



nswPorts

Enfield ILC Overarching Construction Environmental Management Plan

Enfield Intermodal Logistics Centre

NSW Ports | May 2020 | Version 4



Contents

CEMP Content – Self Verification Checklist	4
1. Introduction	6
1.1 Background to Enfield ILC	6
1.2 CEMP Scope	8
1.3 CEMP Inputs	8
1.4 Statutory Requirements	10
1.5 CEMP Objectives	12
1.6 HSE Policy	12
2. Environmental Management	13
2.1 Overall Approach	13
2.2 Hours of Site Preparation and Construction	13
2.3 Environmentally Sensitive Areas	14
2.4 Contamination and Site Management Plans	14
2.5 Roles and Responsibility	15
2.6 Enquiries and Complaints Response Procedure	17
2.7 Environmental Monitoring	18
2.8 Environmental Inspections	18
2.9 Compliance and Environmental Reporting and Auditing	18
2.10 Induction and Training	19
2.11 Emergency Response and Incident Management	20
3. Implementation	21
3.1 Risk Assessment and Implementation	21
3.2 Environmental Work Method Statement (EWMS)	21
3.3 Environmental Sub-plans	22
4. References	Error! Bookmark not defined.
Appendix A: Legislation Register	27

Appendix B: Consultation with the EPA.....	31
Appendix C: HSE Policy	32
Appendix D: ILC Sensitive Area Map	33
Appendix E: Construction Environmental Compliance Check	34
Appendix F: Risk Register	35
Appendix G: Fill Importation Protocol	44

Revision History

DATE	DETAILS	BY	REVIEW/APPROVED
5/12/2013	First draft	S Fermio	M Fahey, D Vujic, A Wedgwood
30/1/14	Final v1: project team comments	A Wedgwood	M Fahey, D Vujic
3/3/14	Final v2: DPE comments	A Wedgwood	DPE
30/11/18	V3: first document revision	A Wedgwood	T Brown
26/05/20	V4: second formal document revision	A Wedgwood	DPIE

Glossary of Terms and Acronyms

TERM	DEFINITIONS
CoA	Condition of Approval
DPIE	Department of Planning, Industry and Environment (formerly DPE)
EP&A Act	NSW Planning and Assessment Act 1979
EPA	Environment Protection Authority
EPL	Environment Protection Licence issued by the EPA
GGBF	Green and Golden Bell Frog
CEMP	Construction Environmental Management Plan
CNMP	Construction Noise Management Plan
CTMP	Construction Traffic Management Plan
FIP	Fill Importation Protocol
HIPS	Heritage Interpretation Plan and Strategy
LEAMP	Landscape and Ecological Management Plan
LTEMP	Long Term Environmental Management Plan
OEH	Office of Environment and Heritage
Planning Secretary	The Planning Secretary of the DPIE
POEO Act	NSW Protection of the Environment Operations Act 1997
Project Approval	The approval granted by the Minister for Planning for Major Project Application MP 05_0147
SAS	Site Audit Statement
SMP	Site Management Plan (for contamination) referred to under Site Audit Statement

CEMP Content – Self Verification Checklist

TOPIC	REQUIREMENT REFERENCE	DETAILS TO INCLUDE	SECTION OF CEMP
Compliance with DIPNR 2004 Guideline for the Preparation of EMPs	6.2	CEMP to be prepared in accordance with DIPNR 2004 Guidelines for the Preparation of EMPs.	1.3
Compliance with EIS & SoCs	6.2(a)	Any additional CEMP requirements of: Table 21.1 (over and above those required in CoA 6.2 & 6.3) and Table 4.1 of the Statement of Commitments	1.3
Description of the project and works to be undertaken	6.2(b)	A description of all activities to be undertaken during site establishment and construction activities.	1.2
Statutory obligations	6.2(c)	statutory and other obligations that the Proponent is required to fulfil during site establishment and construction, including all approvals, consultations and agreements required from authorities and other stakeholders, and key legislation and policies	Appendix A
EPA requirements	6.2(d)	specific consideration of measures to address any requirements of the EPA during site establishment and construction	Appendix B
Roles & responsibilities	6.2(e)	a description of the roles and responsibilities for all relevant employees involved in the site establishment or construction of the project	2.5
Monitoring	6.2(f)	details of how the environmental performance of the site preparation and construction works will be monitored.	2.7
			2.8
			2.9
		measures to monitor and manage dust emissions;	Section 3.3.2 Appendix F
		measures to monitor and minimise soil erosion and the discharge of sediment and other pollutants to lands and/ or waters.	Appendix F
Roles & responsibilities	6.2(g)	measures to monitor and control noise emissions during construction works	Section 3.3.3 Appendix F
		a description of the roles and responsibilities for all relevant employees involved in site preparation and construction of the project.	2.5
Complaints handling	6.2(h)	complaints handling procedures to be applied during operation of the project (conditions 5.2 and condition 5.3 of the approval).	2.6
Sub Plans (see 6.3)	6.2(i)	the issue-specific management plans listed under condition 6.3 of this approval.	3.3

Sub Plans required	6.3	As part of the Construction Environmental Management Plan for the project, a number of specific / sub management plans are required to be prepared, as follows:	3.3
	6.3 (a)	a Construction Noise Management Plan	Section 3.3.3
	6.3 (b)	Construction Traffic Management Measures	Section 3.3.1
	6.3 (c)	Heritage Interpretation Plan & Strategy.....{remaining requirements of this condition have already been satisfied in the HIPS}	Section 3.3.4
	6.3 (d)	A Landscape and Ecological Area Management Plan	Section 3.3.5
	6.3(e)	a Construction Dust Management Protocol	Section 3.3.2
	6.3 (f)	A Mt Enfield Stabilisation Management Plan	Section 3.3.6
	6.3 (g)	A Tarpaulin Factory Area Earthworks Environmental Management Plan	N/A - Applicable to Tarpaulin Factory development (by Tarpaulin Factory tenant)
	6.3 (h)	A Fill Importation Protocol	Appendix G

1. Introduction

1.1 Background to Enfield ILC

The Enfield Intermodal Logistics Centre (ILC) site was formerly used by the State Rail Authority of NSW for marshalling and maintenance of rail cars and locomotives, as well as sidings for rail and goods, for over 70 years, from the 1920s until the 1990s.

On 5 September 2007 approval for the construction and operation of the Enfield ILC was granted under Section 75J of the *Environmental Planning & Assessment Act (1979)* by the Minister for Planning, subject to a number of conditions. The Project Approval (MP 05_0147) as modified, is available at: www.nswportsbotany.com.au/projects-and-planning/ilc-at-enfield/

The approved project includes (but is not limited to) the construction and operation of the following (Figure 1):

- An intermodal terminal for the loading and unloading of containers between road and rail and the short term storage of containers;
- Rail sidings, railway lines and associated works connected to the existing freight line;
- Warehousing for the packing and unpacking of containers and the short-term storage of cargo;
- Empty container storage areas and facilities;
- Light industrial/commercial area fronting Cosgrove Road complementary to operations at the site;
- Access works including the construction of a road bridge over the new marshalling yards for access to Wentworth Street and an upgrade of the entrance to the site from Cosgrove Road;
- Internal roads, administration buildings, diesel and LPG storage and fuelling facilities, container wash down area, vehicle maintenance shed, and installation of site services (all utilities, stormwater and sewerage); and
- Southern Ecological Area (SEA) including Green and Golden Bell Frog (GGBF) ponds and habitat, heritage items and vegetated area.

Condition 6.2 of the Project Approval requires a Construction Environmental Management Plan (CEMP) to be prepared for the approval of the Planning Secretary prior to the commencement of site preparation or construction of the Project.

Site preparation and construction of the main base infrastructure civil works for the Enfield ILC were completed by Leighton Contractors Pty Ltd (LCPL) and other contractors from 2008 to 2013 under their own approved CEMPs. These include:

- CEMPs for Stages 1a-c (demolition of redundant rail marshalling yard facilities and remediation of contaminated areas)
- CEMP for Stage 2 (early works including the road bridge connecting the ILC site to Wentworth Street, access roads, frog habitat area and noise mound)
- CEMP for Stage 3 (construction of base infrastructure including terminal pavements, drainage, internal roads and rail corridors, stormwater and bio-retention basins, services etc and contamination remediation works managed by LCPL)
- CEMP for Stage 4 (construction of south bound slip lane and associated road works at intersection of Norfolk/Roberts Roads by Christie Civil)



Figure 1: Layout of Enfield ILC

1.2 CEMP Scope

Project Stages

The ongoing and future development of the Enfield ILC is expected to be carried out in further stages as outlined in the NSW Ports Staging Report 2019 prepared in accordance with CoA 1.3A of the Project Approval.

The majority of construction works associated with the future stages of development are expected to be undertaken as discrete sub-projects (e.g. construction of warehouses within one of the identified precincts) for which site/stage specific CEMPs will be prepared for the approval of the Planning Secretary.

Generally, this CEMP addresses works which are within areas being managed, maintained or developed by NSW Ports and not covered under the stage specific CEMPs. This includes works on ILC common areas as well as future tenanted lots which are not yet leased to tenants for development.

Works Covered Under This CEMP

Construction activities to be managed under this CEMP by NSW Ports or its contractors include, but are not limited to, excavation and earthworks, management and treatment of contaminated material, waste disposal, heritage interpretation, use of plant / machinery and equipment. Examples of the types of works that may be carried out under this CEMP are:

- Landscaping works.
- Heritage interpretation works.
- Pavement and pathway works including kerb and guttering.
- Service and utility works.
- Carparks, fencing, gates, signage, traffic control and monitoring devices, lighting and security infrastructure including gatehouse facilities.
- Excavation and earthworks including remediation via onsite options or removal/transfer of potentially contaminated material around the site.
- Office fitout and/or building refurbishment works
- Demolition works including the removal of redundant infrastructure.
- Site forming / shaping works (e.g. site levelling, removal of minor mounds, etc)
- Rail and road works

It is envisaged that works will typically be undertaken by contractors on behalf of NSW Ports although some activities may be carried out by NSW Ports' personnel. Contractors will still be required to prepare project specific SWMS/JSEAs and other work method statements that apply to the work.

1.3 CEMP Inputs

This CEMP has been prepared in accordance with the:

- Requirements of CoA 6.2 of the Project Approval (see the Self Verification Checklist on pages 4 & 5);
- Guideline for the Preparation of Environmental Management Plans (DIPNR 2004) (Table 1); and
- Requirements of Table 21.1 of the EIS prepared by SKM in 2005 and Table 4-1 of the Statement of Commitments prepared by SKM as part of the Preferred Project Report (PPR) (Table 1).

Table 1: DIPNR 2004 EMP & EIS/PPR required content

DIPNR EMP GUIDELINE REQUIREMENT	WHERE ADDRESSED
Introduction	1.0
Project description	1.1
EMP Context	1.2 & 2.1
EMP Objectives	1.5
Environmental Policy	Appendix C
Environmental management structure & responsibility	2.1 & 2.5
Approval & licensing requirements	1.4
Reporting	2.9
Environmental training	2.10
Emergency contacts & response	2.11
Risk assessment	Appendix F
Environmental management activities and controls	3.2, Appendix F
Environmental control plans or maps	Appendix D
Environmental schedules	Appendix E
Environmental monitoring	2.7
Environmental auditing	2.9
Corrective action	2.9
EMP review	2.9
EIS & SOC CEMP REQUIREMENT	WHERE ADDRESSED
Road traffic & transport	3.2, 3.3.1, Appendix F
Air quality	3.2, 3.3.2, Appendix F
Soils and contamination	2.3, 3.2 & Appendix F
Hydrology and water quality	Appendix F
Noise and vibration	3.2, 3.3.3 Appendix F
Heritage	Appendix F
Flora and fauna	Appendix F
Landscape and visual	Appendix F
Waste management	Appendix F
Energy and water	Appendix F
Communication	Section 2.6
Works on RailCorp lands	Not relevant as all works completed on RailCorp land

1.4 Statutory Requirements

Key Legislation and Other Approvals/Licences

The key legislation and any additional approvals, licences or permits applicable to construction activities being carried out under this CEMP is outlined in the Legislation Register in Appendix A.

Consultation Requirements

In accordance with CoA 6.2(d) consultation with the EPA on their requirements for the works covered by this CEMP was undertaken in January 2014 as evidenced in Appendix B. Additional consultation with the EPA has not been undertaken on revisions to the document due to the minor nature of updates to the Overarching CEMP.

Pre-Construction Requirements and Other Approvals/Licences

The details of how any other obligations required under the Project Approval or other approvals and licences have been satisfied prior to works covered by this document commencing are outlined in Table 2.

As none of the works covered under this CEMP are listed within Schedule 1 of the POEO Act and it is not expected that any of the works would require any discharge to waters an environment protection licence (EPL) is unlikely to be required.

Prior to any tree lopping or removal works being carried out within the ILC site as part of the construction and operation of the facility, advice will be sought to ensure the works are covered by the Part 3A Project Approval.

Table 2: Other obligations required prior to construction activities under this CEMP

COA	REQUIREMENT	HOW ADDRESSED
1.3A	The Proponent may construct and/or operate the project in stages with commensurate staging of compliance with the conditions of this approval. Where the project is to be staged, the Proponent shall submit details of the staging to the Planning Secretary, including details of how compliance with the conditions of this approval will be met.	Staging Report submitted to DPIE on 23/07/19 (or subsequent revisions).
2.12	The Proponent shall establish and maintain for the life of the project, unless otherwise agreed by the Planning Secretary, a Road Transport Coordination Group to oversee and coordinate the management of traffic and road issues affected by the project.	RTCG currently established & maintained by NSW Ports
2.20	The Proponent shall install, operate and maintain a meteorological monitoring station to monitor weather conditions representative of those on site...prior to the commencement of site preparation or construction works...until all large exposed areas have either been landscaped or sealed.	Scale of works proposed under this CEMP will not cause large areas to be exposed and therefore do not require a weather station
2.34	Except for the necessary stabilisation works agreed in consultation with the Heritage Office, the Proponent is not permitted to destroy, modify or otherwise physically affect the Tarpaulin Factory as part of this Approval. Any proposal to destroy modify redevelop relocate or otherwise affect the Factory shall be subject to further assessment and approval in accordance with the EP&A Act.	Addressed in Section 2.3, 3.2 and Appendix F
2.43	Prior to the commencement of construction works associated with the project that may disturb contaminated areas of the site, the Proponent shall submit to the Planning Secretary a Site Audit Statement(s), prepared by an accredited Site Auditor under the <i>Contaminated Land Management Act</i>	Addressed in Section 2.4

	1997, verifying that the area of the site on which construction is to be undertaken has been or can be remediated to a standard consistent with the intended land use. A final Site Audit Statement(s), prepared by an accredited Site Auditor, certifying that the contaminated areas have been remediated to a standard consistent with the intended land use and including any associated long term environmental management plan (LTEMP) is to be submitted to the Planning Secretary prior to operation of the remediated site(s).	
2.48	The Proponent shall implement all of the relevant actions for the site recommended in the Management Plan for the Green and Golden Bell Frog Key Population at Greenacre (DECC, May 2007), being: a) creation of overwintering habitat as part of the two-hectare improved foraging habitat at the southern end of the site; b) provision of linkages to the former RailCorp ponds; and c) restrictions on the use of herbicides in known frog habitat and attainment of water quality standards for water discharged from the site. These actions shall be incorporated within both the Construction Environmental Management Plan (refer to condition 6.2) and the Operation Environmental Management Plan (refer to condition 6.4) as relevant, including provisions for monitoring the outcomes of these actions and periodically reporting outcomes to OEH at a frequency agreed with OEH.	Addressed in Section 2.3 and Appendix F
2.48A	The Proponent shall implement the mitigation measures identified in Section 7.1 of the ILC at Enfield Impact Assessment on Green and Golden Bell Frogs: Addition of Fill Material to Mt Enfield (Biosphere Environmental Consultants Pty Ltd, 2011), supplementary letter of advice dated 10 January 2018 (Biosphere Consultants Pty Ltd, 2011), and the following: a) the installation of an exclusion fence to help prevent frogs from entering the construction site; b) the installation of silt fences and silt trapping devices prior to any earthworks, and the use of dust suppression methods throughout construction, to prevent wind-blown dust from entering the frog habitat area; c) the establishment of run-off barriers between the construction areas and the frog habitat area, to prevent accidental spills and/or stormwater waste from entering the frog habitat area; d) the installation of visual screens to minimise light spill into the frog habitat area, from night construction works; e) the demarcation of the frog habitat area as a “no go” area, using barrier bunting and signs that indicate the significance of the area and that the site is off limits to people, machinery and plant equipment; f) the installation of an exclusion fence to help prevent frogs from entering the operational areas; g) the installation of diversion bunds to ensure hazardous liquids can never enter the frog habitat area; and h) the installation of visual screens to minimise light spill into the frog habitat area, from trucks and plant equipment operating throughout the night. These actions shall be incorporated within the Construction Environmental Management Plan (condition 6.2 of this approval) and the Operation Environment Management Plan (condition 6.4 of this approval), as relevant.	Addressed in Section 3.3.5 and Appendix F

3.2	The Proponent shall, from the commencement of soil disturbing works on the site until all large exposed areas have either been landscaped or sealed, continuously monitor ambient dust concentrations (PM ₁₀) at two of the most-affected residential receptor(s) to the site (with monitoring undertaken either on the boundary of the site or within the affected residential areas) employing the sampling and analysis methods specified under AM-18 or AS3580.9.8 or as otherwise agreed by the Planning Secretary.	Scale of works proposed under this CEMP will not cause large areas to be exposed and do not require ambient dust monitoring.
5.2 and 5.3	Complaints and Enquiries Procedure and Complaints Register: Prior to the commencement of construction of the project, the Proponent shall ensure that a Complaints and Enquiries procedure and complaints register are available and maintained for the life of the project.	Section 2.6
6.2	Prior to the commencement of site preparation works or construction of the project, the Proponent shall prepare and submit for the approval of the Planning Secretary a CEMP to detail an environmental management framework, practices and procedures to be followed during site preparation and construction of the project....	This CEMP

1.5 CEMP Objectives

Consistent with the requirements of the DIPNR EMP Guidelines (2004) the objectives of this CEMP are to:

- Ensure that relevant environmental risks are identified and appropriate safeguards and controls implemented on-site;
- Manage site activities effectively;
- Enable adverse impacts on the environment to be minimised;
- Provide for the conservation of the site's receiving environment;
- Identify suitable emergency preparedness and response procedures;
- Provide details of complaints management procedures;
- Meet all requirements of relevant legislation and assist with ensuring compliance of the Project Approval; and
- Monitor and manage environmental and social impacts.

1.6 HSE Policy

This CEMP has been prepared consistent with NSW Ports' HSE Policy (Appendix C) and the relevant requirements of the Policy will be included as part of any NSW Ports contractor inductions.

2. Environmental Management

2.1 Overall Approach

The general approach to the management and control of environmental impacts of construction activities undertaken by NSW Ports and / or its contractors under this CEMP is shown graphically in Figure 2 below. The Risk Assessment and Mitigation Measures Register (Appendix F) provides an indicative risk assessment of the work activities covered by this CEMP (section 1.2.2) and typical mitigation measures and controls that could be implemented to manage the risks to acceptable levels.

Contractors undertaking construction on behalf of NSW Ports will be required to work under this CEMP but may utilize their own business and risk management systems and processes to develop any necessary site specific safety and environmental management documentation and induction materials including Safe and/or Environmental Work Method Statements (S/EWMS) / Job Safety Environmental Analyses (JSEA), taking into account the Risk Register in Appendix F, any relevant mitigation measures in the sub-plans in Section 3.3 and any site / task specific risks that may require other or additional mitigation measures and controls to be applied.

NSW Ports will also develop any necessary SWMS / JSEAs for any construction or related activities that it performs itself under this CEMP taking into account the Risk Register in Appendix F, any relevant mitigation measures in the sub-plans in Section 3.3 and any site/task specific risks that may require other or additional mitigation measures and controls to be applied. Construction works may be inspected/audited by NSW Ports, based on risk and an example template of construction environmental compliance check is provided in Appendix E.

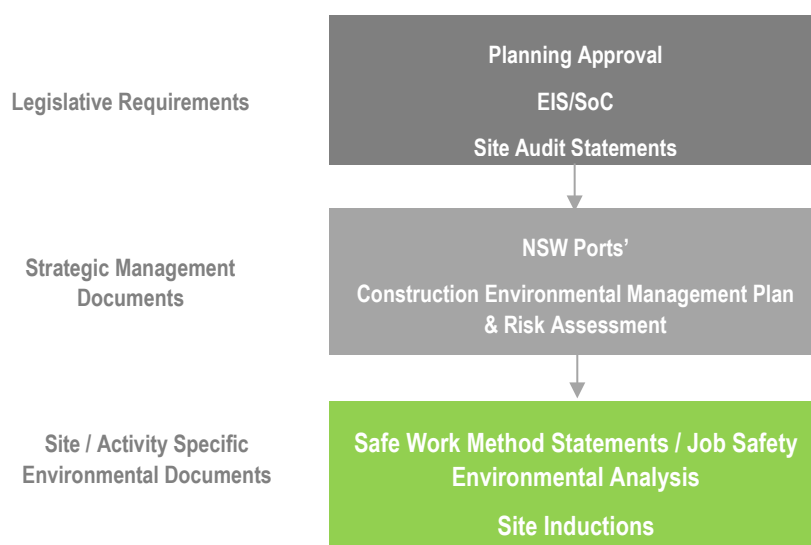


Figure 2: Environmental Management Approach

2.2 Hours of Site Preparation and Construction

Site preparation and construction activities that will generate an audible noise at any residential premises will be undertaken during the following hours,

- 7:00am to 6:00pm, Mondays to Fridays, inclusive;
- 8:00am to 1:00pm, on Saturdays; and
- At no times on Sundays or public holidays.

Approval will be sought from DPE for any works that will generate an audible noise at any residential premises, prior to construction commencing.

2.3 Environmentally Sensitive Areas

Environmentally sensitive areas within the ILC include those that could provide or have been created to provide habitat for the endangered Green and Golden Bell Frog (*Litoria aurea*), areas that contain items of heritage interest or value, stormwater water quality treatment basins, contamination that has been capped under pavements / clean fill / landscaping or areas set aside for ecological/potential community uses.

The environmentally sensitive areas are indicated in Appendix D (ILC Sensitive Area Map) and include:

- Capped contamination requiring ongoing management under a Site Management Plan/Long Term Environmental Management Plan (see section 2.3 below);
- The Frog Habitat Creation Area (including Frog Ponds) located near Coxs Creek
- Stormwater treatment and detention Basins B, D & F
- The Tarpaulin Factory and adjoining Heritage Interpretation Precinct
- Mount Enfield

Where works are occurring in, or may otherwise impact on, environmentally sensitive areas this will need to be communicated to personnel and contractors as part of their site induction training and in SWMS / JSEAs, Tool Box Talks and Pre-Start Meetings.

Frog Habitat Creation Area

As part of the development of the ILC, the Frog Habitat Area has been constructed as per the Major Project Approval and includes:

- creation of overwintering habitat as part of the two-hectare improved foraging habitat at the southern end of the site; and
- provision of linkages to the former RailCorp ponds.

A complete list of mitigation measures is provided in Appendix F in relation to the Frog Habitat Creation Area. No construction works are to be undertaken within the Frog Habitat Creation Area without referral to NSW Ports HSE Team. No construction contractors are authorised to enter the Frog Habitat Creation Area without prior approval from NSW Ports.

Tarpaulin Shed

Note that no works are permitted to occur to the Tarpaulin Shed other than any necessary maintenance or stabilisation works under this approval as a separate approval has been sought for the re-development of the Tarpaulin Shed.

2.4 Contamination and Site Management Plans

Contaminated soils and materials (mainly low level asbestos impacted soils and materials) have been safely secured on areas of the Enfield ILC site under clean capping layers and pavements and purpose built containment cells (for smaller quantities of more highly impacted material).

Remediated areas of the Enfield ILC site have been (or will be) certified by the Site Auditor appointed under the Contaminated Land Management Act 1997 as being suitable for commercial / industrial use prior to any operations occurring in remediated areas (as required under CoA 2.43). A final Site Audit Statement(s), prepared by an accredited Site Auditor, certifying that the contaminated areas have been remediated to a standard consistent with the intended land use and including any associated long term environmental management plan (LTEMP) will be submitted to the Planning Secretary prior to operation of the remediated site(s).

Areas that have been capped and are subject to final Site Audit Statements (SAS) issued by the Site Auditor that may be subject to works being undertaken by NSW Ports under this CEMP are shown on the ILC Sensitive Area Map in Appendix D and listed below:

- Southern Precinct (Mount Enfield and Frog Ponds)

- Parts of the internal roads
- Basin F
- Warehouses A, B, D, E & F
- Containment Cell A within the Wheel Lathe Rail Corridor (Lot 15)

Any construction activities that may be carried out in these areas will be subject to the conditions imposed under the SASs for these areas, including any Site Management Plans/Long Term Environmental Management Plans referred to in the SASs.

A Fill Importation Protocol has been developed and is provided in Appendix G. All fill brought to site will be required to meet the requirement of this protocol.

Any stockpiles of excavated potentially contaminated material will be covered by a geo-textile or equivalent materials and labelled appropriately to minimise potential adverse health and environmental impacts. Stockpiles will be regularly inspected by NSW Ports asset maintenance and security personnel. Any issues with stockpile labelling and/or covers will be reported by exception and a corrective action will be raised to rectify the issue.

2.5 Roles and Responsibility

Chief Executive Officer – NSW Ports

The CEO is responsible for ensuring that all operational activities are undertaken in an environmentally responsible and sustainable manner.

General Manager, Planning and Infrastructure

The General Manager, Planning and Infrastructure, is responsible for the management and resourcing of the planning activities for NSW Ports. They are also responsible for the management and resourcing of construction and maintenance activities.

General Manager, Operations and Environment

The General Manager, Operations and Environment is responsible for the management and resourcing of the environmental activities for NSW Ports. They are also responsible for incident and emergency response; and supporting staff in the management of environmental risks and implementation of control measures.

Any significant pollution incident must be reported via the HSE & Risk Manager to the General Manager Operations and Environment who will coordinate the response to the incident with the assistance of relevant NSW Ports and contractor personnel.

Senior Project Manager

The Enfield ILC Senior Project Manager is NSW Ports' representative responsible for the overall development and operation of the ILC site and:

- Primary contact point for construction works at the Enfield ILC
- Ensuring compliance with the Project Approval conditions
- Reviewing commercial agreements for contractors undertaking activities for NSW Ports to ensure environmental obligations under the CoA are adequately addressed where necessary

Enfield Site Coordinator

Oversight of maintenance activities and application of the relevant sub-plans such as the Landscape and Ecological Area Management Plan (LEAMP) and point of contact for contractors undertaking works on behalf of NSW Ports. Delivery of environmental inductions and management of induction records. Review of contractors' environmental risk assessments and SWMS for consistency with the CEMP and sub-plans.

HSE & Risk Manager

The HSE & Risk Manager (or delegate) is required to manage the environmental obligations of NSW Ports and has the following responsibilities:

- Is the nominated and approved Environmental Representative (ER) for the ILC site excluding the IMT area as required under Condition of Approval 6.1.
- Manage environmental issues associated with common or non-tenanted areas of the ILC.
- Managing the environmental compliance reporting and monitoring processes for NSW Ports
- The implementation of all management and monitoring programs required under the Project Approval
- Considering and advising on matters specified in the conditions of approval and all other licences and approvals related to the environmental performance and impacts of the project
- Managing the environmental induction process for NSW Ports including preparation or approval of induction content
- Ensuring any scheduled environmental inspections, compliance auditing of the implementation of this CEMP and any contractor environmental management documentation occurs as required under this CEMP or the approved Compliance Tracking Program
- Generally responsible for liaising and communications with other ILC tenant's environmental personnel, any tenant Environmental Representative/s for the ILC appointed under CoA 6.1, community and stakeholder representatives where required in relation to compliance with environmental requirements, incidents and complaints and environment and planning related government agencies including local councils.
- Review and improvement of the CEMP
- Reporting any significant incidents to the Planning Secretary of the DPE.
- Responding to all complaints

The HSE & Risk Manager has the authority and independence to require reasonable steps be taken to avoid or minimise unintended or adverse environmental impacts, and failing the effectiveness of such steps, to direct that relevant actions be ceased immediately should an adverse impact on the environment be likely to occur.

Environment and Sustainability Coordinator

Reporting to the HSE & Risk Manager, the Environment and Sustainability Coordinator is required to manage the environmental issues affecting NSW Ports and comply with applicable legislation and has the following responsibilities:

- Is nominated and approved as a back-up ER for the ILC site excluding the IMT area
- Assist the HSE and Risk Manager to develop, implement and maintain this OEMP, including undertaking reviews of the OEMP.
- Review ILC Tenant Operational Environmental Management Plans (OEMP) and Construction Environmental Management Plans (CEMP).
- Manage the environmental issues affecting NSW Ports, including impacts of NSW Ports' activities and developments.
- Provide environmental advice to minimise impacts on the community, protect the surrounding environment; and comply with environmental legislation, approvals and reporting requirements, including provision of electronic information via the internet.
- Communicate environmental obligations to relevant internal and external stakeholders.

Independent Environmental Auditor

A qualified independent Environmental Auditor appointed under the requirements of CoA 4.1(c) will be responsible for undertaking periodic audits of the environmental compliance of the activities undertaken on the ILC site with the Project Approval conditions and any relevant EMPs.

Independent Contractors

Where works covered by this CEMP are being carried by contractors on behalf of NSW Ports, they will also be required to also comply with any relevant CoA and this CEMP, and assist in responding to any complaints related to their works where required by NSW Ports as identified in their commercial agreement.

2.6 Enquiries and Complaints Response Procedure

This procedure applies to communications directed to NSW Ports' staff and contractors with regards to ILC works at Enfield. Community/stakeholder complaints and general enquiries could be received through a number of avenues.

Where activities covered by this CEMP are being carried out by contractors on behalf of NSW Ports, they will also be required to also comply with any relevant CoA and this CEMP, and assist in responding to any complaints related to their activities where required by NSW Ports as identified in their commercial agreement.

The contact details for the public to make general enquiries or lodge complaints about construction activities at Enfield ILC are:

- Office Hours (0830 – 1630 Monday to Friday)
- Telephone: 1300 922 524 (NSW Ports switchboard)
- Postal: Enfield ILC HSE & Risk Manager, PO Box 297, Botany NSW 1455
- Email: enquiries@nswports.com.au

These details are available on a sign near the main entrance to the site in accordance with the requirements of CoA 5.2.

All general queries/complaints will be forwarded through to the HSE & Risk Manager who will respond or disseminate to other staff, tenant or contractors as appropriate. Early resolution to any complaints will be sought, a response provided and effort made to resolve the query/complaint in a timely manner.

Outside of Office Hours/Emergencies

Out of office hours enquiries that are directed to the NSW Ports switchboard are requested to leave a message which is responded to the following business day. The NSW Ports switchboard recorded message includes an option in the event of an emergency outside of office hours to divert to the NSW Ports General Manager, Operations and Environment.

All complaints received by NSW Ports will be recorded in the Complaints Register. The information captured in this register will include:

- date and time of the enquiry or complaint;
- means by which the enquiry or complaint was made (telephone, mail or email);
- any personal details of the individual who provided the enquiry or complaint, or if no details were provided, a note to that effect;
- the nature of the enquiry or complaint;
- record of operational and meteorological condition contributing to the enquiry or complaint;
- any action(s) taken by NSW Ports in relation to the enquiry or complaint; including any follow-up contact with the individual who provided the information or complaint;
- if no action was taken by NSW Ports in relation to the enquiry or complaint, the reason(s) why no action was taken.

Queries and complaints received by NSW Ports relating to specific operational activities will be forwarded through to the relevant NSW Ports personnel, contractor and/or tenant where required.

Complaints and Enquiries to Authorities

Complaints can be made by the public to regulatory authorities such as the EPA and Local Councils. If these complaints are passed onto NSW Ports the relevant personnel will respond, in consultation with any relevant contractor and/or tenant, as required. A response will be provided to the authority in the required timeframe notifying of the action taken to address the complaint and any resolution.

2.7 Environmental Monitoring

Background monitoring has previously been undertaken by SKM in preparation of the EIS for the Project or other contractors (chiefly Leighton Contractors) during the construction of the base infrastructure for the Project.

It is not envisaged that the limited nature and scope of works proposed to be carried out under this CEMP would require the establishment of any ongoing environmental monitoring or testing program.

Any monitoring or testing that may be required would typically be identified through the risk assessment process and carried out under the relevant contractor's or NSW Ports' EWMS or procedures applying to the works.

Where any monitoring is required to be carried out in response to a complaint or incident, this would be dealt with by NSW Ports and/or the relevant contractor on a case by case basis.

2.8 Environmental Inspections

Environmental inspections of any construction works or activities if required by the risk assessment would typically be undertaken on a frequency commensurate with the risk profile.

These inspections would be carried out by the relevant contractor's environmental personnel or the HSE & Risk Manager or delegate (for NSW Ports performed works).

A site inspection checklist template is provided at Appendix E as a guide, however, contractor or site / work specific checklists may be used alternatively where approved by the HSE & Risk Manager.

Such site inspections would also identify any corrective / preventative actions required and responsibility and timeline for completion. These actions would be monitored to ensure that they are closed out in the required time frame.

2.9 Compliance and Environmental Reporting and Auditing

Environmental and compliance audits and reporting are to be carried out and reported in accordance with the requirements of NSW Ports' Compliance Tracking Program (CTP) for the Enfield ILC approved under CoA 4.1. The current CTP is located at: <http://www.nswportsbotany.com.au/projects-and-planning/ilc-at-enfield/>

Environmental Audits

Currently, in December of each year, a full independent environmental audit is undertaken by a suitably qualified person/team. This requirement and timing may be changed from time to time in accordance with the provisions of the approved CTP under CoA 4.1. The implementation of any relevant CEMP/s would normally be assessed as part of the independent environmental audit.

Compliance Reporting

Currently, in October of each year, a Compliance Tracking Report for the Enfield ILC is provided by NSW Ports to the Planning Secretary. This requirement and timing may be changed from time to time in accordance with the provisions of the approved CTP under CoA 4.1 and in consultation with the Department.

NSW Ports will seek relevant compliance information from tenants to assist in the compliance reporting process.

Records

NSW Ports and its contractors will be responsible for maintaining legible environmental records to demonstrate compliance with this CEMP, including:

- All monitoring and inspection reports;
- Internal and external audit reports;
- Reports of pollution incidents, environmental non-conformances and follow-up action;
- Reports of environmental complaints and follow-up action;

- Minutes of management review meetings, and actions required as a result; and
- Induction and training records, including GGBF material.

Records are filed electronically on the Enfield ILC Project's shared drive and/or as a hardcopy in the environmental management filing system.

Document Currency and Review

There is no restriction on the distribution of this CEMP. The revision history of this document is provided on page 2.

The controlled copy of the current version of this CEMP will be maintained on the Enfield ILC Project's document control database.

This CEMP will be reviewed and, if necessary, updated as required if it:

- Does not adequately address the matters it is intended to address;
- Needs to be changed because of an audit outcome;
- No longer represents current or appropriate practice or is inconsistent with new legislation or guidelines;
- Is otherwise determined by NSW Ports as needing to be updated.

Minor changes, corrections and updates to this CEMP may be approved by the HSE & Risk Manager at any time. Significant changes or updates resulting in new document revisions will be forwarded to DPIE for their records.

Non Conformances

NSW Ports or relevant contractor undertaking works under this CEMP are responsible for:

- Implementing actions to identify and correct causes of environmental non-conformance in the implementation/operation of the CEMP;
- Issuing non-conformances to initiate action to correct unsatisfactory environmental conditions;
- Verifying that corrective action has been effected;
- Reporting to respective management significant adverse environmental conditions, incidents or trends in the implementation/operation of the CEMP; and
- Recording changes to documented procedures as a result of non-conformances.

2.10 Induction and Training

NSW Ports and contractor personnel working on site are required to satisfactorily complete an Enfield ILC Site Safety Induction. Contractors may also develop their own site specific induction (that will include the Enfield ILC Site Safety Induction as a component) where necessary and approved by NSW Ports.

Other mechanisms of communicating environmental controls for specific works / sites / activities would be via an Environmental / Safe Work Method Statement (or similar e.g. JSEAs), Tool Box Talks and Pre-Start Meetings, all of which would be developed by the relevant contractor (or NSW Ports for its own works).

Site induction/s would typically include (but not be limited to):

- Key issues relating to the Enfield ILC Project and existing environment;
- ILC Sensitive Area Map (Appendix D) including specific protocols for working adjacent to, or within areas that may support GGBF;
- Location and protection of contaminated material retained on site including capped areas and containment cells;
- Key environmental issues, location of sensitive areas and nearest sensitive receivers;
- Incident reporting procedures;
- Environmental protection offences and penalties, and duty to notify of environmental harm; and
- Roles and responsibilities relating to environmental management for the Project.

Attendance records of all induction training sessions will be maintained by the training party (NSW Ports and/or contractor).

Specific environmental training (other than inductions) may not be required for the works proposed to be carried out under this CEMP. The risk assessment process should identify any specific training needs that would need to be managed by NSW Ports or contractor.

2.11 Emergency Response and Incident Management

All significant environmental and pollution incidents shall be reported immediately to the:

- Contractor's Project Manager / Director (for works being undertaken by a contractor); and
- NSW Ports HSE & Risk Manager and General Manager Operations.

For any incident determined by either of the above or an Environmental Representative appointed under CoA 6.1 to have actual or potential significant off-site impacts upon people or the biophysical environment a report outlining the event and impacts must be provided to the above within 24 hours of becoming aware of the incident.

A written report must be provided by NSW Ports to the Planning Secretary within 7 days of any incident determined by NSW Ports General Manager Operations to have actual or potential significant off site impacts upon people or the biophysical environment.

Duty to Notify Pollution Incidents

Pollution incidents that harm or are likely to harm the environment will be reported by the relevant contractor's representative or NSW Ports' General Manager Operations to the relevant authorities (see below) in accordance with the *Protection of the Environment Operations Act 1997* – Duty to Notify.

The following process will be followed for reporting a pollution incident under the Duty to Notify provisions.

Firstly, call 000 if the incident presents an immediate threat to human health or property. Fire and Rescue NSW, the NSW Police and the NSW Ambulance Service are the first responders, as they are responsible for controlling and containing incidents.

If the incident does not require an initial combat agency, or once the 000 call has been made, notify the relevant authorities in the following order. The 24-hour hotline for each authority is given when available:

- the EPA Environment Line - 131 555
 - the local Public Health Unit – 1300 066 055
 - the WorkCover Authority – 13 10 50
 - Strathfield Municipal Council – 9748 9999
 - Fire and Rescue NSW – 1300 729 579
- Note: If the situation warranted calling 000 as a first point of notification, you do not need to ring Fire and Rescue NSW again.

The Department of Planning, Industry and Environment will need to be notified by the HSE & Risk Manager in accordance with CoA 7.1 as soon as practically possible of any incident with actual or potential significant off-site impacts and then a written report of the incident provided to the Planning Secretary within 7 days.

3. Implementation

3.1 Risk Assessment and Implementation

Prior to any site preparation or construction activity commencing, a risk assessment should be carried out by the relevant contractor (or NSW Ports for its own activities) using a risk assessment process consistent with Australian Standard, (AS/NZS 4360:2004) Risk Management and (ISO14001).

An environmental risk register for the Enfield ILC Project and a standard suite of environmental mitigation measures and controls have been developed as guidance for the scope of activities likely to be undertaken under this CEMP. These are set out in Appendix F.

A site/activity specific risk assessment may determine that the implementation of the mitigation measures and controls provided in 3.2.1 and activity/task specific controls in Appendix F is not sufficient to reduce the risks of environmental impacts to as low as reasonably practicable. In this case additional controls should be developed and implemented for new or site specific risks and additional rows are provided in the register in Appendix F to facilitate this.

3.2 Environmental Work Method Statement (EWMS)

Typically, a EWMS (or equivalent such as a Safe Work Method Statement or JSEA) prepared by a contractor (or NSW Ports for its own activities) is the key on-ground method used to manage safety and environmental risks associated with a particular construction activity or task.

Following assessment of the likely environmental risks for the proposed construction activity / task and identification of mitigation measures and controls to be implemented using the process outlined in 3.1 above, an EWMS is to be completed and used to induct or brief the relevant personnel into the activity/work.

All of the requirements of CoA 6.3 relating to the management and mitigation of construction noise, traffic, heritage, landscape/ecology and dust need to be considered when carrying out works. Accordingly, the risk assessment and resulting EWMS must address and where appropriate and relevant include the standard input in 3.2.1 below.

Standard ILC EWMS Content

- Details of construction activities
- Standard approved hours of work
- Contact details for reporting environmental incidents, complaints and emergencies
- Practicable/reasonable mitigation measures to achieve the relevant construction noise goals (see Table 4 in Section 3.3.3) including as a minimum those listed in Section 3.3.3
- Practicable/reasonable mitigation measures to reduce the impact of construction traffic including as a minimum those listed in Section 3.3.1
- If fill is required, the relevant obligations of the Fill Importation Protocol (Appendix G) will apply
- Details as to how construction traffic is to be managed including:
 - Movement of oversize loads
 - Heavy vehicle movement restrictions and routes
 - How road use conflicts will be avoided, particularly with local traffic
 - Construction waste transport
 - Parking
 - Laydown areas
- Protection of heritage items
 - No works are permitted to the Tarpaulin Shed or Pillar Water Tank other than necessary maintenance or stabilisation or heritage interpretation related works

- If unexpected heritage item is found work is to cease immediately and NSW Ports HSE & Risk Manager notified immediately for further advice
- Erosion and sediment controls required to minimise the discharge of sediment and other pollutants to waters including but not limited to, where required:
 - Design of ERSED controls consistent with the Blue Book¹
 - Covering of stockpiles with geofabric or other stabilising methods
 - Use of wheel wash/rumble grids
 - Covering of stormwater inlets with geofabric
 - Use of sand bags and silt fencing
- Practicable/reasonable mitigation measures to reduce the impact of construction dust including as a minimum those listed in Section 3.3.1
- Practicable/reasonable mitigation measures to reduce potential impact on GGBF population and habitat

The ILC Sensitive Area Map provided in Appendix D may also be attached or used to develop the EWMS if relevant to the works proposed.

3.3 Environmental Sub-plans

As required under CoA 6.3 the following Sub-Plans have either been developed and attached as separate appendices to this CEMP or are covered by the process and standard measures outlined in section 3.2 above and/or the Risk Register in Appendix F.

Accordingly, the relevant requirements of these Sub-Plans will be included in EWMS as necessary.

3.3.1 Construction Traffic Management Protocol

Aim:

The aim of the construction traffic management protocol is to ensure that construction activities do not impact on the operation of the ILC and the surrounding road network.

Assessment of Risk:

The scope of works proposed under this CEMP will result in very minor construction traffic numbers with minimal impacts predicted and the majority of works unlikely to require the use of heavy vehicles. Where heavy vehicles are required (e.g. the delivery of plant / equipment), the contractor induction process and EWMS will include requirements for heavy vehicles to utilise main roads and avoid residential back streets. Any transportation of construction waste materials will be undertaken by suitably qualified waste contractors and all loads will be covered when leaving the site.

Where required, NSW Ports will notify the Road Transport Coordination Group of the proposed works prior to construction commencing, if consultation is warranted due to the risk profile of the works.

Mitigation Measures:

All contractors and NSW Ports staff working on site will implement the following controls to further reduce the impact of construction traffic, where applicable:

- On-site parking and lay-down areas will be clearly delineated and communicated to staff and contractors
- Signage and appropriate speed limits within the site will be implemented where applicable
- If roads need to be closed, relevant approvals will be obtained and traffic controllers will be utilised where required
- All contractors and staff will be required to comply with on-site traffic requirements
- No obstruction of public or internal roads by any materials/vehicles without obtaining the necessary approvals

¹ Managing urban stormwater: soils and construction (Landcom 2004)

- Vehicle movements/deliveries utilising heavy vehicles will be undertaken within the approved construction hours noted below and where possible, outside of peak traffic times (i.e. 8am to 9am and 5pm to 6pm):
 - 7:00am to 6:00pm, Mondays to Fridays inclusive
 - 8:00am to 1:00pm on Saturdays; and
 - at no time on Sundays or public holidays.
- Other project specific controls for traffic management as determined by the Risk Assessment (Appendix F)

Monitoring:

Impacts from construction traffic will be visually monitored by the NSW Ports project manager or the contractor's construction manager. If works are significantly impacting upon on-site traffic movements or in the event a traffic complaint is received, NSW Ports will facilitate a review of the work procedures and work with the contractors to resolve the matter. All complaints received are recorded in NSW Ports' Complaints Register and follow up actions implemented and recorded accordingly.

3.3.2 Construction Dust Management Protocol

Aim:

The aim of the Construction Dust Management Protocol is to prevent significant dust impacts which have the potential to negatively impact on other operators of the ILC site, the local community or the ecologically sensitive areas.

Assessment of Risk:

The majority of the ILC site has now been either landscaped or sealed. The works covered by this CEMP are not expected to result in large exposed areas which will generate significant dust impacts or trigger monitoring requirements under Condition of Approval 3.2. Prior to construction beginning, the contractor or NSW Ports Project Manager will review the proposed works for dust generating potential and appropriate mitigation measures will be implemented in accordance with the risk profile of the proposed works.

Mitigation Measures:

All contractors and NSW Ports staff working on site will implement the following controls to prevent exceedences of dust criterion, where applicable:

- Use of sealed or stabilised access roads wherever possible
- Minimise area of disturbance
- Revegetate disturbed areas as soon as possible in accordance with the Landscape and Ecological Area Management Plan (Section 3.3.5)
- Use of water carts or other stabilising agents
- Use of rumble grids/ballast grids
- Covering of stockpiles with geofabric
- Truck loads with potential dust generating loads will be covered when entering and leaving the site
- A 25km/hr speed limit during construction works
- Other project specific controls for dust management as determined by the Risk Assessment (Appendix F).

Monitoring:

NSW Ports staff and contractors will visually monitor dust levels during works and the EWMS will include the measures to be taken in the event of high winds, including cessation and re-scheduling of potentially dust generating works if required.

3.3.3 Construction Noise Management Plan

Aim:

The aim of the Construction Noise Management Plan is to prevent exceedences of the Construction Noise Goals outlined in Table 3 and reduce noise impacts on operators of the ILC and the local community.

Assessment of Risk:

The works proposed under this CEMP are varied and cover a number of proposed activities. Prior to each individual works contract being undertaken the EWMS will outline the details and scheduling for the activities to be completed.

None of the works proposed are expected to result in exceedences of the construction noise goals at the residential receivers outlined in Table 3 below. In the event that a particular activity is assessed as potentially affecting nearby residents, the impacted residents will be advised via a letterbox drop and the works scheduled for a time of day with the least impact. NSW Ports procedure for complaints management is outlined in Section 2.5 and will be communicated to any contractors working on site and maintained throughout the construction and operation of the ILC.

Table 3: Construction Noise Goals (from EIS, SKM 2005)

Ref	Address	Construction noise goal (dBA)
A1	Eastern end of Jean Street Strathfield South	54
A2	Eastern end of Ivy Street Strathfield South	53
A3	2 Wentworth Street (sth) Greenacre	49
A4	Eastern end of Gregory Street Strathfield South	49
A5	Western end of Blanche Street Strathfield South	46
A6	40 Bazentin Street Belfield	46

Mitigation Measures:

All contractors and NSW Ports staff working on site will implement the following controls to further reduce the potential for noise impacts, where applicable:

- Construction activities that will generate audible noise at any residential premises will be restricted to the following hours, unless prior written approval is granted from the Planning Secretary:
 - 7:00am to 6:00pm, Mondays to Fridays inclusive
 - 8:00am to 1:00pm on Saturdays; and
 - at no time on Sundays or public holidays.
- Ensure all plant and equipment is maintained and operated in a proper and efficient manner
- Silencers and mufflers (residential standard) that comply with regulatory and manufacturers requirements
- Planning noisy activities for times of the day with least impact (i.e. avoiding early morning starts where possible)
- Non tonal reversing alarms (or other safe and silent reversing systems that meet WH&S requirements)
- Positioning of noisy equipment/plant as far as possible from sensitive receivers
- Installation of shielding / temporary noise barriers
- Other project specific controls for noise management as determined by the Risk Assessment (Appendix F)

Monitoring:

Should NSW Ports determine that the works may result in significant noise impacts at residential receivers, or in the event that a noise complaint is received, NSW Ports will investigate opportunities to implement noise monitoring and

further mitigation options to ensure the construction noise goals are met. All complaints received are recorded in NSW Ports Complaints Register and follow up actions implemented accordingly.

3.3.4 Heritage Interpretation Plan and Strategy

A Heritage Interpretation Plan and Strategy (HIPS) (March 2008) and Strategy Addendum (September 2010) was developed and approved for the whole of the ILC site prior to main construction works commencing. Heritage interpretation works which have not been completed under previous stages of works will be undertaken in accordance with this CEMP. NSW Ports will continue to conform with these plans and apply the relevant recommended measures where applicable to manage heritage items on the site.

The HIPS and Addendum document can be found at: <http://www.nswportsbotany.com.au/projects-and-planning/ilc-at-enfield/>

3.3.5 Landscaping and Ecological Area Management

Landscape works have been undertaken on the site to date under the Mt Enfield Enhancement, Revegetation and the Landscape Management Plan which was developed as Appendix D of the Stage 3 Construction Environmental Management Plan (CEMP) Addendum: Onsite Reuse of Unsuitable Engineering Fill Management Plan (Leighton Contractors, February 2012). Under this requirement, a Frog Management Plan (2010) and Frog Protection Plan (2009) were also developed to manage the frog ecological area. The Ecological Assessment undertaken as part of the Modification 5 response to submissions (Addition of Fill Material to Mt Enfield) also identified a number of mitigation measures to be implemented for the protection of GGBF.

Additional landscaping works are proposed to be undertaken on the site under this CEMP. Landscaping works will either be undertaken in accordance with existing Landscape Management Plans or a revised version of the Landscape and Ecological Area Management Plan for maintenance landscaping which now forms part of the Overarching Operational Environmental Management Plan, approved by the Department of Planning Industry and Environment.

The EWMS will include the recommended measures from these plans, including where relevant and where works are proposed within or adjacent to the Frog Habitat Creation Area:

- the installation of an exclusion fence to help prevent frogs from entering the construction site;
- the installation of silt fences and silt trapping devices prior to any earthworks, and the use of dust suppression methods throughout construction, to prevent wind-blown dust from entering the frog habitat area;
- the establishment of run-off barriers between the construction areas and the frog habitat area, to prevent accidental spills and/or stormwater waste from entering the frog habitat area;
- the installation of visual screens to minimise light spill into the frog habitat area, from night construction works;
- the demarcation of the frog habitat area as a “no go” area, using barrier bunting and signs that indicate the significance of the area and that the site is off limits to people, machinery and plant equipment;
- the installation of an exclusion fence to help prevent frogs from entering the operational areas;
- the installation of diversion bunds to ensure hazardous liquids can never enter the frog habitat area; and
- the installation of visual screens to minimise light spill into the frog habitat area, from trucks and plant equipment operating throughout the night
- The north-south haul/maintenance road to Mt Enfield will be inspected after all rainfall events and any GGBF found relocated to the FHCA by NSW Ports Landscape Contractors before the haul/maintenance road is used. The Landscape Contractors have undertaken formal instruction regarding the correct handling and transport of GGBF from NSW Ports’ Consulting Herpetologist.
- Truck movements along the north-south haul road to Mt Enfield will not occur outside daylight hours, unless otherwise undertaken under special authorisations issued under the project approval.
- No exclusion fences are to be placed around the haul road to ensure GGBF can move across the site in the night or during the day in wet weather.

- Dust suppression, including use of water tankers, will be used during earthworks activities at Mt Enfield to prevent wind-blown dust from reaching the FHCA and adjoining areas.
- Inspections will be carried out during the earthworks at Mt Enfield to identify predator presence on the site. Feral animal control measures should be implemented if predators, especially foxes and rats, are detected. The use of predator control measures should be carried out in consultation with NSW Ports' Herpetologist to ensure that the proposed measures are appropriate and not themselves a potential impact on the frogs.
- Predator inspections should continue during the landscaping and revegetation phase of the works. If the incidence of birds likely to attack GGBF, notably ibis and heron, increases as a result of the works or the revegetation, bird deterrent methods may need to be used to prevent predation of any potential GGBF in the FHCA. NSW Ports' Consulting Herpetologist should be consulted to ensure that the proposed measures are appropriate and not themselves a potential impact on the frogs.
- Sediment and erosion control measures, including silt fences, will be erected downstream of active emplacement or earthworks areas which have not yet been stabilised to catch any silt from surface construction runoff and prevent sedimentation of downstream receiving waters.
- Any works which will penetrate the 100mm cover layer are to be undertaken in accordance with NSW Ports Site Management Plan (SMP) for the Southern Precinct.

The Mt Enfield Enhancement, Revegetation and the Landscape Management Plan can be found at:

<http://www.nswportsbotany.com.au/projects-and-planning/ilc-at-enfield/>

3.3.6 Mount Enfield Stabilisation Management Plan

The Mount Enfield Stabilisation Management Plan was incorporated into the Stage 3 Construction Environmental Management Plan (CEMP) Addendum: Onsite Reuse of Unsuitable Engineering Fill Management Plan (Leighton Contractors, February 2012). This documentation was prepared as part of Modification Application 5, as approved by the Department of Planning and Infrastructure. NSW Ports will continue to conform to this plan and apply relevant recommended measures where applicable to manage the Mt Enfield area during construction works.

The CEMP Addendum can be found at: <http://www.nswportsbotany.com.au/projects-and-planning/ilc-at-enfield/>

Appendix A: Legislation Register

ENVIRONMENTAL LAW	RELEVANT REQUIREMENTS
SUBORDINATE LEGISLATION	
NSW Environmental Planning and Assessment Act 1979 <i>Environmental Planning and Assessment Regulation 2000 (Regs)</i> <i>State Environmental Planning Policy (State and Regional Development) 2011 (SEPP SRD)</i> <i>State Environmental Planning Policy (Exempt and Complying Development Codes) 2008 (Codes SEPP)</i> <i>Other State Environmental Planning Policies as applicable to development (i.e. SEPP 33, SEPP 55, Infrastructure SEPP)</i> <i>Strathfield Local Environmental Plan 2012 (LEP)</i>	- Requirements under relevant legislation for exempt development (Part 4, Div 1 of Act; LEP and Codes SEPP) - Environmental impact assessment to accompany development applications (Part 4 of Act; cl 50 and Part 1 of Schedule 1 of Reg) - Information to accompany an application for a complying development certificate (cl 126 and Part 2 of Schedule 1 of Reg) and requirements under relevant legislation for complying development (LEP and Codes SEPP). - Duty to consider environmental impact for activities which do not require consent (Part 5 of Act and cl 228 of Reg) - Applications for approval of State Significant Infrastructure (s 115X of Act; cl 192-193 of Reg; Part 3 of SEPP SRD) - Applications for approval of State Significant Development (s 89C – 89L of Act; cl 50 and Part 1 of Schedule 1 of Reg; Part 2 of SEPP SRD)
NSW Protection of the Environment Operations Act 1997 <i>Protection of the Environment Operations (General) Regulation 2009</i> <i>Protection of the Environment Operations (Clean Air) Regulation 2010</i> <i>Protection of the Environment Operations (Noise Control) Regulation 2017</i> <i>Protection of the Environment Operations (Waste) Regulation 2014</i>	- Requirements to hold a licence for scheduled development and scheduled activities (Part 3.2) - Requirement to comply with licence conditions (s64) - Publication of results of monitoring (s66(6)) - Prohibition of wilful or negligent disposal of waste causing environmental harm (s115) - Prohibition of wilful or negligent leak, spill or escape of substance causing environmental harm (s116) - Prohibition of wilful or negligent emission of controlled ozone depleting substance causing environmental harm (s117) - Prohibition on polluting waters (s120) - Requirements to prevent air pollution (Part 5.4) - Requirements to prevent noise pollution (Part 5.5) - Prohibition on polluting land (s142A) - Prohibition on transport of waste to an unlawful facility (s143) - Prohibitions on littering (Part 5.6A) - Duty to notify pollution incidents (Part 5.7) - Duty to prepare and implement pollution incident response management plans (Part 5.7A) - Requirements relating to asbestos waste (Part 7 of Waste Reg)
NSW Contaminated Land Management Act 1997	- Duty to report contamination (s60) - Requirements for Site audits (Part 4)
NSW Biodiversity Conservation Act 2016 <i>Biodiversity Conservation Regulation 2017</i>	- Prohibition of harm to threatened or protected animal (s2.1) - Prohibition of picking a threatened or protected native plant (s2.2) - Prohibition of damaging declared areas of outstanding biodiversity value (s2.3) - Prohibition of damage to habitat of threatened species, endangered populations or endangered ecological communities (s2.4)

	• Prohibition of dealing in threatened or protected plant or animal (s2.5) • Prohibition of liberating animals without authority (s2.6)
NSW National Parks and Wildlife Act 1974 • National Parks and Wildlife Regulation 2009	• Prohibition on harming or desecrating Aboriginal objects and Aboriginal places (s86) • Prohibition on damaging reserved land (s156A)
NSW Heritage Act 1977 • Heritage Regulation 2012	• Prohibition on movement, damage or destruction of historic shipwrecks (s51) • Effect of interim heritage orders and listing on State Heritage Register (s57) • Minimum standards of maintenance and repair (incl inspections) for heritage items (Part 6, Div 5 of Act; Part 3 of Reg) • Requirement to establish and maintain Heritage and Conservation Register (s170) • Requirements for heritage management by government instrumentalities (s170A)
NSW Work Health & Safety Act 2011 • Work Health & Safety Regulation 2017	• Health and safety duties (Part 2) • Duty to notify WH&S incidents (Part 3) • Duty to identify hazards (cl 34 of Reg) • Management of airborne contaminants (Part 3.2, Div 7 of Reg) • Management of hazardous atmospheres (Part 3.2, Div 8 of Reg) • Minimise storage of storage of flammable and combustible substances (Part 3.2, Div 9 of Reg) • Manage risk of hearing loss due to noise (cl 57 of Reg) • Obligations in relation to hazardous chemicals (Part 7.1 of Reg) • Obligations in relation to lead (Part 7.2 of Reg) • Obligations in relation to asbestos (Chapter 8 of Reg) • Obligations in relation to major hazard facilities (Chapter 9 of Reg)
NSW Dangerous Goods (Road and Rail Transport) Act 2008 • Dangerous Goods (Road and Rail Transport) Regulation 2009	• Duties concerning the transport of dangerous goods (s9) • Duties concerning the transport of dangerous goods to which special provisions apply (Part 3 of Reg) • Duties in relation to packaging of dangerous goods (Part 4 of Reg) • Consignment procedures for dangerous goods (Part 5 of Reg) • Safety standards (vehicles and equipment) for dangerous goods (Part 6 of Reg) • Transport operations relating to certain dangerous goods (Part 7 of Reg) • Duties regarding stowage and restraint of dangerous goods (Part 8 of Reg) • Duties regarding segregation of dangerous goods (Part 9 of Reg) • Duties regarding bulk transfer of dangerous goods (Part 10 of Reg) • Duties for documentation of dangerous goods for transport (Part 11 of Reg) • Duties regarding safety equipment (Part 12 of Reg) • Duties regarding transport procedures (Part 13 of Reg) • Duties regarding emergencies (Part 14 of Reg)

	• Requirement to licence vehicles (cl 191 of Reg) • Requirement to licence drivers (cl 192 of Reg)
<i>Environmentally Hazardous Chemicals Act 1985</i> • <i>Environmentally Hazardous Chemicals Regulation 2017</i>	• Obligations to comply with chemical control orders (s26) • Requirements for licensing of any prescribed activity with respect to environmentally hazardous chemicals or declared chemical waste (s28)
<i>NSW Biosecurity Act 2015</i> • <i>Biosecurity Regulation 2017</i>	• Duty to prevent, eliminate or minimise biosecurity risk (s22) • Prohibition of dealing with prohibited matter (s28) • Duty to notify prohibited matter events (s30) • Duty to prevent, eliminate or minimise biosecurity risk posed by prohibited matter (s36) • Duty to notify biosecurity events (s38) • Prohibited dealings (s152) • Duty to notify certain pests and diseases (cl 7 of Reg)
<i>NSW Roads Act 1993</i> • <i>Roads Regulation 2018</i>	• Requirement for public authorities to consult with RMS and receive approval for work on a classified road (s75 of Act)
<i>NSW Road Transport Act 2013</i> • <i>Road Rules 2014</i> • <i>Road Transport (Driver Licensing) Regulation 2017</i> • <i>Road Transport (General) Regulation 2013</i> • <i>Road Transport (Vehicle Registration) Regulation 2017</i>	• Requirement for approval from relevant roads authority for installation or removal of a traffic control device (Div 2 of Part 5.3 of Act) • Duties concerning the lawful use of roads in NSW (Act and Regs)
<i>Commonwealth Environment Protection and Biodiversity Conservation Act 1999</i> • <i>Environment Protection and Biodiversity Conservation Regulations 2000</i>	• Requirements relating to matters of national environmental significance (Part 3, Div 1) • Environmental assessment and approval of controlled actions (Chapter 4 of Act, Part 5 of Regs)
<i>Commonwealth Biosecurity Act 2015</i> • <i>Biosecurity Regulation 2016</i>	• Requirements to manage biosecurity risks: human health (Chapter 2 of Act) • Requirements to manage biosecurity risks: goods (Chapter 3 of Act, Chapter 2 of Reg) • Requirements to manage biosecurity risks: conveyances (Chapter 4 of Act, Chapter 3 of Reg) • Requirements to manage biosecurity risks: monitoring, control and response (Chapter 6 of Act, Chapter 5 of Reg) • Provision for approved arrangements to manage biosecurity risk (Chapter 7 of Act, Chapter 6 of Reg)

Appendix B: Consultation with the EPA



Our reference: DOC14/7237-01
Contact: Rhian Tough

Daniela Vujic
Senior Planning and Environmental Manager
NSW Ports
Level 2, Sydney Ports Operations Centre
Gate B103, Penrhyn Road
Port Botany NSW 2036

Dear Ms Vujic

**Intermodal Logistics Centre (ILC) at Enfield – Sydney Ports Corporation – Major Project No. 05_147
Consultation for preparation of Enfield ILC Overarching CEMP**

Thank you for your letter dated 24 January 2014 notifying the Environment Protection Authority (EPA) of the preparation of the Construction Environmental Management Plan (CEMP) for the Intermodal Logistics Centre at Enfield.

The EPA understands that the preparation of the overarching CEMP is a requirement of the project approval (condition 6.2d). The approval states that the CEMP must include consideration of measures to address EPA requirements during site establishment and construction.

Whilst the EPA supports the preparation of the CEMP for the project, the EPA does not usually provide comment regarding the content of environment management plans. It is the proponent's responsibility to ensure that all relevant legislative requirements are met. The EPA does however recommend that a CEMP contain detailed consideration of how possible environmental impacts will be managed.

If you require further information regarding environmental management issues and measures the EPA website (www.epa.nsw.gov.au) contains a variety of policies and guidance documents that may be of assistance.

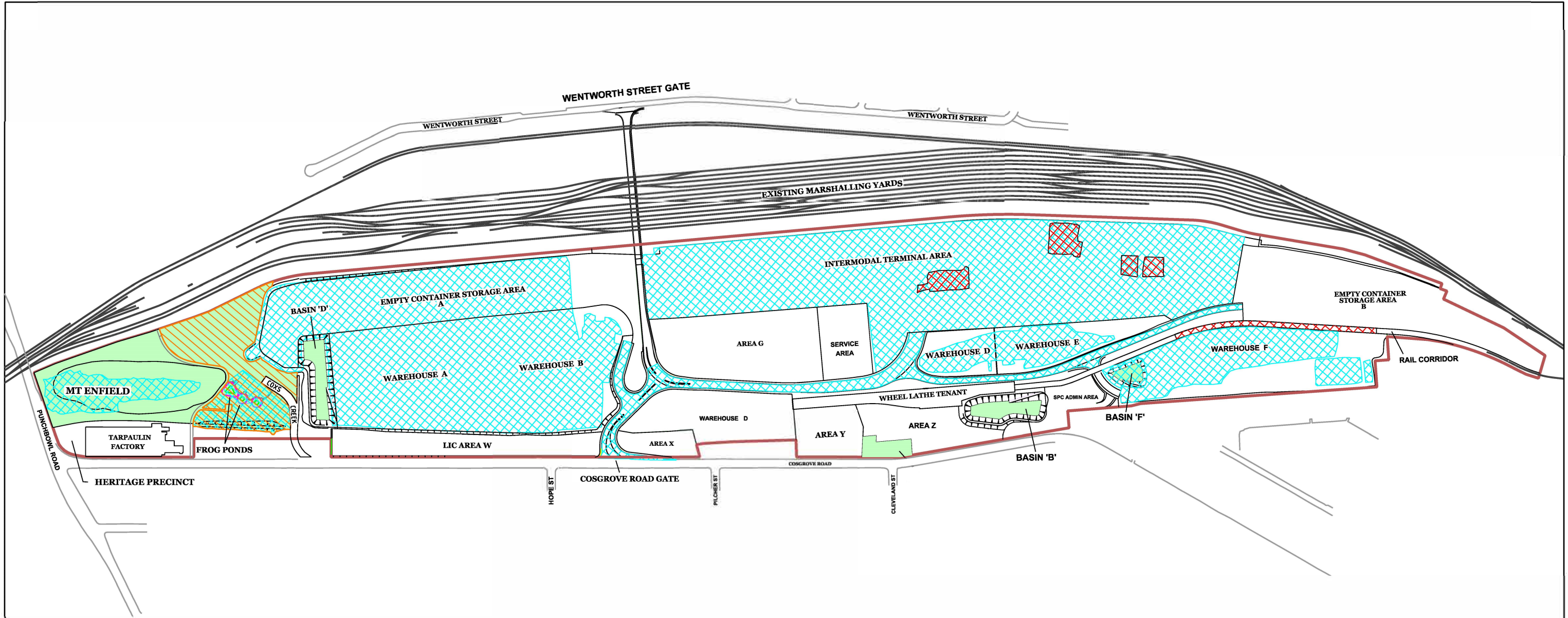
If you wish to discuss this matter please contact Rhian Tough on 02 9995 6817.

 24/1/2014.

GREG SHEEHY
Manager – Sydney Industry
Environment Protection Authority

Appendix C: HSE Policy

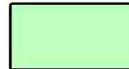
Appendix D: ILC Sensitive Area Map



KEY:



CAPPED AREAS



STORMWATER BASIN / ECOLOGICAL AREA



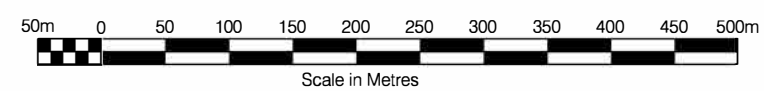
FROG HABITAT AREA



CONTAINMENT CELL

PLAN LIMITATION STATEMENT
This plan has been prepared in accordance with accepted practice for the use only of Sydney Ports Corporation for a specific purpose. No Warranty or representation, expressed or implied is made to any other party regarding this survey and plan. This plan should not be relied upon for any other purpose or use by any party including Sydney Ports Corporation as the plan may not contain sufficient information for that purpose or use.
THIS NOTE IS AN INTEGRAL PART OF THIS PLAN
NOTE : STATED MEASUREMENTS ARE INDICATIVE ONLY AND SUBJECT TO SURVEY
Copyright © Sydney Ports Corporation

ILC Site Boundary



NSW Ports
ENFIELD

PLAN PRODUCED ON MGA GRID

ILC SENSITIVE AREA MAP		
DRAFTED BY: A.K.	DATE: 30.01.2014	PLAN SCALE: AS PER SCALE BAR
PROJECT CODE:		DWG NO: SEDP214A

Appendix E: Construction Environmental Compliance Check



Construction Environmental Compliance Check

Location:

Occupant:

Tenure of Occupant: Lease / Licence / Other

Status of Site:

Relevant Approvals

Approval Type	Ref. No.	Description

Environmental Management Plan / Work Method System

Document Title	Version	Date

Compliance Check Methodology

Method	Yes/No	Date(s)	Participants
Site inspection			
Interview / meeting with tenant			
Document review			
Other: <i>[specify]</i>			

Management of Significant Environmental Risks

Aspect	Requirement	Complies (Y/N/Unsure)	Evidence Cited	Date	Comment
Traffic & Transport	Are there sufficient traffic controls in place?				
Sediment and erosion	Are all sediment and erosion controls in place and properly maintained?				
Noise					
Air Quality	Is all machinery being operated in a efficient manner? i.e. no unnecessary idling?				

General Environmental Management Elements

Element	Criteria	Satisfactory (Y/N/Unsure)	Evidence Cited	Date	Comment
Site management	Are all works/vehicles/machinery/materials within the site boundaries?				
	Is there a copy of the CEMP/JSEA/SWMS on site?				

Element	Criteria	Satisfactory (Y/N/Unsure)	Evidence Cited	Date	Comment
Incident Management	Is a register of incidents being kept on site?				

Summary of Items Requiring Corrective/Preventative Actions

Issue/Action	Assigned to and date	Follow up/Re-inspection details	Confirmed closed?
1.			
2.			
3.			
4.			
5.			

This report has been prepared in good faith based on the observations of NSW Ports' personnel and the information supplied by the tenant. The report is not intended to be a comprehensive compliance audit, rather it seeks to identify potential compliance issues of relevance to NSW Ports and Port Lessor. The tenant is entirely responsible for complying with its own environmental obligations and this report must not be relied upon, including in any dealings with a government authority or accredited certifier.

Name: _____

Signed: _____

Date: _____

Appendix F: Risk Register

The following tables outline the NSW Ports risk assessment methodology and have been used to assess all construction related environmental risks for the Enfield ILC.

Risk Methodology: Risk Rating for Likelihood

1) LIKELIHOOD RATING			
Rating	Definition	Frequency	Description
1	Rare	Once every 25 years (0-10%)	Has not happened previously in our industry, but is a conceivable scenario / The risk will only occur in exceptional circumstances and is almost impossible
2	Unlikely	Once every 10 years (10-40%)	Has happened previously in our industry / The risk event may occur but only in certain circumstances and not likely to occur
3	Possible	Once every 5 years (40-70%)	Has been logged at least once within our organisation or my previous employer(s) / The risk event could occur at some point over the period of the objective
4	Likely	Once every 2 years (70-90%)	Has been logged at least several times within our organisation or my previous employer(s) / The risk event will probably occur at some point
5	Almost Certain	Once every year (90-100%)	Has been logged regularly in this area and others (known industry issue) / Risk event is almost certain to occur at some point

Risk Methodology: Risk Rating for Consequence (severity)

2) CONSEQUENCE RATING						
Rating	Description	Financial	Environmental	Safety	Reputational	Operational
1	Minor	<\$0.1M	Marginal environmental damage/onsite release contained immediately and not requiring notification of EPA.	Minor injury requiring simple first aid treatment.	Isolated complaint by an individual. No media attention.	Interruption of a critical function or process of less than 24 hours, or less than 48 hours for a non-core function or process
2	Moderate	<\$0.2M	Environmental damage requiring notification to EPA.	Medical attention and absence from work for less than 5 days.	Complaint by multiple individual's. Low profile media attention.	Interruption of a critical function or process of between 24 and 48 hours, or between 2 and 7 days for a non-core function or process
3	Major	<1.0M	Environmental damage leading to an EPA investigation.	Injury requiring hospitalisation with absence from work for	Level of public attention diverting significant management resources towards	Interruption of a critical function or process of between 2 and 7 days, or

				over 5 days, but no lasting health impact.	dealing with underlying matter. Delay to or suspension of strategic projects and revision of strategic goals.	between 7 and 14 days for a non-core function or process
4	Critical	<\$5M	Environmental damage leading to an EPA enforceable undertaking.	Single serious long term injury or disability.	Severe dent in key stakeholder confidence requiring extensive engagement of top management to restore trust and faith. Significant reduction in stakeholder support	Major or total disruption to operations of between one and four weeks
5	Extreme	>\$5M	Extensive environmental damage leading to a parliamentary inquiry or commission.	Loss of life or multiple serious long term injuries or disabilities.	Loss of key stakeholder confidence affecting future growth and investment. Public outrage	Major or total disruption to operations of greater than four weeks

Risk Methodology: Risk Matrix

		Likelihood				
		Rare	Unlikely	Possible	Likely	Almost Certain
Consequence		1	2	3	4	5
Extreme	5	Significant (5-1)	High (5-2)	High (5-3)	High (5-4)	High (5-5)
Critical	4	Significant (4-1)	Significant (4-2)	High (4-3)	High (4-4)	High (4-5)
Major	3	Moderate (3-1)	Moderate (3-2)	Significant (3-3)	Significant (3-4)	High (3-5)
Moderate	2	Low (2-1)	Low (2-2)	Moderate (2-3)	Significant (2-4)	Significant (2-5)
Minor	1	Low (1-1)	Low (1-2)	Low (1-3)	Moderate (1-4)	Significant (1-5)

Risk Assessment: Aspects and Impacts Register Enfield

ACTIVITY	ASPECT	IMPACT	UNCONTROLLED RISK			MITIGATION MEASURES	RESIDUAL RISK		
			C	L	Risk		C	L	Risk
Compliance with project approvals and Licenses	Not maintaining compliance with ILC conditions of approval	1. Not identifying appropriate approvals / licenses required	3	3	Significant	Check Environmental Assessment / REF / EIS and statutory documentation. Check legislation register in CEMP.	3	2	Low
		2. Not maintaining compliance requirements and deadlines for reporting	3	3	Significant	Include any contractor responsibilities for approvals in contract documentation. Document requirement in EMP.	3	2	Low
Works on or in the vicinity of a heritage item	Disturbance of heritage item	1. Loss of heritage value	2	3	Moderate	Assess the impact of the activity on heritage items before carrying out the activity Make staff and contractors aware through inductions, hazard notices and/or signage of heritage items and values where present Works being undertaken in the vicinity of heritage items will be required to adhere to the HIPS Consultation with the Heritage Office is required before undertaking stabilisation works on the Pillar Water Tank Maintain heritage items in accordance with the Heritage Act 1977 and in accordance with the NSW State Agency Heritage Guide to monitor, maintain or repair heritage assets so as to retard or prevent deterioration due to the effects of fire, vandalism, theft and weather.	2	1	Low
Building works	Disturbance of materials containing asbestos	1. Air pollution – asbestos	2	3	Moderate	Include specific control measures in relevant sub-management plan for asbestos. Including PPE requirements for workers.	2	2	Low
		2. Human health – respiratory illness	3	3	Significant	Air quality monitoring at designated points in accordance with environment protection licences and other approvals Airborne fibre monitoring in accordance with legislative requirements when undertaking asbestos removal work Visual inspection of works and equipment to verify that control measures are in place	3	2	Moderate

General Construction	Disturbance of endangered Green and Golden Bell Frog (GGBF) at the site Frog Habitat Creation Area (FHCA)	1. Loss of habitat	3	3	Significant	Consult NSW Ports herpetologist as required prior to undertaking any new or changed works	3	1	Moderate
		2. Fauna disturbance/death	3	3	Significant	All personnel to be inducted into ILC Sensitive Area Map which includes location of these areas A visual frog clearance survey will be undertaken prior to works commencing within or adjacent to the Sensitive Area Frog exclusion fencing must be erected where recommended by the herpetologist No herbicides or pesticides are to be used within the frog habitat areas, or in areas where they may be wind blown into habitat areas Implement actions where relevant from the Sydney Ports Frog Management Plan and Frog Protection Plan Identify and remove on-site noxious weeds. Inspection of the north-south haul road to Mt Enfield after all rainfall events to relocate any GGBF to the FHCA by the designated Environmental Officer/Manager NO exclusion fences around the haul road to ensure GGBF can move across the site in the night or during the day in wet weather Soil, or vehicles transporting soil or moist material in the ILC site, are not be permitted in the FHCA. Inspect the FHCA boundary fence and signage regularly to ensure it is maintained. Restrict members of the public from entering the FHCA at all times.	3	1	Moderate
	Washout of concrete	1. Water pollution - alkaline water polluting stormwater system	1	4	Moderate	Create designated concrete washout area locations. Concrete wastes to be disposed of appropriately off site	1	2	Low
	Construction traffic within and outside of the site	1. Disruption to traffic flows on public roads	2	3	Moderate	Instruct heavy vehicle drivers to use designated arterial routes, not residential back streets Vehicle movements/deliveries utilising heavy vehicles will be undertaken within the approved construction hours and where possible, outside of peak traffic times No closure or obstruction of public or internal roads by any materials/vehicles without obtaining necessary approvals	2	2	Low

					Parking and lay-down areas to be clearly defined, communicated to staff and located on-site. All contractors and staff to comply with on-site traffic requirements, including signage and speed limits.			
	Works required to be undertaken outside of standard construction hours.	1. Noise pollution – disturbance to nearby residents or businesses	2	3	Moderate Determine/assess if works inaudible and if not gain approvals required to work outside standard approved hours from DP&I. Truck movements along the north-south haul road to Mt Enfield are not to occur outside daylight hours, unless otherwise undertaken under special authorisations issued under the project approval. Implement noise mitigation strategies for standard hours work (section 3.3.3) plus the following where reasonable/feasible: -No high noise generating work such as rock breaking or saw cutting after 10pm where possible -Prior notification of OOHV & provision of 24/7 contact details Other measures negotiated directly with affected receivers	2	2	Low
Excavation / Earthmoving	Exposure of soil to wind and water erosion	1. Air pollution - dust	1	4	Moderate Include air quality measures in relevant sub-plans. Dust suppression, including use of water tankers, must be used during the earthworks activities at Mt Enfield to prevent wind-blown dust from reaching the FHCA and adjoining areas.	1	2	Low
		2. Water pollution - sediment / turbidity	1	4	Moderate Include water quality measures in relevant sub-management plans (Soil and Water Management Plans) where relevant. Stormwater quality improvement devices (e.g. gross pollutant traps, sediment traps) installed and maintained at key locations Scour protection and/or energy dissipation structures at stormwater outlets where required to prevent erosion Inspections must be carried out during the earthworks at Mt Enfield to identify predator presence on the site. Feral animal control measures should be implemented if predators, especially foxes and rats, are detected. The use of predator control measures should be carried out in consultation with Sydney Ports' Herpetologist to ensure that the proposed measures are appropriate and not themselves a potential impact on the frogs.	1	2	Low

	Disposal of waste associated with earthmoving activities.	1. Land pollution – various	2	3	Moderate	Include waste management measures in waste sub-management plans where relevant	2	2	Low
		2. Water pollution – sediment / turbidity	2	3	Moderate	Where possible, recyclable waste will be segregated and sent to appropriate facilities for recycling	2	2	Low
		3. Water pollution - leachates	2	3	Moderate	Any waste destined for off-site reuse will be characterised and supplied in accordance with the terms of a Resource Recovery Exemption. Any waste destined for off-site disposal will be classified in accordance with the EPA Waste Classification Guidelines prior to disposal at an appropriately licensed facility. Stormwater quality improvement devices (e.g. gross pollutant traps, sediment traps) installed and maintained at key locations Any ponded or accumulated water from disturbed areas is to be managed to prevent water pollution. This may include settling, infiltration, treatment, on-site re-use, testing or off-site disposal	2	2	Low
	Disturbance or excavation within capped areas	2. Air pollution – exposure of asbestos	2	3	Moderate	Comply with relevant Site Management Plan for area including obtaining prior approval from NSW Ports or ER for any works that penetrate the capping layer of asbestos locations. Include details of capping layer extent and nature in induction If unexpected contaminated material or marker layer is encountered, all works are to stop in the vicinity of the find and the ER notified.	2	2	Low
Landscaping	Clearing of vegetation/ tree removal/reduction	1. Loss of vegetation/ harm to tree	1	3	Low	Assess the impact of the activity on flora/fauna before carrying out the activity	1	2	Low
		2. Loss of fauna habitat	2	3	Moderate	Make staff and contractors aware through inductions, hazard notices and/or signage of ecologically sensitive areas (eg. watercourses, threatened species habitat) Avoid disturbance of ecologically sensitive areas. Conduct predator inspections during landscaping / revegetation phase of the works. If the incidence of birds likely to attack GGBF, notably ibis and heron, increases as a result of the works or the revegetation, bird deterrent methods may need to be used to prevent predation of any potential GGBF in the FHCA. Consult NSW Ports' Consulting Herpetologist to ensure that the proposed measures are appropriate and not themselves a potential impact on the frogs.	2	2	Low
Stockpiling of Materials	Water & wind erosion from	1. Air pollution – dust	2	3	Moderate	Where appropriate erosion and sediment (ERSED) plans to be developed and implemented on site			

	exposed surfaces and stockpiles					Dust controls to be implemented including water sprays, surface stabiliser or covering of stockpiles as required	2	2	Low
Operation of Vehicles, Plant and Equipment incl. on unsealed areas	Machinery noise	1. Noise pollution	1	3	Low	Ensure that all plant and equipment is maintained in an efficient condition and operated in a proper and efficient manner Utilise acoustically considerate plant and equipment (e.g. non-tonal reversing alarms, exhaust silencers) where possible Install noise barriers around sources of potentially offensive noise where feasible and reasonable to do so	1	2	Low
	Fuel & oil spills & leaks	1. Land pollution - hydrocarbons	2	3	Moderate	Spill response equipment maintained on site All plant and equipment to be maintained appropriately and services regularly to prevent spills	2	2	Low
	Wheel-generated dust and sediment "drag-out"	1. Air pollution – dust	2	3	Moderate	Maintain vehicle speeds and abide by traffic management plan	2	1	Low
		2. Water pollution – sediment / turbidity	1	3	Low	Use of water sprays for dust suppression if required Maintenance of roadways with street sweeper	1	2	Low
	Works on or in the vicinity of waterways	Bed and bank erosion	1. Water pollution – sediment / turbidity	2	3	Moderate	Where appropriate erosion and sediment (ERSED) plans to be developed and implemented on site Sediment and erosion control measures, including silt fences, should be erected downstream of active emplacement areas which have not yet been stabilised to catch any silt from surface construction runoff and prevent sedimentation of downstream receiving waters.	2	1
Disturbance of aquatic ecosystems		1. Loss of / harm to aquatic vegetation	3	4	Significant	Assess the impact of the activity on flora/fauna before carrying out the activity	3	2	Moderate
		2. Loss of aquatic fauna habitat	3	4	Significant	Make staff and contractors aware through inductions, hazard notices and/or signage of ecologically sensitive areas (eg. watercourses, threatened species habitat) Avoid disturbance of ecologically sensitive areas, where practicable. Where disturbance of sensitive areas is required, undertake 7-part significance test, keep disturbance to a minimum, and, where practicable, schedule works for period least likely to cause harm (e.g. winter)	3	2	Moderate

	Workers and or members of the public near water	1. Risk to human safety (drowning)	5	2	High	Fencing around perimeter to retention basins and frog ponds.	5	1	Significant
		2. Disturbance to native habitat/ecological areas	3	2	Moderate	Signage to identify hazards Provision of emergency life ring Contractors working around retention basins and ponds must work in pairs. Trained and competent ecologists contracted to maintain ponds.	3	1	Low
Stormwater/Wastewater/ Sewerage Management	Discharge to waters	1. Water pollution - gross pollutants	2	3	Moderate	Any waste destined for off-site reuse will be characterised and supplied in accordance with the terms of a Resource Recovery Exemption.	2	2	Low
		2. Water pollution - sediment / turbidity	2	3	Moderate	Any waste destined for off-site disposal will be classified in accordance with the EPA Waste Classification Guidelines prior to disposal at an appropriately licensed facility	2	2	Low
		3. Water pollution - hydrocarbons	2	3	Moderate	Wash-down waters, bund waters and other trade wastes will be treated and discharged in accordance with trade waste agreements	2	2	Low
		4. Water pollution – nutrients/pathogens	2	3	Moderate		2	2	Low
						Private sewerage infrastructure will be maintained in proper and efficient condition to ensure system integrity and minimise overflows.			

Appendix G: Fill Importation Protocol

Summary

Modification 14 to the Project Approval required the addition of a Fill Importation Protocol to the CEMP outlining the requirements of the imported fill, including the source and type, and containing the requirement to place and compact imported material as fill immediately upon arrival to the site. The FIP is to include the requirement that only virgin excavated natural material/ excavated natural material can be imported from off-site. All bulk earthworks should be undertaken in accordance with the approved FIP.

Where additional fill is required as part of construction activities, only Excavated Natural Material (ENM) and Virgin Excavated Natural Material (VENM) will be imported to site for use as fill. NSW Ports will check that any fill received on site is certified as ENM/VENM including maintaining records/receipts of any fill received.

The EPA has established certification processes to follow in order to certify excavated material as VENM or ENM.

Definitions

VENM is defined in the Protection of the Environment Operations Act 1997 (POEO Act) as Natural material (such as clay, gravel, sand, soil or rock fines):

- that has been excavated or quarried from areas that are not contaminated with manufactured chemicals, or with process residues, as a result of industrial, commercial, mining or agricultural activities, and
- that does not contain any sulfidic ores or soils or any other waste.

The use of VENM as capping material is excluded from the definitions of 'resource recovery' and 'waste disposal (application to land)' under Clauses 34 and 39 of Schedule 1 of the POEO Act, and therefore a number of requirements of the POEO Act and Protection of the Environment Operations (Waste) Regulation 2014 (the Waste Regulation) do not apply.

ENM is defined under the Waste Regulation as:

- Naturally occurring rock and soil (including but not limited to materials such as sandstone, shale, clay and soil) that has:
 - a) been excavated from the ground, and
 - b) contains at least 98% (by weight) natural material, and
 - c) does not meet the definition of Virgin Excavated Natural Material in the Act.

Excavated natural material does not include material located in a hotspot; that has been processed; or that contains asbestos, Acid Sulfate Soils (ASS), Potential Acid Sulfate Soils (PASS) or sulfidic ores.

ENM is the subject of a resource recovery exemption under Part 9 of the Waste Regulation (The Excavated Natural Material Order 2014). This makes ENM exempt from a number of requirements of the POEO Act and Waste Regulation, including:

- Requirements for an Environmental Protection Licence (EPL) under Section 48 of the POEO Act;
- Waste tracking requirements under Part 4 of the Waste Regulation;
- Requirements to pay the EPA for waste received at a site under Section 88 of the POEO Act; and
- Notification and reporting requirements under clauses 109 and 110 of the Waste Regulation.

Requirements for Providers of Fill Material

The following sections outline the procedures and tests that are required to assess and certify VENM and ENM materials by providers. These requirements should be taken into consideration when accepting VENM and ENM materials to the site for use as imported fill.

VENM Assessment

The EPA provides details of the requirements for providers of VENM:

<https://www.epa.nsw.gov.au/yourenvironment/waste/classifying-waste/virgin-excavated-natural-material>.

A material can only be classified as VENM if:

- it has been excavated from an area that is not contaminated with manufactured chemicals or process residues as a result of industrial, commercial, mining or agricultural activities
- it does not contain sulfidic ores or soils
- it does not contain naturally occurring asbestos
- it does not contain any other forms of waste.

Should there be concerns that any of the above criteria may not be met, NSW Ports will seek verification from the fill provider in regards to historical assessment of the VENM source, and any additional testing.

VENM Testing

If VENM material is suspected to be potentially contaminated with manufactured chemicals or process residues, it would be sampled and analysed according to the following requirements:

- A minimum of 3 samples per source site will be required;
- Source site volumes are less than 1000 m³ with a rate of 1 sample per 100 m³; and
- Source site volumes greater than 1000 m³ with a sampling rate of 1 per 1000 m³. Lower rates may be applicable where site history/background data indicates a low contamination.

Where chemical testing is undertaken to assess if the material is potentially contaminated with manufactured chemicals or process residues:

- Analysis results for organics should be below the laboratory limit of reporting (LOR). Any results above LOR should be assessed on a case by case basis before allowing material on Site; and
- Analysis results for metals should indicate background concentrations.

If asbestos is identified, materials will not be accepted for use at the Site and a SafeWork NSW Class A Licensed Asbestos Removal Contractor will be contacted.

ENM Assessment

ENM material must be consistent with the definition of ENM provided in the Waste Regulation. Providers of ENM must undertake sampling of ENM in accordance with the Excavated Natural Material Order 2014 (EPA) where:

- The potential for ASS is identified through a pH test (returning a result of pH 5 or below); or where a review of appropriate ASS risk mapping identifies the potential presence of ASS;
- ENM material is to be stockpiled.

Reporting

Before fill is brought to site, an assessment report is required for each potential VENM or ENM source, which are to be prepared by an appropriately qualified consultant and include:

- All applicable VENM and/or ENM sampling requirements;
- Identifiers for the source site (i.e. street address, suburb, Lot/DP numbers etc.);

- The location of the source site on a figure;
- The anticipated volume of material to be imported;
- A description of the material to be imported;
- Site inspection observations including neighbouring properties;
- Photographs of site conditions;
- Results and analysis of all applicable VENM and/or ENM sampling requirements;
- Copies of NATA stamped laboratory analysis certificates, including chain of custody documentation, sample receipt acknowledgement forms, QC data; and
- A conclusion (i.e. does the material meet the classification of either ENM or VENM).

Record Keeping

In accordance with The Excavated Natural Material Order 2014 (EPA 2014a), written record of the following must be kept for six years:

- The sampling plan and schedule;
- All characterisation sampling results;
- The volume of detected hotspot material and the location (if any);
- The quantity supplied; and
- The name and address of each person to whom the supplier provided the VENM / ENM.

Additional information will be recorded, including:

- Vehicle registration (license plate) number;
- Location of source site;
- Contact name at source site;
- Time left source site and time of arrival at Site; and
- Contents of truck and are they similar to the expected contents.

Requirements for NSW Ports and/or NSW Ports Construction Contractors

NSW Ports will require a copy of each assessment report for review prior to the importation of material to the site.

In the event that the review indicates insufficient assessment data, no materials will be imported to the site until the construction contractor and/or fill provider has satisfactorily addressed the identified data gaps.

NSW Ports will retain a copy of each Assessment Report. This includes source sites not deemed to be an acceptable source of ENM or VENM or reports lacking sufficient data, so that an "Exclusion Register" can be maintained and tracked.

Should either suspicious loads of material and/or evasive answers be apparent, permission to unload will not be granted.

Where contaminants or suspected contaminants are observed in imported material during tipping, the truck will be reloaded and be sent back to the source site. Cartage from the source site will cease and will only recommence when NSW Ports are satisfied that the issue has been addressed. Where contaminated materials are found following use on site, the material will be isolated until appropriate testing can be undertaken and then removed by a licenced contractor.

NSW Ports contractors will place and compact imported material as fill immediately upon arrival to the site.