

Intermodal Logistics Centre at Enfield

# Construction Environmental Management Plan Stage 2 Addendum

July 2011

Revision 1.0

ILC - E - REP - CEMP Stage 2 Addendum Final v1.0 14 July  
2011

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## Abbreviations

AS	Australian Standard
CEMP	Construction Environmental Management Plan
CoA	The Minister for Planning's Conditions of Approval
DECCW	Department of Environment, Climate Change and Water (currently Office of Environment and Heritage)
DoPI	Department of Planning and Infrastructure
D-G	Director-General of the Department of Planning and Infrastructure
EP&A Act	<i>Environmental Planning and Assessment Act 1979</i>
EPBC Act	<i>Environment Protection and Biodiversity Conservation Act 1999</i>
FHCA	Frog Habitat Creation Area
FMP	Frog Management Plan
FPP	Frog Protection Plan
GGBF	Green and Golden Bell Frog
ILC	Intermodal Logistics Centre at Enfield
LEAMP	Landscape & Ecological Area Management Plan
POEO Act	<i>Protection of the Environment Operations Act 1997</i>

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# 1 Background

## 1.1 Introduction

This Construction Environmental Management Plan (CEMP) Stage 2 Addendum for the Intermodal Logistics Centre (ILC) at Enfield Project (“the Project”) modifies the approved Stage 2 CEMP (27 September 2010) and associated Flora and Fauna Management Plan (27 September 2010) for the Early Works. This report provides landscaping measures and maintenance requirements for the proposed landscaping at the frog ponds and ponds fringing area and the south east earth noise mound developed as part of the Early Works.

The Stage 2 CEMP and Flora and Fauna Management Plan were prepared by Sydney Ports’ Contractor Leighton Contractors Pty Ltd (LCPL) and approved by the Department of Planning and Infrastructure (DoPI) on 6 October 2010.

This CEMP Stage 2 Addendum has been prepared in response to DoPI’s letters dated 14 April and 3 May 2011 regarding the inclusion of the landscaping measures proposed as part of the stabilisation of the south-east earthen noise mound and the frog ponds in the Stage 2 CEMP. This document provides landscaping information prepared by landscaping specialist AECOM for the frog ponds and the south east noise earth mound, and compiled from Sydney Ports’ correspondence to DoPI dated 8 April 2011 and 18 April 2011, and Sydney Ports’ email to DoPI dated 21 April 2011.

## 1.2 Project Description

The Project comprises the development of a new Intermodal Logistics Centre (ILC), associated road and rail infrastructure works, services and environmental enhancement works.

Sydney Ports is constructing the Project in stages, in accordance with Minister’s Condition of Approval (CoA) 1.3A, as described in Sydney Ports’ CEMP Framework (Rev 10, 21 September 2010).

The Early Works (Stage 2) construction commenced in October 2010 and comprises:

- A road bridge over RailCorp’s New Enfield Marshalling Yards and the Metropolitan Freight Network main freight lines located to the west of the ILC Site
- Connecting rail lines to the north and south of the ILC site in RailCorp land
- Noise earth barrier along the south-eastern part of the ILC site
- Frog Habitat Creation Area (FHCA) (not including frog movement corridor)
- Other minor works including gravel access track in the southern part of the site, Early Contractor Involvement investigation (compaction trials) and protection works (including Ethylene Gas Pipeline protection)

In general, the bulk of site landscaping will be undertaken at the completion of Main Construction (Stage 3) in accordance with the Landscape and Ecological Area Management Plan (LEAMP) to be prepared under CoA 6.3d. However, landscaping of the frog ponds and surrounding fringing area and the south east earth noise mound was considered beneficial at the completion of the civil works for the frog ponds and south-east noise mound and therefore has been included in the Stage 2 Early Works.

### 1.2.1 Frog Ponds and surrounding area

The construction of the frog ponds include planting of aquatic plants and fringing vegetation in accordance with the Frog Management Plan (FMP), which was endorsed by DECCW in correspondence dated 6 May 2010 (refer Appendix B). The FMP, prepared in accordance with CoA 2.48 and 6.3d)iv), is provided in Sydney Ports' CEMP Framework rev 10 and available in the project website

([http://www.sydneyports.com.au/port\\_development/enfield/environmental\\_considerations/environmental\\_management\\_plans](http://www.sydneyports.com.au/port_development/enfield/environmental_considerations/environmental_management_plans)). The frog pond planting is expected to commence in May/June 2011, after frog pond establishment, in accordance with the FMP, Stage 2 CEMP and this addendum.

### 1.2.2 South East Earth Noise Mound

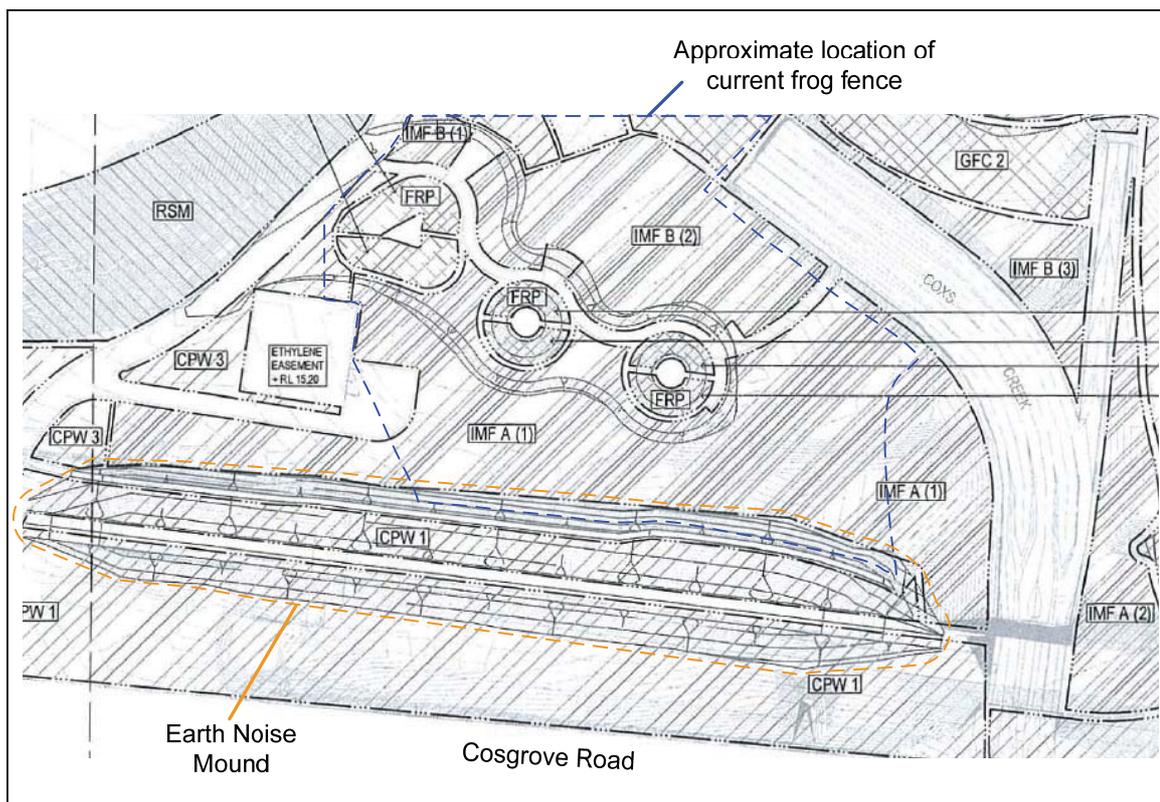
In accordance with CoA 2.14 and the approved Stage 2 CEMP, LCPL has constructed a noise earth mound in the south-east part of the site, prior to the commencement of construction of rail trackwork and hardstand for the intermodal terminal, empty container and warehousing components of the Project.

Landscaping of the mound is proposed in order to provide for early stabilisation of the mound and is expected to commence in May/June 2011, in accordance with the Stage 2 CEMP and this addendum.

## 2 Landscaping Measures

Sydney Ports' Contractor, LCPL, will landscape the frog ponds and fringing area and earth mound based on the design prepared by landscaping specialists AECOM in accordance with the applicable requirements of Condition 6.3d. The frog pond design incorporates the requirements of the DECCW's endorsed FMP and the advice of Sydney Ports' herpetologist.

Figure 1 shows the location of the frog ponds and earth noise mound relative to Coxs Creek and Cosgrove Road. The frog ponds and fringing area to be landscaped are located within the current frog fence (blue line in Figure 1). The constructed frog ponds and immediately surrounded fringing area will remain frog fenced for the duration of the main construction works at the site. The earth noise mound is shown within the orange line in Figure 1.



**Figure 1: Landscaping Area and Plant Community Types**

The following Plant Community Types will be used in landscaping (as indicated by labels in Figure 1):

- Frog Ponds (FRP) – Frog Ponds
- Improved Forage Type A (IMF A) – Area surrounding Frog Ponds
- Improved Forage Type B (IMF B) – Area surrounding Frog Ponds
- Cumberland Plain Woodland (CPW 1) – Earth Noise Mound

The Earth Noise Mound will be landscaped using locally-endemic native species from the Cumberland Plain Woodland community. The frog ponds and fringing area will be landscaped in accordance with the FMP prepared under CoA 2.48 and 6.3 d)iv). Details of the plant species and associated densities for each Plant Community Type are provided in Appendix A.

Sydney Ports' ecologist/herpetologist has confirmed the suitability of the species listed in Appendix A for the site

## 3 Maintenance and Monitoring

### 3.1 Maintenance Requirements

Sydney Ports' Contractor is contractually required to comply with a range of landscaping specifications, including landscaping performance and maintenance requirements for a specified defects period.

Key landscaping contractual requirements include:

- The defects liability period for landscaping works is 52 weeks, where the contractor is liable for landscaping defects. The 52 weeks period runs after the date of landscaping Practical completion.
- The contractor is required to continue replacing failed (lost more than 50% of their normal foliage cover), dead and/or damaged plants at minimum 2/3 week intervals as necessary throughout the plant establishment period.
- The contractor is required to thoroughly water the plants before planting, immediately after planting and as required to maintain growth rates free of stress. Plantings are to receive a minimum 3 complete watering (i.e. soaked to a depth of 200 mm) at fortnightly intervals for the first 6 weeks of plant establishment irrespective of natural rainfall.
- Weed growth is to be removed in landscaped area. This work shall be executed regularly so that the planted and mulched areas are weed free when observed at bi-weekly intervals.
- The contractor is responsible for the control of any pest or disease which may affect the plants.
- All plants to be provided by a nursery supplier which is an accredited member of Nursery Industry Association of Australia, or SW Nursery Industry Association or Quality assured under AS9002.

After the defects liability period, Sydney Ports will include landscaping areas in the Corporation's Assets Maintenance Schedule.

Maintenance and monitoring of the frog habitat is described in the FMP.

The proposed landscaped area will not be accessible to construction equipment during Main Construction.

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**Appendix A:  
Plant Schedule**

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**Plant Schedule – Frog Ponds and surrounding area**

<b>Plant Community: Improved Forage Type A (IMF A)</b>				
<b>Botanic Name</b>	<b>Pot Size</b>	<b>Spacing</b>	<b>Per m<sup>2</sup></b>	<b>% Mix</b>
<b>Groundlayer</b>				
<i>Kikuyu. Sp</i>	Rolls			
<b>Plant Community: Improved Forage Type B (IMF B)</b>				
<b>Botanic Name</b>	<b>Pot Size</b>	<b>Spacing</b>	<b>Per m<sup>2</sup></b>	<b>% Mix</b>
<i>Capillipodium specigerum</i>	Cell	325	12	30
<i>Sorghum leilocladum</i> or <i>Pennisetum "Nafray"</i>	Cell	325	12	30
<i>Themeda australis</i>	Cell	325	12	40
<b>Plant Community: Frog Ponds (FRP)</b>				
<b>Botanic Name</b>	<b>Pot Size</b>	<b>Spacing</b>	<b>Per m<sup>2</sup></b>	<b>% Mix</b>
<b>Groundlayer</b>				
<i>Eleocharis sphacelata</i>	Cell	325	12	50
<i>Schoenoplectus validus</i>	Cell	325	12	50

### Plant Schedule – South East Earth Noise Mound

Plant Community: Cumberland Plain Woodland (CPW)				
Botanic Name	Pot Size	Spacing	Per m2	% Mix
<b>Canopy and Midstratum Trees</b>				
<i>Acacia decurrens</i>	Cell	2500	0.16	5
<i>Acacia parramattensis</i>	Cell	2500	0.16	5
<i>Acacia implexa</i>	Cell	2500	0.16	5
<i>Eucalyptus crebra</i>	Cell	2500	0.16	5
<i>Eucalyptus eugenioides</i>	Cell	2500	0.16	10
<i>Eucalyptus molucana</i>	Cell	2500	0.16	30
<i>Eucalyptus tereticornis</i>	Cell	2500	0.16	30
<i>Melaleuca decora</i>	Cell	2500	0.16	10
<b>Shrub Understorey</b>				
<i>Acacia falcata</i>	Cell	1200	0.69	10
<i>Bursaria spinosa</i>	Cell	1200	0.69	60
<i>Dodonaea viscosa ssp. cuneata</i>	Cell	1200	0.69	20
<i>Indigophora australis</i> or <i>Kunzea ambigua</i>	Cell	1200	0.69	10
<b>Groundlayer</b>				
<i>Bothriochloa decipiens/macra</i>	Cell	325	12	1
<i>Capillipedium parviflorum</i> or <i>Poa labillardieri</i>	Cell	325	12	20
<i>Chloris ventricosa</i>	Cell	325	12	1
<i>Commelina cyanea</i>	Cell	325	12	1
<i>Cymbopogon refractus</i>	Cell	325	12	1
<i>Danthonia spp</i>	Cell	325	12	5
<i>Dianella longifolia</i>	Cell	325	12	1
<i>Dichelachne micrantha</i>	Cell	325	12	1
<i>Dichondra repens</i>	Cell	325	12	1
<i>Imperata cylindrica</i>	Cell	325	12	10
<i>Microlaena stipoides</i>	Cell	325	12	3
<i>Poa labillardieri</i>	Cell	325	12	1
<i>Sorghum leilocladum</i> or <i>Pennisetum "Nafray"</i>	Cell	325	12	13
<i>Themeda australis</i>	Cell	325	12	40
<i>Walenbergia stricta/communis</i> or <i>Correa Alba</i>	Cell	325	12	1

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# Construction Environmental Management Plan Stage 2 Addendum

**Appendix B:  
DECCW Consultation**

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Your reference: SPC ILC-OG0418  
Our reference: DOC10/14132

Mr Stephen Zaczekiewicz  
Senior Development Manager  
Sydney Ports Corporation  
PO Box 25  
Millers Point NSW 2000

<b>SYDNEY PORTS</b> 4391 95 784 452 933 PORT BOTANY EXPANSION PROJECT		<b>ILC</b> <b>INCOMING</b>		
IC		0198		
RECEIVED:		10/5/ 2010		
NAME	ACTION	INFO	DATE BY	NOTES
Project Filing Index				
BY	Hand	<input type="checkbox"/>	Mail	<input checked="" type="checkbox"/>
	Fax	<input type="checkbox"/>	E-mail	<input type="checkbox"/>
	Courier	<input type="checkbox"/>	Project Centre	<input type="checkbox"/>

Dear Mr Zaczekiewicz

**Intermodal Logistics Centre, Enfield – March 2010 Quarterly Report**

I refer to your letter dated 29 March 2010 to the Department of Environment, Climate Change and Water (DECCW) regarding the March 2010 Quarterly Report and Frog Management Plan (Revision 4) for the Intermodal Logistics Centre, Enfield (ILC).

DECCW appreciates the effort that Sydney Ports Corporation (SPC) has put into the development of the Frog Management Plan. DECCW has reviewed the revised Frog Management Plan and is satisfied that SPC has addressed all the outstanding issues raised in our letter dated 21 January 2010. In particular, the issue of water supply to the frog ponds has been addressed, including the question of what will happen during larger storm events. DECCW is satisfied with the proposed water quality treatment; the choice of emergent plants and fringing vegetation; and the choice of structures for shelter habitat.

DECCW notes that Condition 6.3(d) (IV) of the Conditions of Approval for the ILC requires SPC to develop a Landscape and Ecological Area Management Plan which includes measures for the enhancement, revegetation, and on-going management of the ecological area on site, including measures to provide suitable habitat for the Green and Golden Bell Frog (GGBF). DECCW acknowledges that SPC intends to coordinate any long term management activities with other stakeholders responsible for the management of GGBF habitats in the Greenacre region. DECCW looks forward to the implementation of these measures that aim to ensure the ongoing suitability of the habitat for GGBF.

If you require further assistance, please contact Lisa Farrell on 9995 6807.



Yours sincerely

*Shelley Nancarrow 6/5/2010.*

**SHELLEY NANCARROW**  
**A/Unit Head Metropolitan Infrastructure**  
**Environment Protection and Regulation**