adverse impacts			
Construction, mobilisation and positioning of screening infrastructure	Vehicle movements on unsealed access roads; Installation of mobile screening plant (~7 day construction period)	Noise	Residential Premises located 50m east of the Premises boundary; and approximately 180m south-southeast of screening plant	Air / wind dispersion	Amenity impacts	No	Outside of scope: regulated under Part IV of the EP Act. Condition 15 of MS 1036 requires an <i>Amenity (Noise) Environmental Management Plan</i> (EMP) to be implemented as part of the proposal. The Applicant has provided a <i>GNC Noise and Vibration Management Plan</i> that considers noise and vibration emissions associated with all aspects of the NLCS Project. The <i>GNC Noise and Vibration Management Plan</i> outlines management actions for the design of noise mitigation measures (such as attenuation barriers and walls), monitoring procedures to measure effectiveness of mitigation measures, procedures for consulting with affected landowners and procedures for noise complaint management and response framework. All construction works will be carried out between 0700 hours to 1900 hours from Monday to Saturday (except public

Risk Events					Continue to detailed risk assessment	Reasoning
Sources/Activities		Potential emissions	Potential receptors	Potential pathway	Potential adverse impacts	
						<p>holidays),</p> <p>The Applicant will be installing noise walls between the Premises and the adjacent residential areas in the first quarter of 2018. The noise walls are up to 5m in height and will provide significant mitigation to noise and dust.</p> <p>The Delegated Officer considers that noise emissions during construction of the screening premises can be effectively managed under the provisions of the <i>GNC Amenity (Noise) Environmental Management Plan</i> and the provisions of the <i>Environmental Protection (Noise) Regulations 1997</i>.</p>
		Dust			Amenity impacts	<p>Outside of scope: regulated under Part IV of the EP Act. Management of dust emissions for the NLCS is outlined in the <i>GNC Environmental Management Plan</i> required to be implemented under MS 1036; specifically the <i>Environmental Risk Action Plan – Air Quality and Dust Management</i> outlines relevant management measures. Dust is currently being managed as part of the broader NLCS Project, including for bulk earthworks within the project area. Typical dust management measures will include the use of water carts and soil stabilisers, crushed limestone access roads, speed limits, use of stockpiles as barriers, covers on truck loads, material drop heights kept to minimum, use of screening and noise walls.</p> <p>The Delegated Officer considers that dust emissions during construction of the screening premises can be effectively managed under the requirements of MS 1036 and the provisions of the <i>GNC Environmental Management Plan</i>.</p>

Table 10: Identification of emissions, pathway and receptors during operation

Risk Events						Continue to detailed risk assessment	Reasoning
Sources/Activities		Potential emissions	Potential receptors	Potential pathway	Potential adverse impacts		
Category 12: Screening etc. of material	Operation of mobile screening and stacking plant (~12 months operation)	Dust	Residential Premises located 50m east of the Premises boundary; and approximately 180m south-southeast of screening plant	Air / wind dispersion	Amenity impacts	No	Outside of scope: regulated under Part IV of the EP Act (refer to reasoning in Table 12 above).
		Noise	Residential Premises located 50m east of the Premises boundary; and approximately 180m south-southeast of screening plant	Air / wind dispersion	Amenity impacts	No	Outside of scope: regulated under Part IV of the EP Act (refer to reasoning in Table 12 above).
	Stockpiling of sand material (~12 months operation)	Dust	Residential Premises located 50m east of the Premises boundary; and approximately 180m south-southeast of screening plant	Air / wind dispersion	Amenity impacts	No	Outside of scope: regulated under Part IV of the EP Act (refer to reasoning in Table 12 above).
		Stormwater runoff from stockpiles	Surface water bodies (Geomorphoc Wetland 63m west); and Groundwater (~8m bgl)	Surface water runoff and percolation of water through soil profile to shallow groundwater;	Percolation of water through soil profile to shallow groundwater; and Contamination of surface water or shallow groundwater	No	Nearest wetland (at 63m away) unlikely to be impacted by stormwater runoff during screening operations. Operations are not expected to last for more than 12 months duration. Any impacts on groundwater would be negligible due to 8m separation distance.
	Fuel storage and refuelling	Hydrocarbon (fuel) spillage		Contamination of surface water or shallow groundwater		No	No fuel will be stored on site. Refueling will occur via mobile refueling trucks with spill clean-up equipment available. Refuelling will be in accordance with the <i>GNC Environmental Management Plan</i> , and specifically the <i>Environmental Risk Action Plan – Dangerous Goods, Hazardous Materials and Spill Management</i> .

8. Determination of Works Approval conditions

The Delegated Officer notes that the construction and operation of the category 12 screening operations proposed by the Applicant have the potential to generate the emissions outlined in Tables 9 and 10. However, these emissions have been assessed as part of the broader NCLS Project under Part IV of the Act and are regulated by conditions imposed in MS 1036, specifically via the implementation of a number of management plans that outline the required controls to reduce the risks to the environment and human health from the proposal.

In accordance with *Guidance Statement: Setting Conditions* (DER 2015b) works approval and / or licence conditions shall not unnecessarily duplicate requirements imposed on Applicant's by other regulatory instruments. The Delegated Officer therefore notes that conditions are not required to regulate potential noise and dust emissions during construction and operation of the premises. Stormwater and hydrocarbon emissions are deemed to present negligible risk from the proposal.

Conditions have been included in the Works Approval to include infrastructure and compliance requirements and outline authorised emissions as well as record keeping requirements.

The *Guidance Statement: Licence Duration* (DER 2016a) has been applied and the issued licence (post construction of the prescribed premises) will expire within 18 months from date of issue.

Table 11 provides a summary of the conditions to be applied to this works approval.

Table 11: Summary of conditions to be applied

Condition Ref	Grounds
Infrastructure and Equipment 1	This condition is valid, risk-based and consistent with the EP Act.
Construction Compliance and Commissioning 2, 3 and 4	These conditions are valid and are necessary administration and reporting requirements to ensure compliance.
Emissions 5	This condition is valid, risk-based and consistent with the EP Act.
Record Keeping 6 and 7	These conditions are valid and are necessary administration and reporting requirements to ensure compliance.

DWER notes that it may review the appropriateness and adequacy of controls at any time and that, following a review, DWER may initiate amendments to the works approval under the EP Act.

9. Applicant's comments

The Applicant was provided with the draft Decision Report and draft Works Approval on 19 January 2018. The Applicant provided a revised Premises layout map which has been included in Schedule 1 of the Works Approval.

10. Conclusion

This assessment of the risks of activities on the Premises has been undertaken with due consideration of a number of factors, including the documents and policies specified in this

Decision Report (summarised in Appendix 1).

Based on this assessment, it has been determined that the Works Approval will be granted subject to conditions commensurate with the determined controls and necessary for administration and reporting requirements.

Tim Gentle
MANAGER LICENSING (RESOURCE INDUSTRIES)

Delegated Officer
under section 20 of the *Environmental Protection Act 1986*

Appendix 1: Key documents

	Document title	In text ref	Availability
1.	<p>Application Form: Category 12 Works Approval including:</p> <ul style="list-style-type: none"> Attachment 1: Applicant Details; Attachment 2: Premises Mapping; Attachment 3: Proposed Activities; Attachment 4: Other Approvals; Attachment 7: Siting and Location; Attachment 8: Other Relevant Information; Attachment 9: Calculation of Fees; and Attachment 10: Confidential Information (Commercial in Confidence) 	GNC 2017a	DWER records (A1576555)
2.	<p>Additional Supporting Documentation (Electronic Mail) Subject: <i>Northern Link Central Section - application for works approval / licence - Category 12 Screening proposal - Great Northern Connect JV</i></p> <p>Details (including attachments): Omission of screening area A from works approval application including updated maps.</p>	GNC 2017b	DWER records (A1581622)
3.	<p>Additional Supporting Documentation (Electronic Mail) Subject: <i>Planning / Development Approval query</i></p> <p>Details (including attachments): copy of Metro East Joint Development Assessment Panel – City of Swan – DAP Application DA-591/2016 Determination: Various Lots between Tonkin/Reid Highways Intersection and Maralla Road, Muchea Construction of Stage 2 of the Northlink WA Project</p>	GNC 2018	DWER records (A1597683)
4.	<p>Ministerial Statement 1036: <i>Perth-Darwin National Highway (Swan Valley Section)</i>; Statement that a Proposal may be Implemented. Environmental Protection Authority, 23 September 2016</p>	MS 1036	accessed at www.epa.wa.gov.au/
5.	<p>DER, July 2015. <i>Guidance Statement: Regulatory principles</i>. Department of Environment Regulation, Perth.</p>	DER 2015a	accessed at www.dwer.wa.gov.au
6.	<p>DER, October 2015. <i>Guidance Statement: Setting conditions</i>. Department of Environment Regulation, Perth.</p>	DER 2015b	
7.	<p>DER, August 2016. <i>Guidance Statement: Licence duration</i>. Department of Environment</p>	DER 2016a	

	Regulation, Perth.		
8.	DER, November 2016. <i>Guidance Statement: Environmental Siting.</i> Department of Environment Regulation, Perth.	DER 2016b	
9.	DER, November 2016. <i>Guidance Statement: Risk Assessments.</i> Department of Environment Regulation, Perth.	DER 2017a	
10.	DER, November 2016. <i>Guidance Statement: Decision Making.</i> Department of Environment Regulation, Perth.	DER 2017b	