

Twynam Property Group

Remedial Action Plan  
Lot 3 DP568613 & Lot 384 DP 755952  
Mundamia, NSW.



ENVIRONMENTAL



WATER



WASTEWATER



GEOTECHNICAL



CIVIL



PROJECT  
MANAGEMENT



P0802193JR04V01  
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# 1 Introduction

## 1.1 Overview

This Remedial Action Plan (RAP) has been prepared by Martens and Associates Pty Ltd (MA) on behalf of Twynam Property Group (the client) for the purpose of addressing observed land contamination identified at 'the site' being two adjacent lots: Lot 3, DP 568613 (northern lot) and Lot 384, DP 755952 (southern lot). It provides remediation and validation specifications and implementation of the RAP in full shall render the site fit for proposed residential use.

The RAP has been prepared in general accordance with NSW EPA (1994), NSW EPA (1995), NEPC (1999), NSW DEC (2006) and NSW OEH (2011).

## 1.2 Scope and Format of the RAP

The scope of the RAP:

- Set the remediation goals.
- Review the available remedial options.
- Provide details of remedial options.
- Select the preferred remedial option.
- Outline procedures and activities for implementation and validation of the preferred remediation option.
- Outline requirements for contractors to prepare environmental and occupational health and safety plans for the remediation.
- Outline requirements for contingency planning.
- Outline the regulatory compliance requirements.
- Provide details of contacts for the period of remediation works.
- Provide a framework for environmental management for the site during remediation.

The format of this RAP is as follows:

- Outline of previous MA reports (Section 1.4).
- Extent of proposed remediation (Section 3).
- Outline of the remediation goals, objectives, remediation criteria (Section 4).
- Review of applicable remediation technologies (Section 5).
- Detail of remediation planning, remediation, waste and validation requirements, waste management, and reporting requirements (Section 6).
- A guide for site control during remediation and site specific health and safety for remediation and validation (Section 7).
- Remediation contacts (Section 8) and contingency plan (Section 9).

### **1.3 Abbreviations**

ACM – Asbestos containing material

AEC – Area of environmental concern

AMP – Asbestos management plan

BTEX – Benzene, toluene, ethyl benzene, xylene

COC – Chemical of concern

CT – Contaminant threshold

DEC – NSW Department of Environment and Conservation (previous name of NSW OEH)

DP – Deposited Plan

EPA – NSW Environmental Protection Authority (previous name of NSW OEH)

ESA – Environmental site assessment

HIL – Health investigation level

HSP – Health and safety plan

LGA – Local government area

LOR – Limit of reporting

MA – Martens and Associates

mBGL – Metres below ground level

NATA – National Association of Testing Authorities

NEPC – National environmental protection commission

NEPM – National environmental protection measure

OEHS – NSW Office of Environment and Heritage

OPP – Organophosphorous pesticides

PAH – Polycyclic aromatic hydrocarbons

PCB – Polychlorinated biphenyl

PID – Photo ionisation detector

PPE - Personal protective equipment

RAP – Remedial action plan

SCC – Shoalhaven City Council

SIL – Soil investigation level

SMP – Site management plan

SOP – Standard operating procedure

SWMS – Safe Work Method Statement

TCLP – Toxicity characteristics leaching procedure

TPH – Total petroleum hydrocarbons

TRH – Total recoverable hydrocarbons

## 1.4 Previous investigations

The following investigations have been undertaken in relation to contamination at the subject site:

- Martens and Associates (2008a) *Stage1 Contamination Assessment, Lot 3, DP 568613 & Lot 384, DP 755952 Mundamia, NSW*, ref: P0802193JR01V01.
- Martens and Associates (2012) *Stage2 Contamination Assessment, Lot 3, DP 568613 & Lot 384, DP 755952 Mundamia, NSW*, ref: P0802193JR03V01.

A geotechnical assessment of the site has also been undertaken and is documented in:

- Martens and Associates (2008b) *Preliminary Geotechnical Assessment, Lot 3, DP 568613 & Lot 384, DP 755952 Mundamia, NSW*, ref: P0802193JR01V01.

These reports are to be read in conjunction with this document.